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**SECURITIES AND EXCHANGE COMMISSION**

**[Release No. 34-88890; File No. S7-13-19]**

**RIN 3235-AM60**

# Amendments to the National Market System Plan Governing the Consolidated Audit Trail

**AGENCY:** Securities and Exchange Commission.

**ACTION:** Amendments to national market system plan.

**SUMMARY:** The Securities and Exchange Commission is adopting amendments to the national market system plan governing the consolidated audit trail. The amendments impose public transparency requirements on the self-regulatory organizations that are participants in the plan. Under the amendments, plan participants are required to publish and file with the Securities and Exchange Commission a complete implementation plan for the consolidated audit trail and quarterly progress reports. The amendments also establish financial accountability provisions.

**DATES: [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**FOR FURTHER INFORMATION CONTACT:** Erika Berg, Special Counsel, at (202) 551-5925, Division of Trading and Markets, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

**SUPPLEMENTARY INFORMATION:** The Commission is adopting amendments to the national market system plan governing the consolidated audit trail.

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## I. Background

On September 9, 2019, the Securities and Exchange Commission ("Commission" or "SEC") proposed to amend the national market system plan governing the consolidated audit trail (the "CAT NMS Plan")[1] to include provisions designed to increase operational transparency

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[1] As required by Rule 613, the CAT NMS Plan was filed with the Commission by the national securities exchanges and national securities associations (the "Participants"), who include BATS Exchange, Inc. (n/k/a Cboe BZX Exchange, Inc.), BATS-Y Exchange, Inc. (n/k/a Cboe BYX Exchange, Inc.), BOX Exchange LLC, C2 Options Exchange, Incorporated (n/k/a Cboe C2 Exchange, Inc.), Chicago Board Options Exchange, Incorporated (n/k/a Cboe Exchange, Inc.), Chicago Stock Exchange, Inc. (n/k/a NYSE Chicago, Inc.), EDGA Exchange, Inc. (n/k/a Cboe EDGA Exchange, Inc.), EDGX Exchange, Inc. (n/k/a Cboe EDGX Exchange, Inc.), Financial Industry Regulatory Authority, Inc. ("FINRA"), International Securities Exchange, LLC (n/k/a Nasdaq ISE, LLC), ISE Gemini, LLC (n/k/a Nasdaq GEMX, LLC), Miami International Securities Exchange LLC, NASDAQ OMX BX, Inc. (n/k/a Nasdaq BX, Inc.), NASDAQ OMX PHLX LLC (n/k/a Nasdaq PHLX LLC), The Nasdaq Stock Market LLC, National Stock Exchange, Inc. (n/k/a NYSE National, Inc.), New York Stock Exchange LLC, NYSE MKT LLC, and NYSE Arca, Inc. See 17 CFR 242.613; Securities Exchange Act Release No. 78318 (November 15, 2016), 81 FR 84696, (November 23, 2016) ("CAT NMS Plan Approval Order"). The CAT NMS Plan is Exhibit A to the CAT NMS Plan Approval Order. See CAT NMS Plan Approval Order, at 84943–85034. In approving the CAT NMS Plan, the Commission added ISE Mercury, LLC (n/k/a Nasdaq MRX, LLC) and Investors' Exchange LLC as Participants to the CAT NMS Plan. See id. at 84728. On January 30, 2017, and March 1, 2019, the Commission noticed for immediate effectiveness amendments to the CAT NMS Plan to add MIAX PEARL, LLC and MIAX Emerald, LLC, respectively, as Participants. See Securities Exchange Act Release Nos. 79898 (January 30, 2017), 82 FR 9250 (February 3, 2017), and 85230 (March 1, 2019), 84 FR 8356 (March 7, 2019). The CAT NMS Plan functions as the limited liability company agreement of the jointly owned limited liability company formed under Delaware state law through which the Participants conduct the activities of the CAT (the "Company"). Each Participant is a member of the Company and jointly owns the Company on an equal basis. The Participants submitted to the Commission a proposed amendment to the CAT NMS Plan on August 29, 2019, which they designated as effective on filing. Under the amendment, the limited liability company agreement of a new limited liability company named Consolidated Audit Trail, LLC serves as the CAT NMS Plan, replacing in its entirety the CAT NMS Plan. See Securities Exchange Act Release No. 87149 (September 27, 2019), 84 FR 52905 (October 3, 2019). On November 27, 2019, the Commission noticed for immediate effectiveness amendments to the CAT NMS Plan to add Long-Term Stock Exchange, Inc. as a Participant. See

surrounding the implementation process and the Participants' financial accountability for the timely completion of the consolidated audit trail (the "CAT").[2] Specifically, the Commission proposed to amend the CAT NMS Plan to require the Participants to develop a complete implementation plan containing a detailed timeline with objective milestones to achieve full CAT implementation (the "Implementation Plan"). The proposed amendments would require the Implementation Plan to be filed with the Commission and made publicly available after approval by a Supermajority Vote[3] of the Operating Committee.[4] Prior to the Operating Committee's vote, the proposal would require the Operating Committee to submit the Implementation Plan to the Chief Executive Officer ("CEO"), President, or an equivalently situated senior officer of each Participant. The proposed amendments would also require the Participants to file with the Commission and publicly publish quarterly progress reports ("Quarterly Progress Reports" or "Reports") approved by at least a Supermajority Vote of the Operating Committee. Again, prior to the Operating Committee's vote, the proposal would require the Operating Committee to submit each Report to the CEO, President, or an equivalently situated senior officer of each

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Securities Exchange Act Release No. 87595 (November 22, 2019), 84 FR 65447 (November 27, 2019).

2 See Securities Exchange Act Release No. 86901 (September 9, 2019), 84 FR 48458 (September 13, 2019) ("Proposing Release").

3 A "Supermajority Vote" is an "affirmative vote of at least two-thirds of all of the members of the Operating Committee or any Subcommittee, as applicable, authorized to cast a vote with respect to a matter presented for a vote (whether or not such a member is present at any meeting at which a vote is taken) by the Operating Committee or any Subcommittee, as applicable (excluding, for the avoidance of doubt, any member of the Operating Committee or any Subcommittee, as applicable, that is recused or subject to a vote to recuse from such matter pursuant to Section 4.3(d)); provided that if two-thirds of all such members authorized to cast a vote is not a whole number than that number shall be rounded up to the nearest whole number." See CAT NMS Plan, supra note 1, at Section 1.1.

4 "Operating Committee" means "the governing body of the Company designated as such and described in Article IV" of the CAT NMS Plan. See id. at Section 1.1.

Participant. Finally, the proposed amendments would establish target deadlines for four important implementation milestones and reduce the amount of fee recovery available to the Participants if those target deadlines are missed.[5]

In proposing the amendments to the CAT NMS Plan, the Commission stated that the Participants had neither met the deadlines set forth in the CAT NMS Plan nor their own proposed extensions of those deadlines.[6] The Commission also stated that the Participants had published a timeline with extended deadlines on the www.catnmsplan.com website.[7] Recently, the Commission granted the Participants exemptive relief to allow for the implementation of phased

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5 See Proposing Release, supra note 2, at 48461-74, for a more complete description of the proposed amendments.

6 The CAT NMS Plan established deadlines related to the implementation of critical CAT functionality, including (1) the requirement that the Participants begin recording and reporting data by November 15, 2017, and (2) the requirement that each Participant require Industry Members and Small Industry Members to begin reporting data by November 15, 2018, and November 15, 2019, respectively. See CAT NMS Plan, supra note 1, at Section 6.7(a). The Participants requested an exemption extending these deadlines. The Commission did not grant this request. See, e.g., Statement on Status of the Consolidated Audit Trail (August 27, 2018), available at https://www.sec.gov/news/public-statement/tm-status-consolidated-audit-trail (stating that the Participants requested an exemption to commence Participant reporting on November 15, 2018, and Industry Member reporting on November 15, 2019). Although the Participants began reporting some transaction data to the Central Repository on November 15, 2018, the Participants acknowledged that not all of the required functionality had been implemented. See CAT NMS Announces Initiation of Reporting to the Consolidated Audit Trail (November 16, 2018), available at https://www.catnmsplan.com/wp-content/uploads/2018/11/Press-Release-CAT-Launch-final.pdf. See Proposing Release, supra note 2, at 48458-461 for additional discussion of the various deadlines missed by the Participants.

7 See https://catnmsplan.com/timelines/ (stating that the Participants' timeline provides for commencement of reporting by Large Industry Members and Small Industry Members that are reporters to the Order Audit Trail System ("OATS") on April 20, 2020) (as viewed on March 12, 2020).

reporting to the CAT for Industry Members,[8] in place of the reporting schedule set forth for Industry Members in the CAT NMS Plan.[9] This exemptive relief is largely consistent with the timeline previously published by the Participants on the CAT NMS Plan website, with two modifications to deadlines for equities and options reporting. The Participants proposed, in their timeline and in their request for exemptive relief, that core equity reporting for Industry Members would begin on April 20, 2020 and that core options reporting for Industry Members would begin on May 18, 2020.[10] In light of impacts on market participants from COVID-19 and a subsequent no-action request submitted by the Participants,[11] the Commission provided exemptive relief authorizing the Participants' Compliance Rules[12] to allow core equity reporting for Industry Members to begin on June 22, 2020 and core options reporting for Industry Members to begin on July 20, 2020.[13] While the Commission believes that the Participants' timeline for Industry Member reporting now reflects reasonable and feasible deadlines, the continued potential for delays to the implementation of the CAT persists. The CAT is a long-awaited tool that the Commission believes will provide regulators with more timely access to a

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8 See Securities Exchange Act Release No. 88702 (April 20, 2020), 85 FR 23075 (April 24, 2020) ("Exemptive Relief Order").

9 See CAT NMS Plan, supra note 1, at 6.7(a).

10 See note 8 supra.

11 See id. at 23082 n.105.

12 The CAT NMS Plan requires the Participants to "endeavor to promulgate consistent rules (after taking into account circumstances and considerations that may impact Participants differently) requiring compliance by their respective Industry Members with the provisions of SEC Rule 613 and [the CAT NMS Plan]." See CAT NMS Plan, supra note 1, at Section 3.11. "Compliance Rule" is a defined term under the CAT NMS Plan and means "the rule(s) promulgated by such Participant as contemplated by Section 3.11." See id. at Section 1.1.

13 See id. at 23082. The Participants stated that they plan to file revisions to their Compliance Rules consistent with their exemptive relief request. See id. at 23076 n.13.

reasonably comprehensive set of trading data, thereby enabling regulators to more efficiently and effectively reconstruct market events, monitor market behavior, and investigate misconduct. Trade and order data sources currently utilized by regulators are inadequate to perform these tasks, in part because it is difficult to compile and use data that is not aggregated in one, directly accessible consolidated audit trail system. Moreover, repeated delays in CAT implementation have resulted in uncertainty and – potentially – increased costs for Industry Members and other market participants.

## II. Discussion of the Amendments to the CAT NMS Plan

After careful review and consideration of the comments received,[14] the Commission continues to believe that the proposed amendments to the CAT NMS Plan, with some limited modifications, are necessary or appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanisms of, a national market system. The proposed amendments also will help to ensure that the Participants fulfill their obligations to deliver a functional CAT on a reasonably

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[14] See https://www.sec.gov/comments/s7-13-19/s71319.htm. Some of these letters included comments beyond the scope of the proposed amendments, suggesting changes to the CAT's governance, to the CAT's technical requirements, or to the CAT's collection of sensitive personal information ("PII"). See Letter from Thomas Tesauro, President, Fidelity Capital Markets, to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("Fidelity Letter"), at 5, available at https://www.sec.gov/comments/s7-13-19/s71319-6357608-196387.pdf; Letter from Dennis M. Kelleher, President & CEO, and Lev Bagramian, Senior Securities Policy Advisor, Better Markets, Inc., to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("Better Markets Letter"), at 3, 6, 9-12, available at https://www.sec.gov/comments/s7-13-19/s71319-6355349-196250.pdf; Letter from Christopher A. Iacovella, Chief Executive Officer, American Securities Association, to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("ASA Letter"), at 2, available at https://www.sec.gov/comments/s7-13-19/s71319-6381876-197754.pdf. Because these subjects are not directly related to the proposed amendments, they are not addressed in this rulemaking.

achievable timeframe. The Commission is therefore adopting the proposed amendments with the modifications specified herein.

### A. Amendments to Increase Operational Transparency

Currently, the CAT NMS Plan does not contain disclosure provisions that require the Participants to provide public updates regarding the CAT implementation process. The proposed amendments were designed to increase operational transparency by requiring the Participants to file with the Commission and make publicly available an Implementation Plan and Quarterly Progress Reports that would provide the Commission and other market participants with detailed and up-to-date information about the status of CAT implementation. Commenters were broadly supportive of these provisions, but some commenters requested that the Commission modify certain aspects of the proposed amendments. After considering these comments, and as described more fully below, the Commission is adopting the operational transparency amendments as proposed, with certain modifications.[15]

#### 1. Implementation Plan

As proposed, Section 6.6(c)(i) of the CAT NMS Plan would require the Participants to file with the Commission and make publicly available on each of the Participant websites (or collectively on the CAT NMS Plan website) a complete Implementation Plan.[16] The proposed Implementation Plan would set forth how and when the Participants will achieve full CAT implementation, including the Participants' timeline for achieving both the objective milestones that are set forth in Section C.10 of Appendix C of the CAT NMS Plan to assess the progress of

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[15] See Part II.A.1.-2. infra, for a discussion of the modifications to the proposed amendments.

[16] See proposed Section 6.6(c)(i).

CAT implementation[17] ("Objective Milestones") and the CAT implementation milestones associated with the proposed financial accountability provisions discussed below ("Financial Accountability Milestones")[18] (collectively, the "Implementation Milestones").[19] Proposed Section 6.6(c)(i) would require the Implementation Plan to be filed with the Commission and published on each Participant website or the CAT NMS Plan website no later than thirty calendar days following the effective date of the proposed amendments.[20]

Before the Implementation Plan can be filed with the Commission or made publicly available via a website, proposed Section 6.6(c)(iii) would require that the Implementation Plan be approved by at least a Supermajority Vote of the Operating Committee. However, if the Implementation Plan is approved only by a Supermajority Vote of the Operating Committee, and not by a unanimous vote of the Operating Committee (including, for the avoidance of doubt, all members of the Operating Committee, whether or not present or recused), the proposed amendments would require each Participant whose Operating Committee member did not vote to approve the Implementation Plan to separately file with the Commission and make publicly available on each of the Participant websites, or collectively on the CAT NMS Plan website, a statement identifying itself and explaining why the member did not vote to approve the

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17 See CAT NMS Plan, supra note 1, at Appendix C, Section C.10.

18 The Financial Accountability Milestones, and their relation to the financial accountability provisions, are described in more detail in Part II.B. infra.

19 The timeline required by proposed Section 6.6(c)(i) would include the completion date and a description of the status for each Implementation Milestone. If the Participants decide to complete any of the Implementation Milestones by releasing functionality in a phased approach, proposed Section 6.6(c)(i) would further require the Implementation Plan to describe with specificity each phased release necessary to achieve the completion of the relevant Implementation Milestone and to provide completion dates for each such release. See Proposing Release, supra note 2, at 48461-62, for additional discussion of the proposed Implementation Plan.

20 See proposed Section 6.6(c)(i).

Implementation Plan.[21] In addition, the proposed amendments would require the Operating Committee to submit the Implementation Plan to the CEO, President, or an equivalently situated senior officer of each Participant prior to the Operating Committee's vote.[22] The Commission anticipates that the Participants will provide the Implementation Plan to the CEO, President, or an equivalently situated senior officer of each Participant sufficiently in advance of the Operating Committee vote to permit review.[23]

The Commission believes that requiring public disclosure regarding the progress of CAT implementation through the Implementation Plan will help to ensure that the CAT is developed on a reasonable timeline. Several commenters expressed general support for the increased operational transparency that would be provided by the Implementation Plan. One commenter, for example, stated that "the proposed Implementation Plan is appropriate to facilitate public

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21 See proposed Section 6.6(c)(iii). The proposed amendments do not require this statement to include any confidential or sensitive information related to the security of the CAT, the security of CAT Data, or the operation of the CAT. The Participants must comply with the security plan developed by the Plan Processor pursuant to Appendix D, Section 4.1 of the CAT NMS Plan and any security-related policies and procedures developed pursuant to Regulation SCI. See CAT NMS Plan, supra note 1, at Appendix D, Section 4.1 (requiring the Plan Processor to provide to the Operating Committee a comprehensive security plan, including a process for responding to security incidents and reporting of such incidents); 17 CFR 242.1001 (requiring each SCI entity to establish, maintain, and enforce written policies and procedures reasonably designed to ensure that its SCI systems have levels of security adequate to maintain operational capabilities and promote the maintenance of fair and orderly markets).

22 See id.; see also Proposing Release, supra note 2, at 48464, for additional discussion of these requirements. No commenters objected to these requirements, and one commenter stated that there was no need to "go further to require such CEOs, Presidents and equivalent officers to certify" the Implementation Plan, "an issue raised for comment in the Proposing Release." See Letter from Michael Simon, CAT NMS Plan Operating Committee Chair, to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("Participant Letter"), at 7, available at https://www.sec.gov/comments/s7-13-19/s71319-6357609-196389.pdf; see also Proposing Release, supra note 2, at 48465. The Commission is not adopting a certification requirement for the Implementation Plan.

23 See, e.g., Proposing Release, supra note 2, at 48476 n.143.

transparency of the development and implementation milestones required to be achieved by the Participants and industry members tasked with CAT implementation" and asserted that "the filing of an Implementation Plan with the Commission may inject additional accountability and transparency into the Participants[’] CAT milestone delivery targets."[24] Another commenter "agree[d] with the Commission that requiring the CAT NMS to create and publicize a detailed timeline with concrete deadlines (as set in the Proposal) would prod the [CAT NMS, LLC] consortium and the new Plan Processor, FINRA CAT, to progress towards implementation."[25]

Some commenters had more specific comments regarding the proposed provisions relating to the Implementation Plan. For instance, regarding the deadline for submitting the Implementation Plan, the Participants stated that they had already "developed a timeline for the completion of the CAT, and therefore believe[d] that 30 days is sufficient to file with the Commission and publish the Implementation Plan."[26] No other commenters addressed this issue.

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24 See Letter from Christopher Bok, Director, Financial Information Forum, to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("FIF Letter"), at 4-5 available at https://www.sec.gov/comments/s7-13-19/s71319-6355358-196251.pdf. See also, e.g., Letter from Theodore R. Lazo, Managing Director & Associate General Counsel, and Ellen Greene, Managing Director, Financial Services Operations, Securities Industry and Financial Markets Association, to Vanessa Countryman, Secretary, Commission, dated October 28, 2019 ("SIFMA Letter"), at 1, available at https://www.sec.gov/comments/s7-13-19/s71319-6366765-195937.pdf (supporting the "Commission’[s] actions to . . . increase transparency around [the] CAT implementation process"); Fidelity Letter, at 3 (supporting "the Proposal’s operational transparency requirements to formalize and publicly document CAT implementation progress").

25 See Better Markets Letter, at 6. "Plan Processor" means "the Initial Plan Processor or any other Person selected by the Operating Committee pursuant to SEC Rule 613 and Sections 4.3(b)(i) and 6.1, and with regard to the Initial Plan Processor, the Selection Plan, to perform the CAT processing functions required by SEC Rule 613 and set forth in this Agreement." See CAT NMS Plan, supra note 1, at Section 1.1. As explained in the Proposing Release, Thesys Technologies LLC (or "Thesys CAT LLC") was initially selected as the Plan Processor, but was replaced by FINRA ("FINRA CAT LLC") on February 26, 2019. See Proposing Release, supra note 2, at 48459-460.

26 See Participant Letter, at 6.

Consistent with the Proposing Release and the views expressed by the Participants, the Commission continues to believe that thirty calendar days is a sufficient amount of time for the Participants to develop, file, and publish the Implementation Plan.

Regarding the Objective Milestones, the Participants "confirm[ed]" that the Objective Milestones "effectively formalize the status updates and other informal reports that are in the Updated Master Plan" submitted to the Commission on May 16, 2019.[27] The Participants further stated that "basing the objective milestones on the Updated Master Plan is more appropriate than basing them on arbitrary milestones or milestones that have not been vetted by the Participants."[28] However, the Objective Milestones are not based on the Updated Master Plan. Rather, the Objective Milestones are set forth in the CAT NMS Plan and provide details and required completion dates for a series of objective CAT implementation milestones, including implementation milestones relating to technical specifications, testing, and production.[29]

Another commenter suggested that the Commission should require the Implementation Plan to be "prominently publicized on the CAT NMS's website."[30] The Commission agrees that the CAT NMS Plan website would be a logical place to publish the Implementation Plan, and

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27 See Participant Letter, at 5.

28 See id.

29 See CAT NMS Plan, supra note 1, at Appendix C, Section C.10.

30 See Better Markets Letter, at 7. This commenter also thought it "would be beneficial if the SEC also creates a 'Spotlight' webpage . . . and host this timeline along with all other CAT related filings, notices, and Commission actions," because a "one-stop webpage should enable investors, market participants, journalists, Members of Congress, and all other interested parties, to remain informed of the progress, or lack thereof, of the CAT's implementation." See id. The Commission notes that such a page already exists: https://www.sec.gov/divisions/marketreg/rule613-info.htm. As appropriate, the Commission will continue to update this page as the information required by the amendments is published by the Participants.

this is a permissible approach under proposed Section 6.6(c)(i).[31] However, the information contained in the Implementation Plan will be just as accessible to the public if published on each Participants' website – another approach permitted by proposed Section 6.6(c)(i) as long as the required information is published by the timeframe set forth in the rule, and one that provides each Participant with more flexibility and control over how and when it complies with the proposed amendments.

For these reasons, and the reasons set forth in the Proposing Release,[32] the Commission is adopting the provisions related to the Implementation Plan substantially as proposed. However, the Commission believes it is appropriate to make two modifications to clarify the intended operation of the amendments.

First, the Commission is modifying language in proposed Section 6.6(c)(i) to clarify the public disclosure requirements of the operational transparency amendments. In the Proposing Release, the Commission indicated that the Participants would be required to make the Implementation Plan available either individually on "each of the Participant websites" or collectively on the CAT NMS Plan website. To the extent that the Participants choose to publish the Implementation Plan and Quarterly Progress Reports individually, each Participant is responsible for posting these materials on its own website, and each Participant is responsible for posting the materials in a timely manner. Accordingly, the Commission is modifying the phrasing of proposed Section 6.6(c)(i) to state that the Participants shall make the Implementation Plan publicly available on "each of their websites" or collectively on the CAT NMS Plan website.

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31 See proposed Section 6.6(c)(i).

32 See Proposing Release, supra note 2, at 48461-62, 48464.

Second, the Commission is modifying proposed Section 6.6(c)(iii) to clarify which Participants are required to publish statements that explain why a particular member of the Operating Committee did not vote to approve the Implementation Plan or Quarterly Progress Reports. As proposed, Section 6.6(c)(iii) stated that "each Participant whose Operating Committee member did not vote to approve the Implementation Plan or Quarterly Progress Report shall separately file with the Commission and make publicly available on each of the Participant websites, or collectively on the CAT NMS Plan website, a statement identifying itself and explaining why the member did not vote to approve the Implementation Plan or Quarterly Progress Report."[33] The Commission is modifying this language to clarify that each Participant who dissents is not required to make publicly available its explanatory statements on other Participants' websites. If the Participants choose to not publish such explanatory statements collectively on the CAT NMS Plan website, the Participants with dissenting members will only be required to publish such statements on their own websites. Accordingly, the Commission is modifying the amendments to specify that "each Participant whose Operating Committee member did not vote to approve the Implementation Plan or Quarterly Progress Report shall separately file with the Commission a statement identifying itself and explaining why the member did not vote to approve the Implementation Plan or Quarterly Progress Report. These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website."

**2. Quarterly Progress Reports**

As proposed, Section 6.6(c)(ii) of the CAT NMS Plan would require the Participants to file with the Commission and make publicly available on each of the Participant websites (or

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[33] See proposed Section 6.6(c)(iii).

collectively on the CAT NMS Plan website) complete Quarterly Progress Reports providing a detailed description of the progress made by the Participants toward achieving each of the Implementation Milestones set forth in the Implementation Plan.[34] The proposed amendments describe the information that would be required to be included in the Quarterly Progress Reports.

Specifically, for Implementation Milestones that have been completed by the end of a given calendar quarter, the proposed amendments would require the inclusion of the following information: (1) the completion date provided in the Implementation Plan, (2) the date on which the Implementation Milestone was actually completed, and (3) a description of any variance from the Implementation Plan.[35] For Implementation Milestones that are in progress at the end of a given calendar quarter, the proposed amendments would require the inclusion of the following information: (1) the completion date provided in the Implementation Plan, (2) the currently targeted completion date, and (3) a description of (a) the current status of the Implementation Milestone, (b) any difference between the Implementation Plan completion date and the currently targeted completion date, including the basis for making the adjustment and the impact of this adjustment on any other Implementation Milestone, and (c) any other factual indicators that demonstrate the current level of completion with respect to the Implementation Milestone.[36] For Implementation Milestones that have not yet been initiated by the end of a

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34 See proposed Section 6.6(c)(ii). If, subsequent to the publication of the Implementation Plan, the Participants decide to complete any of the Implementation Milestones by releasing functionality in a phased approach, the proposed amendments would require each Quarterly Progress Report to reflect this change by describing the phases necessary to achieve the completion of the relevant milestone and providing the information specified by proposed Section 6.6(c)(ii) for each phase. See id.

35 See proposed Section 6.6(c)(ii)(A).

36 See proposed Section 6.6(c)(ii)(B); see also Proposing Release, supra note 2, at 48463, for examples of factual indicators that would satisfy this requirement. As noted below, the Commission does not believe that the inclusion of factual indicators requires the

given calendar quarter, the proposed amendments would require the inclusion of the following information: (1) the completion date provided in the Implementation Plan, (2) the currently targeted completion date, and (3) a description of (a) the current status of the Implementation Milestone, and (b) any difference between the Implementation Plan completion date and the currently targeted completion date, including the basis for making the adjustment and the impact of this adjustment on any other Implementation Milestone.[37]

Proposed Section 6.6(c)(ii) would require the initial Quarterly Progress Report to be filed and made public no later than fifteen business days following the end of the calendar quarter in which the Implementation Plan was filed and made public. Subsequent Reports would be required to be filed and made public no later than fifteen business days following the end of each calendar quarter.[38] Before any Quarterly Progress Report can be filed with the Commission or made publicly available via a website, proposed Section 6.6(c)(iii) would require that the Report be approved by at least a Supermajority Vote of the Operating Committee. However, if the Report is approved only by a Supermajority Vote of the Operating Committee, and not by a unanimous vote of the Operating Committee (including, for the avoidance of doubt, all members of the Operating Committee, whether or not present or recused), the proposed amendments would require each Participant whose Operating Committee member did not vote to approve the Report to separately file with the Commission and make publicly available on each of the Participant websites, or collectively on the CAT NMS Plan website, a statement identifying itself

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Participants to publicly disclose any confidential or sensitive information related to the security of the CAT, the security of CAT Data, or the operation of the CAT. See notes 54-61 and associated text infra, for further discussion.

37 See proposed Section 6.6(c)(ii)(C); see also Proposing Release, supra note 2, at 48462-64, for additional discussion of these requirements.

38 See proposed Section 6.6(c)(ii).

and explaining why the member did not vote to approve the Report.[39] In addition, the proposed amendments would require the Operating Committee to submit the Quarterly Progress Report to the CEO, President, or an equivalently situated senior officer of each Participant prior to the Operating Committee's vote.[40] The Commission anticipates that the Participants will provide the Quarterly Progress Report to the CEO, President, or an equivalently situated senior officer of each Participant sufficiently in advance of the Operating Committee vote to permit review.[41]

The Commission believes that requiring detailed and up-to-date public disclosure through the proposed Quarterly Progress Reports will furnish the Commission and market participants with a better understanding of the progress made by the Participants towards CAT implementation.[42] The Participants stated in their comment letter that the proposed Reports "would impose requirements that are . . . unnecessary," because "CAT LLC and FINRA CAT currently provide and will continue to provide Industry Members and the general public with extensive and appropriate information related to the progress of the CAT System build" and

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39 See proposed Section 6.6(c)(iii). The proposed amendments do not require this statement to include any confidential or sensitive information related to the security of the CAT, the security of CAT Data, or the operation of the CAT. Moreover, the Participants must comply with the security plan developed by the Plan Processor pursuant to Appendix D, Section 4.1 of the CAT NMS Plan and any security-related policies and procedures developed pursuant to Regulation SCI. See note 21 supra.

40 See id.; see also Proposing Release, supra note 2, at 48464, for additional discussion of these requirements. No commenters objected to these requirements, and one commenter asserted that there was no need to "go further to require such CEOs, Presidents and equivalent officers to certify" the Reports, "an issue raised for comment in the Proposing Release." See Participant Letter, at 7; see also Proposing Release, supra note 2, at 48465. The Commission is not adopting a certification requirement for the Reports.

41 See Proposing Release, supra note 2, at 48477 n.159.

42 As discussed above, some commenters suggested that requiring the Participants to publish the Implementation Plan would increase the Participants' accountability for meeting the deadlines specified in that document. See notes 24-25 and associated text supra. The Commission agrees and anticipates that requiring the Participants to publish Quarterly Progress Reports will have a similar effect.

because "the Commission and its staff . . . have continued access to extensive information regarding the CAT."[43]

The Commission, however, disagrees. While the Participants have provided information regarding CAT implementation to the Commission, much of the information provided by the Participants to the Commission has not been shared widely with the public. One commenter asserted that "not much is publicly known [about] why the CAT is still not up and running," due to the "secrecy of the CAT NMS consortium" and the current lack of transparency.[44] This commenter "agree[d] with the Commission that quarterly detailed reporting is appropriate and would provide useful information to all interested parties," including "an early-warning to the Commission and interested-parties about possible upcoming failures to meet any of the regulatory milestones . . . ."[45] Another Industry Member commenter similarly believed that the Quarterly Progress Reports would "provide us more information on the timing of our CAT reporting obligations, which should help us more efficiently develop and implement regulatory data collection systems, adjusting as needed, as well as monitor and better understand the progress of overall CAT implementation."[46] The Commission agrees with these comments, and, consistent with the Proposing Release, continues to believe that the Quarterly Progress Reports will provide useful information to market participants and other members of the public.[47]

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43 See Participant Letter, at 6-7.

44 See Better Markets Letter, at 4.

45 See id. at 7.

46 See Fidelity Letter, at 3. See also FIF Letter, at 3 (stating that "additional transparency will better inform all stakeholders of the status of CAT implementation objectives and milestones, will reduce uncertainty, and will provide industry members with further assurances that full CAT implementation will occur on specified milestones").

47 In addition to providing market participants with information regarding Industry Member reporting deadlines, the Quarterly Progress Reports will also include the disclosure of

One Industry Member commenter not only supported the disclosures required by the proposed Quarterly Progress Reports, but also recommended expanding the Reports to include "financial information detailing the fees, costs and expenses that the Participants have incurred to build and implement the CAT," which should be "clearly tied to the relevant Financial Accountability Milestone" in the Reports.[48] The commenter believed that such information would "help Industry Members better understand the universe of costs they might be asked to pay at a future date as well as how those costs relate to each Financial Accountability Milestone," as well as help Industry Members to "review and comment on individual CAT fee proposals submitted by the Plan Participants."[49] To the extent that the Participants seek to recover the fees, costs, and expenses incurred in connection with the development, implementation, and operation of the CAT, the Commission believes that relevant information would be included in fee filings.[50] Also, fee filings relating to fees incurred after the effective date of these amendments must clearly indicate to which Financial Accountability Milestone the fees are related.[51] All fee filings with this information would be filed with and published by the Commission to provide notice to Industry Members and to solicit comments from market

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information regarding the implementation of Participant reporting to the CAT and the availability of functionality for regulatory users, which the Participants have not made publicly available up to this point.

48 See Fidelity Letter, at 3-4. The commenter suggested that such information could be "disclosed on a one quarter lagging basis." See id. at 3 n.4.

49 See id. at 4.

50 See Proposing Release, supra note 2, at 48465, for a discussion of the fee filings that the Participants are required to submit in order to recover CAT-related fees, costs, and expenses from Industry Members. See also 15 U.S.C. 78s(b).

51 See note 88 and associated text infra, for a discussion of the information that the Participants would be required to include in these fee filings under the amendments.

participants.[52] In addition, the CAT NMS Plan requires the Participants to publish annual audited financial statements,[53] which should also provide more detailed financial information to market participants. Therefore, the Commission does not believe that expanding the Quarterly Progress Reports to require this additional information is necessary.

The Participants also objected to some of the specific disclosures required by the proposed Quarterly Progress Report, claiming that the proposed Reports would "impose requirements that are . . . at odds with maintaining the security of the CAT."[54] For example, the Participants stated that "requiring the broad publication of detailed explanations related to connectivity and acceptance testing . . . might provide information to unscrupulous persons set on finding a way to access and exploit information in the CAT." Similarly, they expressed concern that "[p]ublishing pass/fail percentages of test cases and information with respect to defects remediated in connection with reporting milestones, and the reasons that certain documentation under development has not been completed," was inappropriate for security reasons, although they did concede that it was "appropriate to provide such information to the Commission and the staff . . . ."[55]

The Commission takes concerns regarding the security of the CAT very seriously and agrees that the Participants should not include details in the Quarterly Progress Reports that

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52 See, e.g., 15 U.S.C. 78s; 17 CFR 242.608.

53 See CAT NMS Plan, supra note 1, at Section 9.2(a). See also https://catnmsplan.com/announcements/audited-financial-statements (noting that audited financial statements for the Company from inception through 2018 are available upon request).

54 See Participant Letter, at 6.

55 See id.

would reveal any sensitive security information related to the CAT.[56] However, the Commission does not believe that the proposed amendments, or the examples raised by the Participants in their comment letter, implicate any such concerns. The examples raised by the Participants as presenting security concerns are examples provided by the Commission in the Proposing Release of factual indicators that could be used to demonstrate the current status of CAT implementation.[57] These factual indicators focused on functional requirements (e.g., enabling Industry Member reporting), as opposed to security requirements, that would capture the scope and quality of the Participants' progress in implementing the CAT. The Commission does not believe that the factual indicators suggested in the Proposing Release require the disclosure of information that will affect the security of the CAT.

For example, the Commission suggested in the Proposing Release that factual indicators for milestones related to connectivity and acceptance testing could include: "the status of the publication of test plans; statistics on the amount of expected or actual activity in the test environment (e.g., number of testers, number of reportable events, error rates/trends observed); the number of Plan Processor functional requirements for which defects were found categorized by criticality; [and] progress remediating defects . . . ."[58] These factual indicators speak solely to the Participants' progress in developing a usable data reporting system. The inclusion of such factual indicators in a Quarterly Progress Report would not require the Participants to specifically identify each defect and explain what steps have been taken to remedy that particular defect; rather, the amendments permit data regarding defects to be disclosed in an aggregated

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56 See notes 21, 39 supra.

57 See Proposing Release, supra note 2, at 48463.

58 See id.

form with a non-specific explanation of progress made towards remediating defects.[59] The Commission does not believe that such disclosures present a security concern, because they will only provide information regarding the progress made towards implementing required CAT functionality without revealing any security-related information.[60]

As stated in the Proposing Release, the Commission does not believe that the proposed amendments require the Participants to publicly disclose any confidential or sensitive information related to the security of the CAT, the security of CAT Data, or the operation of the CAT.[61] Rather, the proposed amendments require only the disclosure of information related to and demonstrating the progress of the Participants in developing CAT functionality (e.g., pass/fail percentages of test cases relating to reporting functionality, not pass/fail rates relating to the development of security tools and security-related test cases), and the Commission does not believe that such disclosures impact the security of the CAT. The Commission is therefore adopting the disclosure requirements for the Quarterly Progress Reports as proposed.

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59 For the same reasons, the Commission does not believe that publication of aggregated pass/fail percentages for test cases associated with reporting milestones, or disclosure of the aggregated number and percentage of functional reporting requirements that have completed internal testing with all defects remediated, presents a security risk to the CAT. These factual indicators do not require the Participants to disclose details regarding the vulnerabilities or flaws of the CAT that could be exploited by bad actors. Likewise, the Commission does not believe that the publication of the "reasons that certain documentation under development has not been completed" presents a security concern. This suggested factual indicator relates solely to the development of technical specifications – documentation that is already public and that does not relate to any security policies or procedures. The Commission therefore does not believe this factual indicator raises any security concerns.

60 Moreover, the Plan Processor has already begun to release similar information to the public, which demonstrates that the factual indicators suggested by the Commission can be published without implicating security concerns. See, e.g., Industry Test Release Status, available at https://www.catnmsplan.com/wp-content/uploads/2020/01/1.21.20-Industry-Webinar-Industry-Test-Release-Checkpoint.pdf.

61 See Proposing Release, supra note 2, at 48461 n.42.

Finally, the Participants stated that the proposed "fifteen day-turnaround period" was too brief and suggested "modifying the proposal to require the filing and posting of the Quarterly Progress Report[s] no later than 30 days after the end of each quarter."[62] To respond to this comment, the Commission is modifying its proposed rule to require: (1) that the initial Quarterly Progress Report be filed with the Commission and made publicly available no later than thirty calendar days after the end of the calendar quarter in which the Implementation Plan was filed and made publicly available;[63] and (2) that each subsequent Quarterly Progress Report be filed with the Commission and made publicly available no later than thirty calendar days after the end of each calendar quarter (e.g., October 30, 2020; January 30, 2021; April 30, 2021; or July 30, 2021).[64] The Commission believes this change will help to ensure that the Participants have sufficient time to prepare, file, and publish high-quality Reports, while still providing the Commission and market participants with timely and up-to-date disclosures regarding the process of CAT implementation.

For these reasons, and the reasons set forth in the Proposing Release,[65] the Commission is adopting the provisions related to the Quarterly Progress Reports substantially as proposed, except that proposed Section 6.6(c)(ii) will provide the Participants with additional time to prepare, file, and publish the Quarterly Progress Reports as described above. In addition, the

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62 See Participant Letter, at 7.

63 For example, if the Participants filed and made public the Implementation Plan on August 15, 2020, the initial Quarterly Progress Report would have to be filed no later than October 30, 2020. See Proposing Release, supra note 2, at 48462 n.57.

64 This change will provide the Participants with approximately eight or nine additional days, on average, to prepare, file, and publish each Report. See id. at 48462.

65 See Proposing Release, supra note 2, at 48462-64.

Commission is adopting three modifications to proposed Section 6.6(c) to clarify the intended operation of the amendments.

First, the Commission is modifying language in proposed Section 6.6(c)(ii) to clarify the public disclosure requirements of the operational transparency amendments. In the Proposing Release, the Commission indicated that the Participants would be required to make the Quarterly Progress Reports available either individually on "each of the Participant websites" or collectively on the CAT NMS Plan website. To the extent that the Participants choose to publish the Quarterly Progress Reports individually, each Participant is responsible for posting these materials on its own website, and each Participant is responsible for posting the materials in a timely manner. Accordingly, the Commission is modifying the phrasing of proposed Section 6.6(c)(ii) to state that the Participants shall make the Quarterly Progress Reports publicly available on "each of their websites" or collectively on the CAT NMS Plan website.

Second, the Commission is modifying proposed Section 6.6(c)(iii) to specify that "each Participant whose Operating Committee member did not vote to approve the Implementation Plan or Quarterly Progress Report shall separately file with the Commission a statement identifying itself and explaining why the member did not vote to approve the Implementation Plan or Quarterly Progress Report. These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website."[66]

Finally, the Commission is modifying the final sentence of proposed Section 6.6(c)(ii) to clarify which parties are obligated to file and make publicly available the Quarterly Progress Reports. The proposed amendments stated that the "first of such reports shall be filed and made

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[66] See Part II.A.1. supra, for further discussion of this modification.

publicly available within 30 calendar days after the end of the calendar quarter in which the Implementation Plan was filed and made publicly available."[67] The Commission is not changing this obligation, but is modifying the language to state that the "Participants shall file and make publicly available the first of such reports within 30 calendar days after the end of the calendar quarter in which the Participants filed and made publicly available the Implementation Plan."[68]

### 3. Additional Reports

The proposed amendments require that the Participants prepare, file, and publish an Implementation Plan for the completion of CAT implementation[69] and that the Quarterly Progress Reports provide up-to-date information regarding the Implementation Milestones set forth in the Implementation Plan. By these terms, the proposed amendments do not require the Participants to continue any reporting after the CAT has been implemented.

One commenter "urge[d] the Commission to require the same timeline publication and quarterly reports on progress to apply beyond just the implementation phase."[70] This commenter believed that "[t]he same transparency requirements would be useful when the CAT NMS

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67 See proposed Section 6.6(c)(ii).

68 These three modifications do not affect the cost estimates put forward by the Commission in the Proposing Release. See, e.g., Proposing Release, supra note 2, at 48475-77.

69 Specifically, proposed Section 6.6(c)(i) requires that the Implementation Plan include a timeline for achieving Full Implementation of CAT NMS Plan Requirements, which is a Financial Accountability Milestone that requires the Participants to "have satisfied all of their obligations to build and implement the CAT, such that all CAT system functionality required by Rule 613 and the CAT NMS Plan has been developed, successfully tested, and fully implemented at the initial Error Rates specified by Section 6.5(d)(i) or less . . . ." See proposed Section 1.1, "Full Implementation of CAT NMS Plan Requirements." "Error Rate" is a defined term in the CAT NMS Plan and has the same definition in this release.

70 See Better Markets Letter, at 7.

establishes upgrades schedules."[71] The Commission believes that requiring additional reporting is unnecessary at this point. Once the CAT is fully implemented, market participants will continue to receive information regarding the operation of the CAT through audited financial statements published by the Participants[72] and CAT-related proposals filed with and published by the Commission.[73] The Commission is not requiring additional reporting, but encourages the Participants to communicate fully with affected market participants regarding any "upgrades schedules."

### B. Amendments to Increase Financial Accountability

Currently, the CAT NMS Plan contemplates that the Operating Committee will establish, and the Participants will implement, fees for both Participants and Industry Members to recover the costs and expenses incurred by the Participants in connection with the development and implementation of the CAT.[74] The proposed amendments were designed to increase the financial accountability of the Participants by establishing target deadlines for four critical implementation milestones and reducing the amount of fee recovery that would be available to the Participants if those target deadlines are missed. Some commenters agreed that the proposed amendments would reduce the likelihood of further delays to CAT implementation, but all commenters urged the Commission to incorporate certain modifications to the proposal. After considering these comments, and as described more fully below, the Commission is adopting the financial accountability amendments with certain modifications from the amendments as proposed.

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71 See id.

72 See CAT NMS Plan, supra note 1, at Section 9.2(a).

73 See 15 U.S.C. 78s; 17 CFR 242.608.

74 See, e.g., CAT NMS Plan, supra note 1, at Section 11.1(c).

### 1. Description of the Proposed Amendments

Proposals for any fees established by the Operating Committee, and implemented by the Participants, to recover from Industry Members the costs and expenses incurred by the Participants in connection with the development and implementation of the CAT must be filed with the Commission and are subject to Commission review for consistency with the Exchange Act and Article XI of the CAT NMS Plan.[75] Specifically, each Participant must demonstrate, under Sections 6(b)(4) and 15A(b)(5) of the Exchange Act, that such fees result in an equitable allocation of reasonable dues, fees, and other charges among its members and other persons using its facilities.[76] The proposed amendments would not alter this basic structure, but add a new Section 11.6 to the CAT NMS Plan to govern the recovery of any fees, costs, and expenses (including legal and consulting fees, costs, and expenses) incurred by or for the Company in connection with the development, implementation, and operation of the CAT, from the effective date of this amendment, until such time that the Participants have completed Full Implementation of CAT NMS Plan Requirements[77] (collectively, the "Post-Amendment Expenses").

Proposed Section 11.6 would require the Participants to meet four Financial Accountability Milestones by certain dates in order to collect the full amount of any fees established by the Operating Committee, or implemented by the Participants, to recover Post-

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75 15 U.S.C. 78s(b); 17 CFR 242.608. See also CAT NMS Plan, supra note 1, at Section 11.1(b) (stating that the Participants must file proposed fees for Industry Members with the Commission); id. at Section 11.2(a) (stating that the Operating Committee shall seek to create transparent, predictable revenue streams for the Company that are aligned with the anticipated costs to build, operate, and administer the CAT and the other costs of the Company).

76 See 15 U.S.C. 78f(b)(4) (applicable to the national securities exchanges); 15 U.S.C. 78o-3(b)(5) (applicable to FINRA, a national securities association).

77 See note 69 supra.

Amendment Expenses from Industry Members ("Post-Amendment Industry Member Fees"). Specifically, the proposed Financial Accountability Milestones and target deadlines were: (1) Initial Industry Member Core Equity Reporting, April 30, 2020[78]; (2) Full Implementation of Core Equity Reporting, December 31, 2020[79]; (3) Full Availability and Regulatory Utilization of Transactional Database Functionality[80]; and (4) Full Implementation of CAT NMS Plan

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78 Under the proposed amendments, Initial Industry Member Core Equity Reporting was defined as "the point at which Industry Members (excluding Small Industry Members that are not OATS reporters) have begun to report equities transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, to the CAT."

79 Under the proposed amendments, Full Implementation of Core Equity Reporting was defined as "the point at which: (a) Industry Member reporting (excluding reporting by Small Industry Members that are not OATS reporters) for equities transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, is developed, tested, and implemented at a 5[ percent] Error Rate or less and with sufficient intra-firm linkage, inter-firm linkage, national securities exchange linkage, and trade reporting facilities linkage to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, excluding linkage of representative orders, from order origination through order execution or order cancellation; and (b) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1[ through ]8.1.3 and Section 8.2.1 incorporates the Industry Member equities transaction data described in condition (a) and is available to the Participants and to the Commission."

80 Under the proposed amendments, Full Availability and Regulatory Utilization of Transactional Database Functionality was defined as "the point at which: (a) reporting to the Order Audit Trail System is no longer required for new orders; (b) Industry Member reporting for equities transactions, simple electronic options transactions, manual options transactions, and complex options transactions, including Allocation Reports, but excluding Customer Account Information, Customer-ID, and Customer Identifying Information, is developed, tested, and implemented; (c) representative order linkages, as well as intra-firm linkages, inter-firm linkages, national securities exchange linkages, and trade reporting facilities linkages, are developed, tested, and implemented in a manner that permits the Participants and the Commission to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, including any related allocation information provided in an Allocation Report; (d) CAT Error Rates satisfy the threshold specified by Section 6.5(d)(i); (e) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1[ through ]8.1.3, Section 8.2.1, and Section 8.5 incorporates the data described in

Requirements.[81] Under the proposed amendments, each Financial Accountability Milestone would be considered complete as of the date identified in a published Quarterly Progress Report meeting the requirements of proposed Section 6.6(c).[82]

If the Participants meet the target deadline specified for each Financial Accountability Milestone, the terms of the proposed amendments would entitle them to collect the full amount[83] of any related Post-Amendment Industry Member Fees.[84] However, if the Participants do not meet the date specified for each Financial Accountability Milestone, the proposed amendments would reduce the amount of related Post-Amendment Industry Member Fees that the Participants may recover.[85] The proposed amendments set forth one recovery schedule for Initial Industry Member Core Equity Reporting and another recovery schedule for the remaining three Financial

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conditions (b) and (c) and is available to the Participants and to the Commission; and (f) the requirements of Section 6.10(a) are met."

81 Under the proposed amendments, Full Implementation of CAT NMS Plan Requirements was defined as "the point at which the Participants have satisfied all of their obligations to build and implement the CAT, such that all CAT system functionality required by Rule 613 and the CAT NMS Plan has been developed, successfully tested, and fully implemented at the initial Error Rates specified by Section 6.5(d)(i) or less, including functionality that efficiently permits the Participants and the Commission to access all CAT Data required to be stored in the Central Repository pursuant to Section 6.5(a), including Customer Account Information, Customer-ID, Customer Identifying Information, and Allocation Reports, and to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, including any related allocation information provided in an Allocation Report." See also Proposing Release, supra note 2, at 48466-470, for additional discussion of the Financial Accountability Milestones and the associated target deadlines.

82 See proposed Section 1.1; proposed Section 6.6(c)(ii)-(iii).

83 "Full amount" in this context does not mean that the Participants may collect all of their Post-Amendment Expenses from Industry Members. Rather, to recover any Post-Amendment Expenses from Industry Members, the Participants must file with the Commission proposed rule changes. The Commission will then review the proposed rule changes for consistency with the Exchange Act and the CAT NMS Plan.

84 See proposed Section 11.6(a)(i).

85 See proposed Section 11.6(a)(ii) through (iii).

Accountability Milestones. Specifically, if the Participants miss the target deadline for Initial Industry Member Core Equity Reporting, the amount of related Post-Amendment Industry Member Fees that the Participants will be entitled to recover will immediately be reduced by 25 percent and then further reduced by 25 percent for every 60 days by which the Participants miss the target deadline.[86] If the Participants miss the target deadlines for the remaining three Financial Accountability Milestones, the amount of related Post-Amendment Industry Member Fees that the Participants will be entitled to recover for each Financial Accountability Milestone will immediately be reduced by 25 percent and then further reduced by 25 percent for every 90 days by which the Participants miss the target deadline.[87]

Finally, the proposed amendments include a provision that would require the Participants to clearly indicate, in all proposals filed with the Commission to establish or implement Post-Amendment Industry Member Fees, whether such fees are related to Post-Amendment Expenses and how the Post-Amendment Expenses are related to a particular Financial Accountability Milestone.[88]

### 2. Modifications to the Proposed Amendments

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86 See proposed Section 11.6(a)(ii).

87 See proposed Section 11.6(a)(iii). See Proposing Release, supra note 2, at 48470-72, for additional discussion of these provisions. The proposed amendments also provide that the Participants will only be permitted to collect any Post-Amendment Industry Member Fees at the end of the period associated with each respective Financial Accountability Milestone. See proposed Section 11.6(a)(iv); see also Proposing Release, supra note 2, at 48471-72, for additional discussion of this provision.

88 See proposed Section 11.6(b); see also Proposing Release, supra note 2, at 48472, for additional discussion of this provision.

The Commission believes that applying the above-described conditions, with the modifications set forth below,[89] to the Participants' collection of Post-Amendment Industry Member Fees is appropriate. As explained above, proposals for any fees established by the Operating Committee, and implemented by the Participants, to recover the fees, costs, and expenses incurred by the Participants in connection with the development, implementation, and operation of the CAT must be filed with the Commission. These fee proposals are then subject to Commission review for consistency with Article XI of the CAT NMS Plan and the Exchange Act[90] – including Sections 6(b)(4) and 15A(b)(5) of the Exchange Act, which require that each Participant make an equitable allocation of reasonable dues, fees, and other charges among its members and other persons using its facilities.[91] In light of the Participants' delays in implementation of the CAT NMS Plan, the Commission does not believe it would be reasonable for the Participants to exercise their funding authority under the CAT NMS Plan or the Exchange Act if the Participants do not meet the target deadlines specified by the amendments.[92]

The amendments, as proposed, were designed to prevent further delays to CAT implementation, but the Commission is adopting three modifications to the proposed amendments to address certain practical concerns that were identified by the Commission following the publication of the Proposing Release.

First, the Commission is modifying the first Financial Accountability Milestone, Initial Industry Member Core Equity Reporting, and the fee recovery schedule associated with that

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89 See notes 93-109 infra, for a discussion of the modifications to the proposed amendments.

90 15 U.S.C. 78s(b); 17 CFR 242.608.

91 See 15 U.S.C. 78f(b)(4) (applicable to the national securities exchanges); 15 U.S.C. 78o-3(b)(5) (applicable to FINRA, a national securities association).

92 See Proposing Release, supra note 2, at 48466, 48472, for additional discussion.

Financial Accountability Milestone. The Commission believes that this proposed Financial Accountability Milestone should be updated. The proposed target deadline for this Financial Accountability Milestone – April 30, 2020 – has passed. Moreover, as noted above, the Commission granted exemptive relief allowing the Participants' Compliance Rules for Industry Member reporting to the CAT to extend the deadline for core equity reporting to June 22, 2020.[93] The targeted deadline for the proposed Initial Industry Member Core Equity Reporting milestone is therefore no longer appropriate, but the Commission still believes that it is important to include an initial Financial Accountability Milestone that requires the Participants to develop, test, and implement the essential infrastructure needed to support Industry Member reporting – one of the major goals identified by the CAT NMS Plan.[94]

Accordingly, the Commission is modifying the first Financial Accountability Milestone. Section 1.1 of the CAT NMS Plan will now define "Initial Industry Member Core Equity and Option Reporting" as the reporting by Industry Members (excluding Small Industry Members[95] that do not report to the Order Audit Trail System ("OATS")) of both: (a) equities transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information,[96] to the CAT;[97] and (b) options transaction data, excluding Customer Account

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93 See notes 8-13 and associated text supra, for a discussion of the Exemptive Relief Order.

94 See CAT NMS Plan, supra note 1, at Section 6.7(a)(v).

95 "Small Industry Member" is a defined term in Section 1.1 of the CAT NMS Plan and has the same definition in the context of this adopting release.

96 Customer Account Information, Customer-ID, and Customer Identifying Information are defined terms in Section 1.1 of the CAT NMS Plan and have the same definitions in the context of this adopting release.

97 The equities transaction data required at this stage is consistent with the functionality that the Participants describe on the CAT NMS Plan website as "Production Go-Live for Equities 2a file submission and data integrity validations." See https://catnmsplan.com/timeline/phase.

Information, Customer-ID, and Customer Identifying Information, to the CAT.[98] This Financial Accountability Milestone shall be considered complete as of the date identified in a published Quarterly Progress Report meeting the requirements of proposed Section 6.6(c). The Commission is also modifying proposed Section 11.6(a)(i)(A) to provide that the target deadline for the Initial Industry Member Core Equity and Option Reporting milestone is July 31, 2020.[99]

The Commission believes that this Financial Accountability Milestone is appropriate because it is designed to achieve the goals of the proposed Initial Industry Member Core Equity Reporting milestone. As the Commission noted in the Proposing Release, before Industry Members may begin reporting data to the CAT, the Participants must develop, and Industry Members must thoroughly test, file submission tools, data integrity controls, and various security measures to ensure that the CAT can safely receive and process this data, as well as identify data that may not be accurate. These are core operations that are fundamental to the success of the CAT.[100] By requiring Industry Members – excluding Small Industry Members that are not OATS reporters[101] – to report the first phase of equities and simple electronic options data to the

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98 The options transaction data required at this stage is consistent with the functionality that the Participants describe on the CAT NMS Plan website as "Production Go-Live for Options 2b file submission and data integrity validations." See id.

99 The target deadline for this Financial Accountability Milestone falls between scheduled Quarterly Progress Reports. If the Participants wait to submit the Quarterly Progress Report to the Commission, it may delay their ability to begin recovering any Post-Amendment Industry Member Fees to which they may be entitled. In order to expedite their recovery of Post-Amendment Industry Member Fees, the Participants may file an interim Quarterly Progress Report, if they so choose, on the day they achieve this Financial Accountability Milestone (or any other Financial Accountability Milestone). See Proposing Release, supra note 2, at 48466 n.79.

100 See Proposing Release, supra note 2, at 48466.

101 The Commission continues to believe that it is appropriate to exclude Small Industry Members that do not report to OATS from this Financial Accountability Milestone in

CAT, the Initial Industry Member Core Equity and Option Reporting milestone will continue to require the Participants to demonstrate that they have made significant progress towards implementing foundational CAT functionality.

Moreover, the Commission believes that this Financial Accountability Milestone, as modified, accounts for the additional amount of time that the Participants will now be given to achieve the first Financial Accountability Milestone. The Participants will now have to begin Industry Member reporting of the first phase of simple electronic options data to the CAT, in addition to satisfying the previous requirements of the proposed Initial Industry Member Core Equity Reporting milestone. Recent timelines published by the Participants indicate that the production environment for Industry Member equities transaction reporting went live on April 13, 2020,[102] and the Participants have indicated that Industry Member reporting for the first phase of simple electronic options data will begin on July 20, 2020.[103] The Commission therefore believes that the modified target deadline of July 31, 2020, for the Initial Industry Member Core Equity and Option Reporting milestone is reasonable and feasible.

Second, the Commission is also modifying the fee recovery schedule associated with the first Financial Accountability Milestone to reflect the new target deadline.[104] Accordingly, if the

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order to mirror the exemptive relief granted to the Participants. See, e.g., Exemptive Relief Order, supra note 8, at 23082.

102 See https://www.catnmsplan.com/announcements/cat-now-open-reporting-broker-dealers.

103 See id.

104 In addition, the Commission is modifying the text of proposed Sections 11.6(a)(ii) and (iii) to add more granular citations and text that will further clarify which fee recovery schedule applies to which Financial Accountability Milestone. The Commission is not modifying the fee recovery schedule for the Full Implementation of Core Equity Reporting milestone, the Full Availability and Regulatory Utilization of Transactional

Participants do not meet the specified date for the achievement of Initial Industry Member Core Equity and Option Reporting, Section 11.6(a)(ii) will provide that the Participants' recovery of Post-Amendment Industry Member Fees will be reduced according to the following schedule:

- By 25 percent if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by less than 45 days;
- By 50 percent if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by more than 45 days, but less than 90 days;
- By 75 percent if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by more than 90 days, but less than 135 days; and
- By 100 percent if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by more than 135 days.

The Commission believes this fee recovery schedule is appropriate due to the new target deadline of July 31, 2020. It is critically important that the Participants remain on schedule to achieve the first Financial Accountability Milestone, in order to minimize the possibility that the deadlines for subsequent Financial Accountability Milestones will be missed.[105] Moreover, as explained above, the Commission believes that the Participants should be able to meet the target deadline.

Third, the Commission is modifying the Full Availability and Regulatory Utilization of Transaction Database Functionality milestone to eliminate certain error rate requirements. The proposed amendments would have required the Participants to achieve the initial error rates specified by the CAT NMS Plan for Industry Member reporting of manual and complex options transactions, as well as any options allocation information, by December 31, 2021,[106] in order to satisfy the Full Availability and Regulatory Utilization of Transaction Database Functionality

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Database Functionality milestone, or the Full Implementation of CAT NMS Plan Requirements milestone.

105 See also Proposing Release, supra note 2, at 48470-72, for further discussion of the fee recovery schedules.

106 See id.; see also Proposing Release, supra note 2, at 48468-69, for additional discussion of the proposed Financial Accountability Milestone.

milestone. However, the Participants estimate that these functionalities will not be fully implemented until December 13, 2021.[107] Because these functionalities are estimated to be implemented within the same month as the targeted date for satisfying the Full Availability and Regulatory Utilization of Transaction Database Functionality milestone, upon review, the Commission believes it is not appropriate to require such error rates for purposes of financial recovery.[108] The Commission is not modifying any other aspects of this Financial Accountability Milestone; the Participants will still be required to implement the functionality as proposed – namely, reporting of manual and complex options transactions and options allocation information – but they will not be required to satisfy any error rate requirement for these functionalities. The Participants will also still be required to achieve the initial error rate specified by the CAT NMS Plan for Industry Member reporting of equities and simple electronic options transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, with all required linkages (including representative order linkages and equities allocation information) to permit the Participants and the Commission to analyze the full

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107 See note 97 supra; see also Securities Exchange Act Release No. 87990 (January 16, 2020), 85 FR 3963 (January 23, 2020) (pending proposed rule change that indicates, among other things, that such functionality will not be implemented until December 13, 2021). The Commission does not believe that this modification will significantly impact the Commission's goals for this Financial Accountability Milestone. When the Participants achieve this milestone, regulators will still have access to sufficiently accurate and reliable equities and simple electronic options transactional data and order linkages that will enable regulators to analyze the full lifecycle of an order and conduct new and sophisticated analyses of the markets, including options market reconstruction and cross-market analyses across full order lifecycles. See Proposing Release, supra note 2, at 48468-69.

108 The CAT NMS Plan, however, still requires an initial error rate of 5 percent. See CAT NMS Plan, supra note 1, at Section 6.5(d)(i).

lifecycle of an order across the national market system, from order origination through order execution or order cancellation.[109]

### 3. Discussion of the Comments

Most commenters agreed with the Commission that increasing the financial accountability of the Participants will help to prevent further delays to CAT implementation. One commenter, for example, "support[ed] the Commission'[s] actions to . . . have formal deadlines to assist member firms' [CAT] implementation planning . . . and set financial incentives to avoid further delays."[110] Another commenter "agree[d] with the Commission that additional Participant Accountability Milestones should facilitate the completion of the implementation phase(s) of CAT in an efficient, expeditious and risk-averse manner, thereby reducing the risk of further delay."[111] Finally, one commenter stated that "imposing financial accountability measures on CAT NMS should increase the likelihood of the CAT's implementation."[112]

However, commenters raised concerns regarding aspects of the proposed amendments. These concerns generally fell into four categories: (a) threshold questions regarding the CAT funding model; (b) the potential negative impact of the proposed amendments; (c) the fairness of the proposed amendments; and (d) the possibility of unforeseen, but reasonable, delays. As discussed in more detail below, the Commission does not believe that it is necessary to modify

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109 See Section 1.1, "Full Availability and Regulatory Utilization of Transactional Database Functionality."

110 See SIFMA Letter, at 1.

111 See FIF Letter, at 2.

112 See Better Markets Letter, at 3 (stating that the "key milestones outlined in the Proposed Amendment are good measures that the Participants are making progress toward delivering a completed CAT").

the proposed amendments to address these concerns. Nevertheless, as discussed above, the Commission is adopting two modifications to the proposed amendments to account for certain practical issues that were separately identified by the Commission,[113] and it is possible that these modifications may also alleviate some of the concerns expressed by commenters.

**a. Comments on the CAT Funding Model**

Commenters raised threshold questions regarding the Participants' ability to recover from Industry Members a portion of the fees, expenses, and costs incurred by the Participants in connection with the development, implementation, and operation of the CAT. For instance, one commenter stated that the "Plan Participants have not provided justification for imposing fees on broker-dealers for the CAT[] that will be in addition to fees the Plan Participants already charge broker-dealers for regulatory funding."[114] Another commenter observed that "broker-dealers already provide the [Participant]s a significant amount of regulatory funding" and suggested that "there should be no new fee for the CAT until member firms are provided with a fully-documented account of how regulatory fees are currently allocated, how the CAT fee fits into the existing regulatory framework, and why assessing broker-dealers an additive regulatory fee is necessary to fund the creation and operation of the CAT."[115] This commenter further asserted that "broker-dealers should not be required to reimburse the [Participant]s for any part of the costs or expenses of the CAT other than the direct costs to build and operate the system itself," such as "third-party support fees (historical legal fees, consulting fees, and audit fees),

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113 See Part II.B.2. supra.

114 See Fidelity Letter, at 5.

115 See SIFMA Letter, at 2.

operational reserve, and insurance costs," or for "any payments made to Thesys in connection with the CAT."[116]

These concerns were raised by commenters and addressed by the Commission when it approved the CAT NMS Plan,[117] which explicitly permits the Participants to recover from Industry Members a portion of the fees, expenses, and costs incurred to build, operate, and administer the CAT and the other costs of the Company.[118] After considering these concerns, the Commission approved the funding model set forth in the CAT NMS Plan because the Commission believed that it reflected a "reasonable exercise of the Participants' funding authority . . . ."[119] The Commission stated that the CAT was a "regulatory facility jointly owned by the Participants," that the "Exchange Act specifically permits the Participants to charge members fees to fund their self-regulatory obligations," and that the funding model was "designed to impose fees reasonably related to the Participants' self-regulatory obligations because the fees would be directly associated with the costs of establishing and maintaining the CAT, and not unrelated . . . services."[120]

Even though the amendments reflect the Commission's view as to how the Participants may reasonably exercise their funding authority under the Exchange Act and the CAT NMS Plan,[121] the Commission still believes that the overall structure of the CAT funding model is appropriate. The CAT continues to be a "regulatory facility jointly owned by the Participants,"

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116 See id. at 3.

117 See, e.g., CAT NMS Plan Approval Order, supra note 1, at 84793-95.

118 See CAT NMS Plan, supra note 1, at Article XI.

119 See CAT NMS Plan Approval Order, supra note 1, at 84794.

120 See id.

121 See notes 89-92 and associated text supra.

the Exchange Act continues to "permit[] the Participants to charge members fees to fund their self-regulatory obligations" if those fees are reasonable, and the funding model continues to be "designed to impose fees reasonably related to the Participants' self-regulatory obligations because the fees would be directly associated with the costs of establishing and maintaining the CAT, and not unrelated . . . services."[122] The Commission therefore is not modifying the proposed amendments (or the CAT NMS Plan) on these grounds. However, the Commission stresses that it is not hereby approving any specific Post-Amendment Industry Member Fees; rather, such fee proposals must be filed with the Commission by the Participants, published for public comment, and assessed by the Commission for consistency with the Exchange Act and the CAT NMS Plan.[123]

**b. Comments on the Potential Negative Impact of the Proposed Amendments**

A few commenters believed that "strict adherence to the Participants' delivery of specified target milestone[s] on or before particular dates (and sanctions imposed as a result of not meeting those dates) are likely to result in lower quality deliverables and an incomplete CAT Repository."[124] One commenter specifically identified a "subset" of the number of potential negative consequences of this approach, including: "1) reduced dialogue between industry

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122 See id.

123 See id.

124 See FIF Letter, at 3. See also Participant Letter, at 10 ("Faced with financial penalties for missed deadlines, the Participants may not be able to fully address legitimate industry concerns or accommodate requests for delays with respect to future deadlines."); Fidelity Letter, at 5 ("We also recognize that despite best efforts, unforeseen circumstances may occur where it may be in the collective best interest to extend a target deadline. In these circumstances, we believe that financial penalties will create a degree of friction in the development process that is not conducive to the overall success of the CAT and that may prioritize rushing to complete a target deadline over a long-term view of the CAT.").

member CAT Reporters and the Participants; 2) lower quality CAT IM Tech Specs; 3) reduced emphasis on the development and publication of vital industry member guidance . . .; 4) a less effective issue resolution process; and 5) the implementation of Phase 2a prior to the full development of the CAT system."[125] In short, the commenter believed that the "financial penalty structure outlined in the Proposed Amendments has the clear potential to limit and short circuit the required cooperative analysis, feedback, and iterative update process that would result in the reduced quality of deliverables and place at risk CAT's key regulatory goals."[126] Accordingly, this commenter suggested that the Commission should essentially delete the target deadlines, but retain the requirement to complete such milestones.[127] Specifically, this commenter stated that the Commission should perform a "holistic assessment of the Participants[']management of CAT implementation . . . based upon: 1) the successful completion of milestones; 2) detail contained in Participant Quarterly Progress Reports; . . . 3) industry member feedback [to supplement the information obtained from Quarterly Progress Reports]," and 4) "engagement with the Operating Committee and Plan Processor to better gauge whether the Participants are meeting the obligations delegated to them by the Commission," instead of "strict adherence to

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125 See FIF Letter, at 3, 7. This commenter also recommended adjusting interim deadlines set by the Participants for certain phases of CAT implementation. See id. at 5-6 and Appendix B. The Commission does not believe such adjustments are necessary, as the Commission believes the current timeline is appropriate and feasible. However, because such changes could be made without impacting the target deadlines for the Financial Accountability Milestones, the Participants can decide to make the recommended changes.

126 See id. at 7-8.

127 See id. at 4. See also Participant Letter, at 9 (arguing that the Financial Accountability Milestones "should be revised so that CAT LLC may collect Post-Amendment Industry Member Fees so long as CAT LLC and the Participants have completed development and testing and made available to Industry Members and the SEC the CAT functionality applicable to a particular Milestone").

enumerated milestone target dates."[128] In the alternative, "[s]hould the Commission approve and adopt the proposed Plan Amendment to incorporate Financial Accountability Milestones," the commenter believed that the Commission and the Participants should "take measures to ensure that the high degree of collaboration between the industry, Participants, and the Plan Processor remains in place."[129]

The Commission does not believe that it is appropriate or necessary to eliminate the target deadlines from the proposed amendments, as suggested by some commenters. The proposed amendments were not designed only to achieve CAT implementation, but, more specifically, to achieve CAT implementation in a timely manner. It has been over three years since the Commission approved the CAT NMS Plan, and the need for a better audit trail system remains urgent. Accordingly, the Commission included target deadlines in the proposed amendments as one measure to reduce the likelihood of additional delays to CAT implementation. To remove these target deadlines from the proposed amendments, or to eliminate the financial incentives associated with the target deadlines, would fundamentally undercut the goal of the Commission in promulgating the proposed amendments – namely, the implementation of the CAT in a reasonable time frame.

Although the Commission is sensitive to commenters' concerns regarding the potential for "lower quality deliverables" due to any perceived possibility of reduced collaboration,[130] the

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128 See FIF Letter, at 6, 8.

129 See id. at 7.

130 One commenter also expressed concern that the proposed amendments might result in "the implementation of Phase 2a prior to the full development of the CAT system." See id. at 3. The Participants are already pursuing an implementation plan that implements the CAT in phases and that will result in "Phase 2a" being implemented "prior to the full development of the CAT system." The amendments have no effect on this plan.

proposed amendments do not alter the fundamental obligations of the Participants, Industry Members, and Plan Processor to deliver CAT functionality in a manner that complies with the CAT NMS Plan.[131] Nor do the proposed amendments alter or weaken requirements set forth in the CAT NMS Plan to facilitate collaboration and communication between the Participants and Industry Members.[132] The Commission therefore does not expect the quality of CAT implementation to be adversely affected by the proposed amendments. Accordingly, the Commission is not modifying the proposed financial accountability amendments.

**c. Comments on the Fairness of the Proposed Amendments**

Commenters expressed views regarding the fairness of the proposed amendments' conditions on financial recovery. "If the Participants miss a proposed target deadline," one Industry Member commenter "generally [did] not believe that it [would be] reasonable for the Plan Participants to fully recover fees, costs, and expenses from Industry Members, because further delays by Plan Participants will impose additional costs on Industry Members."[133]

The Participants, on the other hand, believed that the proposed amendments were "inappropriate and unfair," because the "ability of CAT LLC and the Participants to collect Post-Amendment Industry Member Fees should turn only on the timely completion of those tasks that are within their control."[134] For instance, the Participants objected to the fact that several of the proposed Financial Accountability Milestones require the achievement of the initial error rates

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131 See note 145 and associated text infra, for a discussion of the Industry Members' obligations to comply with the CAT NMS Plan.

132 See, e.g., CAT NMS Plan, supra note 1, at Appendix D, Section 10.1 through 10.3 (detailing the support to be provided by the Plan Processor to CAT reporters and CAT users). Many of these measures have already been implemented by the Participants. See, e.g., notes 142-144 and associated text supra.

133 See Fidelity Letter, at 5.

134 See Participant Letter, at 8-9.

specified by the CAT NMS Plan. The Participants stated that "achieving an error rate of five percent or less involves factors that are beyond their control," because the "ability and willingness of Industry Members to devote sufficient resources to accurately and timely report CAT events . . . will impact initial and subsequent error rates."[135] Similarly, the Participants stated that the requirements contained in several of the proposed Financial Accountability Milestones regarding intrafirm and interfirm linkages "rel[y], in part, on the quality of the data reported to CAT by Industry Members."[136] The Participants expressed concern that, "by conditioning the ability of CAT LLC and the Participants to collect Post-Amendment Industry Member Fees on factors dependent on the efforts of Industry Members, the Commission's proposals inadvertently establish a perverse incentive for Industry Members to devote less than maximum efforts to comply with their obligations related to the CAT as they will pay less fees in such instances."[137]

The Participants stated that the proposed Full Availability and Regulatory Utilization of Transactional Database Functionality milestone could not be met unless OATS reporting was no longer required for new orders, which was another example of how the proposed amendments

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135 See id. at 9.

136 See id.

137 See id. Another commenter also expressed concern that the proposed amendments "would be subject to gaming by Industry Members who stand to benefit from delays, but [who] would not suffer the consequences of the delays they cause." See Better Markets Letter, at 8. This commenter suggested that the proposed financial accountability amendments be "equally applied to Plan Participants as well as those Industry Members who contribute to any delay" and specifically recommended the adoption of a reporting mechanism that would enable the Commission to determine which parties were responsible for causing or contributing to a delay. See id. at 3, 8-9. The Commission continues to believe that it is appropriate to impose the obligations of the financial accountability amendments solely on the Participants for the reasons discussed below. See the discussion at notes 142-148 and associated text infra. Accordingly, the Commission is not adopting the reporting mechanism proposed by this commenter.

were "inappropriate and unfair."[138] The Participants asserted that achieving this requirement "depends upon a variety of factors outside the control of the Participants, including accurate reporting by Industry Members and FINRA's determination to retire OATS."[139] According to the Participants, FINRA has indicated that "the CAT would generally need to achieve a sustained error rate for Industry Member reporting in a number of categories for a period of at least 180 days of 5[ percent] or lower, measured on a pre-correction or as-submitted basis, and 2[ percent] or lower on a post-correction basis" before OATS could be safely retired, because a minimum of 180 days was necessary "to confirm that the Plan Processor is meeting its obligations and performing its functions adequately" and material issues "may manifest themselves only after surveillance patterns and other queries have been run and analyzed . . . ."[140] Insofar as the "premature cessation of OATS before CAT data quality levels are acceptable . . . would expose the market to unnecessary risks because market surveillance would be compromised," the Participants believed that no "hard and fast deadline" should be set for the retirement of OATS.[141]

Despite their concerns, the Participants have the ability to shape the reporting behavior of Industry Members, including the quality of data reported by Industry Members, through various mechanisms, including through the development of CAT technical specifications with Industry Members via the Technical Specifications Working Group,[142] through the creation of a help desk

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138 See Participant Letter, at 9; see also proposed Section 1.1, "Full Availability and Regulatory Utilization of Transactional Database Functionality."

139 See Participant Letter, at 9.

140 See id. at 10-11.

141 See id. at 11.

142 See Event Materials, including recorded Q&A sessions with the Technical Specifications Working Group and market participants, available at

for Industry Members to provide assistance with any technical issues that may arise,[143] through the production of tools that will enable Industry Members to identify and correct errors,[144] and through general industry outreach, provided in the form of FAQs, webinars, or other additional training for Industry Members. In addition, while the Commission expects Industry Members to comply with their reporting obligations under the CAT NMS Plan, the Participants have tools to require such compliance – including Compliance Rules that will set forth a phased reporting schedule according to the timeline detailed in the Exemptive Relief Order.[145] Industry Members should have a strong economic incentive to cooperate with the Participants' efforts.[146] Until the CAT is sufficiently developed so as to permit the retirement of OATS, most Industry Members will have to report both to OATS and to the CAT, and prolonging the implementation of the

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https://catnmsplan.com/events/materials. See also Participant Letter, at 2 (detailing efforts made to liaise with Industry Members on "Industry Member reporting, CAT onboarding, connectivity, security and other topics related to the CAT").

143 See Participant Letter, at 2. Contact information for the help desk can be found at https://catnmsplan.com/contact.

144 See, e.g., CAT NMS Plan, supra note 1, at Appendix D, Section 10.1 (requiring the Plan Processor to develop tools to allow each CAT reporter to identify and correct errors and to provide daily reporting statistics to each CAT reporter).

145 See, e.g., CAT NMS Plan, supra note 1, at Section 3.11 (requiring the Participants to enforce compliance with the CAT NMS Plan by promulgating compliance rules for Industry Members); id. at Section 6.4 (indicating that data reporting requirements for Industry Members will be enforced through the Participants' compliance rules); id. at Section 6.7 (indicating that Industry Member data reporting deadlines will be enforced through the Participants' compliance rules). With respect to these compliance tools, one commenter expressed concern that, "if there are legitimate reasons that broker-dealers have not been able to deliver a 5[ percent] error rate, and the [Participants] believe they will be financially penalized for a too-high error rate, then the [Participants] will be incentivized to bring enforcement actions against broker-dealers solely for the purpose of recouping the lost funding." See SIFMA Letter, at 2. However, any enforcement action brought by the Participants must comply with the Exchange Act, the rules promulgated thereunder, and their own rules.

146 See, e.g., SIFMA Letter, at 2 (stating that Industry Members are "committed to a timely implementation of CAT reporting").

CAT would expand the dual reporting costs that these Industry Members will have to bear.[147] For these reasons, and for the reasons set forth in the Proposing Release,[148] the Commission continues to believe that it is appropriate to impose the conditions of the amendments solely on the Participants.

The Participants' comment letter was particularly focused on proposed conditions related to error rates, but the Commission believes that these conditions are appropriate. The proposed Financial Accountability Milestones that include error rate requirements do not impose any requirements that are more onerous than initial error rate requirements already set forth in the CAT NMS Plan.[149] The Participants have, in the past, indicated that these initial error rate requirements are appropriate, because they "strike[] the balance of making allowances for adapting to a new reporting regime while ensuring that the data provided to regulators will be capable of being used to conduct surveillance and market reconstruction."[150] Furthermore, because the Participants have chosen to implement Industry Member reporting in phases,[151] the Commission generally believes it is appropriate to require the Participants to satisfy the initial error rates set by the CAT NMS Plan for each phase that has been completed. This approach, reflected in the proposed amendments, as modified, only requires the Participants to focus on

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147 See note 286 and associated text infra.

148 See, e.g., Proposing Release, supra note 2, at 48459-460.

149 Cf., e.g., CAT NMS Plan, supra note 1, at Section 6.5(d)(i) ("The initial maximum Error Rate shall be set to 5[ percent]."), and proposed Section 1.1, "Full Implementation of CAT NMS Plan Requirements" (requiring the CAT to be "fully implemented at the initial Error Rates specified Section 6.5(d)(i) or less").

150 See CAT NMS Plan Approval Order, supra note 1, at 84717.

151 See, e.g., Exemptive Relief Order, supra note 8.

data quality for functionality that has been fully implemented for some time, not on those elements of the CAT that may still be in development or that have been newly implemented.

Moreover, the Commission believes that the amendments, as modified, give the Participants ample time to achieve the required error rates. With respect to the Full Implementation of Core Equity Reporting Requirements milestone, the Participants are currently estimating, and the Commission believes, that the required Industry Member reporting and linkages will be fully implemented by October 26, 2020.[152] The Participants will therefore have more than two months to achieve the required error rate by the target deadline for this Financial Accountability Milestone, which is December 31, 2020.[153] The next Financial Accountability Milestone, the Full Availability and Regulatory Utilization of Transactional Database Functionality milestone, as modified, requires the Participants to sustain the error rates achieved for the previous milestone and to achieve the same requirements for simple electronic options transaction data, representative order linkages, and equities allocation information by December 31, 2021. The Participants are currently estimating that the required options functionality will be implemented by January 4, 2021[154] and that the representative order linkage and allocation information functionality will be implemented by April 26, 2021.[155] Therefore, the Commission believes that the Participants should have sufficient time to satisfy those error rate requirements. Likewise, the Commission believes the target deadline for the Full Implementation of CAT NMS Plan Requirements milestone provides the Participants with sufficient time to achieve the required error rates. The Participants currently estimate that the CAT will be fully implemented

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152 See note 97 supra.

153 See also Proposing Release, supra note 2, at 48468.

154 See note 97 supra.

155 See Exemptive Relief Order, supra note 8, at 23081.

by July 11, 2022.[156] The amendments, as modified, therefore give the Participants approximately five months to achieve the required error rates,[157] which the Commission believes is an appropriate amount of time to address any issues with the final phases of CAT implementation.[158]

The Commission also does not believe that it is necessary to modify the proposed amendments to address the Participants' concerns regarding OATS retirement. The Participants have stated that Industry Member reporting for equities data inclusive of OATS reporting will be fully implemented by October 26, 2020.[159] Consequently, the modified amendments will give the Participants approximately fourteen months to meet the required error rate for equities data and retire OATS. The Commission believes that this is a sufficient amount of time to achieve these goals, based on FINRA's representations regarding the amount of time it would take to retire OATS.[160] If the Participants complete the Full Implementation of Core Equity Reporting

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156 See id.

157 The Participants should have more than a year to achieve some of the required error rates, as the modified Full Availability and Regulatory Utilization of Transactional Database Functionality milestone would require the Participants to implement Industry Member reporting of manual and complex options transaction data, with options allocation information, by December 31, 2021, consistent with the Participants' current projections. See id.

158 See Proposing Release, supra note 2, at 48470. The Participants will be required to implement Industry Member reporting of Customer Account Information, Customer-ID, and Customer Identifying Information to achieve Full Implementation of CAT NMS Plan Requirements. See CAT NMS Plan, supra note 1, at Section 1.1 for definitions of these terms. The Participants' CAT Reporting Customer and Account Technical Specifications indicates that they began implementing the customer and account information database in December 2019, see https://www.catnmsplan.com/specifications/im, so the Commission believes that the Participants should have ample time to achieve the required error rates for these aspects of CAT implementation.

159 See note 97 supra.

160 See, e.g., Participant Letter, at 8-11. Although FINRA is the only Participant that may determine whether to retire OATS, the Commission continues to believe that it is

Requirements milestone by the target deadline for that Financial Accountability Milestone, the Participants will already have achieved the 5 percent error rates required for equities transaction data reported by Industry Members by December 31, 2020.[161] The Participants will then have far more than 180 days in which to achieve the "5[ percent] or lower, measured on a pre-correction or as-submitted basis, and 2[ percent] or lower on a post-correction basis," error rates that may be required by FINRA to retire OATS.[162] Accordingly, the Commission does not believe any further modifications to these amendments are appropriate or necessary.

**d. Comments on the Possibility of Unforeseen, But Reasonable, Delays**

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appropriate to apply this condition to all Participants. All of the Participants are jointly responsible for creating a CAT that is capable of replacing OATS, and all of the Participants are regulators that will benefit from the full implementation of the CAT. See Proposing Release, supra note 2, at 48469 n.106. Moreover, FINRA has developed, and communicated to the Participants, a plan governing the retirement of OATS – see, e.g., Participant Letter, at 10-11 – and the Commission expects that such advance planning could make it more likely that OATS will be retired by the target deadline of December 31, 2021. Nevertheless, the Commission will continue to monitor the progress of CAT implementation closely and could consider exempting the Participants from compliance with this condition at a later date, if appropriate. See note 147 and associated text infra, noting the Commission's ability to grant exemptive relief from any requirement associated with a Financial Accountability Milestone.

161 See proposed Section 1.1, "Full Availability and Regulatory Utilization of Transactional Database Functionality."

162 See Participant Letter, at 10-11. The Commission does not believe that its involvement in approving the retirement of OATS and OATS-related rules should unduly delay the achievement of Full Availability and Regulatory Utilization of Transactional Database Functionality. FINRA and the Participants with rules relating to OATS may submit filings to the Commission at any point to identify the conditions under which OATS would be retired and OATS-related provisions removed from the Participants' rulebooks. The Commission could consider and act on these retirement filings well before the December 31, 2021 deadline and, if approved, would permit FINRA and the Participants to subsequently issue a notice indicating when the conditions identified in the filings are met, thus ensuring that this condition is fulfilled in a timely manner.

Several commenters recommended that the Commission adopt a more flexible approach that could account for the possibility of reasonable delays to CAT implementation. For example, one commenter stated that the "completion of current and upcoming CAT implementation milestones are all contingent on several challenging and aggressive deliverables, many of which will impact the development, testing, and roll-out of complex technology . . . ."[163] This commenter believed that "factors outside of the Participants' and/or Plan Processor's control may require the regulators to revisit the reasonableness and viability of implementation milestones to preserve the ultimate delivery of a useable CAT in a reasonable timeframe."[164] Accordingly, this commenter recommended that the Commission "include provisions to the Proposed Amendments that allow, after the holistic assessment of all factors impacting the Participants' ability to meet a particular milestone date, flexibility to extend milestone dates without holding Participants directly accountable (financially or otherwise)."[165]

Another commenter requested that "the amendments to the CAT NMS Plan include a formal mechanism to address potential delays in CAT implementation that may arise for legitimate reasons," "due to a reasonable need for delay or to factors beyond anyone's control."[166] This commenter suggested that the "mechanism could be a similar process to the proposed publications of the implementation plan – approval from each [Participant]'s senior officer and vote by the Operating Committee," as such a mechanism "would serve the purpose of

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163 See FIF Letter, at 4.

164 See id.

165 See id.; see also Fidelity Letter, at 5 ("We recommend that the SEC allow for some flexibility or reasonable delays in target deadlines, particularly in matters that may impact data quality.").

166 See SIFMA Letter, at 2. See also Participant Letter, at 9 ("[U]nanticipated issues invariably arise on large technology projects and CAT is no exception.").

completing the CAT in a timely manner while taking into account the operational complexity of the CAT implementation process."[167] This commenter also "recommended that the Commission take reasonable delays into account in imposing the proposed financial penalties," perhaps by "suspending the proposed financial penalties based on the cause, foreseeability and attempts to mitigate the impact of the delay."[168]

Although it is sensitive to the concerns expressed by commenters, the Commission is adopting a mechanism that would not allow further delays to occur without consequence. The Participants have already missed the Commission-approved deadlines set forth in the CAT NMS Plan.[169] The Participants are responsible for timely CAT implementation, including selecting and managing the Plan Processor, and the process is fundamentally within their control.[170] Delays to CAT implementation have serious consequences; they prevent regulators and market participants from reaping the regulatory benefits of the CAT, as well as potentially increase costs for Industry Members attempting to comply with the Participants' projected timelines.[171] However, the Commission has the authority to grant exemptive relief from any requirement associated with a particular Financial Accountability Milestone.[172] The Commission believes

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167 See SIFMA Letter, at 2.

168 See id. Similarly, the Participants stated that "the Commission and all market participants would benefit from a more flexible approach in which the Commission would assess the appropriateness of the recovery of Post-Amendment Industry Member Fees in the context of particular facts and circumstances in the event of a delay in meeting such a Milestone." See Participant Letter, at 10.

169 See, e.g., note 6 supra; see also Proposing Release, supra note 7, at 48458-461.

170 See Part II.B.2.c. supra, for further discussion of these arguments. See also, e.g., Proposing Release, supra note 2, at 48460.

171 See, e.g., Fidelity Letter, at 2 (explaining how further delays by the Participants may impose additional costs on Industry Members); see also infra Part IV.B.

172 See 15 U.S.C. 78mm; 17 CFR 242.608(e).

that this ability, in particular, should alleviate the Participants' concerns regarding the potential impact of unforeseeable or reasonable delays.

## III. Paperwork Reduction Act

Certain provisions of the amendments adopted by the Commission contain "collection of information requirements" within the meaning of the Paperwork Reduction Act of 1995 ("PRA").[173] The Commission published a notice requesting comment on the collection of information requirements in the Proposing Release[174] and submitted relevant information to the Office of Management and Budget ("OMB") for review in accordance with 44 U.S.C. 3507(d) and 5 CFR 1320.11.[175] An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the agency displays a currently valid control number,[176] and the Commission has applied for an OMB control number for this collection of information. The title of the new collection of information is "CAT NMS Plan Reports."

The Commission requested comment on the proposed collection of information requirements, but no commenters addressed these issues. The Commission continues to believe its estimates of the burdens involved with this collection of information are reasonable, but it has adjusted some of its estimates to account for the fact that Long Term Stock Exchange, LLC has been added as a Participant.[177] Accordingly, there are now 24 Participants instead of the 23 Participants accounted for in the Proposing Release.[178]

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173 44 U.S.C. 3501 et seq.

174 See Proposing Release, supra note 2, at 48474-78.

175 44 U.S.C. 3507; 5 CFR 1320.11.

176 5 CFR 1320.11(l).

177 See note 1 supra.

178 See Proposing Release, supra note 2, at 48474-78.

### A. Summary of Collection of Information

The modified amendments require two new categories of information collection: (1) the Implementation Plan and (2) the Quarterly Progress Reports.

#### 1. Implementation Plan

Section 6.6(c)(i) requires the Participants, within 30 calendar days following the effective date of this amendment, to file with the Commission and make publicly available on a website a complete Implementation Plan that includes the Participants' timeline for achieving Implementation Milestones setting forth how and when the Participants will facilitate the achievement of Full Implementation of CAT NMS Plan Requirements. The Operating Committee must submit the Implementation Plan to the CEO, President, or an equivalently situated senior officer of each Participant. A Supermajority Vote of the Operating Committee will then be required to approve the Implementation Report. However, if the Implementation Plan is approved only by a Supermajority Vote of the Operating Committee, and not by a unanimous vote of the Operating Committee, each Participant whose Operating Committee member did not vote to approve the Implementation Plan shall separately file with the Commission a statement identifying itself and explaining why the member did not vote to approve the Implementation Plan. These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website.

#### 2. Quarterly Progress Reports

Section 6.6(c)(ii) requires the Participants, within 30 calendar days after the end of each calendar quarter, to file with the Commission and make publicly available on a website a complete Report that provides a detailed description of the progress made by the Participants

towards each of the Implementation Milestones. The Participants must provide specified information regarding Implementation Milestones that have been completed, Implementation Milestones that are in progress, and Implementation Milestones that have not yet been initiated, such as updated information on currently targeted completion dates and descriptions of the current status of the Implementation Milestone, any adjustments to the targeted completion date, and supporting information demonstrating the current level of completion. The Operating Committee must submit each Quarterly Progress Report to the CEO, President, or an equivalently situated senior officer of each Participant. A Supermajority Vote of the Operating Committee shall be required to approve each Quarterly Progress Report. However, if a Quarterly Progress Report is approved only by a Supermajority Vote of the Operating Committee, and not by a unanimous vote of the Operating Committee, each Participant whose Operating Committee member did not vote to approve that Quarterly Progress Report shall separately file with the Commission a statement identifying itself and explaining why the member did not vote to approve the Report. These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website.

### B. Proposed Use of Information

#### 1. Implementation Plan

The Commission believes that the publication of the Implementation Plan will make available critical information to the Commission, other regulators, and market participants regarding the intended goals and deadlines of the Participants. Access to this information will help the Commission and market participants to monitor the progress of CAT implementation, thereby reducing uncertainty surrounding this process. The Commission also anticipates that requiring the Participants to make public target dates submitted to senior management of each

Participant and approved by a Supermajority Vote of the Operating Committee in the Implementation Plan will increase the Participants' accountability to their intended timeline. In addition, the Commission believes that requiring any Participants whose Operating Committee members do not vote to approve the Implementation Plan to disclose the basis for that decision may aid the Commission and the public to better monitor the progress of CAT implementation, because such an explanation may reveal critical information regarding whether currently targeted completion dates are realistic, whether milestones are being or have been completed in accordance with the requirements of the CAT NMS Plan, and/or whether potential risks or delays may impede the progress of CAT implementation.

**2. Quarterly Progress Reports**

The Commission believes that the publication of the Quarterly Progress Reports will make available critical information to the Commission, other regulators, and market participants regarding the intended goals and deadlines of the Participants. Access to this information will help the Commission and market participants to monitor the progress of CAT implementation. The Commission also anticipates that requiring the Participants to make public their accomplishments in the Quarterly Progress Reports will keep the Participants accountable to their intended timeline. Finally, the Commission expects that the provision of updated quarterly information in a Report, submitted to senior management of each Participant and approved by a Supermajority Vote of the Operating Committee, regarding the Participants' progress towards CAT implementation, as well as any explanatory statements by Participants whose Operating Committee members do not vote to approve the Report, may reduce uncertainty regarding CAT's implementation deadlines and flag any concerns regarding the implementation process for the Commission and market participants.

### C. Respondents

The respondents to all collections of information are the Participants.

### D. Total Initial and Annual Reporting and Recordkeeping Burdens

The estimated burdens associated with the modified amendments are described fully below, but this table briefly summarizes the relevant burdens.

| Category | Annual Ongoing Burden Per Participant (burden hours / external costs) | One-time Burden Per Participant (burden hours / external costs) |
|---|---|---|
| Implementation Plan | N/A | 75 / $8,333.33 |
| Quarterly Progress Reports | 300 / $33,333.33 | N/A |

#### 1. Implementation Plan

The Commission believes that each Participant will incur, on average, a one-time burden of approximately 50 hours[179] to confer with other Participants, to draft an Implementation Plan, and to vote as to whether to approve the Implementation Plan, as required by Section 6.6(c)(iii). In the CAT NMS Plan Approval Order, the Commission stated that the Participants had estimated that approximately 20 full-time employees took approximately 30 months to develop the CAT NMS Plan, including "staff time contributed by each Participant to, among other things, determine the technological requirements for the Central Repository, develop the RFP, evaluate Bids received, design and collect the data necessary to evaluate costs and other economic impacts, meet with Industry Members to solicit feedback, and complete the CAT NMS Plan submitted to the Commission for consideration."[180] The Commission then used this information

[179] See note 184 infra, for an explanation of the difference in the estimated burden from the Proposing Release to this release.

[180] See CAT NMS Plan Approval Order, supra note 1, at n.3285.

to estimate that the development of the CAT NMS Plan would require, in aggregate, 14,407 burden hours for 12 months.[181]

This estimate, based on information provided by the Participants about the burdens they actually incurred in developing a related project, reflects the best data available to the Commission in estimating the number of initial burden hours required to develop the Implementation Plan. Developing the CAT NMS Plan was a far more complex project than the development of the Implementation Plan and that the burdens incurred in developing the CAT NMS Plan may be different in nature than the costs that the Participants would incur in developing the Implementation Plan. In this instance, for example, the Participants will only have 30 calendar days from the effective date of this amendment to prepare the Implementation Plan, and the Participants have already created an Updated Master Plan that contains much of the information required by Section 6.6(c)(i). In addition, the Commission believes that the Participants should already have gathered much of the information needed to create the Implementation Plan.[182] For these reasons, the Commission believes that the estimated burden for preparing the Implementation Plan should be one-twelfth the amount of the burden estimated for the development of the CAT NMS Plan,[183] or, on average, 50 initial, one-time burden hours for each Participant.[184]

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181 See id.

182 See, e.g., Participant Letter, at 6.

183 Because the proposed amendment gives the Participants approximately one month to prepare and publish the Implementation Plan, the Commission has used an estimate that mirrors the one-month burden that was incurred by the Participants in developing the CAT NMS Plan.

184 14,407 CAT NMS Plan burden hours / 12 months = 1,200.6 burden hours for all Participants. 1,200.6 aggregate burden hours / 24 Participants = 50 burden hours per Participant for the Implementation Plan. Although the Commission estimated this burden

In addition, the Commission estimates that it will take each Participant approximately 10 hours, on average, for its member of the Operating Committee to ensure that the Operating Committee submits the Implementation Plan to the CEO, President, or equivalently situated senior officer of each Participant, for each Participant to review the information contained in the Implementation Plan and for senior management consultations as needed, and to vote on approving the Implementation Plan.[185] The Commission expects each member of the Operating Committee to be familiar with the process of CAT implementation, which should ease the task of determining whether to vote in favor of the Implementation Plan. Accordingly, the Commission estimates that each Participant will incur, on average, a one-time burden of 60 hours to prepare

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as 52.2 hours per Participant in the Proposing Release, see note 2 supra, at 48475, this number was reached by dividing the aggregate burden of 1,200.6 hours by only 23 Participants; now that there are 24 Participants, the burden per Participant has been slightly reduced. For the same reason, the Commission's estimated breakdown of this burden has also been revised. The Commission now estimates that each Participant will spend, on average, 50 internal burden hours = (Attorney at 7 hours) + (Systems Analyst at 21.5 hours) + (Compliance Manager at 21.5 hours). All estimates in this section represent an average; the Commission expects that some Participants may incur greater costs and some lesser costs due to variances in economies of scale for Participants who share a common corporate parent. See, e.g., infra note 257.

185 For the purposes of the Paperwork Reduction Act, the Commission is assuming that the member of the Operating Committee is a Chief Regulatory Officer or a Chief Compliance Officer and will spend 5 hours on these tasks. However, this task could be performed by any person designated by the Participant to serve as its representative on the Operating Committee. See Section 4.2(a) of the CAT NMS Plan. In addition, the Commission estimates that senior management who receive the Implementation Plan from the Operating Committee will spend 5 hours in consultations, including with their member of the Operating Committee regarding the Implementation Plan. Because one individual may serve as the representative for multiple affiliated Participants, the Commission expects that some Participants may incur greater costs and some lesser costs due to variances in economies of scale for Participants who share a common corporate parent.

the Implementation Plan and to vote as to whether to approve it,[186] for a one-time aggregate burden of approximately 1,440 hours.[187]

If the Implementation Plan is approved only by a Supermajority Vote, and not by a unanimous vote, the modified amendments require each Participant whose Operating Committee member did not vote to approve the Implementation Plan to separately file with the Commission an explanatory statement identifying itself and explaining why it did not vote to approve the Implementation Plan.[188] These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website. Because there are currently 24 Participants, an Implementation Plan would need to be approved by at least 16 members of the Operating Committee to satisfy the Supermajority Vote provisions of the CAT NMS Plan.[189] At maximum, then, only eight Participants would file an explanatory statement in connection with an Implementation Plan approved only by Supermajority Vote.[190] The Commission estimates that each of the eight Participants submitting an explanatory statement will incur, on average, an initial, one-time burden of 15 hours to draft such

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186 50 burden hours + 10 burden hours = 60 burden hours.

187 60 burden hours x 24 Participants = 1,440 burden hours. This estimate has increased because there are now 24 Participants.

188 For the purposes of the Paperwork Reduction Act, the Commission is assuming that this task will be performed by a Chief Regulatory Officer or a Chief Compliance Officer. See note 185 supra.

189 24 Participants x 2/3 Participants = 16 Participants.

190 24 Participants – 16 Participants = 8 Participants.

statement.[191] When this aggregate burden is averaged across all Participants, it amounts to approximately 5 hours per Participant or 120 hours in aggregate.[192]

Finally, the Commission estimates that each Participant will incur, on average, a one-time burden of approximately 10 hours to ensure that the Implementation Plan, and any explanatory statement (if applicable), is filed with the Commission and made publicly available on a website.[193] The Commission therefore estimates an aggregate burden of approximately 240 hours for the Participants to publicly post and submit to the Commission the Implementation Plan.[194]

In total, therefore, the Commission estimates that each Participant will incur, on average, a one-time burden of approximately 75 hours[195] and approximately 1,800 hours in aggregate to comply with the provisions of the proposed amendments that relate to the Implementation Plan.[196]

The Commission further estimates that each Participant will expend approximately $8,333.33, on average, in external public relations, legal, and consulting costs related to the

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191 The Commission bases this estimate on a full-time Compliance Manager and the Chief Regulatory Officer or Chief Compliance Officer each spending 7.5 hours to prepare the explanatory statement.

192 8 Participants * 15 burden hours = 120 burden hours in aggregate. 120 burden hours / 24 Participants = 5 burden hours. This estimate has increased because there are now 24 Participants.

193 The Commission bases this estimate on a full-time Compliance Manager and Programmer Analyst each spending approximately 5 hours, for a combined total of approximately 10 hours, to prepare and publicly post the relevant documents.

194 10 burden hours per Participant x 24 Participants = 240 burden hours.

195 50 hours + 10 hours + 5 hours + 10 hours = 75 burden hours.

196 75 hours x 24 Participants = 1,800 burden hours. This estimate has increased because there are now 24 Participants. See Part IV.C. infra for a dollar cost estimate of this burden.

development of the Implementation Plan. In the CAT NMS Plan Approval Order, the Commission estimated, based on information provided by the Participants, that the Participants had collectively spent approximately $2,400,000 in preparation of the CAT NMS Plan on external public relations, legal, and consulting costs.[197] The Commission believes that the estimated burden for the Implementation Plan should be one-twelfth the amount estimated for the development of the CAT NMS Plan, because the Participants will only have 30 calendar days from the effective date of this amendment to prepare the Implementation Plan and because preparation of the Implementation Plan is a much less complex project. Accordingly, the Commission estimates that the Participants will expend approximately $200,000 in aggregate, and $8,333.33 per Participant, in external public relations, legal, and consulting costs related to the preparation of the Implementation Plan.[198]

**2. Quarterly Progress Reports**

The Commission believes that each Participant will incur, on average, an ongoing quarterly burden of approximately 60 hours to confer with other Participants, to draft a Quarterly Progress Report, to ensure that the Operating Committee submits each Quarterly Progress Report to the CEO, President, or equivalently situated senior officer of each Participant, and to vote as to whether to approve each Quarterly Progress Report, as required by proposed Section

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197 See CAT NMS Plan Approval Order, supra note 1, at n.3287.

198 $2,400,000 CAT NMS Plan costs / 12 months = $200,000 for all Participants. $200,000 / 24 Participants = $8,333.33 per Participant for the Implementation Plan. Although the Commission estimated this burden as $8,695.65 per Participant in the Proposing Release, see note 2 supra, at 48476, this number was reached by dividing the aggregate burden of $200,000 by only 23 Participants; now that there are 24 Participants, the burden per Participant has been slightly reduced.

6.6(c)(iii).[199] This estimate is approximately the same as the burden related to the development and approval of the Implementation Plan, because the Quarterly Progress Reports require the Participants to prepare a detailed description explaining, quantifying, and voting to approve the description of their progress towards the Implementation Milestones laid out in the Implementation Plan, including the impact that any such progress might have on the target completion dates for Implementation Milestones that have not yet been achieved. The Commission believes this estimate is appropriate because the Participants are likely already tracking some of the information required to be included in the Quarterly Progress Reports.[200] Accordingly, the Commission estimates, on average, an ongoing quarterly burden of approximately 60 hours for each Participant,[201] an ongoing annual burden of approximately 240 hours for each Participant,[202] and an aggregate annual burden of approximately 5,760 hours.[203]

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199 All estimates in this section represent an average; the Commission expects that some exchanges may incur greater costs and some lesser costs due to variances in economies of scale for Participants who share a common corporate parent. See infra note 257.

200 See, e.g., Proposing Release, supra note 2, at 48462 n.53 and associated text.

201 The Commission estimates that each Participant will spend, on average, 50 internal burden hours to confer with other Participants and to compile the Quarterly Progress Report = (Attorney at 7 hours) + (Systems Analyst at 21.5 hours) + (Compliance Manager at 21.5 hours). In addition the Commission estimates, for the purposes of the Paperwork Reduction Act, that the chief Compliance Officer or Chief Regulatory Officer of each Participant will spend 5 hours, on average, to submit the Quarterly Progress Report to the CEO, President, or equivalently situated senior officer of each Participant, to review the information contained in each Quarterly Progress Report and for senior management consultations as needed, and to vote on approving the Quarterly Progress Report. In addition, the Commission estimates that the CEO, President, or equivalently situated senior officer of each Participant will spend 5 hours in consultations, including with their member of the Operating Committee regarding each Quarterly Progress Report. 50 hours + 5 hours + 5 hours = 60 hours. Because one individual may serve as the representative for multiple affiliated Participants, the Commission expects that some Participants may incur greater costs and some lesser costs due to variances in economies of scale for Participants who share a common corporate parent. Although the Commission estimated this burden as 62.2 hours per Participant in the Proposing Release, see note 2 supra, at 48476-77, this estimate was partially based on the fact that there were

If any Quarterly Progress Report is approved only by a Supermajority Vote, and not by a unanimous vote, the proposed amendments require each Participant whose Operating Committee member did not vote to approve that Quarterly Progress Report to separately file with the Commission an explanatory statement identifying itself and explaining why it did not vote to approve the Report.[204] These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website. Because there are currently 24 Participants, each Quarterly Progress Report would need to be approved by at least 16 members of the Operating Committee to satisfy the Supermajority Vote provisions of the CAT NMS Plan.[205] At maximum, then, only eight Participants would file an explanatory statement in connection with a Quarterly Progress Report approved only by Supermajority Vote.[206] The Commission estimates that each of the eight Participants submitting an explanatory statement will incur, on average, an ongoing burden of 15 hours to draft such statement.[207] When this aggregate burden is averaged across all Participants, it amounts to an

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only 23 Participants; now that there are 24 Participants, the burden per Participant has been slightly reduced.

202 60 burden hours per Participant per Quarterly Progress Report * 4 Quarterly Progress Reports = 240 annual burden hours per Participant for the Quarterly Progress Reports.

203 240 annual burden hours per Participant * 24 Participants = 5,760 aggregate annual burden hours. This estimate has increased because there are now 24 Participants.

204 For the purposes of the Paperwork Reduction Act, the Commission is assuming that this task will be performed by a Chief Regulatory Officer or a Chief Compliance Officer. See note 185 supra.

205 See note 189 supra.

206 See note 190 supra.

207 See note 191 supra.

ongoing quarterly burden of approximately 5 hours per Participant,[208] an ongoing annual burden of approximately 20 hours per Participant,[209] and an aggregate annual burden of approximately 420 hours.[210]

Additionally, the Commission estimates that each Participant will incur an ongoing quarterly burden, on average, of approximately 10 hours to ensure that each Quarterly Progress Report, and any explanatory statement (if applicable), is filed with the Commission and made publicly available on a website.[211] The Commission therefore estimates an annual burden, on average, of approximately 40 hours for each Participant,[212] and an aggregate annual burden of 960 hours for all Participants,[213] to publicly post and submit to the Commission the Reports.

In total, therefore, the Commission estimates that each Participant will incur, on average, an ongoing burden of approximately 75 hours per Quarterly Progress Report,[214] for an annual average estimated burden of 300 hours[215] and approximately 7,200 hours in aggregate.[216]

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208 8 Participants * 15 burden hours = 120 burden hours in aggregate. 120 burden hours / 24 Participants = 5 burden hours. This estimate has increased because there are now 24 Participants.

209 5 burden hours x 4 Quarterly Progress Reports = 20 burden hours. This estimate has increased because there are now 24 Participants.

210 20 annual burden hours x 24 Participants = 480 burden hours. This estimate has increased because there are now 24 Participants.

211 The Commission bases this estimate on a full-time Compliance Manager and Programmer Analyst each spending approximately 5 hours, for a combined total of approximately 10 hours, to prepare and publicly post the relevant documents.

212 10 burden hours per Quarterly Progress Report x 4 quarters = 40 annual burden hours per Participant.

213 40 annual burden hours per Participant x 24 Participants = 960 aggregate annual burden. This estimate has increased because there are now 24 Participants.

214 60 hours + 5 hours + 10 hours = 75 burden hours.

215 75 hours x 4 Quarterly Progress Report = 300 hours.

Similarly, the Commission estimates that each Participant will expend, on an ongoing basis, approximately the same amount of external public relations, legal, and consulting costs associated with the Implementation Plan on each Quarterly Progress Report. Accordingly, the Commission estimates, on average, an ongoing quarterly cost of approximately $8,333.33 for each Participant, an ongoing annual cost of $33,333.33 for each Participant,[217] and an aggregate annual cost of approximately $800,000.[218] A portion of these costs may be recoverable from Industry Members, if consistent with the Exchange Act and the CAT NMS Plan.[219]

**E. Collection of Information is Mandatory**

Each collection of information discussed above is mandatory.

**F. Confidentiality of Responses to Collection of Information**

Neither the Implementation Plan nor the Quarterly Progress Reports will be confidential. Rather, each will be publicly posted by the Participants on a website.

**G. Retention Period for Recordkeeping Requirements**

National securities exchanges and national securities associations are required to retain records and information pursuant to Rule 17a-1 under the Exchange Act.[220]

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216 300 hours x 24 Participants = 7,200 burden hours. See Part IV.C. infra for a dollar cost estimate of this burden. This estimate has increased because there are now 24 Participants.

217 $8,333.33 per Participant per Quarterly Progress Report * 4 Quarterly Progress Reports = $33,333.33 per Participant per year for the Quarterly Progress Reports. Although the Commission estimated this burden as $34,782.60 per Participant in the Proposing Release, see supra note 2, at 48477, this estimate was partially based on the fact that there were only 23 Participants; now that there are 24 Participants, the burden per Participant has been slightly reduced.

218 $33,333.33 per Participant * 24 Participants = $800,000 aggregate annual cost.

219 See, e.g., Article XI of the CAT NMS Plan.

220 17 CFR 240.17a-1.

## IV. Economic Analysis

Section 3(f) of the Exchange Act requires the Commission, whenever it engages in rulemaking and is required to consider or determine whether an action is necessary or appropriate in the public interest, to consider, in addition to the protection of investors, whether the action would promote efficiency, competition, and capital formation.[221] In addition, Section 23(a)(2) of the Exchange Act requires the Commission, when making rules under the Exchange Act, to consider the impact such rules would have on competition.[222] Exchange Act Section 23(a)(2) prohibits the Commission from adopting any rule that would impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Exchange Act. The discussion below addresses the likely economic effects of the rule, including the likely effect of the rule on efficiency, competition, and capital formation.

As discussed above and in the Proposing Release, since the adoption of Rule 613 in 2012, CAT implementation has experienced recurrent delays.[223] These implementation delays have postponed the benefits of the CAT NMS Plan to investors[224] and may have resulted in additional costs to Industry Members.[225] The Commission believes that modifying the CAT NMS Plan to require operational transparency and provide financial accountability for meeting implementation milestones will impose more structure on the process and is appropriate to prevent any further delays to CAT implementation.

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221 15 U.S.C. 78c(f).

222 15 U.S.C. 78w(a)(2).

223 See supra Part I; Proposing Release, supra note 2 at Part IV.A.2.

224 See CAT NMS Plan Approval Order, supra note 1, at Section V.E.

225 See infra Part IV.B.

The amendments increase operational transparency by requiring Participants to publish a complete CAT implementation plan, and to publish a progress report quarterly, both of which require approval by a Supermajority Vote of the Operating Committee.[226] The amendments also establish Financial Accountability Milestones and Reduced Fee Recovery Rates ("RFRRs") that take effect and increase in magnitude in response to delays in meeting certain Financial Accountability Milestones.[227] Thus, the amendments would shift some costs from Industry Members to Participants if the Participants fail to meet certain Financial Accountability Milestones.

The Commission is making minor changes to the economic analysis it made in the Proposing Release.[228] These changes address the modifications the Commission is making to the amendments, which include: providing the Participants with additional time to prepare, file, and publish the Quarterly Progress Reports; eliminating the requirement that manual and complex options transactions, as well as allocation information for options transactions reported by Industry Members, satisfy the initial error rates specified by Section 6.5(d)(i) of the CAT NMS Plan by December 31, 2021; and modifying the first Financial Accountability Milestone, Initial Industry Member Core Equity Reporting, and the fee recovery schedule associated with that Financial Accountability Milestone. These changes to the Commission's analysis also address comments related to its economic analysis in the Proposing Release.

### A. Baseline

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226 See supra Part II.A. and infra Part IV.B.

227 The Plan allows Participants to recover a percentage of certain CAT costs from Industry Members. In the event that RFRRs are triggered, the amendments would reduce the amount of fees that the Participants are allowed to recover from Industry Members according to the fee schedule described in Part II.B below.

228 See Proposing Release, supra note 2, at Part IV.

Based on comments received, the Commission is updating its Baseline analysis. The Commission's analysis of the Baseline from the Proposing Release and changes to this analysis are discussed below.

### 1. Transparency of CAT Implementation Status

In the Proposing Release, the Commission discussed how Industry Members obtain information about the implementation status of the CAT NMS Plan through several mechanisms.[229] A few representatives of Industry Members are privy to information through their participation on the CAT Advisory Committee, but this information is not widely available. In addition, the Commission discussed that the Operating Committee provides a website with information on the CAT NMS Plan, but that there is no requirement in the CAT NMS Plan to keep it current. Furthermore, the Operating Committee provides occasional updates to Industry Members on the state of implementation. Finally, the Commission stated that Industry Members gain information about CAT implementation through the Industry Technical Specifications Working Group.

In their letter, the Participants detailed additional sources of public information about CAT implementation. They noted that "FINRA CAT and the Participants also hold bi-weekly Industry meetings to communicate schedule and implementation updates and answer questions. Industry Member framing calls and deep dive sessions are regularly held so that Industry Members have input into technical specifications related to the CAT. As noted above, CAT LLC also conducts regular webinars and publishes CAT alerts on issues material to the industry such as connectivity methods, onboarding, and FDID reporting among others."[230] The Commission is

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229 See Proposing Release, supra note 2, at Part IV.A.

230 See Participant Letter, at 6.

updating its analysis to acknowledge these additional sources of public information. However, as discussed above, the Commission continues to believe that additional disclosures required by the amendments will improve transparency around CAT implementation.[231]

### 2. Status of Implementation

As discussed above and in the Proposing Release, there have been repeated delays to implementation and it remains uncertain when CAT will be fully implemented.[232] The Commission stated in the Proposing Release and continues to believe that the multiple missed deadlines in the CAT NMS Plan have led to uncertainty for Industry Members surrounding the timeline for CAT implementation.

Although the Participants "acknowledge[d] the concerns underlying the Proposed Amendments to the CAT NMS Plan," they noted recent progress with respect to the CAT and stated that "[t]hese and other factors suggest that there will be continued progress toward the expeditious development and implementation of the CAT."[233] The Participants further stated that the successor Plan Processor "has made substantial and rapid progress in building the CAT," and detailed this progress in their letter. The Commission acknowledges this progress,[234] but remains concerned about the possibility for additional delays to CAT implementation. The recent steps toward implementation have likely decreased industry uncertainty[235] about the

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231 See supra Part II.A.

232 See supra Part I.; Proposing Release, note 2 supra, at Part IV.A.2., for a detailed discussion of Plan implementation status.

233 See Participant Letter, at 2.

234 Another commenter acknowledged the improvement to the pace of CAT implementation. See Fidelity Letter, at 5.

235 See infra Part IV.B., for further discussion of industry uncertainty.

timeline of CAT implementation, but the Commission believes that remaining uncertainty about the implementation timeline is likely to be reduced by adoption of the amendments.

Recently, the Commission granted the Participants exemptive relief to allow for the implementation of phased reporting to the CAT for Industry Members, in place of the reporting schedule set forth for Industry Members in the CAT NMS Plan.[236] Further, in light of COVID-19 and a subsequent no-action request submitted by the Participants, the Commission recently granted exemptive relief such that the Compliance Rules formulated by Participants may require core equity reporting for Industry Members to begin on June 22, 2020 and core options reporting for Industry Members to begin on July 20, 2020.[237]

**B. Benefits**

In the Proposing Release, the Commission stated its preliminarily belief that the proposed amendments offer two primary benefits.[238] First, because the amendments include financial accountability provisions that may cause the CAT to be implemented more expeditiously and efficiently,[239] investors could realize the benefits of the CAT sooner than they would otherwise be realized without the proposed amendments. Second, the Commission preliminarily believed that Industry Members would have more certainty surrounding the implementation timeline for CAT, and the timeline for retirement of OATS, reducing possible associated and unnecessary implementation and maintenance costs.[240] However, the Commission recognized that if the

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236 See supra Part I.

237 See supra Part I.

238 See Proposing Release, supra note 2, at Part IV.B.

239 See infra Part IV.D.1., for comments on the Commission's analysis of efficiency.

240 See infra Part IV.D.1., for discussion of impacts on efficiency of Industry Member CAT implementation.

Participants continue to miss deadlines under the amendments, it would result in more uncertainty for Industry Members about whether and when the Participants are capable of achieving CAT implementation, particularly if the Participants are unable to make progress notwithstanding the amendment's financial accountability measures.[241]

Finally, the Commission stated that the requirement that the Implementation Plan and Quarterly Progress Reports be submitted to the CEO, President, or an equivalently situated senior officer of each Participant prior to the Operating Committee approval vote, is intended to promote senior management attention and promote accountability with respect to CAT implementation.[242]

One comment from an Industry Member expressed support for the Commission's belief that uncertainty about the CAT implementation timeline and implementation delays are potentially costly to Industry Members.[243]

Commenters discussed the potential benefits of increased operational transparency. One commenter stated that information sharing and good communication are key to the success of CAT.[244] Another commenter stated that "quarterly detailed reporting is appropriate and would provide useful information to all interested parties."[245] However, the Participants stated that "the proposed Quarterly Progress Reports would impose requirements that are both unnecessary and, in many instances, at odds with maintaining the security of the CAT."[246] However, as discussed

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241 See Proposing Release, supra note 2, at Part IV.B.

242 Id.

243 Fidelity Letter, at 3. See infra Part IV.D.1. for further discussion.

244 See Fidelity Letter, at 3.

245 See Better Markets Letter, at 7.

246 See Participant Letter, at 6.

above, while the Participants have provided information regarding CAT implementation to the Commission, much of the information provided by the Participants to the Commission has not been shared widely with the public.[247] In addition, the Commission takes concerns regarding the security of the CAT very seriously, but for the reasons discussed above it does not believe that the proposed amendments, or the examples raised by the Participants in their comment letter, implicate any such concerns.[248]

The Commission continues to believe that the amendments will provide the benefits identified in the Proposing Release.[249] As discussed above, the Commission is making three limited modifications to the amendments, but believes these modifications are unlikely to significantly change the benefits of the amendments.

The first modification provides the Participants with additional time to prepare, file, and publish the Quarterly Progress Reports. The Commission does not believe this additional time in releasing those reports will significantly reduce the value of the information in the reports to Industry Members, the public, or the Commission. The Commission also recognizes that providing the Participants with adequate time to prepare the Reports may allow modest improvements to the quality of information contained in the Reports; this could benefit users of the information contained in the Reports.

The second modification eliminates the proposed requirements that manual and complex options transactions, as well as allocation information for options transactions reported by Industry Members, (the "Specified Data"), satisfy the initial error rates specified by Section

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247 See supra Part II.A.2.

248 See id.

249 See Proposing Release, supra note 2, at Part IV.B.

6.5(d)(i) of the CAT NMS Plan by December 31, 2021. As discussed below, the Commission believes that while this modification may diminish the benefits of the amendments to the extent that manual and complex options transaction data is not as accurate as it would have otherwise been, any diminishment will be limited to a subset of CAT transaction data and will be temporary.[250] The Commission does not expect this modification will delay the retirement of OATS because the Specified Data is not included in OATS currently. As a result, this modification is unlikely to significantly reduce the benefits of the amendments.[251]

Finally, the Commission is modifying the first Financial Accountability Milestone, Initial Industry Member Core Equity Reporting, and the fee recovery schedule associated with that Financial Accountability Milestone.[252] The amendments will now define "Initial Industry Member Core Equity and Option Reporting" as the point at which Industry Members (excluding Small Industry Members that do not report to the OATS) have begun to report: (a) equities transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, to the CAT; and (b) options transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, to the CAT. The Commission is also modifying the amendments to provide that the target deadline for the Initial Industry Member Core Equity and Option Reporting milestone is July 31, 2020.[253] The Commission believes that this change will not significantly reduce the benefits of the

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250 See infra Part IV.E.4., for further discussion of an alternative approach that does not provide the error rate objective exclusion for manual and complex options transactions, as well as representative order linkages and related allocation information for all equities and options transactions.

251 See id.

252 See supra Part II.B.2.

253 See supra Part IV.A.2.

amendments because, in light of the exemptive relief that the Commission has recently granted, the Commission believes these modifications to the first Financial Accountability Milestone will appropriately incentivize the Participants to meet the updated CAT implementation schedule because failing to meet those milestones will cause the Participants to incur RFRRs. The Commission recognizes that the financial incentives to meet the modified first Financial Accountability Milestone are somewhat reduced, because only expenses incurred after the Effective Date of the amendments would be subject to RFRRs and the Participants have presumably incurred most of the implementation expenses associated with this milestone already. However, the Commission is also modifying the fee recovery schedule for the first Financial Accountability Milestone such that RFRRs increase more quickly as delays to achieving the milestone extend. The Commission believes these adjustments increase the Participants' financial incentives to meet the first milestone such that it remains an effective measure to incentivize the Participants to implement CAT according to the current implementation schedule.

### C. Costs

The Commission continues to believe that the proposed amendments are likely to have both direct and indirect costs that are likely to be passed on to investors, as discussed in the Proposing Release.[254] The Commission estimated that the direct costs to the Participants from the proposed amendments would include up to approximately $3.7MM in ongoing annual costs and total one-time costs of up to approximately $932,000.[255] The Commission is updating its analysis of costs in response to public comments, certain changes to the amendments, and a

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[254] See Proposing Release, supra note 2, at Part IV.C.

[255] These costs are detailed in the Proposing Release. See id.

change in the number of Participants. The Commission now estimates that the direct costs to the Participants from the proposed amendments include up to approximately $3.8MM in ongoing annual costs and total one-time costs of up to approximately $956,000.[256] The Commission continues to believe that if the RFRRs are triggered, during a one-year period during implementation, up to $120MM in costs of CAT implementation and operation could be shifted from Industry Members to Participants, but this would not change total direct costs to industry as a whole from the CAT NMS Plan.

In the next sub-section, the Commission re-estimates the direct costs of the amendments to account for a change in the number of Participants. In the sub-section following that re-estimation, the Commission summarizes its analysis of indirect costs from the Proposing Release, and updates that analysis in response to comments.

Direct Costs

The Commission estimates that the direct costs to Participants from the proposed amendments[257] include up to approximately $3.8MM[258] in annual costs and total one-time costs

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256 These maximum totals assume that upon each approval vote, eight Participants incur costs to prepare and publish statements explaining why they did not vote to approve the document in question. These revised cost estimates are discussed further below.

257 Direct costs cited in this paragraph are quantified from estimates in the PRA. See supra Part III. Discussion of other direct costs follows discussion of costs from the PRA. The estimated costs represent averages; the Commission expects that some Participants will incur greater costs, some lesser. In calculating the costs to prepare, review, and vote on the Implementation Plan and Quarterly Progress Reports on a per Participant basis, the Commission recognizes that its estimates per Participant may be overstated to the extent that there are economies of scale for Participants who share a common corporate parent. Specifically, the voting representative for one Participant may serve as the voting representative on the Operating Committee for multiple affiliated Participants under Section 4.2(a) of the CAT NMS Plan. Once this representative conducts the necessary background work to vote on the Implementation Plan or a Quarterly Progress Report, and, if applicable, for the Participant to prepare an explanation of why this representative did not vote to approve the Implementation Plan or Quarterly Progress Report, the

of up to approximately $956,000.[259] The ongoing annual costs per Participant are comprised of approximate labor costs of up to $143,000[260] and external consulting costs of $33,000[261] to

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representative would not need to duplicate all of his or her efforts for another Participant. Thus, the Commission believes that its estimates may be overstated for some Participants in the sense that one representative reviewing and voting on the Implementation Plan or Quarterly Progress Reports might not require 5 hours for each exchange for which he or she is performing this task. On the other hand, the Commission believes that its estimates for Participants who are not affiliated with other Participants might be understated for some Participants because they are unable to benefit from economies of scale. Representatives for unaffiliated exchanges may require more than 5 hours to perform this same task. The Commission believes that 5 hours is a reasonable estimate of average representative time required.

258 Assuming that each Supermajority Vote has the minimum of 16 Participants voting to approve each Quarterly Progress Report, total annual ongoing maximum cost is (24 Participants x $117,424 per Participant + 32 explanatory statements x $6,472.50 per statement = $3,025,296) in labor costs plus (24 Participants x $33,333 = $800,000) in external consulting costs = $3,825,296 in total costs. See infra note 265.

259 Assuming that each Supermajority Vote has the minimum of 16 Participants voting to approve the Implementation Plan, total one-time maximum cost is (24 Participants x $31,514 per Participant = $756,324) in labor costs plus (24 Participants x $8,333 = $200,000) in external consulting costs = $956,324 in total costs. See infra note 263.

260 See supra Part III.D. Annual labor costs per Participant assume preparation, approval through Supermajority Vote of the Operating Committee, and publication of four Quarterly Progress Reports and any accompanying statements explaining why a Participant did not vote to approve the Quarterly Progress Report. Preparation of each Quarterly Progress Report requires 7 hours of Attorney labor at $427 per hour; 21.5 hours of Systems Analyst labor at $270 per hour; 21.5 hours of Compliance Manager labor at $318 per hour. 4 x [($427 x 7) + ($270 x 21.5) + ($318 x 21.5)] = $62,524. Time for the Participant's Operating Committee Member to prepare for and vote on the Quarterly Progress Reports is assumed to be 5 hours at a rate of $545 per hour. 4 x ($545 x 5) = $10,900, using the hourly rate for a Chief Compliance Officer. Publication and filing of the Quarterly Progress Reports and any explanatory statements of the Operating Committee Member's vote is assumed to require 5 hours of Compliance Manager labor at $318 per hour and 5 hours of Programmer/Analyst labor at $247 per hour. 4 x ($318 x 5) + ($247 x 5) = $11,300. The Quarterly Progress Report shall be submitted to the President, CEO or equivalently situated senior officer of each Participant prior to the approval vote of the Operating Committee, and any subsequent consultation, including with their Operating Committee member, is assumed to require five hours of labor at $1,635 per hour. 4 x ($1,635 x 5) = $32,700. See infra note 265, for discussion of this hourly rate. Total annual costs for each Participant are thus $62,524 + $10,900 + $11,300 + $32,700 = $117,424. If a Participant is required to prepare a statement explaining why

prepare, approve through Supermajority Vote of the Operating Committee, publish, and when applicable, for each Participant whose Operating Committee member did not vote to approve the Implementation Plan to separately file with the Commission and make available on a public website an explanatory statement identifying itself and explaining why it did not vote to approve the Quarterly Progress Report.[262] The one-time costs per Participant include up to $36,000[263] in

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it did not vote to approve a Quarterly Progress Report, preparation requires 7.5 hours of Compliance Manager Labor at $318 per hour and 7.5 hours of Chief Compliance Officer labor at $545 per hour. ($318 x 7.5) + ($545 x 7.5) = $6,472.5. For each Quarterly Progress Report, 24 Participants will incur costs to prepare the report, but no more than 8 will incur costs to prepare statements explaining why they did not vote to approve the Quarterly Progress Report. See supra Part III.D.2. Consequently, there may be up to 32 such quarterly statements (4 x 8) required annually. Thus, Quarterly Progress Report preparation, depending on the number of explanatory statements required, would have an annual aggregate maximum labor cost of (24 x $117,424) + (32 x $6,472.5) = $3,025,296 with a per Participant average labor cost of $3,025,296 ÷ 24 = $126,054. Hourly rates are based on hourly rates for Attorneys, Systems Analysts, Compliance Managers, Chief Compliance Officers, and Programmer/Analysts from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead. Salary information for voting representatives uses the Chief Compliance Officer rate of from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified as above to $545 per hour.

261 See supra Part III.D. External consulting costs assume four Quarterly Progress Reports. 4 x $8,333 = $33,333.

262 These annual costs would be incurred until completion of CAT implementation. See supra Part III.D.2.

263 See supra Part III.D.2. Preparation and approval through Supermajority Vote of the Operating Committee of the Implementation Plan requires 7 hours of Attorney labor at $427 per hour; 21.5 hours of Systems Analyst labor at $270 per hour; 21.5 hours of Compliance Manager labor at $318 per hour. ($427 x 7) + ($270 x 21.5) + ($318 x 21.5) = $15,631. Time for the Participant's Operating Committee Member to prepare for and vote on the Implementation plan is assumed to be 5 hours at a rate of $545 per hour. ($545 x 5) = $2,725, using the hourly rate for a Chief Compliance Officer. Publication and filing of the Implementation Plan and any explanatory statement of the Operating Committee Member's vote is assumed to require 5 hours of Compliance Manager labor at $318 per hour and 5 hours of Programmer/Analyst labor at $247 per hour. ($318 x 5) + ($247 x 5) = $2,825. The Implementation Plan shall be submitted to the President, CEO

labor costs and $8,300[264] in external consulting costs to prepare, approve through Supermajority Vote of the Operating Committee, publish, and when applicable, for each Participant whose Operating Committee member did not vote to approve the Implementation Plan to separately file with the Commission and make available on a public website an explanatory statement identifying itself and explaining why it did not vote to approve the Implementation Plan.

The amendments require that both the Implementation Plan and Quarterly Progress Reports be submitted to the President, CEO or equivalently situated senior officer of each Participant prior to the approval vote by the Operating Committee. In connection with this requirement, the Commission estimates that each Participant will incur one-time consultation costs of $8,200 for the Implementation Plan, and ongoing annual costs of $32,700 for Quarterly Progress Reports until such time as CAT is fully implemented.[265]

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or equivalently situated senior officer of each Participant prior to the approval vote of the Operating Committee, and any subsequent consultation, including with their Operating Committee Member, is assumed to require five hours of labor at $1,635 per hour. ($1,635 x 5) = $8,175. See infra note 265, for discussion of this hourly rate. Total one time labor costs are $15,631 + $2,725 + $2,825 + $8,175 = $29,356. If an explanatory statement of the Operating Committee Member's vote needs to be prepared, this would require 7.5 hours of labor by a Compliance Manager at $318 per hour and 7.5 hours of labor by the Chief Compliance Officer at $545 per hour. ($318 x 7.5) + ($545 x 7.5) = $6,472.5. Thus, Implementation Plan preparation, depending on the number of explanatory statements required, would have an annual aggregate maximum labor cost of (24 x $29,356) + (8 x $6,472.5) = $756,324 with a per Participant average labor cost of $756,324 ÷ 24 = $31,514. Aggregate totals assume 24 Participants and 8 explanatory statements.

264 See supra Part III.D.2.

265 The Commission estimates that the President, CEO or equivalently situated senior officer of each Participant will spend approximately five hours in consultations, including with the Participant's Operating Committee member, and estimates this will cause each Participant to incur labor costs of (5 x $1,635) = $8,175 for the Implementation Plan and (4 x $8,175) = $32,700 annually for Quarterly Progress Reports. Hourly rates are based on hourly rates for Chief Compliance Officers from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for

Indirect Costs

In the Proposing Release, the Commission stated its expectation that the proposed amendments would have additional indirect costs.[266] These indirect costs include potentially accelerated implementation costs to Participants, Industry Members, and Service Bureaus. Furthermore, there could be indirect costs related to the potential for inefficient acceleration of the implementation of the CAT. The Commission, however, continues to believe this is unlikely because the deadlines for Financial Accountability Milestones are aligned with the most recent timelines published by Participants[267] and the RFRRs increase as delays persist until the fee recovery rate would become zero. Finally, if the RFRRs are triggered, the Commission stated that it is possible there could be indirect costs related to the possible market exit of exchanges.[268]

The Commission stated that while triggering the RFRRs would cause Participants to accrue additional costs because they could not recover these costs from Industry Members, there would be a corresponding financial benefit to Industry Members because they would not have to pay those costs.[269] Consequently, the cost transfers from the RFRRs would not impose a net cost on industry as a whole.

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bonuses, firm size, employee benefits and overhead. Salary information for CEO/presidents of exchanges are not generally publically available as they might be for CEO/presidents of exchange holding groups. The Commission estimates an hourly rate for the President, CEO or equivalently situated senior officer of an exchange by using the hourly rate for a Chief Compliance Officer of $545 and multiplying by 3 to account for the expected salary differential.

266 See Proposing Release, supra note 2, at Part IV.C.

267 One commenter criticized the Participants' timelines, suggesting changes to a number of interim milestones. See supra note 125, for a discussion of this argument.

268 See Proposing Release, supra note 2, at Part IV.C.

269 Id.

The Commission's assessment of the likely indirect costs of the amendments as adopted is unchanged from what was discussed in the Proposing Release, except as discussed below.[270]

Commenters noted that lack of flexibility in Financial Accountability Milestones might precipitate additional indirect costs. Commenters stated that these indirect costs could include: lower quality deliverables; an incomplete CAT Repository; reduced emphasis on the development and publication of vital industry member guidance; and the implementation of Phase 2a prior to the full development of the CAT system. In short, one commenter stated that the "financial penalty structure outlined in the Proposed Amendments has the clear potential to limit and short circuit the required cooperative analysis, feedback, and iterative update process that would result in the reduced quality of deliverables and place at risk CAT's key regulatory goals."[271] The Participants further stated that some provisions of the Financial Accountability Milestones (particularly data error rates, the retirement of OATS, and sufficient inter- and intra-firm linkages within CAT data) are not entirely within their control. The Participants state, "Faced with financial penalties for missed deadlines, the Participants may not be able to fully address legitimate industry concerns or accommodate requests for delays with respect to future deadlines."[272] The Commission is updating its analysis to recognize these additional potential indirect costs of the amendments. Nevertheless, as discussed above, the Commission believes that the modifications to the Financial Accountability Milestones described above should

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270 See Proposing Release, supra note 2, at Part IV.C.

271 See FIF Letter, at 3, 7-8. See also supra Part II.B.2.b.

272 See Participant Letter, at 10.

alleviate commenters' concerns regarding the potential impact of unforeseeable or reasonable delays.[273]

Two commenters stated that the proposal may create incentives for Industry Members to change their CAT reporting behavior to increase the likelihood of a delay because triggering RFRRs reduces CAT implementation costs that Participants can recover from Industry Members, reducing Industry Member costs.[274] The Commission believes this outcome is unlikely for two reasons. First, the Participants are regulators with regulatory authority over their Industry Members. Industry Members that fail to comply with CAT reporting rules would potentially face enforcement actions from any Participant with regulatory authority over them.[275] While an Industry Member's noncompliance with CAT reporting rules might contribute to triggering RFRRs which could financially benefit all Industry Members by shifting costs that may have been recoverable through CAT fees by the Participants, the costs of any enforcement action brought by Participants with regulatory authority over that Industry Member would not be shared across Industry Members and those enforcement costs could include reputational costs.[276]

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273 See supra Part II.B.2.

274 See Better Markets Letter, at 7-8; Participant Letter, at 8-9.

275 See, e.g., NYSE Rule 6830, Consolidated Audit Trail – Industry Member Data Reporting; Nasdaq General Equities and Options Rule 7, Section 3, Consolidated Audit Trail – Industry Member Data Reporting.

276 If Industry Members collectively believe that Participants are unlikely to take enforcement actions related to CAT reporting, then Industry Members might believe the potential benefits of triggering RFRRs outweigh the risk of potential enforcement actions related to CAT reporting. However, given that this argument hinges on Industry Members being motivated to trigger RFRRs to avoid costs, it logically follows that the Participants would also be motivated to avoid triggering RFRRs to avoid costs and would thus be likely to take those enforcement actions necessary to avoid triggering RFRRs. The Commission believes that Industry Members generally understand that the Participants will enforce their rules, because the Participants have an obligation under the

Second, as discussed above, the Commission believes that delays to CAT implementation are costly to Industry Members. Industry Member reporting problems could prolong the costly period of duplicative reporting that Industry Members face. Consequently, the Commission believes that Industry Members are unlikely to minimize their implementation costs by taking actions that could trigger RFRRs.

As discussed above, the Commission is making certain changes to the amendments, but believes these changes address concerns that commenters raised about the proposed amendments and are unlikely to significantly affect the costs of the amendments.[277] The first modification to the amendments provides the Participants with additional time to prepare, file, and publish the Quarterly Progress Reports. The Commission believes it is possible the additional time provided to complete and publish those Reports may provide minor reductions to the Participants' costs because the longer timeframe to prepare the Reports may allow more efficient scheduling of human resources, such as avoiding overtime.

The second modification eliminates the proposed requirement of the December 31, 2021 Financial Accountability Milestone that the Specified Data satisfy the initial error rates specified by Section 6.5(d)(i) of the CAT NMS Plan.[278] As discussed below, the Commission believes that while this modification may reduce implementation costs for both Participants and Industry Members, it does not believe any reduction will significantly impact the magnitude of

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Exchange Act to enforce compliance by their members with the Exchange Act, the rules and regulations thereunder, and the Participants' own rules.

277 See supra Part II.B.2., for further discussion of comments on the proposed amendments and the Commission's modifications to the amendments.

278 See infra Part IV.E.4., for further discussion of costs and benefits of the alternative approach proposed in the Proposing Release.

implementation costs. Rather, this modification is more of an efficiency improvement than a significant cost reduction.[279]

Finally, the Commission is modifying the first Financial Accountability Milestone, Initial Industry Member Core Equity Reporting, and the fee recovery schedule associated with that milestone as discussed above.[280] The Commission believes the Participants will need to incur similar costs to achieve the objectives associated with the modified milestone in order to meet the Financial Accountability Milestone on July 31, 2020 for two reasons. First, while shifting the first milestone date from April to July 2020 may result in additional costs being potentially subjected to RFRRs from the first Financial Accountability Milestone, specifically those related to operating the Plan and the Central Repository from April 30, 2020 to July 31, 2020, these costs are no longer part of the second Financial Accountability Milestone and are no longer subject to RFRRs related to the December 31, 2020 milestone date. Second, the Commission believes that it is unlikely that the Participants will fail to meet the July 31, 2020 milestone objectives because it believes the milestone dates are reasonable and feasible deadlines.[281]

### D. Impact on Efficiency, Competition, and Capital Formation

The Commission's analysis of impacts on efficiency, competition and capital formation presented in the Proposing Release are summarized below.[282] The Commission is making minor changes in its analysis to recognize minor improvements in efficiency from changes to the amendments as adopted, but its conclusions regarding effects on competition and capital formation are not materially affected by the changes to the amendments or public comments.

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279 See infra Part IV.D.1.

280 See supra Part IV.B.

281 See supra Part I.

282 See Proposing Release, supra note 2, at Part IV.D.

### 1. Efficiency

In the Proposing Release, the Commission stated its preliminary belief that the proposed amendments would improve the efficiency of Industry Member implementation of CAT reporting. However, the Commission preliminarily believed that the financial accountability provisions could incentivize Participants to inefficiently delay certain activities associated with later milestones if Participants believe there is a significant risk of missing an earlier Financial Accountability Milestone.

The Commission is updating its analysis to recognize a possible improvement to efficiency relative to the amendments as proposed due to the elimination of the requirement that the Specified Data satisfy the initial error rates specified by Section 6.5(d)(i) of the CAT NMS Plan by December 31, 2021. As discussed below,[283] the Commission believes that the brief time interval between the date on which Industry Members commence reporting these transactions to CAT and the December 31, 2021 Financial Accountability Milestone date may not allow Participants to efficiently address any error rate problems in this data. As a result, including this error rate target in the December 31, 2021 Financial Accountability Milestone date might have caused inefficiencies in allocation of Participant and Industry Member staff time.

Two commenters agreed with the Commission's conclusion that the amendments are likely to improve efficiency. One commenter agreed with the Commission that "additional Participant Accountability Milestones should facilitate the completion of the implementation phase(s) of CAT in an efficient, expeditious and risk-averse manner, thereby reducing the risk of further delay."[284] However, this commenter characterized its agreement on efficiency

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283 See infra Part IV.E.4.

284 See FIF Letter, at 2.

improvements as "cautious" due to specific potential indirect costs.[285] A second commenter agreed with the Commission's assessment of efficiency improvements for Industry Member implementation efforts, stating that "[d]elays in CAT implementation have cost Industry Members both in hard dollars and opportunity costs"; the commenter also discussed resources devoted to CAT implementation or maintaining potentially duplicative reporting systems, stating "the sooner the CAT is fully implemented, the sooner these duplicative reporting systems can be retired, and internal resources devoted to building the CAT, reallocated to other projects and initiatives."[286]

### 2. Competition

#### a. Competitive Baseline

In the Proposing Release, the Commission described the structure of the market for trading in NMS securities, as of that time.[287] While the Commission's analysis of the state of competition in the Proposing Release is fundamentally unchanged, the market for trading services in options and equities currently consists of 23 national securities exchanges and FINRA, all of which are Participants, as well as off-exchange trading venues, including broker-dealer internalizers, and 33 NMS stock alternative trading systems ("ATSs"),[288] which are not

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285 See id., at 7; see also supra Part IV.C., for further discussion of indirect costs.

286 See Fidelity Letter, at 3.

287 See Proposing Release, supra note 2, at Part IV.D.2.

288 As of April 30, 2020, there are 33 national market system ATSs operating pursuant to an initial Form ATS-N. See 17 CFR 242.304. A list of ATSs, including access to initial Form ATS-N filings that are effective, can be found on the Commission website at https://www.sec.gov/divisions/marketreg/form-ats-n-filings.htm.

Participants. The exchanges are currently controlled by 7 separate entities; three of these operate a single exchange.[289]

**b. Competitive Effects**

In the Proposing Release, the Commission stated its preliminary belief that the proposed amendments might have competitive effects on the market for NMS security trading services and the market for equity listings.[290] In the case that RFRRs are triggered, one or more exchanges might exit these markets, although the Commission continues to believe that this is unlikely. The Commission stated its belief that triggering an RFRR could also temporarily affect competition among exchanges and ATSs and broker-dealer internalizers, but did not believe the effects would be significant.

The Commission preliminarily believed that is it unlikely that exchanges would exit the market for NMS security trading services or equity listings if the RFRRs in the proposed amendments are triggered because such exchanges would be able to secure additional capital from a larger exchange group, or directly from capital markets.[291] If an exchange were to exit, the Commission continues to believe that this would not significantly impact competition in the

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289 Cboe Global Markets, Inc. controls Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGA Exchange, Inc., and Cboe EDGA Exchange, Inc.;; Miami International Holdings, Inc. controls Miami International Securities Exchange LLC, MIAX Emerald, LLC, and MIAX PEARL, LLC; Nasdaq, Inc. controls Nasdaq BX, Inc., Nasdaq GEMX, LLC, Nasdaq ISE, LLC, Nasdaq MRX, LLC, Nasdaq PHLX, LLC, and The Nasdaq Stock Market LLC; Intercontinental Exchange, Inc. controls New York Stock Exchange, LLC, NYSE Arca, Inc., NYSE American LLC, NYSE Chicago, Inc., and NYSE National, Inc. The three entities that control a single-exchange are IEX Group, Inc. which controls Investors' Exchange LLC, BOX Holdings Group LLC which controls BOX Exchange LLC, and LTSE Group, Inc. which controls Long-Term Stock Exchange, Inc.

290 See Proposing Release, supra note 2, at Part IV.D.2.

291 See Proposing Release, supra note 2, at Part IV.D.2.

market for exchange trading services or the market for equity listings because these markets are served by multiple competitors that are likely to swiftly meet any unsatisfied demand caused by the exit of a competitor.[292] If the RFRRs were triggered, the Commission continues to believe that it could temporarily affect competition between exchanges and ATSs and broker-dealer internalizers because of transient changes in Participants' and Industry Members' abilities to invest in their trading platforms.[293] However, the Commission continues to believe that effects, if any, would not be significant.

#### 3. Capital Formation

In the Proposing Release, the Commission stated its belief that the amendments would have negligible mixed effects on capital formation.[294] The Commission preliminarily believed that the amendments' improvements to investor protections might allow improvements to capital formation described in the CAT NMS Plan Approval Order to be realized sooner than they would have otherwise been in the absence of the proposed amendments. However, if RFRRs are triggered, exchanges could experience short-term, transitory negative effects on exchange capital formation because the exchanges would face additional costs and may not be able to invest in projects or return profits to shareholders that they would otherwise. The Commission continues to believe that the amendments would not permanently affect investors' assessment of expected profitability for exchanges, and thus would not reduce this capital formation long-term.

### E. Alternatives

#### 1. Fixed versus Relative Financial Accountability Milestone Dates

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292 See Proposing Release, supra note 2, at Part IV.D.2.b.

293 Id.

294 See Proposing Release, supra note 2, at Part IV.D.3.

Under the adopted amendments, Financial Accountability Milestone dates are fixed calendar dates. In the Proposing Release, the Commission considered an alternative approach that would use relative Financial Accountability Milestone dates in a scenario when a Financial Accountability Milestone was not met on schedule.[295] Under this alternative approach, the duration of the time period between two Financial Accountability Milestone dates would be fixed but the Financial Accountability Milestone dates would be relative. Thus, if a Financial Accountability Milestone were not achieved on schedule, the next Financial Accountability Milestone date would be delayed such that the duration between Financial Accountability Milestone dates was unchanged.[296]

The primary economic impact of this approach relative to the amendments as adopted is that it avoids a risk inherent in the fixed Financial Accountability Milestone date approach of the amendments as adopted. Under the fixed Financial Accountability Milestone date approach, if the Participants encounter a delay early in the implementation process that causes them to miss a Financial Accountability Milestone date by a significant margin, it may become more difficult for them to meet future Financial Accountability Milestone dates.

This alternative approach has two significant costs relative to the amendments as adopted. First, in a case where a significant delay arises in connection with an early Financial

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295 See Proposing Release, supra note 2, at Part IV.E.1.

296 The alternative could be structured such that upon the achievement of one Financial Accountability Milestone, the next Financial Accountability Milestone date would become the later of the Financial Accountability Milestone date specified in the amendments or the relative date from this alternative approach. This approach would prevent the subsequent relative Financial Accountability Milestone date from becoming earlier in the event that the Participants achieve a Financial Accountability Milestone ahead of schedule. This would avoid the problem of incentivizing the Participants to delay Financial Accountability Milestone achievement to avoid accelerating Financial Accountability Milestone dates, and would mitigate any risk Industry Members would have from accelerating Financial Accountability Milestone dates.

Accountability Milestone such that financial RFRRs are triggered, the Participants may be incentivized to delay meeting the requirements of that Financial Accountability Milestone in order to give themselves more time to achieve later Financial Accountability Milestones in order to decrease their risk of triggering RFRRs for those later Financial Accountability Milestones.

The second likely additional cost relative to the amendments as adopted is that the alternative approach would make the ultimate CAT implementation timeline less certain than in the amendments as adopted, because early delays would push back implementation dates for later phases of implementation.

The Commission did not receive any comments on the alternative and, for the reasons discussed throughout the release, the Commission is adopting the amendments substantially as proposed.

**2. Different Timelines for Onset of RFRRs**

In the Proposing Release, the Commission discussed alternative approaches with Financial Accountability Milestone dates either earlier or later than the dates in the amendments as adopted.[297] These approaches would have certain additional benefits and costs as compared to the amendments as adopted. The Commission stated that alternative milestone dates that are not generally aligned with dates published by or discussed with the Participants are less likely to reflect realistic expectations for the Participants in implementing the CAT.[298]

The Commission did not receive any comments on the alternative and, for the reasons discussed throughout the release, the Commission is adopting the amendments substantially as proposed.

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[297] See Proposing Release, supra note 2, at Part IV.E.2.

[298] See id.

### 3. Alternate Magnitudes of RFRRs

In the Proposing Release, the Commission discussed alternative approaches with different levels of RFRRs.[299] Under the amendments as adopted, for each period of up to 90 days, or 45 days in the case of the first Financial Accountability Milestone, by which the Participants miss Financial Accountability Milestone dates, they would trigger RFRRs such that they would be allowed to recover 25 percent less of the CAT costs they would otherwise recover from Industry Members. Alternative approaches could have higher or lower marginal RFRRs.

The Commission preliminarily believed that alternative approaches with higher marginal RFRRs (allowing the Participants to recover a lower share of CAT costs from Industry Members when RFRRs are triggered) would potentially further incentivize the Participants to meet Financial Accountability Milestone deadlines, but would also increase the risk of inefficient acceleration of CAT implementation.

The Commission stated its preliminary belief that alternative approaches with lower RFRRs (allowing the Participants to recover a higher share of CAT costs from Industry Members when RFRRs are triggered) would decrease the incentives Participants have to meet Financial Accountability Milestone deadlines, but would reduce the risk of inefficient acceleration of CAT implementation.

The Commission did not receive any comments on the alternative and, for the reasons discussed throughout the release, the Commission is adopting the amendments substantially as proposed.

### 4. Requiring error rates for manual and complex options transactions, as well as allocation information for all options transactions to conform to standards set in the CAT NMS Plan on December 31, 2021

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[299] See Proposing Release, supra note 2, at Part IV.E.3.

The Commission's proposed amendments would have required the Participants to achieve initial error rate targets for the Specified Data that are described in the CAT NMS Plan, by the December 31, 2021 milestone. Under the amendments as adopted, the December 31, 2021 Financial Accountability Milestone will not include those initial error rates for the Specified Data. The requirement will remain part of the December 31, 2022 milestone.

Under the proposed approach, error rates for the Specified Data would likely be lower in the period between when Industry Members begin reporting this data and December 31, 2021 because Participants would likely have devoted more resources in that period to measuring and lowering these error rates since they were included in the December 31, 2021 milestone. However, the Commission believes that this reduction in error rates would be unlikely to be significant because the time between the initiation of reporting of the Specified Data to CAT and the milestone date of December 31, 2021 is relatively short. It is not clear to the Commission that the Participants would have sufficient time to meaningfully address error rate deficiencies for the Specified Data during that interval of time.[300] Furthermore, the Commission believes it is likely the Participants can more efficiently address error rates in their members' data over a more reasonable period of time.

Under the proposed approach with the earlier milestone date for the error rates in question, it is possible that Participants would believe that triggering RFRRs was unavoidable.

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[300] Under the amendments as adopted, the Financial Accountability Milestones will not include these error rates for an additional year for the Specified Data. The Commission believes that Participants are likely to address problems in error rates in the Specified Data during the additional year because excessive errors in this data may trigger RFRRs at the December 31, 2022 milestone. However, the Commission acknowledges it is possible that error rates for the Specified Data will be higher than they would have been under the proposed amendments during that additional year because those error rates will not cause RFRRs to be triggered during that year.

There is little time between the commencement of reporting of the Specified Data and the milestone date at which the target error rate would apply. This time span might be inadequate for the Participants to take corrective measures if the error rates exceeded the target specified in the CAT NMS Plan. Consequently, Participants might be less incentivized to achieve error rate targets for other CAT data elements if they believed it were unlikely they could achieve the error rates for the Specified Data, leaving them disincentivized to achieve other error rate targets because they believed RFRRs were unavoidable. This could result in higher error rates in other CAT data. In contrast, under the amendments as adopted with the later Financial Accountability Milestone date for the error rates in question, Participants will not be disincentivized by a Specified Data error target that may not be reasonable so quickly after the reporting of this data commences.

It is likely that the proposed approach with the earlier milestone dates for the error rates in question would be more costly both to Participants and Industry Members than the approach as adopted. Because the second Financial Accountability Milestone date occurs so quickly after the initiation of the Specified Data reporting, Participant efforts to address deficiencies in error rates might be made through channels that are less efficient in terms of overall quality of CAT data than they would be otherwise. For example, in an effort to avoid missing the error rate targets for the Specified Data, Participants might assign fewer staff persons to work with Industry Members to correct errors in core equities and options data that is foundational for CAT data to be used by regulators.

Finally, under the approach as adopted with a later Financial Accountability Milestone date for the error rates in question, regulators should still have access to sufficiently accurate and reliable options transactional data that will enable regulators to analyze the full lifecycle of most

orders and conduct new and sophisticated analyses of the markets, including options market reconstruction and cross-market analyses across the majority of full order lifecycles. The Commission believes that the approach as adopted should not delay the retirement of OATS because the Specified Data is not included in OATS currently. The Commission acknowledges that error rates for the Specified Data might be higher than for other CAT data initially under the amendments as adopted, but Participants will need to achieve the error rate targets specified by Section 6.5(d)(i) of the CAT NMS Plan to satisfy the third and final milestone under the amendments, so any diminishment of data quality is likely to be temporary.

## V. Regulatory Flexibility Act Certification

The Regulatory Flexibility Act ("RFA")[301] requires Federal agencies, in promulgating rules, to consider the impact of those rules on small entities. Section 603(a)[302] of the Administrative Procedure Act,[303] as amended by the RFA, generally requires the Commission to undertake a regulatory flexibility analysis of all proposed rules, or proposed rule amendments, to determine the impact of such rulemaking on "small entities."[304] Section 605(b) of the RFA states that this requirement shall not apply "to any proposed or final rule if the head of the agency certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[305]

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301 5 U.S.C. 601 et seq.

302 5 U.S.C. 603(a).

303 5 U.S.C. 551 et seq.

304 The Commission has adopted definitions for the term "small entity" for purposes of Commission rulemaking in accordance with the RFA. Those definitions, as relevant to this proposed rulemaking, are set forth in 17 CFR 240.0-10. See Securities Exchange Act Release No. 18451 (January 28, 1982), 47 FR 5215 (February 4, 1982) (File No. AS-305).

305 5 U.S.C. 605(b).

The Commission certified in the Proposing Release, pursuant to Section 605(b) of the RFA, that the proposed amendments to the CAT NMS Plan would not, if adopted, have a significant impact on a substantial number of small entities.[306] The Commission received no comments on the RFA certification contained in the Proposing Release.

As explained in the Proposing Release, the amendments to the CAT NMS Plan only impose requirements on national securities exchanges registered with the Commission under Section 6 of the Exchange Act and FINRA.[307] With respect to the national securities exchanges, the Commission's definition of a small entity is an exchange that has been exempt from the reporting requirements of Rule 601 of Regulation NMS, and is not affiliated with any person (other than a natural person) that is not a small business or small organization.[308] None of the national securities exchanges registered under Section 6 of the Exchange Act that would be subject to the proposed rule are "small entities" for the purposes of the RFA. In addition, FINRA is not a "small entity."[309] For these reasons, the amendments will not apply to any "small entities."

For these reasons, the Commission again certifies that the amendments, as modified and adopted, will not have a significant economic impact on a substantial number of small entities for the purposes of the RFA.

## VI. Other Matters

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306 See Proposing Release, supra note 2, at 48488.

307 See id.

308 See 17 CFR 240.0–10(e).

309 See Proposing Release, supra note 2, at 48488.

Pursuant to the Congressional Review Act,[310] the Office of Information and Regulatory Affairs has designated these rules as not a "major rule," as defined by 5 U.S.C. § 804(2).

If any of the provisions of these final 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 provision or application.

## VII. Statutory Authority and Text of the Amendments to the CAT NMS Plan

Pursuant to the Exchange Act and, particularly, Sections 2, 3(b), 5, 6, 11A, 15, 15A, 17(a) and (b), 19, and 23(a) thereof, 15 U.S.C. 78b, 78c(b), 78e, 78f, 78k-1, 78o, 78o-3, 78q(a) and (b), 78s, and 78w(a), and pursuant to Rule 608(a)(2) and (b)(2),[311] the Commission amends the CAT NMS Plan in the manner set forth below.

Additions are *italicized*; deletions are [bracketed].

* * * * *

**Section 1.1 Definitions.** As used throughout this Agreement (including, for the avoidance of doubt, the Exhibits, Appendices, Attachments, Recitals and Schedules identified in this Agreement):

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*"Financial Accountability Milestone" means, as the case may be, Full Implementation of Core Equity Reporting, Full Availability and Regulatory Utilization of Transactional Database Functionality, and Full Implementation of CAT NMS Plan Requirements.*

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310 5 U.S.C. 801 et seq.

311 17 CFR 242.608(a)(2) and (b)(2). These provisions enable the Commission to propose amendments to any effective NMS Plan by "publishing the text thereof, together with a statement of the purpose of such amendment," and providing "interested persons an opportunity to submit written comments."

*"Full Availability and Regulatory Utilization of Transactional Database Functionality" means the point at which: (a) reporting to the Order Audit Trail System ("OATS") is no longer required for new orders; (b) Industry Member reporting for equities transactions and simple electronic options transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, with sufficient intra-firm linkage, inter-firm linkage, national securities exchange linkage, trade reporting facilities linkage, and representative order linkages (including any equities allocation information provided in an Allocation Report) to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, is developed, tested, and implemented at a 5% Error Rate or less; (c) Industry Member reporting for manual options transactions and complex options transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, with all required linkages to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, including any options allocation information provided in an Allocation Report, is developed, tested, and fully implemented; (d) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1-8.1.3, Section 8.2.1, and Section 8.5 incorporates the data described in conditions (b)-(c) and is available to the Participants and to the Commission; and (e) the requirements of Section 6.10(a) are met. This Financial Accountability Milestone shall be considered complete as of the date identified in a Quarterly Progress Report meeting the requirements of Section 6.6(c).*

*"Full Implementation of CAT NMS Plan Requirements" means the point at which the Participants have satisfied all of their obligations to build and implement the CAT, such that all CAT system functionality required by Rule 613 and the CAT NMS Plan has been developed, successfully tested, and fully implemented at the initial Error Rates specified by Section 6.5(d)(i) or less, including functionality that efficiently permits the Participants and the Commission to access all CAT Data required to be stored in the Central Repository pursuant to Section 6.5(a), including Customer Account Information, Customer-ID, Customer Identifying Information, and Allocation Reports, and to analyze the full lifecycle of an order across the national market system, from order origination through order execution or order cancellation, including any related allocation information provided in an Allocation Report. This Financial Accountability Milestone shall be considered complete as of the date identified in a Quarterly Progress Report meeting the requirements of Section 6.6(c).*

*"Full Implementation of Core Equity Reporting Requirements" means the point at which: (a) Industry Member reporting (excluding reporting by Small Industry Members that are not OATS reporters) for equities transactions, excluding Customer Account Information, Customer-ID, and Customer Identifying Information, is developed, tested, and implemented at a 5% Error Rate or less and with sufficient intra-firm linkage, inter-firm linkage, national securities exchange linkage, and trade reporting facilities linkage to permit the Participants and the Commission to analyze the full lifecycle of an order across the national market system, excluding linkage of representative orders, from order origination through order execution or order cancellation; and (b) the query tool functionality required by Section 6.10(c)(i)(A) and Appendix D, Sections 8.1.1-8.1.3 and Section 8.2.1 incorporates the Industry Member equities transaction data described in condition (a) and is available to the Participants and to the*

*Commission. This Financial Accountability Milestone shall be considered complete as of the date identified in a Quarterly Progress Report meeting the requirements of Section 6.6(c).*

* * * * *

*"Initial Industry Member Core Equity and Option Reporting" means the reporting by Industry Members (excluding Small Industry Members that are not OATS reporters) of both: (a) equities transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information; and (b) options transaction data, excluding Customer Account Information, Customer-ID, and Customer Identifying Information.*

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**ARTICLE VI**
**FUNCTIONS AND ACTIVITIES OF CAT SYSTEM**

**Section 6.1. – Section 6.5.** No change.

**Section 6.6. Written Assessments, Audits and Reports.**

* * * * *

*(c) Implementation Plan and Quarterly Progress Reports.*

*(i) Within 30 calendar days following the effective date of this provision, the Participants shall file with the Commission and make publicly available on each of their websites, or collectively on the CAT NMS Plan website, a complete CAT implementation plan that includes the Participants' timeline for achieving the objective milestones setting forth how and when the Participants will facilitate the achievement of Full Implementation of CAT NMS Plan Requirements (the "Implementation Plan"). The Implementation Plan shall include:*

*(A) For each of the objective milestones set forth in Section C.10 of Appendix C of this Agreement to assess progress toward implementation of the CAT, the completion date and a description of the status; and*

*(B) For each of the Financial Accountability Milestones, the completion date and a description of the status.*

*If the Participants decide to complete any of the milestones identified in the Implementation Plan by releasing functionality in a phased approach, the Implementation Plan shall describe each phased release necessary to achieve the completion of the relevant milestone and provide completion dates for each such release identified.*

*(ii) Within 30 calendar days after the end of each calendar quarter, Participants shall file with the Commission and make publicly available on each of their websites, or collectively on the CAT NMS Plan website, a complete report that provides a*

*detailed description of the progress made by the Participants during that calendar quarter toward achieving each of the milestones set forth in the Implementation Plan (the "Quarterly Progress Report"). If, subsequent to the publication of the Implementation Plan, the Participants decide to complete any of the milestones set forth therein by releasing functionality in a phased approach, each Quarterly Progress Report shall reflect this change by describing the phases necessary to achieve the completion of the relevant milestone and providing the information specified below for each phase. The Participants shall file and make publicly available the first of such reports within 30 calendar days after the end of the calendar quarter in which the Participants filed and made publicly available the Implementation Plan.*

*(A) For each milestone completed by the end of a given calendar quarter, the report shall include the following: (1) the CAT implementation plan completion date, (2) the date on which the milestone was completed, and (3) a description of any variance from the Implementation Plan.*

*(B) For each milestone in progress at the end of a given calendar quarter, the report shall include the following: (1) the CAT implementation plan completion date, (2) the currently targeted completion date, and (3) a description of:*

*(a) the current status of the milestone;*

*(b) any difference between the CAT implementation plan completion date and the currently targeted completion date, including the basis for making the adjustment and the impact of this adjustment on any other milestone; and*

*(c) any other factual indicators that demonstrate the current level of completion with respect to the milestone.*

*(C) For each milestone that has not yet been initiated by the end of a given calendar quarter, the report shall include the following: (1) the CAT implementation plan completion date, (2) the currently targeted completion date, and (3) a description of:*

*(a) the current status of the milestone; and*

*(b) any difference between the Implementation Plan completion date and the currently targeted completion date, including the basis for making the adjustment and the impact of this adjustment on any other milestone.*

*(iii) The Implementation Plan and each Quarterly Progress Report shall be approved by at least a Supermajority Vote of the Operating Committee before such documents are filed with the Commission or made publicly available on each of the Participant websites or collectively on the CAT NMS Plan website. However, if the Implementation Plan or any Quarterly Progress Report is approved only by a Supermajority Vote of the Operating Committee, and not by a unanimous vote of the Operating Committee (including, for the avoidance of doubt, all members of the Operating Committee, whether or not present and whether or not recused), each Participant whose Operating Committee member did not vote to approve the Implementation Plan or Quarterly Progress Report shall separately file with the*

*Commission a statement identifying itself and explaining why the member did not vote to approve the Implementation Plan or Quarterly Progress Report. These statements shall be made publicly available by each dissenting Participant on its website or collectively by all Participants on the CAT NMS Plan website. The Operating Committee shall submit the Implementation Plan and Quarterly Progress Reports to the Chief Executive Officer, President, or an equivalently situated senior officer of each Participant, prior to being voted on by the Operating Committee.*

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**ARTICLE XI**
**FUNDING OF THE COMPANY**

Section 11.1. – Section 11.5. No change.

***Section 11.6. Funding Incentives for Post-Amendment Expenses***. *Notwithstanding the foregoing provisions, this Section shall apply with respect to all fees, costs, and expenses (including legal and consulting fees, costs, and expenses) incurred by or for the Company in connection with the development, implementation, and operation of the CAT from the effective date of this Section until such time as Full Implementation of CAT NMS Plan Requirements has been achieved ("Post-Amendment Expenses").*

*(a) The following conditions shall apply to the collection of any fees established by the Operating Committee or implemented by the Participants to recover a portion of Post-Amendment Expenses from Industry Members ("Post-Amendment Industry Member Fees").*

*(i) The Participants will be entitled to collect the full amount of:*

*(A) Any Post-Amendment Industry Member Fees established or implemented to recover Post-Amendment Expenses incurred from the effective date of this Section to the date of Initial Industry Member Core Equity and Option Reporting ("Period 1"), so long as such date is no later than July 31, 2020;*

*(B) Any Post-Amendment Industry Member Fees established or implemented to recover the Post-Amendment Expenses incurred from the date immediately following the achievement of Initial Industry Member Core Equity and Option Reporting to the date of Full Implementation of Core Equity Reporting ("Period 2"), so long as such date is no later than December 31, 2020;*

*(C) Any Post-Amendment Industry Member Fees established or implemented to recover the Post-Amendment Expenses incurred from the date immediately following the achievement of Full Implementation of Core Equity Reporting to the date of Full Availability and Regulatory Utilization of Transactional Database Functionality ("Period 3"), so long as such date is no later than December 31, 2021; and*

*(D) Any Post-Amendment Industry Member Fees established or implemented to recover the Post-Amendment Expenses incurred from the date immediately*

*following the achievement of Full Availability and Regulatory Utilization of Transactional Database Functionality to the date of Full Implementation of CAT NMS Plan Requirements ("Period 4"), so long as such date is no later than December 30, 2022.*

*(ii) The amount of Post-Amendment Industry Member Fees that the Participants are entitled to collect for Period 1 will be reduced according to the following schedule if the Participants miss the deadline set forth for that Period:*

*(A) By 25% if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by less than 45 days;*

*(B) By 50% if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by 45 days or more, but less than 90 days;*

*(C) By 75% if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by 90 days or more, but less than 135 days; and*

*(D) By 100% if the Participants miss the deadline set forth in Section 11.6(a)(i)(A) by 135 days or more.*

*(iii) The amount of Post-Amendment Industry Member Fees that the Participants are entitled to collect for Periods 2, 3, and 4 will be reduced according to the following schedule if the Participants miss the deadline set forth for that Period:*

*(A) By 25% if the Participants miss the deadline set forth in Section 11.6(a)(i)(B)-(D) by less than 90 days;*

*(B) By 50% if the Participants miss the deadline set forth in Section 11.6(a)(i)(B)-(D) by 90 days or more, but less than 180 days;*

*(C) By 75% if the Participants miss the deadline set forth in Section 11.6(a)(i)(B)-(D) by 180 days or more, but less than 270 days; and*

*(D) By 100% if the Participants miss the deadline set forth in Section 11.6(a)(i)(B)-(D) by 270 days or more.*

*(iv) The Participants will only be permitted to collect Post-Amendment Industry Member Fees for Period 1, Period 2, Period 3, or Period 4 at the end of each respective Period.*

*(b) In all CAT NMS Plan amendments submitted by the Operating Committee to the Commission pursuant to Rule 608(b)(3)(i), and in all filings submitted by the Participants to the Commission under Section 19(b) of the Exchange Act, to establish or implement Post-Amendment Industry Member Fees pursuant to this Article, the Operating Committee or the Participants shall clearly indicate whether such fees are related to Post-Amendment Expenses incurred during Period 1, Period 2, Period 3, or Period 4.*

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By the Commission.

Dated: May 15, 2020.

**J. Matthew DeLesDernier,**

*Assistant Secretary*.

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