

SECURITIES AND EXCHANGE COMMISSION**17 CFR Part 240**

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Standards for Covered Clearing Agencies**AGENCY:** Securities and Exchange Commission.**ACTION:** Final rule.

SUMMARY: The Securities and Exchange Commission (“SEC” or “Commission”) is adopting amendments to Rule 17Ad-22 and adding new Rule 17Ab2-2 pursuant to Section 17A of the Securities Exchange Act of 1934 (“Exchange Act”) and the Payment, Clearing, and Settlement Supervision Act of 2010 (“Clearing Supervision Act”), enacted in Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank Act”). Among other things, the rules establish enhanced standards for the operation and governance of those clearing agencies registered with the Commission (“registered clearing agencies”) that meet the definition of “covered clearing agency.”

DATES: *Effective date:* December 12, 2016.

Compliance date: April 11, 2017.

The compliance date is discussed in Part II.G below.

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SUPPLEMENTARY INFORMATION: The Commission is amending Rule 17Ad-22 by adding new Rule 17Ad-22(e) to establish requirements for the operation and governance of registered clearing agencies that meet the definition of a “covered clearing agency.” A covered clearing agency includes a registered clearing agency that (i) has been designated as systemically important by the Financial Stability Oversight Council (“FSOC”) and for which the Commission is the supervisory agency under the Clearing Supervision Act (“designated clearing agency”), or (ii) provides central counterparty (“CCP”) services for security-based swaps or is involved in activities the Commission determines to have a more complex risk

profile (“complex risk profile clearing agency”), unless the Commodity Futures Trading Commission (“CFTC”) is the supervisory agency under the Clearing Supervision Act.

To facilitate the addition of new Rule 17Ad-22(e), the Commission is amending existing Rule 17Ad-22(d) to limit its application to clearing agencies other than covered clearing agencies and revising Rule 17Ad-22(a) to add 14 new definitions. The Commission is also adopting new Rule 17Ad-22(f) to codify the Commission’s statutory authority under Section 807(c) of the Clearing Supervision Act and new Rule 17Ab2-2 to establish procedures for making determinations regarding covered clearing agencies in certain defined circumstances, described further below.

In developing these rules, Commission staff has consulted with the FSOC, CFTC, and Board of Governors of the Federal Reserve System (“FRB”). The Commission has also considered the relevant international standards as required by Section 805(a)(2)(A) of the Clearing Supervision Act.¹ The relevant international standards for designated clearing agencies and complex risk profile clearing agencies are the *Principles for Financial Market Infrastructures* (“PFMI”).²

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I. Introduction

A. Regulatory Framework

Below is an overview of the regulatory requirements for registered clearing agencies that relate to the amendments to Rule 17Ad-22 and new Rule 17Ab2-2 as set forth under the Exchange Act, the Dodd-Frank Act, and Commission rules and regulations thereunder.

1. Exchange Act

Section 17A of the Exchange Act directs the Commission to facilitate the establishment of (i) a national system for the prompt and accurate clearance and settlement of securities transactions and (ii) linked or coordinated facilities for clearance and settlement of securities

transactions.³ In facilitating the establishment of the national clearance and settlement system, the Commission must have due regard for the public interest, the protection of investors, the safeguarding of securities and funds, and maintenance of fair competition among brokers and dealers, clearing agencies, and transfer agents.⁴

As discussed in the Standards for Covered Clearing Agencies proposing release (“CCA Standards proposing release”),⁵ clearing agencies are broadly defined in the Exchange Act and undertake a variety of functions.⁶ Under Section 17A and Rule 17Ab2-1,⁷ an entity that meets the definition of a clearing agency is required to register with the Commission or obtain from the Commission an exemption from registration prior to performing the functions of a clearing agency. To grant registration to a clearing agency, the Exchange Act requires the Commission to determine that the rules and operations of the applicant clearing agency meet the standards set forth in Section 17A.⁸ Specifically, Section 17A(b)(3) provides that a clearing agency shall not be registered unless the Commission determines that the clearing agency’s rules are consistent with the Exchange Act. In so doing, the Commission must determine that, among other things, (i) the clearing agency is so organized and has the capacity to be able to facilitate the prompt and accurate clearance and settlement of securities transactions and to safeguard securities or funds in its custody or control, (ii) the rules of the clearing agency assure a fair representation of its members and participants in the selection of its directors and administration of its

affairs, (iii) the rules of the clearing agency provide for the equitable allocation of reasonable dues and fees, and (iv) the rules of the clearing agency are designed to promote the prompt and accurate clearance and settlement of securities transactions.⁹

Following registration, the Commission supervises registered clearing agencies using various tools. One of these tools is Rule 17a-1 under the Exchange Act, which requires every registered clearing agency to keep and preserve at least one copy of all documents, including all correspondence, memoranda, papers, books, notices, accounts, and other such records as shall be made or received by it in the course of its business as such and in the conduct of its self-regulatory activity for a period not less than five years and, upon request of any representative of the Commission, to promptly furnish to the possession of such representative copies of any such documents required to be kept.¹⁰ Another of these tools is the rule filing process for self-regulatory organizations (“SROs”),¹¹ set forth in Section 19(b) of the Exchange Act and rules and regulations thereunder. A registered clearing agency is required to file with the Commission any proposed rule or proposed change in, addition to, or deletion from the registered clearing agency’s rules.¹² The Commission publishes all proposed rule changes for comment and reviews them. Proposed rule changes are generally required to be approved by the Commission prior to going into effect; however, certain types of proposed rule changes take effect upon filing with the Commission.¹³ When reviewing a proposed rule change, the Commission considers the submissions of the clearing agency together with any comments received on the proposed rule change in making a determination of whether the proposed rule change is consistent with the requirements of the Exchange Act. In

³ See 15 U.S.C. 78q-1(a)(2); *see also* Report of the Senate Committee on Banking, Housing & Urban Affairs, S. Rep. No. 94-75, at 4 (1975) (urging that “[t]he Committee believes the banking and security industries must move quickly toward the establishment of a fully integrated national system for the prompt and accurate processing and settlement of securities transactions”).

⁴ See 15 U.S.C. 78q-1(a)(2)(A).

⁵ See Exchange Act Release No. 34-71699 (Mar. 12, 2014), 79 FR 16865 (Mar. 26, 2014), *corrected at* 79 FR 29507, 29510-11 (May 22, 2014); *see also* Exchange Act Release No. 34-68080 (Oct. 22, 2012), 77 FR 66219, 66221-22 (Nov. 2, 2012) (discussing the same) (“Clearing Agency Standards adopting release”).

⁶ See 15 U.S.C. 78c(a)(23)(A) (providing the definition of “clearing agency”).

⁷ See 17 CFR 240.17Ab2-1.

⁸ See 15 U.S.C. 78q-1(b)(3)(A) through (I) (identifying nine determinations that the Commission must make regarding the rules and structure of a clearing agency to grant registration). In 1980, the Commission published a statement of the views and positions of Commission staff regarding the requirements of Section 17A. *See* Exchange Act Release No. 16900 (June 17, 1980), 45 FR 41920 (June 23, 1980).

⁹ See 15 U.S.C. 78q-1(b)(3)(A), (C), (D), (F).

¹⁰ See 17 CFR 240.17a-1(a) through (c); *see also* 15 U.S.C. 78q(a)(1), (2).

¹¹ Upon registration, registered clearing agencies are SROs under Section 3(a)(26) of the Exchange Act. *See* 15 U.S.C. 78c(a)(26).

¹² An SRO must submit proposed rule changes to the Commission for review and approval pursuant to Rule 19b-4 under the Exchange Act. A stated policy, practice, or interpretation of an SRO, such as its written policies and procedures, would generally be deemed to be a proposed rule change. *See* 15 U.S.C. 78s(b)(1); 17 CFR 240.19b-4.

¹³ See 15 U.S.C. 78s(b)(3)(A) (setting forth the types of proposed rule changes that take effect upon filing with the Commission). The Commission may temporarily suspend those rule changes within 60 days of filing and institute proceedings to determine whether to approve or disapprove the rule changes. *See* 15 U.S.C. 78s(b)(3)(C).

addition, Section 17A of the Exchange Act further provides the Commission with authority to adopt rules as necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Exchange Act and prohibits a clearing agency from engaging in any activity in contravention of such rules and regulations.¹⁴

In addition, Commission staff conducts examinations of registered clearing agencies to assess, among other things, existing and emerging risks, compliance with applicable statutory and regulatory requirements, and a clearing agency's oversight of compliance by its participants with its rules. Section 21(a) of the Exchange Act provides the Commission with authority to initiate and conduct investigations to determine if there have been violations of the federal securities laws.¹⁵ Section 19(h) of the Exchange Act also provides the Commission with authority to institute civil actions seeking injunctive and other equitable remedies and/or administrative proceedings arising out of such investigations.¹⁶

2. Dodd-Frank Act

Title VII of the Dodd-Frank Act provides the Commission with authority to regulate certain over-the-counter ("OTC") derivatives. Specifically, Title VII added provisions to the Exchange Act that (i) require entities performing the functions of a clearing agency with respect to security-based swaps ("security-based swap clearing agencies") to register with the Commission, and (ii) direct the Commission to adopt rules with respect to security-based swap clearing agencies.¹⁷

The Clearing Supervision Act, enacted in Title VIII of the Dodd-Frank Act, provides for the enhanced regulation of certain financial market utilities ("FMUs").¹⁸ FMUs include

clearing agencies that manage or operate a multilateral system for the purpose of transferring, clearing, or settling payments, securities, or other financial transactions among financial institutions or between financial institutions and the FMU.¹⁹ FSOC has designated certain FMUs as systemically important or likely to become systemically important ("SIFMUs").²⁰ SIFMUs are required to file 60-days advance notice of changes to rules, procedures, and operations that could materially affect the nature or level of risk presented by the SIFMU ("advance notice").²¹ The Clearing Supervision Act authorizes the Commission to object to changes proposed in such an advance notice, which would prevent the clearing agency from implementing the change.²² The Clearing Supervision Act also provides for enhanced coordination between the Commission and FRB by allowing for regular on-site examinations and information sharing.²³ The Clearing Supervision Act

that are necessary to achieve the objectives and principles described above. *See* 12 U.S.C. 5464(b), (c).

¹⁹ *See* 12 U.S.C. 5462(6). The definition of "financial market utility" in Section 803(6) of the Clearing Supervision Act contains a number of exclusions that include, but are not limited to, certain designated contract markets, registered futures associations, swap data repositories, swap execution facilities, national securities exchanges, national securities associations, alternative trading systems, security-based swap data repositories, security-based swap execution facilities, brokers, dealers, transfer agents, investment companies, and futures commission merchants. *See* 12 U.S.C. 5462(6)(B).

²⁰ *See* 12 U.S.C. 5463. An FMU is systemically important if the failure of or a disruption to the functioning of such FMU could create or increase the risk of significant liquidity or credit problems spreading among financial institutions or markets and thereby threaten the stability of the U.S. financial system. *See* 12 U.S.C. 5462(9). On July 18, 2012, the FSOC designated as systemically important the following then-registered clearing agencies: CME Group ("CME"), The Depository Trust Company ("DTC"), Fixed Income Clearing Corporation ("FICC"), ICE Clear Credit ("ICC"), National Securities Clearing Corporation ("NSCC"), and The Options Clearing Corporation ("OCC").

The Commission is the supervisory agency for DTC, FICC, NSCC, and OCC, and the CFTC is the supervisory agency for CME and ICE. The Commission jointly regulates ICC and OCC with the CFTC. The Commission also jointly regulates ICE Clear Europe ("ICEEU"), which has not been designated as systemically important by FSOC, with the CFTC and Bank of England.

The Commission also jointly regulated CME with the CFTC until 2015, when the Commission published an order approving CME's request to withdraw from registration as a clearing agency. *See* Exchange Act Release No. 34-76678 (Dec. 17, 2015), 80 FR 79983 (Dec. 23, 2015).

²¹ *See* 12 U.S.C. 5465(e)(1)(A); 17 CFR 240.19b-4(n). The Commission published a final rule concerning the filing of advance notices for designated clearing agencies in 2012. *See* Exchange Act Release No. 34-67286 (June 28, 2012), 77 FR 41602 (July 13, 2012).

²² *See* 12 U.S.C. 5465(e).

²³ *See* 12 U.S.C. 5466.

further provides that the Commission and CFTC shall coordinate with the FRB to jointly develop risk management supervision programs for SIFMUs.²⁴ In addition, the Clearing Supervision Act provides that the Commission and CFTC may each prescribe risk management standards governing the operations related to payment, clearing, and settlement activities ("PCS activities") of SIFMUs for which each is the supervisory agency, in consultation with the FSOC and FRB and taking into consideration relevant international standards and existing prudential requirements.²⁵

3. Rule 17Ad-22

In 2012, the Commission adopted Rule 17Ad-22 under the Exchange Act to strengthen the substantive regulation of registered clearing agencies, promote the safe and reliable operation of registered clearing agencies, and improve efficiency, transparency, and access to registered clearing agencies.²⁶ At that time, the Commission noted that the implementation of Rule 17Ad-22 would be an important first step in developing the regulatory changes contemplated by Titles VII and VIII of the Dodd-Frank Act.²⁷ In this regard, Rule 17Ad-22(b) established certain requirements for clearing agencies that provide CCP services, and Rule 17Ad-22(d) established requirements for the operation and governance of all registered clearing agencies.²⁸

The requirements in Rule 17Ad-22 help guide Commission determinations, when considering an application to register as a clearing agency, that the rules and operations of the applicant clearing agency satisfy the requirements in Section 17A of the Exchange Act.²⁹ Today's amendments to Rule 17Ad-22 build on the existing framework for registered clearing agencies by establishing new requirements for designated clearing agencies, complex risk profile clearing agencies unless the

²⁴ *See* 12 U.S.C. 5472; *see also* Risk Management Supervision of Designated Clearing Entities (July 2011), available at <https://www.federalreserve.gov/publications/other-reports/files/risk-management-supervision-report-201107.pdf> (describing the joint supervisory framework of the Commission, CFTC, and FRB).

²⁵ *See* 12 U.S.C. 5464(a)(2). The Commission notes that, under Rule 17Ad-22(a)(6), a SIFMU for which the Commission is the supervisory agency is a "designated clearing agency." *See infra* note 134 and accompanying text.

²⁶ *See* CCA Standards proposing release, *supra* note 5, at 29513; *see also* 17 CFR 240.17Ad-22; Clearing Agency Standards adopting release, *supra* note 5, at 66225-26.

²⁷ *See* Clearing Agency Standards adopting release, *supra* note 5, at 66224-25.

²⁸ *See* 17 CFR 240.17Ad-22(b), (d).

²⁹ *See supra* notes 8-9 and accompanying text.

¹⁴ *See* 15 U.S.C. 78q-1(d).

¹⁵ *See* 15 U.S.C. 78u(a).

¹⁶ *See* 15 U.S.C. 78s(h).

¹⁷ *See* 15 U.S.C. 78q-1(i), (j); Dodd-Frank Act, Sec. 763(b), 124 Stat. at 1768-69 (adding paragraphs (i) and (j) to Section 17A of the Exchange Act).

¹⁸ The objectives and principles for the risk management standards prescribed under the Clearing Supervision Act shall be to (i) promote robust risk management; (ii) promote safety and soundness; (iii) reduce systemic risks; and (iv) support the stability of the broader financial system. Further, the Clearing Supervision Act states that the standards may address areas such as risk management policies and procedures; margin and collateral requirements; participant or counterparty default policies and procedures; the ability to complete timely clearing and settlement of financial transactions; capital and financial resources requirements for designated FMUs; and other areas

CFTC is the supervisory agency, and, pursuant to Rule 17Ab2–2, any other clearing agencies determined by the Commission to be covered clearing agencies.

4. Regulation SCI

In 2014, the Commission adopted Regulation Systems Compliance and Integrity (“Regulation SCI”) to strengthen the technology infrastructure of the U.S. securities markets.³⁰ In particular, the Commission notes that Regulation SCI is designed to reduce the occurrence of systems issues, improve resiliency when systems problems do occur, and enhance the Commission’s oversight and enforcement of securities market technology infrastructure. Since adoption of Regulation SCI, the Commission has established a monitoring and examination structure to oversee compliance with Regulation SCI.

Regulation SCI applies to “SCI entities,” a term which includes SROs such as registered clearing agencies.³¹ It requires SCI entities to, among other things, maintain policies and procedures reasonably designed to ensure that certain systems have levels of capacity, integrity, resiliency, availability, and security adequate to maintain their operational capability and promote the maintenance of fair and orderly markets, and that they operate in a manner that complies with the Exchange Act as well as their own rules.³² Certain SCI systems that are “critical SCI systems” are held to heightened requirements under Regulation SCI,³³ including a requirement to establish, maintain, and enforce written policies and procedures reasonably designed, among other things, to include a two-hour resumption goal following a wide-scale disruption,³⁴ and broader dissemination obligations for “major SCI events.”³⁵ The definition of critical SCI systems in Regulation SCI was designed to cover “those SCI systems whose functions are critical to the operation of the markets, including those systems that represent potential single points of failure in the securities markets.”³⁶ Regulation SCI requires SCI entities to take certain

corrective actions when “SCI events” occur. Regulation SCI defines SCI events to include an event in an SCI entity’s SCI systems that disrupts, or significantly degrades, the normal operation of an SCI system. In the Regulation SCI adopting release, the Commission explained its view that for clearance and settlement systems a return to “normal operations” following a systems disruption would include all steps necessary to effectuate timely and accurate end of day settlement.³⁷

5. Relevant International Standards

When prescribing regulations that contain risk management standards for designated clearing agencies, Section 805(a) of the Clearing Supervision Act requires the Commission to consider the relevant international standards and existing prudential requirements.³⁸ As previously noted, the PFMI is the relevant international standard for systemically important financial market infrastructures, such as covered clearing agencies.³⁹ The PFMI sets forth twenty-four principles, each of which includes a headline standard and a list of key considerations that further explain the headline standard. Accompanying explanatory notes further discuss the objectives of and rationales for the standards, as well as provide guidance on how the standard can be implemented.⁴⁰

Commission staff co-chaired the working group within CPSS–IOSCO that

drafted both the consultative and final versions of the PFMI,⁴¹ and the Commission believes that the requirements applicable to clearing agencies set forth in the Exchange Act and the rules thereunder, including the rules adopted today, are consistent with the standards set forth in the PFMI.⁴² Regulatory authorities around the world are in various stages of updating their regulatory regimes to adopt measures consistent with the PFMI.⁴³ The rules set forth below are a continuation of the Commission’s active effort to foster the development of the national clearance and settlement system, consistent with the requirements of the Exchange Act, and enhance the regulation and supervision of SIFMUs, consistent with the Clearing Supervision Act.

In addition, the Basel Committee on Banking Supervision (“BCBS”) has finalized an updated capital framework that sets standards for capital charges arising from bank exposures to CCPs related to OTC derivatives, exchange-traded derivatives, and securities financing transactions.⁴⁴ Among other things, the BCBS capital framework includes lower capital charges for exposures to a qualifying CCP (“QCCP”) that is subject to a regulatory framework consistent with the PFMI. The availability of QCCP status for certain covered clearing agencies with bank clearing members would have

³⁷ See *id.* at 72285 n.395.

³⁸ See 12 U.S.C. 5464(a)(2); see also *supra* note 25 and accompanying text.

³⁹ See *supra* note 2 and accompanying text. The PFMI defines a “financial market infrastructure” (“FMI”) as a multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling, or recording payments, securities, derivatives, or other financial transactions. See PFMI, *supra* note 2, at 7. FMIs include CCPs, central securities depositories (“CSDs”), securities settlement systems (“SSSs”), and trade repositories (“TRs”). Cf. 12 U.S.C. 5462(6)(B) (defining “financial market utility” under the Clearing Supervision Act). The PFMI presumes that all CSDs, SSSs, CCPs, and TRs are systemically important in their home jurisdiction. See PFMI, *supra* note 2, at 131 & n.177 (noting the “presumption . . . that all CSDs, SSSs, CCPs, and TRs are systemically important because of their critical roles in the markets they serve,” but also noting that ultimately “national law will dictate the criteria to determine whether an FMI is systemically important”).

The Commission notes that the PFMI’s definition of “financial market infrastructure” is consistent with the Commission’s prior use of the term. See Study of Unsafe and Unsound Practices of Brokers and Dealers, H.R. Doc. No. 231, 92d Cong., 1st Sess. 13 (1971) (defining “financial market infrastructure” as a multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling, or recording payments, securities, derivatives, or other financial transactions).

⁴⁰ See PFMI, *supra* note 2, at 17.

⁴¹ CPMI–IOSCO has also published subsequent guidance relevant to implementation of the PFMI. See PFMI: Disclosure framework and Assessment methodology (Dec. 2012), available at <http://www.bis.org/cpmi/publ/d106.pdf> (“PFMI disclosure framework”); Recovery of FMIs (Oct. 2014), available at <http://www.bis.org/cpmi/publ/d121.pdf>; Public quantitative disclosure standards for CCPs (Feb. 2015), available at <http://www.bis.org/cpmi/publ/d125.pdf> (“PFMI quantitative disclosures”); Guidance on cyber resilience for FMIs (Nov. 2015, consultative report), available at <http://www.bis.org/cpmi/publ/d138.pdf>; Resilience and recovery for CCPs (July 2016, consultative report), available at <http://www.bis.org/cpmi/publ/d149.pdf>.

⁴² See 15 U.S.C. 78q–1.

⁴³ See, e.g., CPMI–IOSCO, Implementation monitoring of PFMIs: Third update to the Level 1 assessment report (June 2016), available at <http://www.bis.org/cpmi/publ/d145.pdf> (describing efforts by various jurisdictions to adopt standards for FMIs consistent with the PFMI). Both the CFTC and FRB have indicated publicly that they have completed all measures necessary to incorporate fully the PFMI into their regulatory frameworks. See *id.* at 35.

⁴⁴ See BCBS, Capital requirements for bank exposures to central counterparties (Apr. 2014), available at <http://www.bis.org/publ/bcb282.pdf> (“BCBS capital framework”). See generally Basel III: A global regulatory framework for more resilient banks and banking systems (rev. June 2011), available at <http://www.bis.org/publ/bcb189.pdf> (describing the Basel III framework, which preceded the BCBS capital framework).

³⁰ See Exchange Act Release No. 34–73639 (Nov. 19, 2014), 79 FR 72252 (Dec. 5, 2014) (“Regulation SCI adopting release”).

³¹ See 17 CFR 242.1000 (providing the definition of “SCI SROs”).

³² See 17 CFR 242.1001.

³³ See 17 CFR 242.1000 (providing definitions of “SCI systems” and “critical SCI systems”).

³⁴ See 17 CFR 242.1001(a)(2)(v).

³⁵ See 17 CFR 242.1002(c)(3).

³⁶ See Regulation SCI adopting release, *supra* note 30, at 72277.

implications for the capital charges applicable to those members.⁴⁵

6. Recognition and Equivalence Within the EU

The Commission is aware of recent public attention on the availability of QCCP status under EU capital requirements for certain covered clearing agencies that operate in the United States and have bank clearing members affiliated with a European Union ("EU") entity.⁴⁶ Specifically, the Commission understands that availability of QCCP status in the EU for a U.S. CCP hinges on the European Securities and Markets Authority ("ESMA") recognizing the U.S. CCP pursuant to the requirements of the European Markets Infrastructure Regulation ("EMIR"). Recognition by ESMA, in turn, is subject to the European Commission ("EC") first making certain findings regarding the Commission's regulatory regime for CCPs.⁴⁷ Recognition by ESMA would

result in QCCP status for those U.S. CCPs for purposes of the EU's capital requirements, allowing EU-based clearing members of U.S. CCPs to continue to operate and provide clearing services to market participants based in the EU. Under the EU's capital requirements regulation, EU banks and their subsidiaries will incur higher capital charges if they clear through a U.S. CCP not afforded QCCP status in the EU, that is, a CCP not recognized or authorized by ESMA.⁴⁸

As an initial matter, the Commission understands that, for the EC to make an equivalence decision, Article 25(6) of the European Markets Infrastructure Regulation ("EMIR") requires the EC to determine that

the legal and supervisory arrangements of a third country ensure that CCPs authorised in that third country comply with legally binding requirements which are equivalent to the requirements laid down in [EMIR], that those CCPs are subject to effective supervision and enforcement in that third country on an ongoing basis and that the legal framework of that third country provides for an effective equivalent system for the recognition of CCPs authorised under third-country legal regimes.⁴⁹

The Commission understands that its adoption of new Rule 17Ad-22(e) could be relevant to the EC's ongoing consideration of the Commission's regulatory regime for CCPs.⁵⁰ Further, with respect to EMIR's requirement that the legal and supervisory regime of the United States include an "effective equivalent system" for the recognition of CCPs authorized under non-U.S. legal regimes, the Commission notes the following.⁵¹

First, the Commission observes that, in certain specific contexts, it is not unfamiliar with the EMIR regime given that one registered clearing agency, ICEEU, is subject to EMIR and will be a covered clearing agency pursuant to

Rule 17Ad-22(a)(5).⁵² As previously discussed, each registered clearing agency is an SRO subject to Section 19(b) of the Exchange Act, which requires SROs to submit proposed rule changes to the Commission for public comment and Commission review and approval.⁵³ In the course of its regulation of ICEEU as a registered clearing agency, the Commission has published, reviewed, and approved under the Exchange Act a number of proposed rule changes submitted by ICEEU under Rule 19b-4 that, based on the information and representations made by ICEEU at the time, were intended to facilitate ICEEU's efforts to comply with EMIR. These proposed rule changes covered such areas as (i) segregation and portability of customer positions and margin, (ii) risk modeling, (iii) back testing, (iv) stress testing, (v) default management, and (vi) liquidity risk management.⁵⁴

Further, the Commission observes that the Exchange Act and Commission rules require that CCPs register with the Commission in certain circumstances, and if registered, must comply with the relevant U.S. requirements, including the Commission rules applicable to registered clearing agencies. The Commission also observes that the registration and supervisory framework for clearing agencies under the Exchange Act provides the Commission with broad authority to provide exemptive relief from certain of the Commission's regulatory requirements under the Exchange Act. Specifically, Section 17A(b)(1) of the Exchange Act provides the Commission with authority to exempt a clearing agency or any class of clearing agencies from any provision of Section 17A or the rules or regulations thereunder. Such an exemption may be effected by rule or order, upon the Commission's own motion or upon application, and conditionally or unconditionally.⁵⁵ The

⁴⁵ See *infra* Part III.A.1.b (further discussing the BCBS capital framework). The FRB and the Office of the Comptroller of the Currency have adopted rules implementing the material elements of the BCBS interim framework for capitalization of bank exposures to CCPs. See Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule, 76 FR 62017, 62099 (Oct. 11, 2013) ("Regulatory Capital Rules"). In doing so, the FRB noted the ongoing international discussions on the topic and stated that it intends to revisit its rules once the BCBS capital framework is revised. See *id.* The FRB and the Office of the Comptroller of the Currency's rules define "QCCP" to mean, among other things, a SIFMU under the Clearing Supervision Act. See 12 CFR 217.2; see also Regulatory Capital Rules, *supra*, at 62100.

⁴⁶ See, e.g., Fiona Maxwell, EU members of U.S. options CCP face \$30 billion capital hit: OCC fears approval will be held up by absence of SEC clearing rules, Risk.net, Nov. 30, 2015, available at <http://www.risk.net/risk-magazine/news/2436901/eu-members-of-us-options-ccp-face-usd30bn-capital-hit> ("A new wrinkle in the transatlantic dispute over clearing house regulation could leave 18 European banks facing an estimated \$30 billion jump in capital requirements, and limit access to equity options listed in the [United States] The potential capital hit for OCC members is a consequence of the Capital Requirements Regulation (CRR), which states that European banks—whether acting through their branch or subsidiary—will only be given a 2% risk weight for cleared trades if using a so-called qualifying CCP following expiration of the current extended grandfathering period. Clearing at a non-QCCP can translate to risk weights of more than 1250%.").

⁴⁷ On March 16, 2016, the EC issued an equivalence decision stating that the CFTC's regulatory framework for CCPs is equivalent to EU requirements. See Commission Implementing Decision (EU) 2016/377 of 15 March 2016 on the equivalence of the regulatory framework of the United States of America for central counterparties that are authorised and supervised by the CFTC to the requirements of Regulation (EU) No 648/2012 of the European Parliament and of the Council,

available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016D0377>.

⁴⁸ Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms. As noted earlier, although the United States affords QCCP status to SIFMUs, QCCP status in the EU is distinct from the U.S. banking regulators' determination that any FMU designated as systemically important by FSOC is a U.S. QCCP.

⁴⁹ See Article 25(6), Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0648>.

⁵⁰ See, e.g., Philip Stafford, European banks face U.S. capital hit unless rules converge, FT.com, Apr. 4, 2016, available at <http://www.ft.com/cms/s/0/bbe6678a-f5c5-11e5-803c-d27c7171d132.html#axzz480FXIfRr>.

⁵¹ See Article 25(6) of EMIR.

⁵² As noted above, ICEEU is also regulated by the Bank of England. See *supra* note 20.

⁵³ See *supra* Part I.C.5 (further describing the obligations of a registered clearing agency to file proposed rule changes under Rule 19b-4).

⁵⁴ See Exchange Act Release No. 34-73075 (Sept. 11, 2014), 79 FR 55848 (Sept. 17, 2014); Exchange Act Release No. 34-72756 (Aug. 4, 2014), 79 FR 46479 (Aug. 8, 2014); Exchange Act Release No. 34-72755 (Aug. 4, 2014), 79 FR 46481 (Aug. 8, 2014); Exchange Act Release No. 34-72754 (Aug. 4, 2014), 79 FR 46477 (Aug. 8, 2014).

⁵⁵ To apply with the Commission for an exemption under Section 17A(b)(1), the applicant must complete and file a Form CA-1. In this context, an applicant must attach to its Form CA-1, along with the other customary exhibits, an Exhibit S. The Exhibit S is a statement by the applicant demonstrating why the granting of an exemption would be consistent with the public interest, the protection of investors and the

Commission's exercise of authority to grant exemptive relief must be consistent with the public interest, the protection of investors, and the purposes of Section 17A, including the prompt and accurate clearance and settlement of securities transactions and the safeguarding of securities and funds.⁵⁶

The outcome of any exemptive request by the Commission (including, potentially, any exemptions from requirements under Rule 17Ad-22(e)) is dependent on a number of elements. For example, the Commission has used its authority under Section 17A(b)(1) of the Exchange Act to grant exemptions to certain non-U.S. clearing agencies. These exemptions have been tailored in each instance to the exemptive applicants' contemplated clearing agency activities. In certain instances, non-U.S. clearing agencies have received exemptive relief from the registration requirement under Section 17A(b)(1) to perform the functions of a clearing agency with respect to transactions involving U.S. government and agency securities for U.S. participants.⁵⁷ Factors the Commission has considered when determining whether to grant an exemption have included the anticipated level or volume of activity that the applicant seeks to effect within the United States. Generally, the particular system of supervision and oversight in a jurisdiction may also be factors for the Commission to consider in evaluating any non-U.S. framework.

Other factors the Commission could consider in exercising its exemptive authority could include: the structure

of, scope of, and requirements under the regulatory regime to which the applicant is subject in its home jurisdiction; the extent to which the presence of said regime is relevant to the findings the Commission must make in considering an exemption under Section 17A(b)(1) of the Exchange Act, and the nature of the non-U.S. covered clearing agency's activities. Such factors, depending on the attendant facts and circumstances, could lead the Commission to determine that the full scope of the requirements under Rule 17Ad-22(e) need not be applied to a non-U.S. clearing agency to achieve the Commission's regulatory objectives.

The Commission also notes that where it has exercised its exemptive authority under Section 17A(b)(1) of the Exchange Act, the Commission and the relevant national competent authority ("NCA") of the non-U.S. clearing agency have entered into cooperative arrangements whereby the Commission and the NCA have arranged to communicate and cooperate to fulfill their respective regulatory mandates.⁵⁸ For the purposes of the discussion immediately above, such cooperation could also be useful in streamlining the Commission's consideration and analysis of an application for registration or an exemption from any provision of Section 17A of the Exchange Act or the rules or regulations thereunder by a non-U.S. clearing agency. For example, in the case of a non-U.S. clearing agency that is seeking to register or seeking an exemption with the Commission and is already subject to EMIR, the Commission could look to coordinate with the applicant's NCA for the purposes of analyzing and evaluating any materials the applicant might submit as part of the Form CA-1, including the documentation generated in the course of the NCA's EMIR authorization process for the applicant, and any self-assessment an applicant might produce to evidence its analysis of potential duplication between EMIR requirements and Commission requirements for registered clearing agencies. Such cooperative arrangements could be useful not only

for the registration or exemption process but also ongoing coordinated or joint supervisory matters between the Commission and the NCA. However, as previously noted, additional careful analysis would need to be performed by the Commission on a case-by-case basis before the Commission could be willing to determine whether such cooperative arrangements would be appropriate.

B. Summary of the Commission's Proposal

The Commission is adopting Rules 17Ad-22(e) and (f) and amendments to Rules 17Ad-22(a) and (d) substantially as proposed. The Commission is adopting Rule 17Ab2-2 with several modifications in light of the comments received. Modifications to the proposed rules are discussed in Part II. Below is a brief summary of the Commission's proposal as set forth in the CCA Standards proposing release.

In proposing amendments to Rule 17Ad-22, the Commission sought to establish an enhanced regulatory framework for registered clearing agencies that meet the definition of a "covered clearing agency." Specifically, as proposed, a covered clearing agency would include (i) a designated clearing agency; (ii) a complex risk profile clearing agency unless the CFTC is the supervisory agency;⁵⁹ and (iii) any other registered clearing agency that the Commission determines to be a covered clearing agency pursuant to the procedures set forth in proposed Rule 17Ab2-2. A covered clearing agency would be subject to the requirements in Rule 17Ad-22(e) whereas a registered clearing agency that is not a covered clearing agency would remain subject to the requirements in Rule 17Ad-22(d).⁶⁰ As discussed in the CCA Standards proposing release, the Commission believed that such an approach would allow the Commission to maintain discretion to apply Rule 17Ad-22(d) to certain new clearing agencies while also

purposes of Section 17A of the Exchange Act, including the prompt and accurate clearance and settlement of securities transactions and the safeguarding of securities and funds.

⁵⁶ See 15 U.S.C. 78q-1(b)(1).

⁵⁷ See Exchange Act Release No. 34-39643 (Feb. 11, 1998), 63 FR 8232 (Feb. 18, 1998), as modified by Exchange Act Release No. 34-43775 (Dec. 28, 2000), 66 FR 819 (Jan. 4, 2001); Exchange Act Release No. 34-38328 (Feb. 24, 1997), 62 FR 9225 (Feb. 28, 1997).

In the case of matching service providers, the Commission first sought comment on providing exemptive relief before considering any application for exemptive relief. See Exchange Act Release No. 34-39829 (Apr. 6, 1998), 63 FR 17943 (Apr. 13, 1998) ("Even though matching services fall within the definition of clearing agency, the Commission preliminarily is of the view that an entity that limits its clearing agency functions to providing matching services need not be subject to the full panoply of clearing agency regulation."). The Commission then engaged a close analysis of the attendant facts and circumstances of each applicant for an exemption from registration as a clearing agency on a case-by-case basis. See, e.g., Exchange Act Release No. 34-44188 (Apr. 17, 2001), 66 FR 20494 (Apr. 23, 2001) (order granting exemption from registration as a clearing agency to Global Joint Venture Matching Services—US, LLC, now Omgeo).

⁵⁸ See, e.g., Understanding regarding an Application of Euroclear Bank for an Exemption under U.S. Federal Securities Laws (Jan. 30, 2001), available at https://www.nbb.be/doc/cp/nl/aboutcbfa/mou/pdf/mou_2001-01-30_euroclearbank.pdf; Exchange Act Release No. 34-37309 (June 12, 1996) (notice of filing of application for exemption from registration as a clearing agency by Cedel Bank); see also Undertaking on Consultation and Cooperation regarding Belgian Firms that are Members of U.S. Clearing Organizations (July 6, 2006), available at http://www.sec.gov/about/offices/oia/oia_bilateral/belgium.pdf.

⁵⁹ The Commission notes that, as defined in Rule 17Ad-22(a)(4) and as used in this release, "security-based swap clearing agencies" are a subset of complex risk profile clearing agencies that provide CCP services for security-based swaps. For a CCP other than a security-based swap clearing agency, the Commission may determine whether the activities of such CCP have a more complex risk profile and, therefore, whether such CCP is a covered clearing agency pursuant to Rule 17Ab2-2. See *infra* Part II.D (further discussing Commission determinations under Rule 17Ab2-2).

⁶⁰ Rule 17Ad-22(d) sets forth minimum requirements for the operation and governance of registered clearing agencies. Under the proposal, all registered clearing agencies and covered clearing agencies would also remain subject to the requirements in Section 17A of the Exchange Act and the other relevant Commission rules and regulations thereunder, including Rules 17Ad-22(a), (b), and (c).

applying the requirements under Rule 17Ad-22(e) to those clearing agencies that raise systemic risk concerns due to, among other things, their size, systemic importance, global reach, or the risks inherent in the products they clear.⁶¹ To facilitate this approach, the Commission proposed to modify Rule 17Ad-22(d) so that it would only apply to a registered clearing agency other than a covered clearing agency.

Under proposed Rule 17Ad-22(e), a covered clearing agency would be required to establish, implement, maintain and enforce written policies and procedures reasonably designed to address the following topics concerning its operation and governance:

- General organization (including legal basis, governance, and a framework for the comprehensive management of risks);
- financial risk management (including credit risk, collateral, margin, and liquidity risk);
- settlement (including settlement finality, money settlements, and physical deliveries);
- CSDs and exchange-of-value settlement systems;
- default management (including default rules and procedures and segregation and portability);
- business and operational risk management (including general business risk, custody and investment risks, and operational risk);
- access (including access and participation requirements, tiered participation arrangements, and links);
- efficiency (including efficiency and effectiveness and communication procedures and standards); and
- transparency.

The Commission is adopting Rule 17Ad-22(e) substantially as proposed. Each of the requirements under Rule 17Ad-22(e), any modifications made thereto, and the comments received with respect to them, are discussed in Part II.C.

In addition, the Commission proposed Rule 17Ab2-2 to provide the Commission with procedures to make determinations regarding the following:

- Whether a registered clearing agency should be considered a covered clearing agency;
- whether a covered clearing agency meets the definition of “systemically important in multiple jurisdictions;”⁶² and
- whether the activities of a clearing agency providing CCP services have a more complex risk profile.

The proposed rule would allow such determinations to occur either at the Commission’s own initiative or upon request by either a clearing agency or one of its members. In each case, the Commission would publish notice of its intention to consider such determinations, together with a brief statement of the grounds under consideration, and provide at least a 30-day public comment period prior to any determination. Under the proposed rule, the Commission may also provide a clearing agency subject to any proposed determination opportunity for hearing. The Commission is adopting Rule 17Ab2-2 substantially as proposed. Modifications to Rule 17Ab2-2 made in response to the comments received are discussed in Part II.D.

To facilitate the addition of proposed Rule 17Ad-22(e) and proposed Rule 17Ab2-2, the Commission proposed to add 14 new definitions to Rule 17Ad-22(a). The Commission is adopting those definitions substantially as proposed, but is combining the definitions of “sensitivity analysis” and “conforming sensitivity analysis” into one definition of “sensitivity analysis.”⁶³ Each of the definitions, any modifications made thereto, and the comments received with respect to them, are discussed in Part II.C.

Finally, the Commission also proposed Rule 17Ad-22(f) to codify the Commission’s statutory authority under Section 807(c) of the Clearing Supervision Act. The Commission received no comments regarding Rule 17Ad-22(f) and is adopting it as proposed.⁶⁴

C. Comments Received

The Commission received seventeen comment letters in response to the CCA Standards proposing release.⁶⁵

⁶³ Each definition is discussed in Part II. For discussion of the new definition of “sensitivity analysis,” see Part II.C.6.c.

⁶⁴ See *infra* Part II.E.

⁶⁵ See letters from Timothy W. Cameron, Asset Management Group—Head, and Laura Martin, Asset Management Group—Managing Director and Associate General Counsel, Securities Industry and Financial Markets Association, and David W. Blass, General Counsel, and Jennifer S. Choi, Associate General Counsel, Investment Company Institute (May 12, 2016) (“AMG-ICI”); Chris Barnard (May 26, 2014) (“Barnard”); Dennis M. Kelleher, President and CEO, Stephen Hall, Securities Specialist, Katelynn Bradley, Attorney, and Caitlin Kline, Derivatives Specialist, Better Markets, Inc. (May 27, 2014) (“Better Markets”); Kurt N. Schacht, CFA, Managing Director, Standards and Financial Market Integrity, and Linda L. Rittenhouse, Director, Capital Markets, CFA Institute (May 27, 2014) (“CFA Institute”); Kathleen M. Cronin, Senior Managing Director, General Counsel, and Corporate Secretary, CME Group, Inc. (May 27, 2014) (“CME”); Larry E. Thompson, Managing Director and General Counsel, The Depository Trust and

Clearing Corporation (May 27, 2014) (“DTCC”); Scott C. Goebel, Senior Vice President and General Counsel, Fidelity Investments (May 27, 2014) (“Fidelity”); Paul Swann, President and Managing Director, ICE Clear Europe Limited (May 23, 2014) (“ICEEU”); Dorothy M. Donohue, Acting General Counsel, Investment Company Institute (May 21, 2014) (“ICI”); Stephen O’Connor, Chairman, International Swaps and Derivatives Association, Inc. (May 22, 2014) (“ISDA”); John Joyce, Northern Illinois University College of Law (Apr. 1, 2014) (“Joyce”); Susan Milligan, Head of U.S. Public Affairs, LCH.Clearnet (May 27, 2014) (“LCH”); James E. Brown, Executive Vice President, General Counsel, and Secretary, The Options Clearing Corporation (May 27, 2014) (“OCC”); Akshat Tewary et al., Occupy the SEC (June 10, 2014) (“OSEC”); Sheila Bair, Chair, The Systemic Risk Council (May 28, 2014) (“SRC”); Jarryd E. Anderson, Vice President, Regulatory Affairs, The Clearing House Association LLC (May 27, 2014) (“The Clearing House”); Tim Buckley, Managing Director and Chief Investment Officer, and John Hollyer, Principal and Head of Risk Management and Strategy Analysis, Vanguard (May 27, 2014) (“Vanguard”). Copies of the comment letters are available at <http://www.sec.gov/comments/s7-03-14/s70314.shtml>.

Commenters included market participants from across the financial industry, including registered clearing agencies, non-U.S. clearing agencies, non-profit groups, various entities participating in or representing professionals who provide investment or asset management services, participants in the derivatives markets, an association of banks representing clearing participants and members of certain CCPs, and members of the general public.

Commenters generally supported the Commission’s proposal and the Commission’s ongoing efforts to regulate registered clearing agencies,⁶⁶ though several also raised concerns regarding certain aspects of the proposed rules, as discussed throughout this release. Below is a discussion of the comments that were not directed to the content of a particular proposed rule and, where appropriate, the Commission’s response.⁶⁷ Comments received that were directed to a particular proposed rule, or aspects thereof, are discussed in Part II.

⁶⁶ See Barnard at 1 (also focusing support on the proposed financial risk management and liquidity requirements); CFA Institute at 2 (expressing overall support for the proposed rules); CME at 2 (applauding the Commission’s efforts to support dually registered entities as they continue to focus their resources on the important work of maintaining effective systems of governance and enhancing their operational strength); DTCC at 3 (stating that it is broadly supportive of the proposed rules); ICEEU at 1 (expressing support for comprehensive regulation of clearing agencies and linking such comprehensive regulation to the PFMI and the rules of the Commission); OCC at 3 (expressing support for the Commission’s effort to strengthen the substantive regulation of registered clearing agencies).

⁶⁷ For comments not directed to the substance of the proposal itself, see Part II.C.7.

⁶¹ See CCA Standards proposing release, *supra* note 5, at 29516.

⁶² See *infra* note (discussing the definition of “systemically important in multiple jurisdictions”).

1. Financial Stability and the Dodd-Frank Act

One commenter supported the Commission's stated goal of contributing to the enhancement of the stability of the U.S. securities markets.⁶⁸ Another commenter strongly supported the Commission's efforts to promote financial stability through the application of enhanced standards for covered clearing agencies, in particular those that act as CCPs for security-based swaps and other derivatives.⁶⁹ A third commenter similarly expressed the belief that the proposed requirements should promote market integrity, improve the robustness of clearing systems, and protect the financial system against contagion.⁷⁰ The Commission believes that Rule 17Ad-22(e) achieves these goals by supporting the objectives of (i) the Exchange Act to facilitate the establishment of a national system for the prompt and accurate clearance and settlement of securities transactions and linked or coordinated facilities for clearance and settlement of securities transactions, having due regard for the public interest, the protection of investors, the safeguarding of securities and funds, and maintenance of fair competition among brokers and dealers, clearing agencies, and transfer agents,⁷¹ and (ii) the Clearing Supervision Act to promote robust risk management, promote safety and soundness, reduce systemic risks, and support the stability of the broader financial system.⁷²

One commenter generally supported the mandate of Title VII of the Dodd-Frank Act to promote transparency and regulation in the derivatives markets.⁷³ Another commenter noted that the Dodd-Frank Act has sought to shed light on the opaque markets for swaps and other exotic OTC derivatives, which numerous other commentators have asserted contributed to the recent financial crisis, by requiring such derivatives to be cleared through registered clearing agencies.⁷⁴ The commenter stated that this shift toward transparency could be useful if clearing agencies are themselves robust and stable, noting that, in some ways, the risks associated with OTC derivatives trading have not gone away but simply shifted to clearing agencies. The commenter stated that, thus, it is vital for the Commission to not only

promulgate strong regulations for clearing agencies but also to enforce such regulations in a vigorous manner. As noted above, the Commission believes that the focus in Rule 17Ad-22(e) on transparency, governance, financial risk management, and operational risk management are consistent with the objectives of promoting strong rules that help ensure covered clearing agencies are robust and stable, and that any risks particular to OTC derivatives trading and the risks present in clearing such derivatives are addressed in requirements for the covered clearing agency's management of financial risks.

2. Relationship Between Rules 17Ad-22(d) and (e)

One commenter generally supported the Commission's approach to the regulation of registered clearing agencies, which the commenter stated applies a more general set of standards under Rule 17Ad-22(d) for registered clearing agencies other than covered clearing agencies.⁷⁵ The commenter stated that this framework would allow new entrants to more firmly establish themselves as clearing agencies, which is important for the deconsolidation and diffusion of risk across the market. The commenter noted that at present the clearance and settlement industry, like much of the financial sector, can be described as highly concentrated, and stated that it is paramount that the Commission set policies that promote the proliferation of viable new clearing agencies, given that existing clearing agencies typically serve as intermediaries for trillions of dollars in trading volumes. In the commenter's view, such concentration in the provision of clearance and settlement services results in risk concentration and inhibits price allocation for services, which, in turn, inhibits liquidity.⁷⁶ The Commission is mindful of these concerns and notes, as discussed above, that the approach under Rules 17Ad-22(d) and (e) take into account various clearing agency activities and the risks they pose while promoting robust risk management practices and the general safety and soundness of registered clearing agencies. In particular, as discussed in Part III.B.1.d, the Commission has considered the level of concentration in

the provision of clearing agency services.

One commenter expressed the belief that some of the proposed requirements under Rule 17Ad-22(e) represent a clarification of existing requirements under Rule 17Ad-22(d) rather than enhanced standards related to the particular risks arising from a clearing agency's systemic importance.⁷⁷ The commenter recommended that the Commission review and revise Rule 17Ad-22(d) to align it with the analogous provisions under proposed Rule 17Ad-22(e), particularly if the different language in the proposed rule is intended to clarify language in the existing rule or represents a logical outgrowth from it. The commenter stated that, to the extent any provision of the proposed rules reflects a best practice, the provision should apply to all registered clearing agencies.⁷⁸

The Commission does not believe that the requirements under Rule 17Ad-22(e) represent a clarification of existing requirements in Rule 17Ad-22(d) or a codification of best practices. As discussed above, the Commission proposed to maintain Rule 17Ad-22(d) to ensure that the Commission could efficiently and effectively regulate registered clearing agencies depending on the specific activity and risks that each type of clearing agency poses to the U.S. financial system. Thus, Rule 17Ad-22(d) applies requirements to registered clearing agencies other than covered clearing agencies, consistent with the continuing development of the national system for clearance and settlement. Since no clearing agency would be subject to both Rule 17Ad-22(d) and Rule 17Ad-22(e), the Commission does not believe that confusion would arise from similarities or differences between the requirements under the two separate rules. With respect to best practices, Rule 17Ad-22(e) includes requirements for covered clearing agencies intended to address the activity and risks that their size, operation, and importance pose to the U.S. securities markets, the risks inherent in the products they clear, and the goals of both the Exchange Act and the Dodd-Frank Act, and is not an attempt to merely reflect best practices.⁷⁹

One commenter stated that the Commission must be vigilant to prevent companies from engaging in regulatory arbitrage by seeking application of Rule 17Ad-22(d) when the requirements of

⁶⁸ See CME at 1.

⁶⁹ See The Clearing House at 1.

⁷⁰ See Barnard at 1.

⁷¹ See *supra* notes 3–4 and accompanying text.

⁷² See *supra* note 18 and accompanying text.

⁷³ See Vanguard at 1.

⁷⁴ See OSEC at 3.

⁷⁵ See OSEC at 1. The commenter, however, also raised concerns with the proposed dual framework under existing Rule 17Ad-22(d) and proposed Rule 17Ad-22(e) because the commenter believed the dual framework could facilitate regulatory arbitrage. See *id.* at 1–2; see also *infra* note 80 and accompanying text.

⁷⁶ See *id.*

⁷⁷ See DTCC at 4 (citing proposed Rules 17Ad-22(e)(1), (8), (10), and (12) as examples).

⁷⁸ See *id.*

⁷⁹ See CCA Standards proposing release, *supra* note 5, at 29516.

proposed Rule 17Ad–22(e) would be more appropriate.⁸⁰ The commenter explained that the Commission can expect, for instance, large entities to float new subsidiaries or affiliates seeking to operate under Rule 17Ad–22(d), even though the risk profile of the subsidiary may be part of the greater risk exposure of the entity at-large.⁸¹ The Commission is mindful of this concern and notes that, in a separate release, the Commission has proposed an expanded definition of “covered clearing agency” that, if adopted, may further reduce potential opportunities for arbitrage.⁸²

The same commenter also recommended that the Commission regularly evaluate registered clearing agencies subject to Rule 17Ad–22(d) to ensure that their activities have not risen to a level warranting oversight and requirements pursuant to Rule 17Ad–22(e).⁸³ The commenter stated that the Commission should require frequent audits of the policies and procedures of clearing agencies operating under Rule 17Ad–22(d) and proposed Rule 17Ad–22(e) because (i) smaller, profitable clearing agencies may quickly outgrow Rule 17Ad–22(d) and (ii) covered clearing agencies may shift their operations materially after crafting robust policies and procedures under Rule 17Ad–22(e). In addition, the commenter noted that even if policies and procedures are implemented in good faith, their efficacy could be questionable because standard measurements of credit and liquidity risk may only encourage excessive confidence in the risk profile of financial institutions.⁸⁴ The same commenter stated that the Commission’s vigorous enforcement of clearing rules will ultimately remain more important in achieving real-world risk reduction than the mere promulgation of detailed rules.⁸⁵ The commenter noted that clearing agencies by definition collect various counterparty risks and, while the agglomeration of such risks by clearing agencies may have not played a significant role in the most recent financial crisis, the continued growth of trading operations and the consolidation of market power in the banking and finance sectors suggest that clearing

agencies could serve as “ground zero” in the next crisis.⁸⁶

As to this commenter, the Commission notes that registered clearing agencies are subject to inspections and examinations under both the Exchange Act and the Clearing Supervision Act.⁸⁷ The Commission also monitors registered clearing agencies to assess and evaluate the risks posed by each clearing agency. Rule 17Ad–22(e) provides the Commission with requirements against which a covered clearing agency can be, among other things, monitored, inspected, and examined with respect to its establishing, implementing, maintaining, and enforcing policies and procedures for managing credit and liquidity risk and its compliance with such policies and procedures. In addition, the Commission is proposing in a separate release to expand the definition of “covered clearing agency” to include all CCPs, CSDs, and SSSs. If adopted, the requirements applied to CCPs, CSDs, and SSSs would be uniform under Rule 17Ad–22(e).⁸⁸

3. Relationship Among Rules 17Ad–22(b), (c), and (e)

One commenter raised concerns regarding overlap between existing Rules 17Ad–22(b)(1) through (4) and several of the provisions of proposed Rule 17Ad–22(e).⁸⁹ The commenter expressed the belief that proposed Rules 17Ad–22(e)(4), (6), and (7) fully address all of the matters covered by existing Rules 17Ad–22(b)(1) through (4) and that subjecting covered clearing agencies that provide CCP services to both sets of requirements may create ambiguities and inconsistencies.⁹⁰ The commenter urged the Commission to revise the proposal so that the provisions of existing Rules 17Ad–22(b)(1) through (4) are not applicable to covered clearing agencies that provide CCP services.⁹¹ The Commission notes that the commenter has not identified specific ambiguities or inconsistencies between Rules 17Ad–22(b) and (e) that might result from application of both rule sets. With respect to the potential for inconsistency, the Commission believes that while Rule 17Ad–22(e) may overlap with some requirements in Rule 17Ad–22(b), it is not inconsistent with Rule 17Ad–22(b) and, as a general matter, includes requirements intended to supplement the more general

requirements in Rule 17Ad–22(b). With respect to the potential for ambiguity, the Commission notes that Rule 17Ad–22(b) applies to a registered clearing agency that provides CCP services and Rule 17Ad–22(e) applies to a registered clearing agency that is a covered clearing agency. To the extent that a registered clearing agency is one that both provides CCP services and is a covered clearing agency, then it is subject to the requirements in both rule sets, with the more general requirements in Rule 17Ad–22(b) supplemented by the requirements of Rule 17Ad–22(e). The Commission therefore is declining to limit application of Rule 17Ad–22(b) to clearing agencies that provide CCP services and are not covered clearing agencies.

The commenter stated in the alternative that, at a minimum, the Commission should clarify that the requirement in existing Rule 17Ad–22(c)(1), which requires a registered clearing agency that provides CCP services to calculate and maintain a record of its financial resources available to cover participant defaults in accordance with existing Rule 17Ad–22(b)(3), should instead be determined and calculated in accordance with proposed Rule 17Ad–22(e)(4). The Commission believes that such clarification in the rule text is appropriate. The Commission further believes that, in light of the closely linked nature between the management of credit and liquidity risk, and the holistic approach taken in Rule 17Ad–22(e),⁹² a covered clearing agency generally should also calculate and maintain a record of its qualifying liquid resources under Rule 17Ad–22(e)(7). The Commission therefore is amending Rule 17Ad–22(c)(1) to include a reference to the requirements for financial resources and qualifying liquid resources in Rules 17Ad–22(e)(4) and (e)(7) respectively, so that covered clearing agencies have reporting requirements for their financial and qualifying liquid resources equivalent to other registered clearing agencies.⁹³ The Commission notes that, to the extent the computations for financial resources under Rules 17Ad–22(b)(3) and (e)(4) are the same, a covered clearing agency could indicate so in the supporting documentation required pursuant to Rule 17Ad–22(c)(1).

⁸⁰ See OSEC at 1–2.

⁸¹ See *id.* at 2.

⁸² In a separate release, the Commission is proposing to modify the definition of “covered clearing agency” to include all CCPs, CSDs, and SSSs. See Exchange Act Release No. 34–78963 (Sept. 28, 2016) (“CCA Definition proposing release”).

⁸³ See OSEC at 2.

⁸⁴ See *id.*

⁸⁵ See *id.*

⁸⁶ See *id.*

⁸⁷ See 12 U.S.C. 5466.

⁸⁸ See *supra* note 82.

⁸⁹ See DTCC at 4–5.

⁹⁰ See *id.* at 5.

⁹¹ See *id.*; see also 17 CFR 240.17Ad–22(b)(1)–(4).

⁹² See *infra* Part II.B (discussing the principles based approach to Rule 17Ad–22(e)).

⁹³ See Rule 17Ad–22(c)(1), *infra* Part VI.

4. Risk of Duplicative or Inconsistent Regulation

One commenter noted that coordination among regulators in implementing derivatives reform is critical to the efficient functioning of the derivatives market by alleviating duplicative and potentially conflicting regulation of cross-border transactions.⁹⁴ In response, the Commission notes that, as discussed above and previously in the CCA Standards proposing release, the Commission has consulted with the CFTC, FRB, and FSOC in developing these rules.⁹⁵

Another commenter similarly expressed the belief that consistent international regimes are critical to mitigating regulatory arbitrage because opportunities for regulatory arbitrage would disadvantage smaller market participants.⁹⁶ The commenter stated that no basis exists for different regulatory treatment between U.S. and non-U.S. markets for security-based swaps, noting that the Commission may conform its standards for clearing agencies to reflect evolving international standards, consistent with the Dodd-Frank Act and the Exchange Act.⁹⁷ As noted above, the Commission has considered the relevant international standards in developing these rules, consistent with the Dodd-Frank Act and the Exchange Act, and the Commission believes that the scope of and requirements in Rule 17Ad-22(e) appropriately address the risk profile of CCPs that clear security-based swaps.⁹⁸

A third commenter supported the view that imposing requirements on dually registered entities would subject them to duplicative regimes,⁹⁹ and the commenter stated that avoiding unnecessarily duplicative regulation allows for the most efficient use of both public and private sector resources towards the shared goal of protecting the financial system.¹⁰⁰

A fourth commenter stated that the Commission should be wary of imposing additional requirements on top of those imposed by other regulators, particularly where other

regulators are attempting to (or have) imposed the same or substantially similar standards.¹⁰¹ The commenter expressed the concern that, particularly for those clearing entities that are regulated by multiple governmental authorities in multiple jurisdictions, the approach taken in the proposed rules may unnecessarily subject clearing entities to the risk of duplicative or inconsistent regulation.¹⁰² The commenter expressed the belief that avoiding unnecessarily duplicative or, worse, inconsistent regulation is key to maximizing effective regulation and the use of limited regulatory activities.¹⁰³ The commenter stated that avoiding unnecessarily duplicative regulation will also allow the Commission to focus its resources on the particular activities within its jurisdiction that present increased risks and should therefore be subject to increased supervision. The commenter urged the Commission, in implementing enhanced standards for covered clearing agencies, to take a more flexible approach that is not “one-size-fits-all” and considers the overall regulatory status of the relevant clearing agency.¹⁰⁴

With respect to these two commenters, the Commission notes, as previously discussed, that the Commission has consulted with the CFTC, FRB, and FSOC in the development of these rules to, in part, avoid unnecessarily duplicative or inconsistent regulation with respect to clearing agencies that are dually registered in the United States. With respect to such clearing agencies—as well as clearing agencies regulated by authorities in other jurisdictions—the Commission is nonetheless mindful, pursuant to the comprehensive framework for regulating swaps and security-based swaps established in Title VII, that the SEC has been given regulatory authority over security-based swaps. CCPs that clear security-based swaps present risks to the securities markets that must be subject to appropriate risk management. The Commission’s intent with respect to Rule 17Ad-22(e) is, in part, to take another incremental step under Rule 17Ad-22 to ensure that these risks are appropriately managed consistent with the purposes of the Exchange Act, the Clearing Supervision Act, and Title VII of the Dodd-Frank Act.¹⁰⁵ In this regard, the Commission does not believe that it has taken a “one-size-fits-all” approach;

rather, the Commission has, through Rule 17Ad-22, sought to apply requirements commensurate and appropriate to the risk posed by the clearing agency functions and activities specific to covered clearing agencies as they exist in, and serve, the U.S. securities markets. The Commission acknowledges that other rules and regulations may apply to a covered clearing agency that are similar in scope or purpose to Rule 17Ad-22(e). However, the presence of similar regulations does not negate the Commission’s obligation to ensure that risk in the U.S. securities markets is appropriately managed consistent with the purposes of the Exchange Act, the Clearing Supervision Act, and Title VII of the Dodd-Frank Act. Further, because Rule 17Ad-22(e) and other comparable regulations—including those of the CFTC—are based on the same international standards,¹⁰⁶ the potential for inconsistent regulation is low. The commenters have provided no examples suggesting that Rule 17Ad-22(e) is inconsistent with another comparable regulation. Nonetheless, Part I.A.6 above discusses the process by which the Commission could consider the attendant facts and circumstances in assessing the application of Rule 17Ad-22(e) to a non-U.S. covered clearing agency that is subject to similar regulation in its home jurisdiction, and Part II.A.2 further discusses comments regarding the risk of duplicative or inconsistent regulation targeted to security-based swap clearing agencies subject to similar regulation in the home jurisdiction.

Finally, one commenter noted that opportunities for regulatory arbitrage may exist based on differences between the Commission’s proposed approach and rules adopted by the CFTC.¹⁰⁷ Opportunities for regulatory arbitrage only exist, however, when there are gaps or conflicting regulations for the same matter. Here, as noted above, the Commission and CFTC have separate and distinct statutory mandates, as set forth in the Exchange Act and the Commodity Exchange Act, respectively, for the different markets they regulate. The Commission has specific authority over the national system for clearance and settlement of U.S. securities transactions, including transactions involving security-based swaps.¹⁰⁸ Under the Clearing Supervision Act, the Commission also has specific authority over those SIFMUs for which it is the

⁹⁴ See ICI at 2.

⁹⁵ See CCA Standards proposing release, *supra* note 5, at 29508 (noting that the Commission has begun, and intends to continue, consultation with the CFTC, FRB, and FSOC).

⁹⁶ See Fidelity at 7.

⁹⁷ See *id.* at 7–8.

⁹⁸ See *supra* note 1 and accompanying text; see also CCA Standards proposing release, *supra* note 5, at 29508 & n.1 (noting the same at the proposing stage).

⁹⁹ See CME at 2 (citing CCA Standards proposing release, *supra* note 5, at 29516).

¹⁰⁰ See CME at 2.

¹⁰¹ See ICEEU at 7–8.

¹⁰² See *id.* at 1–2.

¹⁰³ See *id.* at 8.

¹⁰⁴ See *id.* at 2.

¹⁰⁵ See *supra* Part I.A.

¹⁰⁶ See *supra* notes 1–2, 43, and accompanying text.

¹⁰⁷ See OSEC at 2.

¹⁰⁸ See *supra* Parts I.A.1 and 2.

supervisory agency. In this regard, such a regulatory structure does not on its face create opportunities for regulatory arbitrage based on any differences between the Commission's proposed approach and rules adopted by the CFTC.

5. Flexible Versus Prescriptive Approaches to Regulation, and the Role of Rule Filings Under Rule 19b-4

One commenter supported the proposed approach that covered clearing agencies be allowed flexibility to use their market experience and understanding of their institutions to shape the implementation of proposed Rule 17Ad-22(e).¹⁰⁹ The commenter emphasized that a flexible and holistic approach would allow a clearing agency to make decisions from a perspective of overall risk management, which may be more productive than a more prescriptive approach.¹¹⁰ Another commenter was broadly supportive of the proposed rules, noting that the rules provide covered clearing agencies with the necessary flexibility to design and structure their policies and procedures to take into account the differences among clearing agencies.¹¹¹ The commenter expressed the view that the Commission generally achieved the appropriate balance between taking a principles-based approach (providing clearing agencies with flexibility) and a more prescriptive, granular approach (limiting a clearing agency's discretion).¹¹² The commenter also expressed the belief that the precise form of the written policies and procedures required by proposed Rule 17Ad-22(e) should be a matter for the clearing agency to determine, and the commenter listed among such policies and procedures the following: Service guides, operational agreements, compliance procedures, link agreements, and protocols.¹¹³ A third commenter, in contrast, was concerned that the proposed rules rely inordinately on internal risk testing and standards rather than a clear set of external, regulatory demands.¹¹⁴ In the commenter's view, financial firms often view their policies and procedures as mere inconveniences.

The Commission does not believe that policies and procedures established by covered clearing agencies and required pursuant to Rule 17Ad-22(e) can or would be viewed as "mere

inconveniences." In proposing Rule 17Ad-22(e) the Commission stated—and continues to believe—that it is important for covered clearing agencies to use their experience and understanding of the markets they serve to shape the rules, policies, and procedures implementing proposed Rule 17Ad-22(e).¹¹⁵ Nonetheless, as discussed above, Rule 17Ad-22(e) provides the Commission with a uniform set of requirements against which a covered clearing agency can be monitored, inspected, and examined. Additionally, the Commission notes that, in using its experience to shape the policies and procedures that implement Rule 17Ad-22(e), a covered clearing agency must at all times comply with the requirements of both Section 19 of the Exchange Act and the rules and regulations thereunder for SROs, as well as, for designated clearing agencies, the advance notice requirements of the Clearing Supervision Act and the rules and regulations thereunder.¹¹⁶ Under Section 19(g) of the Exchange Act, a registered clearing agency (as an SRO) must comply with its own rules and, absent reasonable justification or excuse, enforce compliance with its own rules by its participants.¹¹⁷

One of the above commenters further stated that there should be no change in the requirement for filing proposed rule changes under Rule 19b-4 under the Exchange Act, and noted that not all written policies and procedures that would be adopted by a clearing agency in compliance with the proposed rule would be the subject of rule filings under Rule 19b-4.¹¹⁸ The Commission notes that the amendments to Rule 17Ad-22 do not alter the definition of a rule or a proposed rule change under the Exchange Act, nor do the amendments change a registered clearing agency's obligation to file proposed rule changes under Rule 19b-4.¹¹⁹

6. Consistency With the PFMI

Five commenters generally supported the Commission's proposed approach at least in part because they believed it would reflect consistency with the PFMI, as described further below.

One commenter supported the Commission's efforts to update its rules for clearing agencies to take into

account the PFMI and to provide support for determinations by non-U.S. banking regulators that covered clearing agencies satisfy the requirements for QCCP status under the BCBS capital framework.¹²⁰ The commenter expressed the belief that it would be beneficial for the Commission's rules to recite the Commission's intent to establish standards for covered clearing agencies that are consistent with the PFMI and to interpret them in that context so long as it does not result in inconsistency with the Exchange Act or other Commission regulations, noting that the CFTC included such provision in its regulations for systemically important derivatives clearing organizations ("SIDCOs").¹²¹ In this regard, the commenter noted that one of the elements of the QCCP definition under the BCBS capital framework is that the relevant regulator has "publicly indicated" that it applies to a CCP, on an ongoing basis, domestic rules and regulations that are consistent with the PFMI.¹²² As previously discussed, the Commission has publicly indicated that, in developing Rule 17Ad-22(e), the Commission has, among other things, considered the relevant international standards, including the PFMI.¹²³ The Commission also believes, as previously discussed in Part I.A.5, that the requirements applicable to clearing agencies set forth in the Exchange Act and the rules thereunder, including the rules adopted today, are consistent with the PFMI, and that the rules set forth below are a continuation of the Commission's active effort to foster the development of the national clearance and settlement system consistent with the requirements of the Exchange Act.

A second commenter similarly supported the Commission's proposal to adopt enhanced regulatory standards that are consistent with the PFMI and that would facilitate the ability of covered clearing agencies to be considered QCCPs.¹²⁴ A third commenter welcomed the efforts of the Commission to implement standards for clearing agencies that are consistent with the PFMI.¹²⁵ A fourth commenter noted that enhanced standards are necessary to ensure that the Commission's regulation of CCPs is consistent with international standards, including the PFMI—which serves as a

¹⁰⁹ See OCC at 3.

¹¹⁰ See *id.* at 4.

¹¹¹ See DTCC at 3.

¹¹² See *id.*

¹¹³ See DTCC at 12–13.

¹¹⁴ See OSEC at 2.

¹¹⁵ See CCA Standards proposing release, *supra* note 5, at 29517.

¹¹⁶ See *supra* Parts I.A.1 and 2.

¹¹⁷ See 15 U.S.C. 78s(g).

¹¹⁸ See DTCC at 13; see also *supra* notes 11–13 and accompanying text (providing an overview of the requirement to submit proposed rule changes to the Commission for review).

¹¹⁹ See *supra* note 12 and accompanying text.

¹²⁰ See ISDA at 1.

¹²¹ See ISDA at 1–2 & n.4 (citing CFTC requirements at 17 CFR 39.40).

¹²² See *id.* at 1.

¹²³ See *supra* notes 1–2 and accompanying text; see also CCA Standards proposing release, *supra* note 5, at 29508 & n.1.

¹²⁴ See LCH at 2.

¹²⁵ See ICEEU at 1.

prerequisite to obtaining QCCP status under the BCBS capital framework—and CPSS–IOSCO’s consultative report *Recovery of Financial Market Infrastructures* (“Consultative Recovery Report”).¹²⁶

A fifth commenter noted that the Commission’s approach differs from the PFMI in some areas (e.g., segregation and portability and liquidity risk), reflecting the nature of the securities markets and the particular requirements of the Exchange Act.¹²⁷ The commenter supported this approach because covered clearing agencies need to have appropriate flexibility to implement timely modifications to relevant parameters, assumptions, and approaches. The commenter also expressed the belief that the Commission has generally struck the appropriate balance with respect to incorporating the PFMI principles and the level of granular requirements thereunder.¹²⁸

A sixth commenter, in contrast to the above commenters, urged the Commission to adopt the key considerations of each principle identified in the PFMI and to strengthen the proposed rules to affirmatively require robust standards and procedures that ensure accountability, independence, and financial stability.¹²⁹ To the extent that the commenter identified a particular key consideration that the Commission should include as a requirement in Rule 17Ad–22(e), it is discussed and addressed in Part II.C. As a general matter, the Commission believes that the requirements applicable to clearing agencies set forth in the Exchange Act and the rules thereunder, including the rules adopted today, are consistent with the PFMI. The Commission also believes Rule 17Ad–22(e) achieves the appropriate balance between imposing new requirements on covered clearing agencies and allowing each covered clearing agency, subject to its obligations and responsibilities as an SRO under the Exchange Act, to design its policies and procedures pursuant to Rule 17Ad–22(e). This approach is consistent with the Commission’s existing approach under Rules 17Ad–22(b) and (d) and recognizes that each registered clearing agency has different organizational and operating structures and clears distinct products that warrant a tailored approach to governance and

risk management respectively. The Commission notes that such a policies and procedures approach is also consistent with the Commission’s existing regulation of SROs generally.¹³⁰ In addition, in the discussion of each final rule under Rule 17Ad–22(e) in Part II.C, the Commission has provided guidance based on the key considerations in the PFMI.

7. Other Comments

The Commission also received several comments that were not directed to the substance of the CCA Standards proposal itself. These comments recommended study and rulemaking beyond the scope of the proposed amendments to Rule 17Ad–22 and Rule 17Ab2–2.¹³¹

II. Description of the Amendments to Rule 17Ad–22 and Rule 17Ab2–2

Below is a discussion of the amendments to Rule 17Ad–22 and Rule 17Ab2–2. Part II.A discusses the scope of new Rule 17Ad–22(e). Part II.B discusses the Commission’s principles-based approach to developing the requirements in Rule 17Ad–22(e). Part II.C discusses the requirements for covered clearing agencies under new Rule 17Ad–22(e) and the definitions that the Commission is adopting in Rule 17Ad–22(a). Part II.D discusses new Rule 17Ab2–2, Part II.E discusses new Rule 17Ad–22(f), and Part II.F discusses the amendment to Rule 17Ad–22(d).

¹³⁰ In the Commission’s experience, proposed rule changes of the type necessary to implement the rules would generally entail changes to the SRO’s written policies and procedures that must be submitted for Commission review and approval pursuant to Rule 19b–4 under the Exchange Act. See *supra* note 12.

¹³¹ See ISDA at 4, 6 (recommending that the Commission (i) develop, in a subsequent rulemaking, more detailed rules that require customer-by-customer accounting of the collateral value held by the covered clearing agency with respect to security-based swap positions and impose corresponding limitations on the value of collateral that the covered clearing agency may apply towards losses on other customers’ positions carried by the participant and (ii) commit to a study of insolvency of security-based swap clearing agencies with the goal of identifying uncertainties, proposing solutions, and fostering public discussion); CFA Institute at 2 (expressing general concern regarding the central clearing of OTC swaps and derivatives, urging the Commission to take caution in regulating OTC swaps and derivatives, and asking the Commission to consider whether to require all OTC contracts, whether standardized or not, to be cleared); SRC at 2 (stating that the SEC and CFTC continue to lack the resources available to other self-funded financial regulators, creating structural weakness). The Commission also received one comment letter that recommended modifications to Rule 17Ad–22(e)(14) and other rulemaking outside the scope of Rule 17Ad–22. See AMG–ICI at 8–12.

Part II.G discusses the effective and compliance dates.¹³²

A. Scope of Rule 17Ad–22(e)

To facilitate the approach to clearing agency regulation described in Part I.B, the Commission proposed to add five definitions to Rule 17Ad–22(a) to identify those clearing agencies that would be subject to the requirements in Rule 17Ad–22(e). First, the Commission proposed to define “financial market utility” as defined in Section 803(6) of the Clearing Supervision Act.¹³³ Second, the Commission proposed to define “designated clearing agency” as a clearing agency registered with the Commission under Section 17A of the Exchange Act that is designated as systemically important by the FSOC and for which the Commission is the supervisory agency as defined in Section 803(8) of the Clearing Supervision Act.¹³⁴ Third, the Commission proposed to define “clearing agency involved in activities with a more complex risk profile” to mean a clearing agency registered with the Commission under Section 17A of the Exchange Act and that either (i) provides CCP services for security-based swaps or (ii) has been determined by the Commission to be involved in activities with a more complex risk profile (“complex risk profile clearing agency”), either at the time of its initial registration or upon a subsequent determination by the Commission pursuant to proposed Rule 17Ab2–2. Fourth, the Commission also proposed to define “security-based swap” to mean security-based swap as defined in Section 3(a)(68) of the Exchange Act.¹³⁵ The Commission received no comments regarding these four definitions. The Commission is modifying the definition of “clearing agency involved in activities with a more complex risk profile” to strike “and” because it is unnecessary. The Commission is adopting the remaining three definitions as proposed.¹³⁶

¹³² If any of the provisions of these rules, or the application thereof to any person or circumstance, is held to be invalid, such invalidity shall not affect other provisions or application of such provisions to other persons or circumstances that can be given effect without the invalid provision or application.

¹³³ See 12 U.S.C. 5462(6) (defining “financial market utility” pursuant to the Clearing Supervision Act); *supra* note 20 (further discussing FMUs under the Clearing Supervision Act).

¹³⁴ Rule 17Ad–22 does not currently apply to entities operating pursuant to an exemption from clearing agency registration.

¹³⁵ See 15 U.S.C. 78c(a)(68).

¹³⁶ The Commission notes that, because of modifications to Rule 17Ad–22(a), the definition of “financial market utility” is being moved to Rule 17Ad–22(a)(7), the definition of “designated

¹²⁶ See The Clearing House at 1–2. The Commission notes that, since the comment letter was submitted, CPMI–IOSCO has published a final report on this topic. See *supra* note 41 (citing to the final report).

¹²⁷ See DTCC at 3.

¹²⁸ See *id.*

¹²⁹ See Better Markets at 4–5.

Fifth, the Commission proposed to define “covered clearing agency” to mean a designated clearing agency, a complex risk profile clearing agency for which the CFTC is not the supervisory agency, or any clearing agency determined to be a covered clearing agency by the Commission pursuant to proposed Rule 17Ad-22(e). Commenters expressed several views on the entities and activities that should be included within the “covered clearing agency” definition. In Part I.C.4 above, the Commission considered comments focused generally on the potential for duplicative or inconsistent regulation as a result of the proposed scope of Rule 17Ad-22(e). Below is a discussion of comments directed to aspects of the definition of “covered clearing agency.”¹³⁷ Comments directed to the scope of proposed Rule 17Ab2-2(a), which would have provided procedures for the Commission to determine whether a registered clearing agency is a covered clearing agency, are discussed separately in Part II.D. In light of those comments, the Commission has determined not to adopt proposed Rule 17Ab2-2(a), and therefore, in adopting the definition of “covered clearing agency,” the Commission has also determined to not adopt the proposed prong regarding determinations pursuant to Rule 17Ab2-2.¹³⁸ Accordingly, the Commission is adopting the definition of “covered clearing agency” to mean a designated clearing agency or a complex risk profile clearing agency for which the CFTC is not the supervisory agency as defined in the Clearing Supervision Act.¹³⁹

1. As Applied to CCPs Generally

Four commenters supported applying enhanced standards to CCPs generally.¹⁴⁰ One commenter noted that the mandatory clearing of OTC derivatives introduced following the 2008 financial crisis has heightened the

need for enhanced standards for CCPs.¹⁴¹ A second commenter suggested that the Commission apply Rule 17Ad-22(e) to all clearing agencies to reduce the risk of failure and the problems such a failure would cause for investors.¹⁴² In so suggesting, the commenter cited to the size of the derivatives markets and the potential for disruption and systemic risk that those markets may have on covered clearing agencies.¹⁴³ A third commenter similarly cited to the risks associated with derivatives trading that has shifted into clearing agencies.¹⁴⁴ With respect to these three commenters, the Commission notes that, according to the “covered clearing agency” definition, a CCP is a covered clearing agency in either of the following circumstances: (i) If the CCP is a designated clearing agency; or (ii) if the CCP is a complex risk profile clearing agency,¹⁴⁵ unless the CFTC is the supervisory authority under the Clearing Supervision Act. Accordingly, under the “covered clearing agency” definition, five of the six active CCPs registered with the Commission will be a covered clearing agency subject to Rule 17Ad-22(e). The Commission believes that it is important to take an initial step to establish coverage of Rule 17Ad-22(e) over this group of clearing agencies and is adopting the “covered clearing agency” definition with only the modification described above regarding Rule 17Ab2-2. However, in consideration of these comments, the Commission is proposing in a separate release to amend the definition of “covered clearing agency” so that it would apply to any registered clearing agency that, among other things, provides CCP services.¹⁴⁶ Under this proposed definition, any CCP registered with the Commission would be a covered clearing agency.

The fourth commenter recommended that any provision of the proposed rules that reflects best practices should be applied to all registered clearing

agencies, CCPs or otherwise.¹⁴⁷ This comment has been previously addressed in Part I.C.2.¹⁴⁸

2. As Applied to Security-Based Swap Clearing Agencies

In contrast, three commenters sought to limit the scope of Rule 17Ad-22(e) further than was proposed.¹⁴⁹ The Commission believes these arguments are unpersuasive, for the reasons described below.

One of these commenters expressed the view that Rule 17Ad-22(e) should not apply to complex risk profile clearing agencies but only to designated clearing agencies, and that applying the enhanced regime of Rule 17Ad-22(e) to non-designated clearing agencies undermines the significance of being designated, which the commenter stated is inconsistent with the distinction Congress sought to create between systemically important clearing agencies and other non-designated clearing agencies.¹⁵⁰ The commenter stated that the Commission should take an approach similar to the CFTC, whereby non-designated clearing agencies could choose to “opt-in” to the enhanced requirements of Rule 17Ad-22(e) if desired. The commenter further stated that security-based swap clearing agencies should not automatically fall within the definition of a covered clearing agency, stating that it is not clear security-based swap clearing inherently raises issues that require enhanced standards as compared to other clearing activities.¹⁵¹

The Commission believes, however, that it is important to establish coverage of the enhanced standards of Rule 17Ad-22(e) for CCPs that clear security-based swaps. In the Commission’s view, in addition to designations of systemic importance under the Clearing Supervision Act, Title VII of the Dodd-Frank Act sets out separate and equally important objectives. As described above, Title VII provides the Commission with enhanced authority to regulate security-based swaps, and, among other things, requires the Commission to adopt rules with respect to security-based swap clearing agencies.¹⁵² The Commission previously has noted that Title VII’s mandate for the central clearing of security based swaps, wherever possible and appropriate, reinforces the need for proper risk management by security-

clearing agency” is being moved to Rule 17Ad-22(a)(6), the definition of “security-based swap” is being moved to Rule 17Ad-22(a)(15). The definition of “clearing agency involved in activities with a more complex risk profile” remains in Rule 17Ad-22(a)(4). See *infra* Part VI.

¹³⁷ The Commission notes that, because of modifications to Rule 17Ad-22(a), the definition of “covered clearing agency” is being moved to Rule 17Ad-22(a)(5). See *infra* Part VI.

¹³⁸ See *infra* Part II.D.2.a.

¹³⁹ In addition, as first noted in Part 0, in a separate release the Commission is proposing to modify the definition of “covered clearing agency” to include all CCPs, CSDs, and SSSs. See CCA Definition proposing release, *supra* note 82, at 25–26.

¹⁴⁰ See CFA Institute at 2; OSEC at 3; The Clearing House at 1; DTCC at 4 (recommending that any provision of the proposed rules that reflects best practices should be applied to all registered clearing agencies).

¹⁴¹ See The Clearing House at 1.

¹⁴² See CFA Institute at 2.

¹⁴³ See *id.* The commenter also suggests that, to account for these risks, the Commission reconsider whether all OTC contracts, whether standardized or not, ought to clear through covered clearing agencies. The Commission notes that whether OTC contracts ought to be subject to mandatory clearing requirements was not a subject of this rulemaking during the proposing stage, and the Commission therefore believes this comment is outside the scope of this rulemaking.

¹⁴⁴ See OSEC at 3.

¹⁴⁵ As previously discussed, security-based swap clearing agencies are a subset of complex risk profile clearing agencies under Rule 17Ad-22(a)(5). See *supra* note 59.

¹⁴⁶ See CCA Definition proposing release, *supra* note 82, at 25–43.

¹⁴⁷ See DTCC at 4.

¹⁴⁸ See *supra* notes 77–78 and accompanying text.

¹⁴⁹ See CME, ICEEU, and LCH.

¹⁵⁰ See ICEEU at 3.

¹⁵¹ See *id.* at 3–4.

¹⁵² See *supra* note 17 and accompanying text.

based swap clearing agencies to ensure the stability of the U.S. securities markets.¹⁵³ The requirements in Rule 17Ad-22(e), among other things, help to mitigate the risks inherent in the functions of a CCP, including a CCP for security-based swaps, and therefore the Commission believes that requiring registered clearing agencies performing such CCP functions to comply with Rule 17Ad-22(e), in addition to those registered clearing agencies that are designated clearing agencies, is consistent with the framework of both Title VII and the Clearing Supervision Act. In light of these considerations, the Commission does not believe that an opt-in regime is appropriate for security-based swap clearing agencies.

In the alternative, the commenter stated that application of Rule 17Ad-22(e) should be limited to the particular business or product lines of a covered clearing agency that warrant application of the higher standards.¹⁵⁴ The commenter noted that many clearing agencies clear a range of products, some of which are within and others outside of the Commission's jurisdiction. According to the commenter, for those clearing agencies only some activities, such as the clearing of security-based swaps, should trigger application of Rule 17Ad-22(e), and therefore the requirements in Rule 17Ad-22(e) should be limited to those business or product lines. The commenter noted that this would be applicable where the activity is substantially separate from other business lines, such as through the use of a separate guaranty fund. The commenter recognized that certain standards may not be easily applied to a particular business line,¹⁵⁵ but noted that a categorical rule that does not take into account the scope of a particular clearing agency's security-based swap activities or the risks presented by them raises concerns.¹⁵⁶

Rule 17Ad-22(e) applies to a covered clearing agency and does not make distinctions among the various product or business lines that the covered clearing agency manages. In the Commission's experience, many aspects of a clearing agency's operations are managed at the entity level (*i.e.*, as a clearing agency) irrespective of product or business line. For example, the clearing agency's legal framework,

governance, risk management framework, financial risk management, and operational risk management are determined as part of the policies and procedures of the entity (*i.e.*, the clearing agency), and therefore these areas are not separated out to apply exclusively to a particular business or product line.¹⁵⁷ Thus, requirements in Rule 17Ad-22(e) directed to these aspects of a clearing agency's operations generally could not be easily applied only to a particular business or product line when the clearing agency's operations and risk management are organized at the entity level. The Commission believes that this approach avoids unnecessary complexity and fragmentation in the policies and procedures of a clearing agency. The operations and risk management of a covered clearing agency are closely interrelated across various activities in which the clearing agency engages, and within Rule 17Ad-22(e), the requirements have significant interactions among each other, with some building upon others or complementing others. The Commission believes that this generally also supports a holistic application of the requirements in Rule 17Ad-22(e).

However, the Commission understands that some covered clearing agencies may manage certain activities and risk at an entity level while others manage the same activities and risk at a business or product level. Covered clearing agencies retain the ability to distinguish among their products in crafting their policies and procedures. Because a covered clearing agency's practices are diverse and difficult to generalize, the Commission has sought to address such concerns in other ways, such as by streamlining the process for rule filings under Rule 19b-4 filed by dually registered clearing agencies.¹⁵⁸ Specifically, for rule filings that primarily concern the clearing operations of a registered clearing agency that are not linked to securities clearing operations but only to clearing of products under the authority of the CFTC, the Commission provides a streamlined process for such rule filings to become effective upon filing with the Commission.¹⁵⁹

Additionally, two commenters urged the Commission to exclude non-U.S. security-based swap clearing agencies registered with the Commission from the definition of "covered clearing

agency" when they are regulated in their home jurisdictions under a regime that is consistent with the PFMI.¹⁶⁰ The commenters stated that this approach would be consistent with the Commission's treatment under Rule 17Ad-22(e) of dually registered SIDCOs for which the CFTC is the supervisory agency under the Clearing Supervision Act and believe a similar exclusion would be appropriate for clearing agencies subject to other regulatory frameworks.¹⁶¹ The commenters further stated that any decision to apply the enhanced standards for covered clearing agencies should take into account whether, and the extent to which, the clearing agency is already subject to similar or comparable standards under other regulation,¹⁶² noting that recognizing existing foreign regulation is consistent with the Commission's proposals on regulation of cross-border activities generally.¹⁶³ In the commenters' view, the approach set out in the Commission's Cross-Border proposing release sensibly balanced the interests of the Commission with those of foreign regulators and appropriately considered the costs and benefits of adding additional regulatory requirements where the home country regulation is comparable.

In this regard, one commenter expressed the belief that deference to home country regulation is appropriate because both Rule 17Ad-22(e) and applicable U.K. regulations are consistent with the PFMI, noting that U.S. and U.K. regulators thus have generally aligned interests.¹⁶⁴ In particular, the commenter cited, as comparable regulation to Rule 17Ad-22(e), regulation by the Bank of England under existing U.K. legislation and, for those clearing agencies that have been granted authorization as a CCP under EMIR, the regulations under EMIR.¹⁶⁵ A second commenter echoed this viewpoint, noting that EMIR is consistent with the PFMI.¹⁶⁶ Finally, one of the commenters stated that, in areas where the Commission determines that the home country regulation is not comparable and determines that additional regulation may be appropriate, any incremental regulation

¹⁵³ See CCA Standards proposing release, *supra* note 5, at 29576.

¹⁵⁴ See ICEEU at 7.

¹⁵⁵ See *id.* The commenter further states that this approach will help reduce the likelihood of clearing agencies being subject to inconsistent regulation. The Commission addressed this aspect of the comment above in Part I.C.4.

¹⁵⁶ See ICEEU at 7.

¹⁵⁷ See *infra* Parts II.C.1-7, 17 (discussing each, respectively).

¹⁵⁸ See Exchange Act Release No. 34-69284 (Apr. 3, 2013), 78 FR 21046 (Apr. 9, 2013) ("Dually Registered CA release").

¹⁵⁹ See *id.* at 21047.

¹⁶⁰ See ICEEU at 5-6; LCH at 3. The Commission has previously addressed more general comments regarding the risk of duplicative or inconsistent regulation above in Part I.C.4.

¹⁶¹ See ICEEU at 5-6; LCH at 3.

¹⁶² See *id.*

¹⁶³ See ICEEU at 6; LCH at 3 (citing Exchange Act Release No. 34-69490 (May 1, 2013), 78 FR 30968, 31039 (May 23, 2013) ("Cross-Border proposing release")).

¹⁶⁴ See ICEEU at 6.

¹⁶⁵ See *id.*

¹⁶⁶ See LCH at 3.

under Rule 17Ad–22 should be targeted to those areas of difference.¹⁶⁷

One commenter further stated that, at a minimum, a clearing agency subject to Rule 17Ad–22(e) in addition to comparable home regulation is subject to duplicative regulation, which is costly for both the clearing agency and its regulators and serves no meaningful regulatory purpose.¹⁶⁸ The commenter also stated that it is critical that a clearing agency not be subject to inconsistent regulations in different jurisdictions, noting that such inconsistencies can arise not only when relevant regulations are different but also when regulators interpret substantially similar regulations in different ways. As a result, the commenter stated that a clearing agency can still be significantly burdened by being subject to two substantially similar sets of regulations, and in its view, the commenter expressed the view that it would be preferable to allow clearing agencies, where possible, to be subject to a single set of standards.¹⁶⁹ The other commenter also supported an approach that would minimize duplicative requirements on those registered clearing agencies subject to both Rule 17Ad–22(e) and home regulation, while ensuring that all registered clearing agencies that clear security-based swaps are regulated in a manner that is consistent with the PFMI.¹⁷⁰

In response to the above comments, the Commission does not believe that a non-U.S. security-based swap clearing agency regulated in its home jurisdiction, under a regime consistent with the PFMI, should be excluded, as a threshold matter, from designation as a covered clearing agency. As previously discussed in Part I.C.4, the Commission's intent with respect to Rule 17Ad–22(e) is, in part, to take another incremental step under Rule 17Ad–22 to ensure that risks inherent in certain CCP activity, including the central clearing of security-based swaps, are appropriately managed consistent with the purposes of the Exchange Act, the Clearing Supervision Act, and Title VII of the Dodd-Frank Act. The Commission has, through Rule 17Ad–22, sought to apply requirements commensurate and appropriate to the risk posed by the clearing agency functions and activities specific to covered clearing agencies as they exist in, and serve, the U.S. securities markets. The Commission acknowledges

that other rules and regulations may apply to a covered clearing agency that are similar in scope or purpose to Rule 17Ad–22(e). However, the presence of similar regulations does not negate the Commission's obligation to ensure that risk in the U.S. securities markets is appropriately managed consistent with the purposes of the Exchange Act, the Clearing Supervision Act, and Title VII of the Dodd-Frank Act.

Further, because Rule 17Ad–22(e) and other comparable regulations are based on the same international standards,¹⁷¹ the Commission believes the potential for any inconsistent regulation is low. Indeed, applying Rule 17Ad–22(e) to a covered clearing agency that is also subject to comparable regulation consistent with the PFMI in its home jurisdiction should improve harmonization between the Commission's regulatory regime and that of the home jurisdiction, which would reduce the burdens associated with the presence of similar regulation under multiple regulatory regimes. In addition, because clearing agency practices are diverse and difficult to generalize, the Commission has sought to address concerns about duplicative regulation in other ways, such as through streamlining the process for rule filings under Rule 19b-4 filed by clearing agencies dually registered with the Commission and the CFTC so that rule filings that do not pertain to securities clearing operations become effective upon filing with the Commission, without pre-effective notice and opportunity for comment.¹⁷² In addition, Part I.A.6 above discusses the process by which the Commission could consider the attendant facts and circumstances in assessing the application of Rule 17Ad–22(e) to a non-U.S. covered clearing agency that is subject to similar regulation in its home jurisdiction.

3. As Applied to Dually Registered Clearing Agencies

One commenter noted that the proposed definition is sufficiently broad to enable the Commission to include SIDCOs. The commenter stated that the potential for a SIDCO to be determined to be a covered clearing agency is inconsistent with the Commission's acknowledgment of the purposes of the Clearing Supervision Act and there being duplicative requirements for some dually registered entities.¹⁷³ The

commenter recommended that the Commission expressly exclude from the definition of "covered clearing agency" those clearing agencies for which the CFTC is the supervisory agency pursuant to the Clearing Supervision Act. The Commission notes that the definition of "covered clearing agency" does expressly exclude those clearing agencies for which the CFTC is the supervisory agency. As previously discussed, in a separate release, the Commission is proposing to amend the definition of a covered clearing agency, and addresses the potential effects of the proposed amendment on clearing agencies dually registered with the CFTC.¹⁷⁴

B. Principles-Based Approach to Rule 17Ad–22(e)

Rule 17Ad–22(e) requires a covered clearing agency to establish, implement, maintain and enforce written policies and procedures that address a variety of issues, as described in detail below. The Commission's approach sets forth requirements that a covered clearing agency must achieve when developing its written policies and procedures. With a number of exceptions, Rule 17Ad–22(e) does not prescribe a specific tool or arrangement to achieve its requirements. The Commission believes that when determining the content of its policies and procedures, each covered clearing agency must have the ability to consider its unique characteristics and circumstances, including ownership and governance structures, effect on direct and indirect participants, membership base, markets served, and the risks inherent in products cleared. This ability, however, is subject to the requirements of the SRO rule filing and advance notice processes, which provide some opportunities for the public and participants to comment on the covered clearing agency's rules, policies, and procedures.

The Commission does not believe that a granular or prescriptive approach to its regulation of covered clearing agencies would be appropriate, nor would such an approach ensure that a covered clearing agency does not become a transmission mechanism for systemic risk. Moreover, the Commission believes that the primarily principles-based approach reflected in Rule 17Ad–22(e) will help a covered clearing agency continue to develop policies and procedures that can effectively meet the evolving risks and challenges in the markets that the covered clearing agency serves. It has

¹⁶⁷ See ICEEU at 6.

¹⁶⁸ See ICEEU at 5.

¹⁶⁹ See *id.*

¹⁷⁰ See LCH at 3.

¹⁷¹ See *supra* notes 1–2, 43, and accompanying text.

¹⁷² See Dually Registered CA release, *supra* note 158, at 21047.

¹⁷³ See CME at 3.

¹⁷⁴ See CCA Definition proposing release, *supra* note 82, at 39–42.

been the Commission's experience that particular securities markets (e.g., equities, fixed income, and options) have their unique conventions, characteristics, and structure that are best addressed on a market-by-market basis. The Commission recognizes that a less prescriptive approach can help promote efficient and effective practices and encourage regulated entities to consider how to manage their regulatory obligations and risk management practices in a way that complies with Commission rules, while considering the particular characteristics of their business, and believes the approach reflected in across Rule 17Ad-22, including new paragraph (e), is consistent with this approach. Such a principles-based approach also is consistent with the approach taken in Rule 17Ad-22(d).¹⁷⁵

As a general matter, the Commission believes that using broadly prescriptive requirements that, on an absolute and ex ante basis, prohibit a covered clearing agency's use of particular tools makes it more difficult for a covered clearing agency to maintain flexibility, subject to its obligations and responsibilities as an SRO under the Exchange Act, to address the ever-evolving challenges and risks inherent in the securities markets. Accordingly, the Commission believes that the approach adopted here appropriately preserves such flexibility for a covered clearing agency, and the broader market, to respond to particular risks or issues arising in its operations in an effective manner.

Finally, in certain instances, commenters have suggested that the Commission either prohibit or endorse a covered clearing agency's use of particular tools or rules, policies, or procedures. As discussed in more detail below, the Commission generally declines to take such an approach because it is inconsistent with the principles-based approach reflected in Rule 17Ad-22(e). Instead, the Commission's approach to Rule 17Ad-22(e) is designed to allow the Commission to consider particular tools in the context of the specific facts and circumstances facing a clearing agency in light of its governance structure, the products it clears, and the markets it

serves. In addition, in consideration of the issues raised by commenters, the Commission has provided guidance consistent as to what a covered clearing agency generally should consider when developing and maintaining its policies and procedures consistent with Rule 17Ad-22(e).

C. Requirements for Covered Clearing Agencies Under Rule 17Ad-22(e)

Below is a discussion of each of the requirements in new Rule 17Ad-22(e), the related new definitions in Rule 17Ad-22(a), and the comments received by the Commission that were targeted to specific elements of those requirements and definitions.¹⁷⁶ As previously noted, the Commission is adopting Rule 17Ad-22(e) and the related definitions in Rule 17Ad-22(a) substantially as proposed.¹⁷⁷ To the extent the Commission is adopting any modifications either to the requirements in Rule 17Ad-22(e) or the definitions in Rule 17Ad-22(a), such modifications are discussed in detail below. Moreover, the below sections are organized by the particular rules under Rule 17Ad-22(e), with discussion of the definitions incorporated into the overall substantive discussion of each particular rule. Further, in the discussion of each final rule below, the Commission has included guidance that a covered clearing agency generally should consider as it develops and maintains its rules, policies, and procedures in compliance with Rule 17Ad-22(e). As previously noted, this guidance is based, in part, on the key considerations in the PFMI.¹⁷⁸ The Commission intends for this guidance to be read in conjunction with the relevant requirements set forth in Rule 17Ad-22(e), so as to provide further explanation of the types of issues a covered clearing agency generally should consider when implementing those requirements. The Commission does not intend for this guidance to expand, diminish, or otherwise modify the requirements under Rule 17Ad-22(e).

1. Rule 17Ad-22(e)(1): Legal Risk

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(1) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of

its activities in all relevant jurisdictions.¹⁷⁹ The Commission proposed Rule 17Ad-22(a)(20) to define "transparent" to mean that relevant documentation is disclosed, as appropriate, to the Commission and other relevant authorities, to clearing members and customers of clearing members, to the owners of the covered clearing agency, and to the public, to the extent consistent with other statutory and Commission requirements.¹⁸⁰

b. Comments Received and Commission Response

i. Use of Legal Opinions

One commenter supported the Commission's proposal that each covered clearing agency have policies and procedures that provide for a well-founded, clear, transparent, and enforceable legal basis for each of its activities in all relevant jurisdictions, and noted that legal uncertainty can increase risk.¹⁸¹ A second commenter stated that the Commission explicitly should require a covered clearing agency to obtain, on at least an annual basis, legal opinions on the enforceability of structures used to contain losses within a clearing service upon the insolvency of the clearing service or the covered clearing agency, including closeout netting, right of set-off, classification as a repurchase-style transaction, and collateral protection opinions, and then disclose these opinions to its participants.¹⁸²

In satisfying the requirements in Rule 17Ad-22(e)(1), a covered clearing agency could include within its policies and procedures a requirement regarding legal opinions as to certain matters, such as the enforceability of structures used to contain losses within a clearing service upon the insolvency of the clearing service or the covered clearing agency. The use of legal opinions may be one consideration but compliance with Rule 17Ad-22(e)(1) ultimately requires that the covered clearing agency's policies and procedures, taken as a whole, to be reasonably designed to provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of its activities in all relevant jurisdictions. Whether legal opinions are useful to a covered clearing agency and, if so, what form they ought to take or subject matter they ought to address, may vary on a case-by-case

¹⁷⁵ See, e.g., Clearing Agency Standards adopting release, *supra* note 5, at 66231-32 (noting, with respect to credit exposures and margin requirements under Rule 17Ad-22(d), that a less prescriptive and more flexible rule sets a more appropriate baseline standard and stressing the importance of considering different markets characterized by different trading patterns, volumes, liquidity, transparency and other unique market characteristics when determining the appropriate risk management mechanisms for a particular clearing agency).

¹⁷⁶ Comments that were of a general nature have been discussed in Part I.C.

¹⁷⁷ See *supra* Part I.B.

¹⁷⁸ See *supra* Part I.C.6.

¹⁷⁹ See CCA Standards proposing release, *supra* note 5, at 29519-20.

¹⁸⁰ See *id.* In addition, the Commission notes that the definition of "transparent" is also used in Rules 17Ad-22(e)(2) and (10). See *infra* Parts II.C.2 and 10.

¹⁸¹ See CFA Institute at 5.

¹⁸² See The Clearing House at 18.

basis depending on the particular facts and circumstances. Because the appropriate use of legal opinions will vary on a case-by-case basis, the Commission does not believe it is appropriate to modify Rule 17Ad-22(e)(1) to include a specific requirement for legal opinions addressing particular matters.¹⁸³

ii. Definition of “Transparent”

One commenter, although supportive of the Commission’s proposal to require covered clearing agencies to develop policies and procedures to fulfill the requirements of Rule 17Ad-22(e), noted that, because some policies and procedures may include commercially sensitive information, it would be inappropriate to require a covered clearing agency to disclose all of its policies and procedures. The commenter stated that it would be helpful for the language of the rules to explicitly reflect this reality, which was acknowledged by the Commission in the preamble to the proposed rules.¹⁸⁴

The Commission acknowledges that disclosure of certain information, for example, proprietary or commercially sensitive information, may not be appropriate to be disclosed publicly or to all parties. Because the definition of “transparent” is limited to relevant documentation, as appropriate, and does not conflict with other statutory and Commission requirements on confidentiality and disclosure, it does not lead to the concerns noted by the commenter. The Commission already noted in proposing the rule that certain types of information, such as confidential information, may not be appropriate for disclosure in some circumstances and to some parties. In addition, the level of disclosure required will necessarily depend on the particular facts and circumstances. The definition of “transparent” provides a covered clearing agency with some discretion to develop written policies and procedures addressing disclosures and the use of confidential or proprietary information, consistent with statutory and Commission requirements. To improve clarity, the Commission is modifying the definition of “transparent” to mean for the purposes of paragraphs (e)(1), (2), and (10) of this section, to the extent consistent with other statutory and Commission requirements on confidentiality and

disclosure, that documentation required under paragraphs (e)(1), (2), and (10) is disclosed to the Commission and, as appropriate, to other relevant authorities, to clearing members and to customers of clearing members, to the owners of the covered clearing agency, and to the public. Below, the Commission provides additional guidance regarding the definition of “transparent.”

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(1) as proposed and adopting the definition of “transparent” as described above but moving it to Rule 17Ad-22(a)(19) because of other modifications to Rule 17Ad-22(a).¹⁸⁵ Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(1), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures to address legal risk:

- Whether its policies and procedures for legal risk provide a high degree of certainty for each material aspect of its activities in all relevant jurisdictions;
- whether its rules, policies and procedures, and contracts are clear, understandable, and consistent with relevant laws and regulations;
- whether it can articulate the legal basis for its activities to the relevant authorities, participants, and, where relevant, participants’ customers, in a clear and understandable way;
- whether it has rules, policies and procedures, and contracts that are enforceable in all relevant jurisdictions, and whether it has a high degree of certainty that actions taken by it under such rules, policies and procedures, and contracts will not be voided, reversed, or subject to stays; and
- whether, if it conducts business in multiple jurisdictions, it can identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

The Commission notes that a covered clearing agency operating in multiple jurisdictions under Rule 17Ad-22(e)(1) generally should address any conflicts of law issues that it may encounter.¹⁸⁶

With respect to the definition of “transparent,” the Commission notes that certain types of information, such as confidential information, may not be appropriate for public disclosure or

disclosure to certain third parties and that confidential information could be reflected in policies and procedures with respect to the security of information technology or other critical systems, such as, for example, as part of business continuity planning. The Commission also notes that generally a covered clearing agency could meet the definition of “transparent” by posting relevant documentation to its Web site.

2. Rule 17Ad-22(e)(2): Governance

a. Proposed Rule

As proposed, Rules 17Ad-22(e)(2) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for governance arrangements that are: clear and transparent; clearly prioritize the safety and efficiency of the covered clearing agency; support the public interest requirements in Section 17A of the Exchange Act and the objectives of owners and participants; and establish that the board of directors and senior management have appropriate experience and skills to discharge their duties and responsibilities.¹⁸⁷

b. Comments Received and Commission Response

i. Scope of Interests To Consider

The scope of interests required to be considered as part of Rule 17Ad-22(e)(2)(iii) attracted a range of comments. One commenter conveyed strong support for the Commission’s requirement that covered clearing agencies adopt policies and procedures for clear and transparent governance arrangements that prioritize safety and efficiency, noting that decisions made by covered clearing agencies could have an impact on multiple financial markets and jurisdictions.¹⁸⁸ The commenter urged that governance measures should support the objectives of owners and participants and, with respect to certain matters, the public interest. The commenter also noted that a clearing agency’s reactions to competition could undermine the safety and soundness of the clearing agency as well as the industry as a whole.¹⁸⁹

A second commenter sought to clarify that proposed Rule 17Ad-22(e)(2)(iii) would not encompass the interests of participants’ customers and other stakeholders.¹⁹⁰ This commenter expressed the belief that the Commission’s proposed approach, in

¹⁸³ The Commission notes that every registered clearing agency must keep and preserve at least one copy of all documents as shall be made or received by it in the course of its business as such and in the conduct of its self-regulatory activity. 17 CFR 240.17a-1.

¹⁸⁴ See *id.*

¹⁸⁵ See *infra* Part VI.

¹⁸⁶ In addition, for covered clearing agencies, the “relevant jurisdiction” includes the United States and any other jurisdiction where the covered clearing agency operates.

¹⁸⁷ See CCA Standards proposing release, *supra* note 5, at 29520-22.

¹⁸⁸ See CFA Institute at 6.

¹⁸⁹ See *id.*

¹⁹⁰ See OCC at 4-5.

which the objectives of participants' customers and other stakeholders are not explicitly stated in Rule 17Ad-22(e)(2)(iii), is consistent with the PFMI.¹⁹¹ The commenter acknowledged that the Commission and other regulators must consider the interests of indirect participants, but the commenter noted that their interests are adequately addressed through participation of a sufficient number of independent directors or through other means.¹⁹² A third commenter expressed support for the proposed standards, believing that a principles based-formulation is generally appropriate, but the commenter also expressed the belief that proposed Rule 17Ad-22(e)(2) should provide clear processes for consideration of participants' views and involvement of participants in the covered clearing agency's decision-making process.¹⁹³

The Commission believes that the first commenter's concern is addressed by the fact that policies and procedures under Rule 17Ad-22(e)(2) reasonably designed to support the public interest requirements in Section 17A of the Exchange Act generally should consider whether they support the stability of the broader financial system of the United States.¹⁹⁴ For example, as noted by the first commenter, a covered clearing agency could consider the public interest in its response to large scale price moves or position changes.¹⁹⁵

With respect to the second and third commenters,¹⁹⁶ the Commission is modifying proposed Rule 17Ad-22(e)(2) to include new paragraph (vi), which requires policies and procedures for governance arrangements that consider the interests of participants' customers, securities issuers and holders, and other relevant stakeholders of the covered clearing agency.¹⁹⁷ Under new paragraph (vi), other relevant stakeholders are persons that access the national system for clearance and settlement indirectly (e.g., institutional and retail investors), entities that rely on

the national system for clearance and settlement to effectively provide services to investors and market participants, and other market infrastructures. Other relevant stakeholders currently include, for example, transfer agents, liquidity providers, and other linked market infrastructures, including exchanges, matching service providers, and payment systems. This new paragraph complements Section 17A(b)(3)(C), which requires the rules of a clearing agency to assure fair representation of its shareholders and participants in the selection of its directors and the administration of its affairs.¹⁹⁸ This requirement for fair representation necessarily applies to policies and procedures adopted and maintained by a covered clearing agency pursuant to Rule 17Ad-22(e)(2). Consistent with this requirement, the Commission believes that a covered clearing agency generally should, in selecting its directors and administering its affairs, consider the interests of owners, participants, participants' customers, securities issuers and holders, and other relevant stakeholders to, consistent with the public interest requirements in Section 17A, strike an appropriate balance among the potentially competing views of such other stakeholders represented within a covered clearing agency. As noted by one commenter below, the inclusion of independent directors on the board may be one mechanism for helping to ensure that the relevant views are presented and considered,¹⁹⁹ provided the covered clearing agency's overall corporate governance structure is consistent with the fair representation and public interest requirements in Section 17A of the Exchange Act. The Commission notes, further, that the approach a covered clearing agency may take in considering such views could vary depending on the ownership structure or organizational form of the covered clearing agency. A covered clearing agency operating under a mutualized utility model where losses are fully mutualized among its participant-owners may take a different approach to consider the interests of all the relevant stakeholders compared to a covered clearing agency operating under a different model, such as one where it is owned by another organization, is operated as a for-profit entity, and/or is publicly listed and traded.

ii. Representation on the Board of Directors

Commenters generally supported the requirement in proposed Rule 17Ad-22(e)(2)(iv) that requires members of the board of directors and senior management to have the skills and experience to perform their duties and responsibilities.²⁰⁰ Multiple commenters, however, advocated for the inclusion of additional requirement related to the board of directors. One commenter urged the Commission to require that covered clearing agencies have public or independent representation on their boards.²⁰¹ The commenter also urged the Commission to define independent directors to exclude parties with significant business relationships with the covered clearing agency, cross-directorships, or controlling shareholdings, as well as executives, officers, or employees of the covered clearing agency or its affiliate.²⁰² Another commenter recommended that the Commission require a covered clearing agency to include representatives of both buy-side and sell-side market participants on the board.²⁰³ The commenter stated that some equities clearing agencies and stock exchanges already include investor representatives on their boards to benefit from a diverse group of market participants.²⁰⁴ The commenter expressed the view that stakeholder involvement at the board level would minimize conflicts of interest by balancing commercial interests of covered clearing agencies with those of other stakeholders.²⁰⁵ The commenter also expressed the view that the risk committee of a covered clearing agency should include a wide range of indirect participants, as the customers of clearing members also have an interest in ensuring adequate and diverse stakeholder representation in the covered clearing agency, in addition to transparency in the decision making process.²⁰⁶

¹⁹¹ See *id.* (discussing CFTC Rule 39.32(a)(1)(iv) and, as proposed, FRB Rule 234.3(a)(2)(iii)).

¹⁹² See *id.* at 5.

¹⁹³ See ISDA at 2; see also *infra* notes 212, 215 and accompanying text (discussing other concerns raised by the commenter).

¹⁹⁴ As previously discussed, the Commission has stated that the public interest is a broad concept that includes contributing to the ongoing development of the U.S. financial system, in particular the national clearance and settlement system contemplated by Section 17A of the Exchange Act, protecting investors, and fostering fair and efficient markets. See *supra* Part II.C.2.a.

¹⁹⁵ See CFA Institute at 6.

¹⁹⁶ See *supra* notes 190–193 and accompanying text.

¹⁹⁷ See Rule 17Ad-22(e)(2)(vi), *infra* Part VI; see also *infra* Part II.C.2.c.

¹⁹⁸ See 15 U.S.C. 78q–1(b)(3)(C).

¹⁹⁹ See ICI at 14–15; see also *infra* Part II.C.2.b.ii below (discussing comments regarding public or independent representation on the board of directors).

²⁰⁰ See, e.g., CFA Institute at 6 (noting that those responsible for the operations of a covered clearing agency should be capable of performing the required decision-making in light of the systemic importance of covered clearing agencies); OCC at 5 (believing that covered clearing agencies are well positioned to determine which individuals have the appropriate experience, skills, incentives, and integrity to discharge their duties and responsibilities in a way that reflects the particular needs of each covered clearing agency).

²⁰¹ See Better Markets at 7; Fidelity at 3–4; ICI at 14.

²⁰² See Better Markets at 7.

²⁰³ See ICI at 14.

²⁰⁴ See *id.*

²⁰⁵ See *id.* at 14–15.

²⁰⁶ See *id.* at 15.

After careful consideration of the comments, the Commission has determined not to modify Rule 17Ad-22(e)(2) to include specific requirements related to public or independent representation on the covered clearing agency's board or risk committee. The Commission believes that new paragraph (vi), previously discussed above, sufficiently addresses the concerns raised by the commenters because it requires specific policies and procedures for governance arrangements that consider the interests of a wide range of market participants. In addition, public representation, combined with clear requirements for the qualifications of the board of directors, could improve the functioning of the board and could be one way to ensure that the covered clearing agency has governance arrangements consistent with the fair representation requirements of Section 17A(b)(3)(C) of the Exchange Act, provided that the covered clearing agency's governance structure, as a whole, is consistent with the fair representation and public interest requirements in Section 17A of the Exchange Act. The Commission is declining to modify Rule 17Ad-22(e)(2) to further specify that a particular director represent the interests of buy-side or sell-side market participants. The Commission notes that public or independent representation are one possible approach to governance that can help ensure consistency with the fair representation and public interest requirements in Section 17A of the Exchange Act. In addition, and for the same reasons, the Commission is declining to modify Rule 17Ad-22(e)(2) to provide further specification regarding business relationships and affiliates because these topics, like the above, are already addressed by the fair representation requirement in Section 17A(b)(3)(C) and the public interest requirements of Section 17A of the Exchange Act.

Separate from the above, one commenter also encouraged the Commission to specify that independent directors must support the objectives of customers and the public, rather than simply the clearing members.²⁰⁷ The Commission notes that Rule 17Ad-22(e)(2)(iii) requires policies and procedures that support not only the public interest considerations of Section 17A of the Exchange Act but also the objectives of both owners and participants. In addition, the Commission generally believes that the governance arrangements of a covered clearing agency should include

consideration of the interests of participants' customers and other stakeholders, and this is why the Commission is modifying proposed Rule 17Ad-22(e)(2), as previously discussed, to include new paragraph (vi), which requires policies and procedures for governance arrangements that consider the interests of participants' customers and other stakeholders. Further, the Commission notes that the requirements of Section 17A(b)(3)(F) of the Exchange Act, which require that the rules of a clearing agency be designed to, in general, protect investors and the public interest, also address the commenter's concern.

iii. Accountability of the Board of Directors and Senior Management

One commenter expressed concern that the proposed rules fail to foster accountability by the board and management, and the commenter requested that the Commission require covered clearing agencies to clearly document the roles and responsibilities of the board of directors and management and implement governance arrangements that specify clear and direct lines of responsibility.²⁰⁸ To address this concern, the Commission is modifying proposed Rule 17Ad-22(e)(2) to include new paragraph (v) to require each covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for governance arrangements that specify clear and direct lines of responsibility.²⁰⁹ The Commission believes that such policies and procedures should generally entail documenting the responsibilities of the board of directors and senior management, which could help foster accountability and complement the requirements described above that address the qualifications of the board and management. The Commission believes that this additional requirement will assist a covered clearing agency in formulating its policies and procedures for assessing the qualifications of board members and management by requiring the covered clearing agency to further specify the roles that each individual would fulfill and the lines of responsibility that would exist within the board and within management. The Commission believes that such accountability can help ensure that a covered clearing agency is well-positioned to fulfill its risk management obligations. For example, the

Commission believes that a covered clearing agency should clearly define roles and responsibilities for addressing governance over financial risk (including credit risk, margin, and liquidity risk), operational risk, and other risks reflected in the covered clearing agency's risk management framework.

iv. Conflicts of Interest

One commenter stated that proposed Rule 17Ad-22(e)(2) does not require covered clearing agencies to resolve conflicts of interests among board members and management and urged the Commission explicitly to require covered clearing agencies to document and maintain policies and procedures governing the resolution of conflicts of interests that may impact certain decisions by the board of directors.²¹⁰ The Commission notes, as discussed above, that the commenter's concern is addressed by Section 17A(b)(3)(F) of the Exchange Act, which requires that the rules of a clearing agency be designed, in general, to protect investors and the public interest.²¹¹

v. Crisis or Emergency Decision-Making

One commenter stated that governance arrangements should explicitly address decision-making during a crisis or emergency and require the covered clearing agency to obtain the views and approval of member representatives (such as through its risk committee or otherwise) before taking any material action in response to an emergency.²¹² After careful consideration, the Commission declines to modify Rule 17Ad-22(e)(2) to specifically address decision-making in a crisis or emergency, and the Commission believes that Rule 17Ad-22(e) addresses such circumstances as proposed. For instance, Rule 17Ad-22(e)(2) requires policies and procedures for governance that are clear and transparent, clearly prioritize the safety and efficiency of the covered clearing agency, and support the public interest requirements in Section 17A and the objectives of owners and participants. A covered clearing agency

²¹⁰ See Better Markets at 6.

²¹¹ In addition, the Commission has solicited comments on proposed rules designed to further address conflicts of interest. See CCA Standards proposing release, *supra* note 5, at 29589 & n.664; see also Exchange Act Release No. 34-64017 (Mar. 3, 2011), 76 FR 14472 (Mar. 16, 2011) (proposing Rule 17Ad-25 to address conflicts of interest and Rule 17Ad-26 to require standards for board members or board committee directors at registered clearing agencies); Exchange Act Release No. 34-63107 (Oct. 14, 2010), 75 FR 65881 (Oct. 26, 2010) (proposing Regulation MC to mitigate conflicts of interest at security-based swap clearing agencies).

²¹² See ISDA at 2.

²⁰⁸ See *id.* at 3.

²⁰⁹ See Rule 17Ad-22(e)(2)(v), *infra* Part VI; ; see also *infra* Part II.C.2.c.

²⁰⁷ See Better Markets at 7.

should generally consider whether its governance arrangements for decision-making in the ordinary course are appropriate for a crisis or emergency circumstance in light of the requirements in Rule 17Ad-22(e)(2).

In addition, Rule 17Ad-22(e)(3) requires policies and procedures that maintain a sound risk management framework for comprehensively managing risks that arise in or are borne by the covered clearing agency. Such policies and procedures must be designed to identify, measure, monitor, and manage those risks and include plans for the recovery and orderly wind-down of the covered clearing agency.²¹³ The Commission believes that such a framework for comprehensively managing risk generally should consider the need for decision-making in crisis or emergency circumstances.

vi. Disclosure of Major Board Decisions

Three commenters responded to a question asking whether the Commission should require covered clearing agencies to have policies and procedures that provide for governance arrangements that ensure major decisions are disclosed to the public.²¹⁴ One commenter recommended that the proposed rule expressly require that major board decisions having a broad market impact be disclosed to all relevant stakeholders and the public, except to the extent that such disclosure is inconsistent with statutory and regulatory confidentiality restrictions. The commenter noted that the CFTC has included this provision in its requirements for SIDCOs.²¹⁵ Another commenter, however, expressed the belief that such a requirement is unnecessary and that the interests of public stakeholders in having visibility into major decisions are adequately served through the participation of independent directors, through the rule filing process, and the existing voluntary disclosure practices.²¹⁶ A third commenter expressed the view that publication of board resolutions prior to a determinative decision would be confusing, potentially misleading or market moving, and could deter open discussions amongst members of the board of directors.²¹⁷

After careful consideration, the Commission declines to modify Rule 17Ad-22(e)(2). The Commission notes that existing requirements for registered

clearing agencies under Exchange Act Rule 19b-4 provide a mechanism for publishing notice of proposed rule changes, which in general must be approved by board action or under authority delegated by the board, to clearing members, the relevant stakeholders, the Commission, and the public.²¹⁸ Designated clearing agencies are further required to submit advance notices under the Clearing Supervision Act, which provides another mechanism for disclosure.²¹⁹ In addition, the requirements in Rule 17Ad-22(e)(23) regarding disclosure will also provide stakeholders and the public with information regarding certain operations and decisions of covered clearing agencies.²²⁰

vii. Incentives and Skin in the Game

One commenter stated that the Commission should enhance or clarify Rule 17Ad-22(e)(2) to ensure that covered clearing agencies have appropriate incentives to oversee and manage risk in a manner consistent with the public interest and objectives of participants. According to the commenter, safeguards should exist to ensure that a covered clearing agency with authority to adopt rules, policies, or procedures governing or affecting risk to participants does not face undue incentives to take on excessive risk in pursuit of increased earnings.²²¹ The Commission believes that Rule 17Ad-22(e)(2) sufficiently addresses the commenter's concern by requiring policies and procedures that are clear and transparent, clearly prioritize the safety and efficiency of the covered clearing agency, and support the public interest requirements in Section 17A of the Exchange Act and the objectives of owners and participants.²²² Rule 17Ad-22(e)(3), discussed below, also requires policies and procedures for the comprehensive management of risk, and other requirements in Rule 17Ad-22(e) are specifically designed to establish a risk management framework that sufficiently accounts for a wide spectrum of risks that a covered clearing agency may identify, assess, manage, and mitigate. Further, the Commission believes that, taken as a whole, Rule 17Ad-22(e) requires each covered clearing agency to undertake careful and

ongoing consideration of the risks faced and posed by its operations.²²³

The same commenter also stated that safeguards should exist to ensure that any default management decision-making body has appropriate incentives.²²⁴ The commenter stated that the Commission should require that any decision-making body responsible for administering a covered clearing agency's default management policies and procedures be composed of constituencies with significant exposure to potential loss as a consequence of the default management process.²²⁵

With respect to these comments, the Commission believes, as discussed above, that Rule 17Ad-22(e)(2) includes requirements designed to ensure governance arrangements that clearly prioritize the safety and efficiency of the covered clearing agency, support the public interest requirements in Section 17A of the Exchange Act applicable to clearing agencies, and support the objectives of owners and participants. In addition, the Commission believes that the requirement in Section 17A(b)(3)(F) of the Exchange Act to have rules designed, in general, to protect investors help ensure that a covered clearing agency's risk management functions are appropriately aligned with the goal of risk mitigation and responsive to the legitimate concerns of the relevant constituents. The Commission does not believe that an approach in which a CCP's default management process must be governed by a decision-making body composed of constituencies with significant exposure to potential loss as a consequence of the default management process is appropriate. Instead, the Commission believes that covered clearing agencies should be afforded discretion to structure their default management committees and manage incentives in light of the needs of their unique ownership or governance structures, provided that their governance arrangements are consistent with the requirements of the

²²³ See *supra* Parts II.A.2 and II.C.2.b.i (further discussing the risks posed by a covered clearing agency's ownership structure, organizational form, markets served, and products cleared).

²²⁴ See The Clearing House at 8.

²²⁵ See The Clearing House at 2, 9. The commenter further elaborated that the assumption of risk by a CCP must be governed by a risk management committee comprised of persons whose interests are aligned by exposure to the losses associated with such risks (including members and, where a CCP has capital at risk in the waterfall, representatives of the CCP), with those members with the greatest risk exposure within the CCP constituting the majority of such committee. The commenter added that such a structure would ensure that the CCP's risk management function is appropriately aligned with risk mitigation incentives. See *id.*, annex at 15.

²¹³ See Rule 17Ad-22(e)(3)(i), (ii), *infra* Part VI.

²¹⁴ See CCA Standards proposing release, *supra* note 5, at 29522.

²¹⁵ See ISDA at 2 n.5 (citing 17 CFR 39.32).

²¹⁶ See OCC at 5.

²¹⁷ See LCH at 4.

²¹⁸ See *supra* Part I.C.5 (further describing the obligations of a clearing agency with respect to proposed rule changes).

²¹⁹ See *supra* Part I.A.2.

²²⁰ See *infra* Part II.C.23.

²²¹ See The Clearing House at 7-8.

²²² See *supra* Part II.C.2.a. and note 194 (describing the scope of the public interest requirements under Section 17A of the Exchange Act).

Exchange Act and rules and regulations thereunder, including Section 17A(b)(3)(C), concerning the fair representation of shareholders or members and participants in the administration of the covered clearing agency's affairs. The Commission believes that decisions regarding default management should reside with those who have extensive expertise and expert knowledge of the tools available at the covered clearing agency to manage a default. Further, even if the risk exposures of clearing members are generally stable, they can change, perhaps rapidly, during periods of market stress.

Lastly, the commenter stated that, to ensure that a covered clearing agency's governance arrangements align with the public interest and the interest of constituencies subject to the risk of a clearing agency default, the Commission should require a covered clearing agency to commit its own capital on a pre-funded basis to satisfy its losses arising from the default of one or more participants in an amount that equals or exceeds 10% of the aggregate participant contribution to the clearing or guaranty fund of the covered clearing agency. Further, the commenter stated that the Commission should require that a covered clearing agency provide, in its relevant rules, policies, or procedures, that upon the occurrence of a default or series of defaults and application of all available assets of the defaulting participant(s) to satisfy resulting losses, the covered clearing agency shall apply its own capital contribution to the relevant clearing or guaranty fund in full to satisfy any remaining losses prior to the application of any (a) contributions by non-defaulting participants to the clearing or guaranty fund or (b) assessments that the covered clearing agency require non-defaulting participants to contribute following the exhaustion of such participant's funded contributions to the relevant clearing or guaranty fund.²²⁶ The commenter expressed concern that, absent such a requirement, a CCP's own exposure to its clearing or guaranty fund(s)—often described as “skin in the game”—is generally quite limited and capped at the amount of the CCP's funded or dedicated contribution.²²⁷ The commenter stated that the absence of “skin-in-the-game” insulates a CCP's owners from losses at the CCP even though they benefit from the fee income associated with increased activity at the CCP, regardless of the incremental risk

presented by such activity.²²⁸ The commenter stated that, particularly in the case of for-profit CCPs (or CCPs whose owners or risk decision-makers are not subject to default risk assumed by the CCP), this misalignment of risk and reward creates moral hazard and is inconsistent with supporting the public interest and the objectives of participants.²²⁹

After careful consideration, the Commission declines to modify Rule 17Ad-22(e) to specifically include a “skin-in-the-game” requirement. The Commission believes that, taken as a whole, Rule 17Ad-22(e)(2) facilitates robust governance arrangements and the management of competing incentives. The Commission believes it is appropriate to provide covered clearing agencies with flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to structure their default management processes to take into account the particulars of their financial resources, ownership structures, and risk management frameworks. The Commission believes that the proper alignment of incentives is an important element of a covered clearing agency's risk management practices, and notes that “skin-in-the-game” may play a role in those risk management practices in many instances but in other instances may not be essential to a robust governance framework.

c. Final Rule

As discussed above, the Commission is adopting Rule 17Ad-22(e)(2) with modifications.²³⁰ First, the Commission is adopting new paragraph (v), which requires a covered clearing agency's governance arrangements to specify clear and direct lines of responsibility, as discussed above.

Second, the Commission is adopting new paragraph (vi) to require a covered clearing agency's governance arrangements to consider the interests of participants' customers, securities issuers and holders, and other relevant stakeholders of the covered clearing agency. The comments received in response to Rule 17Ad-22(e)(2) expressed concern as to whether a covered clearing agency will have governance arrangements sufficiently robust to incorporate the views of the relevant stakeholders and to withstand the influence of potentially improper incentives. The Commission believes that this modification alleviates these concerns by adding a requirement to

consider the interests of the relevant stakeholders.

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(2), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining its policies and procedures:

- Whether it has objectives that place a high priority on the safety and efficiency of the covered clearing agency and explicitly support financial stability and other relevant public interest considerations;²³¹

- whether it has documented governance arrangements that provide clear and direct lines of responsibility and accountability, and whether these arrangements are disclosed to owners, relevant authorities, participants, and, at a more general level, the public;

- whether the roles and responsibilities of its board of directors are clearly specified, and whether there are documented procedures for the functioning of the board of directors, such as procedures for identifying, addressing, and managing member conflicts of interest, and for reviewing the board's overall performance and the performance of its individual members regularly;

- whether the board of directors contains suitable members with the appropriate skills and incentives to fulfill the board's multiple roles, and whether the board of directors should include non-executive board members;

- whether the roles and responsibilities of management have been clearly specified and whether management has the appropriate experience, mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the covered clearing agency;

- whether the board of directors has established a clear, documented risk-management framework that includes the covered clearing agency's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies, and whether the governance arrangements ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board; and

- whether the board of directors has ensured that the covered clearing

²²⁶ See *id.*

²²⁷ See *id.*

²³⁰ See Rule 17Ad-22(e)(2), *infra* Part VI.

²³¹ For these purposes, the relevant public interest considerations are the public interest requirements in Section 17A of the Exchange Act. See Rule 17Ad-22(e)(2)(iii), *infra* Part VI.

²²⁶ See The Clearing House at 2.

²²⁷ See *id.* at 8.

agency's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders, and whether major decisions have been clearly disclosed to relevant stakeholders and, where this is broad market impact, the public.²³²

A covered clearing agency also generally should consider the specific qualifications, experience, competence, character, skills, incentives, integrity or other relevant attributes to support a conclusion that an individual nominee can appropriately serve as a board member or on senior management. Policies and procedures under Rule 17Ad-22(e)(2)(iv) could consider, among other things, requirements as to industry experience relevant to the services provided by the covered clearing agency, educational background, the absence of a disciplinary record, or other factors relevant to the qualifications of nominees being considered. With respect to Rules 17Ad-22(e)(2)(iv) and (v), the Commission notes that a covered clearing agency generally should seek to ensure that board members and senior management do not have conflicts of interest because conflicts of interest could undermine the decision-making process within a covered clearing agency or interfere with the ability of board members and senior management to discharge their duties and responsibilities.

In addition, the Commission believes that processes concerning decision-making by a covered clearing agency during a crisis generally should consider the views of member representatives and relevant stakeholders before the covered clearing agency takes any material action. Further any such policies and procedures must be consistent with the fair representation requirement in Section 17A(b)(3)(C) of the Exchange Act and the requirement in Section 17A(b)(3)(F) of the Exchange Act that a clearing agency's rules be designed, in general, to protect investors and the public interest.²³³ Based on these requirements, the Commission expects that views of members will be well represented in the governance of the covered clearing agency, including in the design of governance processes for crisis or emergency decision-making. In light of the variation of business models across covered clearing agencies, the Commission believes each covered

clearing agency generally should consider how best to involve members and other relevant stakeholders in the decision-making of the covered clearing agency, provided that each covered clearing agency's decision-making process is designed to be consistent with the fair representation, investor protection, and public interest requirements of Section 17A of the Exchange Act.

3. Rule 17Ad-22(e)(3): Framework for the Comprehensive Management of Risks

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(3) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain a sound risk management framework for comprehensively managing legal, credit, liquidity, operational, general business, investment, custody, and other risks that arise in or are borne by the covered clearing agency.²³⁴ Proposed Rule 17Ad-22(e)(3)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for risk management policies, procedures, and systems designed to identify, measure, monitor, and manage the range of risks that arise in or are borne by the covered clearing agency, and subject them to review on a specified periodic basis and approval by the board of directors annually. Proposed Rule 17Ad-22(e)(3)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it establishes plans for the recovery and orderly wind-down of the covered clearing agency necessitated by credit losses, liquidity shortfalls, losses from general business risk, or any other losses. Proposed Rule 17Ad-22(e)(3)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide risk management and internal audit personnel with sufficient authority, resources, independence from management, and access to the board of directors. Proposed Rule 17Ad-22(e)(3)(iv) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide risk management and internal audit personnel with oversight by and a direct reporting line to a risk

management committee and an audit committee of the board of directors, respectively. Finally, proposed Rule 17Ad-22(e)(3)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for an independent audit committee.²³⁵

b. Comments Received and Commission Response

i. General Comments

Multiple commenters expressed support for the proposed rule.²³⁶ One commenter expressed support for the added attention in the proposed rules to managing the risks faced by clearing agencies, emphasizing in particular the proposed requirements for recovery and wind-down plans.²³⁷ The commenter stated that a recovery and wind-down plan is essential to containing widespread contagion and noted that the requirement would be appropriate for all registered clearing agencies.²³⁸ The same commenter expressed support for requiring independence for those conducting audits, as such would be necessary for establishing good corporate practices and the integrity of the audit process.²³⁹ The commenter, however, also expressed concern that the proposed rule could be insufficient in preventing systemic failure of covered clearing agency systems during a financial panic as a result of new financial products not performing as expected during times of market stress.²⁴⁰ Similarly, a second commenter stated that, given the role CCPs play in, and the risks they pose to, the financial markets, CCPs must benefit from the full panoply of risk-management tools, including strong loss absorbing capital, margin, and regular stress testing requirements (including assessing how the failure of multiple, large clearing members would affect the CCP).²⁴¹

With respect to the latter two comments, the Commission believes that proposed Rule 17Ad-22(e), taken as a whole, is designed to mitigate the potential for systemic failures and the failures of CCPs more generally by requiring a covered clearing agency to establish policies and procedures relating to their governance and operation. Specifically, requirements in

²³² For a discussion of relevant stakeholders, see Part II.C.2.b.i.

²³³ See 15 U.S.C. 78q-1(b)(3)(C), (F).

²³⁴ See CCA Standards proposing release, *supra* note 5, at 29522-24.

²³⁵ See *id.*

²³⁶ See CFA Institute at 1; SRC at 1-2; OCC at 6.

²³⁷ See CFA Institute at 1.

²³⁸ See *id.* at 1, 7. The Commission notes that it is beyond the scope of this rulemaking to establish new requirements for clearing agencies other than covered clearing agencies.

²³⁹ See *id.* at 7.

²⁴⁰ See *id.*

²⁴¹ See SRC at 1-2.

Rule 17Ad-22(e) address capital,²⁴² margin,²⁴³ and stress testing²⁴⁴—in addition to other areas of risk management, such as collateral,²⁴⁵ credit risk,²⁴⁶ liquidity risk,²⁴⁷ links,²⁴⁸ and participant default²⁴⁹—to help ensure that covered clearing agencies benefit from a range of risk management tools and can continue operating in times of market stress. Moreover, Rule 17Ad-22(e)(3) includes requirements for policies and procedures that reflect a comprehensive framework for risk management and includes additional requirements for policies and procedures that specifically establish an independent audit committee and recovery and wind-down plans. The Commission discusses these elements of Rule 17Ad-22(e)(3) further in Parts II.C.3.b.ii and iii below.

ii. Independence of the Audit Committee

One commenter stated that the Commission struck an appropriate balance in requiring policies and procedures that provide for an independent audit committee and permitting the board of directors to establish the criteria for independence.²⁵⁰ The commenter expressed the view that the definition of independence should be judged in the context of the particular covered clearing agency, noting that there is value in having persons with extensive industry experience serving on its audit committee, and it would not want to preclude from service such persons most likely to have the relevant experience.

iii. Recovery and Wind-Down Plans

Multiple commenters expressed views on proposed requirements concerning recovery and wind-down plans.²⁵¹ One

commenter stated that covered clearing agencies should create robust and credible resolution plans to ensure that they and policymakers can plan for and mitigate the potential systemic consequences of a CCP failure without taxpayer support.²⁵² The commenter noted that important portions of these plans, including the size and nature of loss-absorbing buffers, should be made public so that the public and counterparties can assess the risks associated with the CCP and its members.²⁵³ With respect to the disclosure of important aspects of these plans, the Commission notes that Rules 17Ad-22(e)(23)(iv) and (v), discussed below,²⁵⁴ would require policies and procedures that provide for a comprehensive public disclosure that describes material rules, policies, and procedures regarding a covered clearing agency's recovery and wind-down plans, updated every two years or more frequently as necessary so that the disclosure remains accurate in all material respects.

Another commenter noted that wind-down may not be a workable option for critical market infrastructure providers that are the sole providers in a given market. The commenter expressed the view that while covered clearing agencies should analyze the feasibility of an orderly wind-down in their plans and include it when appropriate, recovery strategies (*i.e.*, strategies to allocate losses outside of, and without requiring, an orderly wind-down and before the need to initiate resolution proceedings) are the most effective way to promote financial stability, ensure the continuation of services, and distribute losses in a fair and economically efficient manner.²⁵⁵ The Commission is mindful of this concern and believes that, in conducting its planning, a covered clearing agency generally should consider sole provider status as one of many factors in a range of potential considerations related to recovery or wind-down, including a consideration of which options may be the most feasible or workable. The Commission does not believe, however, that a covered clearing agency's sole provider status necessarily precludes wind-down and, thus, a covered clearing agency is required to have policies and procedures to establish plans for both recovery and orderly

wind-down pursuant to Rule 17Ad-22(e)(3)(ii).

A third commenter stated that, while the CCA Standards proposing release helps draw attention to the importance of recovery and wind-down plans having a sound legal basis, the release provides little guidance with regard to the content of such plans or stakeholder consultation procedures with respect to their adoption.²⁵⁶ The commenter noted that, because the issues surrounding the recovery and resolution of CCPs are novel and complex, new rules, policies, and procedures addressing recovery and resolution that go beyond existing, capped assessment powers would be appropriate subject matter for a detailed review by the Commission and public comment.²⁵⁷ To facilitate a review and public comment, the commenter expressed the view that the Commission should articulate principles-based standards against which orderly recovery and wind-down plans could be assessed, including limited and predictable liabilities of clearing participants; non-disruption of expectations regarding close-out netting sets; consistency with accounting criteria for the netting of cleared exposures for financial statement and regulatory capital purposes; a requirement that loss-allocation rules not put any non-defaulting clearing member or customer of a clearing member in a worse position than under a liquidation in the event of the insolvency of the covered clearing agency; due consideration of the effects on incentives for participation in the default management process and clearing agency moral hazard risks; and transparency in relation to the default management process, loss allocations, and the decision-making process governing recovery and wind-down.²⁵⁸

First, the Commission believes that the factors described by the commenter, among others, are factors that a covered clearing agency could consider in developing its recovery and wind-down plans, but the Commission is declining to articulate requirements for all recovery and wind-down plans. The Commission believes that, given the nature of recovery and resolution planning, such plans are likely to closely reflect the specific characteristics of the covered clearing agency, including its ownership, organizational, and operational structures, as well as the size, systemic importance, global reach, and/or the risks inherent in the products it

²⁴² See *infra* Part II.C.15 (describing requirements under Rule 17Ad-22(e)(15)).

²⁴³ See *infra* Part II.C.6 (describing requirements under Rule 17Ad-22(e)(6)).

²⁴⁴ See *infra* Parts II.C.4 and 7 (describing requirements under Rules 17Ad-22(e)(4) and (7)).

²⁴⁵ See *infra* Part II.C.5 (describing requirements under Rule 17Ad-22(e)(5)).

²⁴⁶ See *infra* Part II.C.4 (describing requirements under Rule 17Ad-22(e)(4)).

²⁴⁷ See *infra* Part II.C.7 (describing requirements under Rule 17Ad-22(e)(7)).

²⁴⁸ See *infra* Part II.C.20 (describing requirements under Rule 17Ad-22(e)(20)).

²⁴⁹ See *infra* Part II.C.13 (describing requirements under Rule 17Ad-22(e)(13)).

²⁵⁰ See OCC at 6.

²⁵¹ See SRC at 2. In addressing comments regarding recovery and wind-down plans, the Commission generally understands that: (i) When a financial company becomes non-viable as a going concern or insolvent, recovery refers to actions taken that allow the financial company to sustain its critical operations and services; (ii) resolution (or wind-down), by contrast, refers to the

transferring of the financial company's critical operations and services to an alternate entity.

²⁵² See SRC at 2.

²⁵³ See *id.*

²⁵⁴ See *infra* Part II.C.23.

²⁵⁵ See DTCC at 6.

²⁵⁶ See ISDA at 3.

²⁵⁷ See *id.*

²⁵⁸ See *id.*

clears.²⁵⁹ In particular, the Commission notes that the available recovery tools will vary depending on the products cleared. Second, the Commission also believes that recovery and wind-down plans should be subject to public comment and Commission review. The Commission believes that recovery and wind-down plans, and material changes thereto, would constitute a proposed rule change under Section 19(b) of the Exchange Act and, for designated clearing agencies, an advance notice under the Clearing Supervision Act because such plans and material changes thereto would constitute changes to a stated policy, practice or interpretation of the covered clearing agency and, for designated clearing agencies, a proposed change to its rules, procedures, or operations that could materially affect the nature or level of risks presented by the designated clearing agency.²⁶⁰

The commenter further stated that recovery tools such as forced allocation, initial margin haircutting of non-defaulting clearing members, invoicing back, or partial non-voluntary tear-ups should be avoided, and that pro-rata reduction in a covered clearing agency's payment obligations should be considered only as a loss allocation measure of last resort after all the resources in the clearing waterfall have been exhausted.²⁶¹ The commenter noted that this method is transparent and predictable, creating incentives for surviving participants to actively engage in the default management process and to bid aggressively in the resulting auction process.²⁶² The commenter acknowledged, however, that the sequencing and application of any recovery mechanisms may vary by product type and the nature of the covered clearing agency's participants, such as, for example, how certain mechanisms would apply to retail participants.²⁶³

As a general matter, the Commission believes it is not productive to apply

such requirements for recovery and wind-down plans in a one-size-fits-all approach for covered clearing agencies. The Commission believes that recovery and wind-down plans should be considered holistically, taking into consideration the covered clearing agency's governance structure, products cleared, loss allocation rules, and mutualized structure, as applicable, because it is not possible to assess the utility of a particular recovery tool in isolation and without the context of the recovery plan as a whole. The Commission also believes that transparent governance arrangements can help ensure that members, their customers, and, as appropriate, the public have sufficient means to provide input on any recovery tools ultimately included in recovery and wind-down plans. In Part II.C.3.c below, the Commission provides guidance regarding the types of considerations that a covered clearing agency generally should consider in developing its recovery tools.

Finally, the commenter suggested that the Commission's rule should state explicitly that covered clearing agencies' recovery and wind-down plans must define the quantitative and qualitative criteria that would trigger the implementation of each type of plan.²⁶⁴ The commenter did not specify what types of quantitative or qualitative criteria should trigger implementation.

After careful consideration, the Commission declines to establish a requirement that recovery and wind-down plans have qualitative and quantitative trigger criteria. The Commission believes that such a requirement would not sufficiently take into account the unique characteristics of each covered clearing agency. The Commission believes it is not possible to assess the utility of a particular approach in isolation and without the context of the recovery plan and the covered clearing agency as a whole. Further, the Commission believes that transparent governance arrangements can help ensure that members, their customers, and, as appropriate, the public have sufficient means to provide input on any recovery tools ultimately included in recovery and wind-down plans and therefore believes that consideration of such elements of a covered clearing agency's recovery and wind-down plan is best left to the applicable rule filings and advance notice processes discussed previously.

iv. Additional Requirements

One commenter supported the proposed requirements in Rule 17Ad-22(e)(3) but urged the Commission to establish additional requirements in three areas to ensure accountability and independence.²⁶⁵

First, the commenter encouraged the Commission to require the risk management framework at covered clearing agencies to assign responsibilities and accountabilities for risk decisions and address crisis and emergency decision-making. The Commission believes that Rule 17Ad-22(e)(2), as modified and discussed in Part II.C.2 above, appropriately addresses these concerns. Specifically, Rule 17Ad-22(e)(2)(v), as adopted, requires that a covered clearing agency's policies and procedures document the responsibilities of the board of directors and senior management and specify clear and direct lines of responsibility. In the above discussion, the Commission also specifically noted the importance of clear and direct lines of responsibility in addressing crises and facilitating appropriate decision-making in emergency situations.²⁶⁶

Second, the commenter urged the Commission to require the board of directors to have a risk committee comprised of and led by a majority of independent directors; the risk committee to have a clear mandate and operating procedures; and the risk committee to have access to external expert advice.²⁶⁷ The commenter also encouraged the Commission to implement enhanced measures to ensure that important risk management functions are appropriately insulated from conflicts of interest among board members representing clearing members. The Commission believes that the rule as proposed already addresses these concerns. Rule 17Ad-22(e)(3)(iii) requires a covered clearing agency's policies and procedures to provide risk management and internal audit personnel with, among other things, sufficient independence from management and access to the board of directors. In addition, proposed Rule 17Ad-22(e)(3)(iv) requires policies and procedures that provide risk management and internal audit personnel with a direct reporting line to, and oversight by, a risk management committee and an audit committee of the board of directors, respectively. With respect to having a risk committee comprised of and led by a majority of independent directors, the Commission

²⁵⁹ See *supra* Parts II.A.2 and II.C.2.b.i (further discussing the differing characteristics of a covered clearing agency related to its ownership structure, organizational form, markets served, and products cleared).

²⁶⁰ See *supra* Part I.C.5 (further describing the obligations of a clearing agency with respect to proposed rule changes under Rule 19b-4 and advance notices under the Clearing Supervision Act).

²⁶¹ See ISDA at 3. Similarly, two other commenters also recommend that the Commission specifically prohibit covered clearing agencies from using variation margin and initial margin haircutting as recovery tools to continue operation in times of financial distress. See Fidelity at 3-4; see also ICI at 13-14.

²⁶² See ISDA at 3.

²⁶³ See *id.* at 4.

²⁶⁴ See ISDA at 4.

²⁶⁵ See Better Markets at 8-9.

²⁶⁶ See *supra* Part II.C.2.b.iii.

²⁶⁷ See Better Markets at 9.

notes that although it may be appropriate for a risk committee to be comprised of and led by a majority of independent directors, the Commission believes that the covered clearing agency would have to consider its particular facts and circumstances, and that it is inappropriate to prescribe a particular structure for risk committees in Rule 17Ad-22(e)(3). The Commission further notes that the definition of independence should reflect the objective of establishing and maintaining robust risk management.

Third, the commenter requested that the Commission require a covered clearing agency to have a chief risk officer responsible for implementing the risk management framework and making recommendations to the risk management committee or board of directors. The Commission believes that establishing a chief risk officer is one way to structure a risk management framework consistent with Rule 17Ad-22(e)(3) and notes that, currently, each covered clearing agency has a chief risk officer responsible for implementing the covered clearing agency's risk management framework. The Commission recognizes that these responsibilities are critically important but does not believe it is necessary to prescribe a chief risk officer because other distributions of responsibility among the roles within a covered clearing agency may also be consistent with the requirements of the Exchange Act, provided that the responsibilities are clearly specified, the persons occupying the specified roles have appropriate experience and skills to discharge their duties and responsibilities, and the responsibilities comprehensively encompass the risk management needs of the clearing agency.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(3) with one modification. To make clear that the audit committee described in Rule 17Ad-22(e)(3)(iv) and the independent audit committee described in Rule 17Ad-22(e)(3)(v) are not separate audit committees, the Commission is adding "independent" before audit committee in Rule 17Ad-22(e)(3)(iv).²⁶⁸ In addition, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(3), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures for

its framework for the comprehensive management of risk:

- Whether it has risk management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the covered clearing agency and whether the risk management frameworks are subject to periodic review;
- whether it provides incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the covered clearing agency;
- whether it regularly reviews the material risks it bears from and poses to other entities (including other clearing agencies, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk management tools to address these risks;
- whether it can identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down, and whether it has prepared appropriate plans for its recovery or orderly wind-down based on the results of that assessment; and
- whether it has provided relevant authorities with the information needed for purposes of recovery and resolution planning.

The Commission notes that a comprehensive approach to risk management means policies and procedures should be designed holistically, be consistent with each other, and work effectively together to mitigate the risk of financial losses to a covered clearing agency's members and participants in the markets it serves. The Commission further notes that each covered clearing agency must have its own policies and procedures encompassing a framework for the "comprehensive" management of risks. For example, if a covered clearing agency's parent or holding company were to adopt a company-wide risk management framework, the covered clearing agency nevertheless would itself need to adopt or ratify those policies and procedures pursuant to the requirements of the rule filing process under Rule 19b-4 and, if applicable, the advance notice process under the Clearing Supervision Act,²⁶⁹ with respect to its own business to meet the requirements of Rule 17Ad-22(e)(3).

With respect to Rule 17Ad-22(e)(3)(i), the board of directors of a covered clearing agency generally should

consider whether to subject all material components of the covered clearing agency's risk management policies and procedures to review due to the critical role that risk management plays in promoting prompt and accurate clearance and settlement. Further, such review generally should take a holistic view of the full range of risk management policies, procedures, and systems, rather than consider each on an individual or case-by-case basis. In addition, a covered clearing agency generally should perform the annual review under Rule 17Ad-22(e)(3)(i) once every twelve months.

With respect to recovery and wind-down plans, each covered clearing agency generally should develop its plans expeditiously to facilitate regulatory review by the Commission and other relevant regulatory bodies. In particular, the Commission believes that a covered clearing agency generally should have policies and procedures to provide the relevant resolution authorities with information needed for the purposes of resolution planning under applicable authority, including any plans prepared pursuant to Rule 17Ad-22(e)(3). The Commission works with the FDIC and other resolution authorities, as appropriate, to help ensure the development of effective resolution strategies for covered clearing agencies; providing the Commission and the FDIC information for resolution planning would promote the ongoing development of these strategies.

In addition, with respect to recovery tools, a covered clearing agency generally should consider the following when developing its recovery tools: (i) Whether the set of recovery tools comprehensively addresses how the covered clearing agency would continue to provide critical services in all relevant scenarios; (ii) the extent to which each tool is reliable, timely, and has a strong legal basis; (iii) whether the tools are transparent and designed to allow those who would bear losses and liquidity shortfalls to measure, manage, and control their potential losses and liquidity shortfalls; (iv) whether the tools create appropriate incentives for the covered clearing agency's owners, direct and indirect participants, and other relevant stakeholders; and (v) whether the tools are designed to minimize the negative impact on direct and indirect participants and the financial system more broadly.

4. Rule 17Ad-22(e)(4): Credit Risk

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(4) would require a covered clearing agency

²⁶⁸ See Rule 17Ad-22(e)(3), *infra* Part VI.

²⁶⁹ See *supra* Parts I.A.1 and 2.

to establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those exposures arising from its payment, clearing, and settlement processes, including by, at a minimum, meeting the seven requirements specified in the rule.²⁷⁰

Proposed Rule 17Ad–22(e)(4)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. Proposed Rule 17Ad–22(e)(4)(ii) would require a covered clearing agency that provides CCP services, and that is “systemically important in multiple jurisdictions” or “a clearing agency involved in activities with a more complex risk profile,” to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain additional financial resources, to the extent not already maintained pursuant to proposed Rule 17Ad–22(e)(4)(i), at a minimum level necessary to enable it to cover a wide range of foreseeable stress scenarios, including but not limited to the default of the two participant families that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions (hereinafter the “cover two” requirement). The Commission also proposed Rule 17Ad–22(a)(19) to define “systemically important in multiple jurisdictions” to mean a covered clearing agency that has been determined by the Commission to be systemically important in more than one jurisdiction pursuant to Rule 17Ab2–2.²⁷¹ Proposed Rule 17Ad–22(e)(4)(iii) would require a covered clearing agency that is not subject to proposed Rule 17Ad–22(e)(4)(ii) to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain additional financial resources, to the extent not already maintained pursuant to proposed Rule 17Ad–22(e)(4)(i), at the minimum to enable it to cover a wide range of foreseeable stress

scenarios, including the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions (hereinafter the “cover one” requirement). Proposed Rule 17Ad–22(e)(4)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to include prefunded financial resources, excluding assessments for additional guaranty fund contributions or other resources that are not prefunded, when calculating the financial resources available to meet the standards under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable. Proposed Rule 17Ad–22(e)(4)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain the financial resources required under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable, in combined or separately maintained clearing or guaranty funds.

Proposed Rule 17Ad–22(e)(4)(vi) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to test the sufficiency of its total financial resources available to meet the minimum financial resource requirements under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable, by conducting a stress test of its total financial resources at least once each day using standard predetermined parameters and assumptions.²⁷² The Commission also proposed Rule 17Ad–22(a)(18) to define “stress testing” to mean the estimation of credit and liquidity exposures that would result from the realization of extreme but plausible price changes or changes in other valuation inputs and assumptions.²⁷³ Proposed Rule 17Ad–22(e)(4)(vi) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to conduct a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and consider

modifications to ensure they are appropriate for determining the covered clearing agency’s required level of default protection in light of current market conditions. When the products cleared or markets served by a covered clearing agency display high volatility or become less liquid, and when the size or concentration of positions held by the entity’s participants increases significantly, the proposed rule would require a covered clearing agency to have policies and procedures for conducting comprehensive analyses of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly. Proposed Rule 17Ad–22(e)(4)(vi) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for the reporting of the results of this analysis to the appropriate decision makers at the covered clearing agency, including its risk management committee or board of directors, and to require the use of the results to evaluate the adequacy of and to adjust its margin methodology, model parameters, and any other relevant aspects of its credit risk management policies and procedures, in supporting compliance with the minimum financial resources requirements in proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable.²⁷⁴

Finally, proposed Rule 17Ad–22(e)(4)(vii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require a conforming model validation for its credit risk models to be performed not less than annually or more frequently as may be contemplated by the covered clearing agency’s risk management policies and procedures.²⁷⁵ The Commission also proposed to define “conforming model validation” in Rule 17Ad–22(a)(5) to mean an evaluation of the performance of each material risk management model used by a covered clearing agency, including initial margin models, liquidity risk models, and models used to generate guaranty fund requirements, along with the related parameters and assumptions associated with such models.²⁷⁶ The proposed definition would further require that the model validation be performed by a qualified person who is free from influence from the persons responsible for the development or operation of the models or policies

²⁷⁰ See CCA Standards proposing release, *supra* note 5, at 29525–27.

²⁷¹ See *id.* at 29525. The Commission received no comments regarding the proposed definition and is adopting it as proposed. Because of other modifications to Rule 17Ad–22(a), the definition of “systemically important in multiple jurisdictions” is being moved to Rule 17Ad–22(a)(18). See Rule 17Ad–22(a)(18), *infra* Part VI.

²⁷² See *id.* at 29526–27.

²⁷³ See *id.* at 29527. The Commission received no comments regarding the proposed definition and, based on its supervisory experience, is adopting it with modifications, as discussed further below. Because of other modifications to Rule 17Ad–22(a), the definition of “stress testing” is also being moved to Rule 17Ad–22(a)(17). See Rule 17Ad–22(a)(17), *infra* Part VI.

²⁷⁴ See *id.* at 29526–27.

²⁷⁵ See *id.* at 29527.

²⁷⁶ See *id.*

being validated so that risk models can be candidly assessed.²⁷⁷

b. Comments Received and Commission Response

i. Distinguishing CCPs From CSDs

One commenter stated that proposed Rule 17Ad-22(e)(4) should distinguish between the types of risks faced by CCPs versus central securities depositories ("CSDs") (e.g., the requirement that CSDs hold the financial resources they maintain to cover the risk of participant default in a guaranty or clearing fund).²⁷⁸ The commenter recommended that the provision be revised to clarify the portions of proposed Rule 17Ad-22(e)(4) that are intended to apply to covered clearing agencies that are CCPs, and those that should apply to covered clearing agencies that are CSDs.²⁷⁹ As a general matter, the Commission believes that Rule 17Ad-22(e)(4) appropriately distinguishes between the risks inherent in CCPs and CSDs. For example, Rule 17Ad-22(e)(4)(ii) requires policies and procedures that meet "cover two" for CCPs that are systemically important or engaged in activities with a more complex risk profile, while Rules 17Ad-22(e)(4)(i) and (iii) require policies and procedures for financial resources for all other covered clearing agencies, including CSDs.²⁸⁰ With respect to Rule 17Ad-22(e)(4)(v), which requires a covered clearing agency to have policies and procedures for maintaining the financial resources required under Rules 17Ad-22(e)(4)(i) through (iii) in combined or separately maintained clearing or guaranty funds, "clearing or guaranty fund" would also include the participant fund of a CSD.²⁸¹ The Commission believes that this statement clarifies how Rule 17Ad-22(e)(4) would apply to both CCPs and CSDs, and therefore addresses the concern raised by the commenter.

ii. Prefunded Financial Resources

One commenter expressed support for proposed Rule 17Ad-22(e)(4)(iv) but sought clarification on the role of using default insurance to satisfy the rule.²⁸² The Commission is aware that default insurance has been discussed among industry participants as a tool to help

CCPs manage credit risk. While the viability of any particular default insurance plan would necessarily depend on the particulars of the underlying insurance agreement, the Commission notes that the financial resource requirements in Rule 17Ad-22(e)(4) must be prefunded and may not be conditional as is typical with insurance payments. Therefore, the use of default insurance generally would not be consistent with the requirement that certain financial resources be prefunded under Rule 17Ad-22(e)(4)(iv).

While generally supportive of the rule, another commenter expressed concern that members of covered clearing agencies may have difficulty meeting their obligations to the covered clearing agency if the covered clearing agency delays in exercising its authority to require members to provide additional guaranty funds after such funds are exhausted following the default of a member.²⁸³ To address this concern, the commenter stated that it would be appropriate to ensure that such guaranty funds are properly funded in advance of market stress. The Commission believes that the provisions in proposed Rule 17Ad-22(e)(4) adequately address whether the guaranty fund is properly funded in advance of market stress and is therefore declining to modify the rule. Rule 17Ad-22(e)(4)(i) requires policies and procedures for maintaining sufficient financial resources to cover a covered clearing agency's credit exposure to each participant fully with a high degree of confidence through its margin system and collateral requirements, while Rules 17Ad-22(e)(4)(ii) and (iii) require a covered clearing agency to have policies and procedures that meet either "cover two" or "cover one" on an ongoing basis. In addition, the Commission notes that Rule 17Ad-22(e)(4)(iv) excludes assessments for additional guaranty fund contributions when calculating the financial resources available, preventing a covered clearing agency from considering among its financial resources contributions that are not prefunded.

A third commenter stated that, in addition to pre-funded capital and guaranty funds, it should be clear, in advance, that clearing members (and not the FRB or taxpayers) stand behind the organization should it run into financial trouble.²⁸⁴ The Commission notes that Rule 17Ad-22(e)(3)(ii) requires policies and procedures reasonably designed to ensure that a covered clearing agency establishes plans for the recovery or

wind-down of a covered clearing agency necessitated by credit losses, liquidity shortfalls, losses from general business risk, or any other losses. The Commission believes that such recovery and wind-down plans are an effective tool that can help a covered clearing agency establish policies and procedures for managing losses in excess of its default management and general business risk resources.²⁸⁵ The provisions of Rule 17Ad-22(e)(5), discussed below, are also intended to help ensure that a covered clearing agency is resilient in times of market stress by requiring policies and procedures that limit the assets it accepts as collateral to those with low credit, liquidity, and market risks, and that set and enforce appropriately conservative haircuts and concentration limits on collateral the covered clearing agency accepts to manage its or its participants' credit exposure.²⁸⁶ Requirements for stress testing in Rule 17Ad-22(e)(4) and margin in Rule 17Ad-22(e)(6) further support the resiliency of a covered clearing agency by requiring the covered clearing agency to have policies and procedures that are designed to appropriately size guaranty fund contributions and margin to market risks.²⁸⁷ In addition, requirements in Rule 17Ad-22(e)(18) for policies and procedures relating to participation in the covered agency require (i) objective and risk-based criteria for participation, (ii) participants to have sufficient financial resources and robust operational capacity to meet obligations arising from participation in the covered clearing agency, and (iii) monitor compliance with such participation criteria on an ongoing basis.²⁸⁸ Taken as a whole, the Commission believes that the requirements in Rule 17Ad-22(e) comprehensively promote the resiliency of a covered clearing agency and, in particular, its ability to withstand periods of market stress.

iii. Segregation of Guaranty Funds

One commenter suggested that, to prevent the spread of losses from one product or asset type to participants or customers participating in another product or asset type, as well as to avoid the inequitable treatment of participants clearing less liquid product or asset types, the Commission should require a covered clearing agency to implement policies and procedures that would,

²⁷⁷ The Commission is modifying the definition to strike the word "conforming," as described in Part II.C.4.c below. Because of this and other modifications to Rule 17Ad-22(a), the Commission is moving the definition of "model validation" to Rule 17Ad-22(a)(9). See *infra* Part VI.

²⁷⁸ See DTCC at 5.

²⁷⁹ See *id.* at 5; *id.* at A-1 (suggesting drafting clarifications to proposed Rule 17Ad-22(e)(4)).

²⁸⁰ See *supra* Part II.C.4.a.

²⁸¹ See *id.* at 5.

²⁸² See Barnard at 2.

²⁸³ See CFA Institute at 7-8.

²⁸⁴ See SRC at 2.

²⁸⁵ See *supra* Part II.C.3.b.iii.

²⁸⁶ See *infra* Part II.C.5.

²⁸⁷ See *infra* Parts II.C.4.b.iv (discussing stress testing) and II.C.6 (discussing margin).

²⁸⁸ See *infra* Part II.C.18.

upon the insolvency of a particular clearing service or the clearing agency as a whole, contain related losses within the particular clearing service.²⁸⁹ The commenter stated that the Commission should require covered clearing agencies to maintain separate clearing or guaranty funds for product or asset types that exhibit materially different liquidity profiles.²⁹⁰ The commenter also stated that combined clearing or guaranty funds, in contrast, transmit losses from one product or asset type to participants and customers participating in another product or asset type in a manner that promotes contagion and systemic risk, which the commenter believes is inconsistent with the PFMI.²⁹¹ The commenter further argued that combined clearing or guaranty funds are not consistent with the requirement for the equitable treatment of participants in Section 17A(b)(3)(D) of the Exchange Act where the cleared products display materially different liquidity characteristics.²⁹²

First, the Commission notes that Section 17A(b)(3)(D), which sets forth one of the determinations that the Commission must make in registering a clearing agency, does not concern clearing or guaranty fund contributions; rather Section 17A(b)(3)(D) of the Exchange Act states that the rules of the clearing agency must provide for the equitable allocation of reasonable dues, fees, and other charges among its participants.²⁹³

Second, the Commission believes that a clearing agency can use both margin—targeted to the risk profile of the participant and used to satisfy losses attributed to the participant—and guaranty or clearing fund contributions—targeted to the risk profile of the participant and then mutualized in a pooled fund to satisfy losses attributable to the clearing agency—to help mitigate the transmission of losses across participants. The Commission disagrees with the commenter's suggestion that a pooled fund necessarily promotes contagion and systemic risk; a pooled fund may offer certain benefits. For instance, a pooled fund can help mitigate the possibility that participants in the clearing agency will be called upon to help satisfy losses when a defaulting participant is unable to satisfy those losses, and a clearing

agency should carefully assess the structure of its default waterfall to analyze the potential risk mitigation tools that might be employed in the default waterfall, including the use of margin and the use of a guaranty or clearing fund. To the extent that a clearing agency uses guaranty or clearing fund contributions to mutualize risk across participants, the clearing agency generally should value margin and guaranty fund contributions so that the contributions are commensurate to the risks posed by the participants' activity. The clearing agency also generally should consider the appropriate balance of individualized and pooled elements within its default waterfall, with a careful consideration of whether the balance of those elements mitigates risk and to what extent an imbalance among those elements might encourage moral hazard, in that one participant may take more risks because the other participants bear the costs of those risks.

The commenter also suggested that, to facilitate effective risk management and better protect participant/customer collateral, the Commission should require covered clearing agencies to calculate, collect, and maintain clearing or guaranty fund contributions and participants' initial margin requirements independent of each other, subject to an appropriate transition period.²⁹⁴ The commenter observed that some covered clearing agencies do not maintain separate clearing or guaranty fund requirements and initial margin requirements, making it more difficult for participants to model and manage the risks they face from the covered clearing agency.²⁹⁵ In addition, the commenter stated that commingling the treatment of clearing or guaranty fund contributions with initial margin exposes non-defaulting participants (and potentially their customers) to the risk of losing their initial margin in the event of another participant's default, a result inconsistent with the protection of non-defaulting participant/customer collateral.²⁹⁶ The commenter stated that initial margin of non-defaulting participants and their clearing customers should not be at risk as part of the default waterfall.²⁹⁷

Further, the commenter recommended that the Commission modify proposed Rule 17Ad-22(e)(4)(v) to require a covered clearing agency that provides clearing services for two or more product or asset types that have

materially different liquidity characteristics to segregate the clearing services for each such product or asset type and organize and structure itself and adopt such rules as shall be necessary to (i) continue operations for other clearing services notwithstanding the need to wind down operations for a particular clearing service and (ii) prevent the use of a particular clearing service's resources to cover losses that occur in a separate clearing service.²⁹⁸

The Commission is declining to incorporate these specific recommendation into Rule 17Ad-22(e)(4)(v). To the extent that these types of commingled arrangements are employed, they must be prefunded and therefore agreed to by the participants *ex ante*, prior to becoming members of the covered clearing agency. The Commission acknowledges that loss mutualization and other pooling-of-resources arrangements involve trade-offs that a clearing agency generally should carefully assess and balance. A covered clearing agency may be better able to manage multiple defaults in extreme conditions more efficiently using pooled resources because the pooled resources would be greater than the resources of any single defaulting participant. Further, because the arrangements are prefunded, participants can model and manage the risks they face from the clearing agency while being able to take into account the amount of resources that they have provided to the clearing agency. The pooling of resources, however, can increase interdependencies among, and therefore the potential risks to, participants of the clearing agency. The Commission believes that considering the use of loss mutualization and other pooling-of-resources arrangements generally should, to minimize systemic risk, balance the safety and soundness of the covered clearing agency against the potential for increased exposures among participants that may arise from the manner the covered clearing agency holds financial resources. The Commission further notes that, pursuant to Rule 17Ad-22(e)(23), a covered clearing agency must establish, implement, maintain, and enforce written policies reasonably designed to disclose, among other things, key aspects of its default rules and procedures and the risks, fees, and other material costs participants incur by participating in the covered clearing agency. The availability of these policies and procedures should allow participants to understand in advance a covered clearing agency's reliance on

²⁸⁹ See The Clearing House at 3, 17.

²⁹⁰ See *id.* at 17.

²⁹¹ See *id.*

²⁹² See *id.* (citing 15 U.S.C. 78q-1(b)(3)(D)).

²⁹³ For purposes of this section, the Commission is assuming that "clearing fund," in contrast to guaranty fund, refers to a combined pool of both margin collections and guaranty fund contributions.

²⁹⁴ See The Clearing House at 3, 17, 18.

²⁹⁵ See *id.* at 17.

²⁹⁶ See *id.*

²⁹⁷ See *id.* at 17, 18.

²⁹⁸ See The Clearing House at 18.

either on a defaulter-pays approach or a pooling-of-resources approach.²⁹⁹

iv. Stress Testing

Commenters generally supported the use of stress testing and model validation and the approach taken in Rule 17Ad-22(e)(4),³⁰⁰ but one commenter recommended that the rule also include a requirement for reverse stress testing. In the commenter's view, reverse stress testing is a useful tool to manage expectations and to help anticipate financial resource requirements in extreme conditions.³⁰¹ The Commission also believes that reverse stress testing can be a useful tool to evaluate the adequacy of financial resources, but the Commission is declining to modify Rule 17Ad-22(e)(4) to specifically mandate this practice so that each covered clearing agency retains flexibility, subject to its obligations and responsibilities as an SRO under the Exchange Act, to develop its stress testing framework in light of the ever-evolving challenges and risks inherent in the securities markets. Below the Commission provides additional guidance on the requirement that relates to stress testing in the rule.

c. Final Rule

As previously noted, the Commission is adopting the definition "systemically important in multiple jurisdictions" as proposed, but because of other modifications to Rule 17Ad-22(a), the definition is being moved to Rule 17Ad-22(a)(18).³⁰² The Commission is modifying the definition of "stress testing" to mean the estimation of credit or liquidity exposures that would result from the realization of potential stress scenarios, such as extreme price changes, multiple defaults, or changes in other valuation inputs and assumptions. The Commission believes that this modification, and in particular the removal of "but plausible," helps ensure that policies and procedures for stress testing comprehensively consider a range of stress scenarios that may be used in sizing the guaranty fund, in light of the variation in markets served and products cleared by covered clearing agencies.³⁰³ Because of other

modifications to Rule 17Ad-22(a), the definition is being moved to Rule 17Ad-22(a)(17).³⁰⁴ The Commission is also modifying the definition of "conforming model validation" by striking "conforming" since the Commission has not separately defined "model validation" in Rule 17Ad-22(a). Because of this and other modifications to Rule 17Ad-22(a), the definition of "model validation" has been moved to Rule 17Ad-22(a)(9).³⁰⁵

In addition, the Commission is adopting Rule 17Ad-22(e)(4) with modifications.³⁰⁶ First, the Commission is modifying Rule 17Ad-22(e)(4)(v) so that it references only paragraphs (e)(4)(ii) and (iii) (and not paragraph (e)(4)(i)) because a covered clearing agency may hold financial resources consistent with Rule 17Ad-22(e)(4)(i), such as initial margin, separately from the guaranty or clearing fund.³⁰⁷ Second, the Commission is modifying Rule 17Ad-22(e)(4)(vii) to conform to the revised definition of "model validation" and striking "to be performed" from the rule to be consistent with the corresponding requirement for model validation of liquidity risk models in Rule 17Ad-22(e)(7)(vii). Third, the Commission is making a technical correction to Rule 17Ad-22(e)(4)(iv) to make clear that prefunded financial resources should be exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded by modifying Rule 17Ad-22(e)(4)(iv) to state "exclusive of" assessments rather than "excluding" assessments. Fourth, the Commission is modifying Rule 17Ad-22(e)(4)(vi)(A) to refer to "stress testing" rather than "a stress test" to improve consistency with the definition of "stress testing" in Rule 17Ad-22(a)(17). Fifth, the Commission is revising Rule 17Ad-22(e)(4)(vi)(C) to replace "and" with "or" so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the criteria described may not be correlated

necessary to enable it to cover a wide range of foreseeable stress scenarios, including but not limited to the default of the participant family (in the case of "cover one") or two participant families (in the case of "cover two") that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions. See *infra* Part VI.

³⁰⁴ See *supra* note 271; see also Rule 17Ad-22(a)(17), *infra* Part VI.

³⁰⁵ See Rule 17Ad-22(a)(9), *infra* Part VI. The Commission is also striking "conforming" from Rules 17Ad-22(e)(6)(vii) and (e)(7)(vii) consistent with the new "model validation" term. See *infra* Parts II.C.6.c and II.C.7.c.

³⁰⁶ See Rule 17Ad-22(e)(4), *infra* Part VI.

³⁰⁷ See CCA Standards proposing release, *supra* note 5, at 29526.

to each other. This modification is consistent with the Commission's description of the proposed rule in the CCA Standards proposing release.³⁰⁸ Sixth, the Commission is correcting a technical error in Rule 17Ad-22(e)(4)(vi)(D): references to paragraphs (e)(4)(iv)(B) and (C) will be changed to paragraphs (e)(4)(vi)(B) and (C) respectively. Sixth, the Commission is moving requirements proposed in Rule 17Ad-22(e)(13) to Rule 17Ad-22(e)(4) so that all requirements pertinent to a covered clearing agency's management of credit risk are contained in one rule. This modification and the related rule text are discussed in Part II.C.13.c.

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(4), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address credit risk:

- Whether it has established a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes, mindful that credit exposures may arise from current exposures, potential future exposures,³⁰⁹ or both;
- whether it has identified sources of credit risk and can routinely measure and monitor credit exposures, using appropriate risk management tools to control these risks;
- if it provides CCP services, whether it has covered its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources, and (i) if it is involved in activities with a more-complex risk profile or is systemically important in multiple jurisdictions, whether it maintains additional financial resources to cover a wide range of potential stress scenarios including but not limited to the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions, or (ii) in the case of all other covered clearing agencies, whether it maintains additional financial resources sufficient to cover a wide range of potential stress scenarios including but not limited to the default of the participant and its affiliates that would potentially cause

³⁰⁸ See *id.* at 29526 (for Rule 17Ad-22(e)(4)(iv)), 29526-27 (for Rule 17Ad-22(e)(4)(vi)(C)).

³⁰⁹ See *infra* Part II.C.6 (discussing potential future exposures in more detail).

²⁹⁹ See *infra* Parts II.C.18 and II.C.23 (describing requirements under Rule 17Ad-22(e) for access and participation and disclosure of rules, key procedures, and market data).

³⁰⁰ See, e.g., CFA Institute at 8; OCC at 9.

³⁰¹ See Barnard at 2.

³⁰² See *supra* note 271; see also Rule 17Ad-22(a)(18), *infra* Part VI.

³⁰³ The Commission notes that this does not alter the coverage requirements in Rules 17Ad-22(e)(4)(ii) and (iii), which require policies and procedures that enable a covered clearing agency to maintain financial resources at a minimum level

the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions;

- if it provides CCP services, whether it has, consistent with Rules 17Ad–22(e)(2) and (e)(3), documented its supporting rationale for, and has appropriate governance arrangements relating to, the amount of total financial resources it maintains;

- if it provides CCP services: whether it determines the amount and regularly tests the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing; whether it has clear procedures to report the result of its stress tests to the appropriate decision makers at the covered clearing agency and can use these results to evaluate the adequacy of and any appropriate adjustments to its total financial resources; whether it performs stress tests daily using standard and predetermined parameters and assumptions; whether it performs, on at least a monthly basis, a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market conditions; whether it performs this analysis more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by its participants increases significant; and whether it performs a full validation of its risk management model at least annually;

- if it provides CCP services, whether it considers, in conducting stress testing, the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods, and whether scenarios include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions; and

- whether it has established explicit rules and procedures that address fully any credit losses the covered clearing agency may face as a result of any individual or combined default among its participants with respect to any of their obligations to the covered clearing agency, addressing how potentially

uncovered credit losses would be allocated, including the repayment of any funds the covered clearing agency may borrow from liquidity providers, and indicating the covered clearing agency's process to replenish any financial resources that the covered clearing agency may employ during a stress event so it can continue to operate in a safe and sound manner.

With respect to Rule 17Ad–22(e)(4)(i), “high degree of confidence” generally refers to the meaning of the term as it is used in statistical analysis.³¹⁰ With respect to Rule 17Ad–22(e)(4)(ii) and (iii), a covered clearing agency generally should use statistical methods to develop models that estimate the financial resources required. With respect to the relationship among Rules 17Ad–22(e)(4)(i), (ii), and (iii), the Commission notes that the requirements to examine credit exposure under foreseeable stress scenarios including extreme but plausible market conditions in proposed Rules 17Ad–22(e)(4)(ii) and (iii), as applicable, means a covered clearing agency generally should consider how its credit exposure modeled under such conditions differs from its credit exposure modeled under normal market conditions to positions of such participants, which it would also be required to measure, pursuant to proposed Rule 17Ad–22(e)(4)(i). With respect to Rule 17Ad–22(e)(4)(iv), the Commission notes the following:

- While the ability to assess participants for contributions under applicable covered clearing agency governing documents, rules, or agreements could not be included in this calculation until an assessment has been levied and collected, previously paid-in participant contributions to the covered clearing agency's default fund could be counted, to the extent the covered clearing agency's rules, policies, or procedures permit such resources to be used in a manner equivalent to other financial resources in the default fund.

- Other sources of prefunded resources, such as margin previously posted to the clearing agency by participants, may also be treated in this manner.

- The ability to draw down under a revolving loan facility could not be counted towards prefunded resources because funds from such a loan facility would not be in the covered clearing agency's immediate possession until they were drawn down, but the covered

clearing agency could count borrowed funds already drawn down, such as under a term loan or other credit facility.

With respect to stress testing under Rule 17Ad–22(e)(4)(vi) as a general matter, the Commission believes that reverse stress testing can be a useful tool to evaluate the adequacy of financial resources. The Commission believes that a covered clearing agency generally should consider incorporating the use of reverse stress testing into its policies and procedures under Rule 17Ad–22(e)(4)(vi), and if a covered clearing agency determines not to use reverse stress testing, it generally should indicate why in its policies and procedures. With respect to the references to “high volatility” and “less liquid” referenced in Rule 17Ad–22(e)(4)(vi), the Commission notes that what would constitute such circumstances may vary across asset classes.

With respect to the definition of “model validation” and its use in Rule 17Ad–22(e)(4)(vii), a covered clearing agency generally should consider a person free from influence when that person does not perform functions associated with the clearing agency's models and does not report to a person who performs these functions. The definition of “model validation” does not require policies and procedures for separating model review from model development or for maintaining two separate quantitative teams within the clearing agency. With respect to Rule 17Ad–22(e)(4)(vii) and policies and procedures for performing the model validation not less than annually, a covered clearing agency generally should perform the model validation not less than once every twelve months.

With respect to Rule 17Ad–22(e)(4)(viii), the Commission notes that managing a member default may involve hedging open positions, funding collateral so that the positions can be closed out over time, or both. A covered clearing agency may decide to auction or allocate open positions to its participants, but, to the extent possible, a covered clearing agency generally should allow non-defaulting members to continue to manage their positions in the ordinary course. In developing policies and procedures pursuant to Rule 17Ad–22(e)(4)(ix), a covered clearing agency generally should consider specifying the order of use of different types of resources, including (i) assets provided by the defaulting member (such as margin or other collateral), (ii) the guaranty fund of the covered clearing agency, (iii) capital calls on members, and (iv) credit

³¹⁰ See, e.g., Arthur S. Goldberger, *A Course in Econometrics* 122–23 (Harvard Univ. Press, 2003) (defining confidence intervals for parameter estimates).

facilities. A covered clearing agency generally should have policies and procedures that describe (i) how resources that have been depleted as a result of a member default would be replenished over time and (ii) what burdens a non-defaulting member may bear.

5. Rule 17Ad-22(e)(5): Collateral

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(5) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to limit the assets it accepts as collateral to those with low credit, liquidity, and market risks, and set and enforce appropriately conservative haircuts and concentration limits if the covered clearing agency requires collateral to manage its own or its participants' credit exposures. In addition, Rule 17Ad-22(e)(5) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to include a not-less-than-annual review of the sufficiency of a covered clearing agency's collateral haircuts and concentration limits.³¹¹

b. Comments Received

Commenters were generally supportive of the proposed approach, but two commenters supported further clarification regarding the type of collateral a covered clearing agency can accept.³¹²

One commenter stressed that the ability to accept equity securities as collateral is critically important to its systemic risk mitigation efforts and believes that it should be permitted to continue accepting such securities as collateral within its existing framework.³¹³ The commenter sought to clarify that an appropriately designed portfolio margining system that permits the use of equity collateral complies with the requirements of proposed Rule 17Ad-22(e)(5) with respect to quality of collateral. In response, the Commission believes that, for a portfolio margining system to comply with Rule 17Ad-22(e)(5), it would necessarily have to consider whether such equity collateral has low credit, liquidity, and market risk. This may require a consideration of whether the collateral carries wrong-way risk. The Commission provides

further guidance on this point in Part II.C.5.c below.

One commenter recommended that the Commission consider establishing prescriptive standards for eligible collateral.³¹⁴ Among other things, the commenter recommended limiting initial margin to cash in highly liquid currencies, obligations guaranteed by a sovereign that are highly liquid, corporate bonds that are highly liquid, equities that are highly liquid, and gold. The commenter further recommended limiting the assets that a covered clearing agency may accept as initial margin to collateral that a central bank would accept under an ordinary-course facility, is deliverable against the collateralized exposure, or is otherwise subject to conservative risk management practices that the Commission has determined to be adequate to mitigate the incremental risks associated with the collateral because a central bank would not accept it under an ordinary-course facility and it is not deliverable against the collateralized exposure. The commenter further recommended aggregate limits on each type of collateral posted as initial margin. The commenter also recommended that the Commission prohibit a covered clearing agency from accepting as initial margin securities issued by a participant or any of its affiliates.³¹⁵

The Commission is mindful of the concerns raised by the commenter but, given the range of products that covered clearing agencies clear, declines to restrict the types of collateral to the assets identified by the commenter. A covered clearing agency should have flexibility, consistent with the requirements in Rule 17Ad-22(e)(5), to react to changing market conditions. The Commission notes that a covered clearing agency is required under Rule 17Ad-22(e)(5) to have policies and procedures that assess what assets have low credit, liquidity, and market risks in light of its broader risk management framework and, likewise, what haircuts and concentration limits are necessary to effectively manage its credit exposure.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(5) as proposed.³¹⁶ Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(5), the Commission is providing the following guidance that a covered clearing agency generally should

consider in establishing and maintaining policies and procedures that address collateral:

- Whether it has generally limited the assets it accepts as collateral to those with low credit, liquidity, and market risks;
 - whether it has established prudent valuation practices and developed haircuts that are regularly tested and take into account stressed market conditions;
 - to reduce the need for procyclical adjustments, whether it has established stable and conservative haircuts that have been calibrated to include periods of stressed market conditions, to the extent practical and prudent;
 - whether it has avoided concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects;
 - if it accepts cross-border collateral, whether it has mitigated the risks associated with the use of cross-border collateral and ensured that the collateral can be used in a timely manner; and
 - whether it uses a collateral management system that has been well-designed and is operationally flexible.
- In assessing what assets have low credit, liquidity, and market risks, a covered clearing agency's policies and procedures also generally should account for wrong-way risk, such as the risk that arises from accepting as initial margin securities issued by a participant or any of its affiliates.³¹⁷ Policies and procedures for haircuts and concentration limits generally should account for wrong-way risk by limiting the acceptance of collateral that would likely lose value in the event that the participant providing the collateral defaults. For example, this would be true when accepting equity securities of the participant itself or its affiliates. Further, to reduce the need for procyclical adjustments,³¹⁸ a covered clearing agency generally should consider establishing stable and

³¹⁷ Wrong-way risk can be either general or specific. General wrong-way risk arises at a CCP when the potential losses of either a participant's portfolio or a participant's collateral is correlated with the default probability of that participant. Specific wrong-way risk arises at a CCP when an exposure to a participant is highly likely to increase when the creditworthiness of that participant is deteriorating.

³¹⁸ In this context, procyclicality typically refers to changes in risk-management practices that are positively correlated with market, business, or credit cycle fluctuations that may cause or exacerbate financial stability. While changes in collateral values tend to be procyclical, collateral arrangements can increase procyclicality if haircut levels fall during periods of low market stress and increase during periods of high market stress.

³¹¹ See CCA Standards proposing release, *supra* note 5, at 29528.

³¹² See CFA Institute at 8; OCC at 9.

³¹³ See OCC at 10.

³¹⁴ See The Clearing House at 2-3, 9-11.

³¹⁵ See *id.* at 10.

³¹⁶ See Rule 17Ad-22(e)(5), *infra* Part VI.

conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

In addition, with respect to policies and procedures for reviewing the sufficiency of its collateral haircuts and concentration limits not less than annually, a covered clearing agency generally should perform the review not less than once every twelve months using persons who are independent from management and have appropriate technical skills.

6. Rule 17Ad-22(e)(6): Margin

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(6) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that is monitored by management on an ongoing basis and regularly reviewed, tested, and verified.³¹⁹ Proposed Rule 17Ad-22(e)(6)(i) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to result in a margin system that, at a minimum, considers and produces margin levels commensurate with the risks and particular attributes of each relevant product, portfolio, and market. Proposed Rule 17Ad-22(e)(6)(ii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the margin system would mark participant positions to market and collect margin, including variation margin or equivalent charges if relevant, at least daily, and include the authority and operational capacity to make intraday margin calls in defined circumstances. Proposed Rule 17Ad-22(e)(6)(iii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to calculate margin sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. The Commission also proposed Rule 17Ad-22(a)(14) to define “potential future exposure” to mean the maximum exposure estimated to occur at a future point in time with an established single-

tailed confidence level of at least 99% with respect to the estimated distribution of future exposure.³²⁰ Proposed Rule 17Ad-22(e)(6)(iv) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it uses reliable sources of timely price data and procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable. Proposed Rule 17Ad-22(e)(6)(v) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure the use of an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products.

Proposed Rule 17Ad-22(e)(6)(vi) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review, test, and verify its risk-based margin system by conducting backtests at least once each day and conducting a conforming sensitivity analysis of its margin resources and its parameters and assumptions for backtesting at least monthly, and considering modifications to ensure the backtesting practices are appropriate for determining the adequacy of its margin resources. Proposed Rule 17Ad-22(e)(6)(vi) would also require a covered clearing agency’s policies and procedures to include conducting a conforming sensitivity analysis more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, and when the size or concentration of positions held by participants increases or decreases significantly. Proposed Rule 17Ad-22(e)(6)(vi) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to report the results of such conforming sensitivity analysis to appropriate decision makers at the covered clearing agency, including its risk management committee or board of directors, and use these results to evaluate the adequacy of and adjust its margin methodology, model parameters, and any other

relevant aspects of its credit risk management policies and procedures.³²¹

With respect to proposed Rule 17Ad-22(e)(6)(vi), the Commission proposed Rule 17Ad-22(a)(1) to define “backtesting” to mean an ex-post comparison of actual outcomes with expected outcomes derived from the use of margin models.³²² The Commission received no comments regarding the proposed definition and is adopting it as proposed.³²³ The Commission also proposed to define “sensitivity analysis” to mean an analysis that involves analyzing the sensitivity of a model to its assumptions, parameters, and inputs.³²⁴ The Commission also proposed to define “conforming sensitivity analysis” to mean a sensitivity analysis that considers the impact on the model of both moderate and extreme changes in a wide range of inputs, parameters, and assumptions, including correlations of price movements or returns if relevant, which reflect a variety of historical and hypothetical market conditions and actual and hypothetical portfolios of proprietary positions and, where applicable, customer positions.³²⁵ Under the proposed definition, a conforming sensitivity analysis, when performed by or on behalf of a covered clearing agency involved in activities with a more complex risk profile, would consider the most volatile relevant periods, where practical, that have been experienced by the markets served by the clearing agency. The proposed definition would also require a conforming sensitivity analysis to test the sensitivity of the model to stressed market conditions, including the market conditions that may ensue after the default of a member and other extreme but plausible conditions as defined in a covered clearing agency’s risk policies.³²⁶

Finally, proposed Rule 17Ad-22(e)(6)(vii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to require not less than annually a conforming model validation of the

³²¹ See *id.* at 29530.

³²² See *id.*

³²³ See Rule 17Ad-22(a)(1), *infra* Part VI.

³²⁴ See CCA Standards proposing release, *supra* note 5, at 29530.

³²⁵ See *id.*

³²⁶ See CCA Standards proposing release, *supra* note 5, at 29530. The Commission received no comments regarding the proposed definitions, and the Commission is combining them into one definition of “sensitivity analysis” to avoid the use of both “sensitivity analysis” and “conforming sensitivity analysis” in Rule 17Ad-22, as discussed further below. See *infra* Part II.C.6.c.

³¹⁹ See CCA Standards proposing release, *supra* note 5, at 29528–31.

³²⁰ See *id.* at 29529. The Commission received no comments regarding the proposed definition and is adopting it as proposed. Because of other modifications to Rule 17Ad-22(a), the definition of “potential future exposure” is being moved to Rule 17Ad-22(a)(13). See *infra* Part VI.

covered clearing agency's margin system and related models.³²⁷

b. Comments Received and Commission Response

i. Minimum Liquidation Periods for Initial Margin

One commenter expressed the view that the requirements in Rule 17Ad-22(e)(6) are reasonable.³²⁸ In contrast, another commenter noted that the proposed rules would address initial margin liquidation period requirements through the Commission's supervisory process rather than establish a minimum liquidation period as part of the covered clearing agency's initial margin methodology.³²⁹ The commenter stated that, at a minimum, the Commission should establish minimum liquidation period standards that, as a supervisory matter, are transparent to the public. To promote transparency and international consistency, the commenter also stated that the Commission should modify Rule 17Ad-22(e)(6)(iii) to establish minimum liquidation periods for initial margin calculation that are consistent with international standards.³³⁰

The Commission is declining to establish minimum liquidation periods as part of a covered clearing agency's initial margin methodology. The Commission recognizes that liquidation periods are a critical assumption for any margin methodology and vary by product type. Accordingly, liquidation periods generally should be tailored to the market conditions and risks of the products being cleared. Because market conditions vary and the risks of the products being cleared over time may change, the Commission believes that a rule or rules establishing criteria for minimum liquidation periods may not be sufficiently tailored to changing circumstances as financial markets evolve. A covered clearing agency generally should consider reviewing liquidation periods as part of its regular review, testing, and verification of its margin system under Rule 17Ad-22(e)(6).

ii. Model Validation

One commenter supported the proposed requirement that a qualified person who is free from influence should perform the annual model validation for credit and margin risk,

but the commenter asked the Commission to go further with the "free from influence" requirement.³³¹ The commenter noted the inevitable and indirect pressures employees may face and suggested that the models be validated annually by a qualified and independent organization with no financial stake in the outcome.³³² The Commission previously addressed comments on this topic when it adopted Rule 17Ad-22(b)(4). At that time, the Commission stated that it was not persuaded that model validation must be performed by an outside, independent expert.³³³ The Commission believes that objectivity can be preserved where the person performing the model validation is an employee of the covered clearing agency by a variety of means, including, for example, separating employees responsible for model validation from those in the covered clearing agency responsible for the day-to-day functioning of the model and the business lines that use the model. As a general matter, mechanisms ensuring that any employees responsible for model validation remain independent from those responsible for using the model on a day-to-day basis would satisfy this requirement of the rule.

iii. Intraday Margin on a Net Basis and Multilateral Netting Across CCPs

One commenter supported intraday margin on a net basis and encouraged multilateral netting across CCPs. The commenter stated that, to prevent intraday variation margin calls from having destabilizing effects, the Commission should, pending the development of market-wide solutions, require a covered clearing agency making an intraday margin call to simultaneously net variation margin that is payable to participants.³³⁴

After careful consideration, the Commission declines to accept the commenter's suggestion because it would be inconsistent with the overall approach to Rule 17Ad-22(e). The Commission notes that the circumstances that could give rise to intraday margin calls at a covered clearing agency may vary significantly (e.g., intraday volatility, large changes in participant positions), and may present varied challenges. Although there may

be circumstances where it would be appropriate for a covered clearing agency to incorporate policies and procedures such as those suggested by the commenter, the Commission's approach to Rule 17Ad-22(e) is to provide flexibility to covered clearing agencies, subject to their obligations and responsibilities as SROs under the Exchange Act, to design and structure their policies and procedures to take into account the differences among clearing agencies. With respect to intraday margin as a general matter, Rule 17Ad-22(e)(6)(ii) requires policies and procedures for having the capacity to collect intraday margin in defined circumstances, which generally would include margin calls on both a scheduled and unscheduled basis.

c. Final Rule

As previously discussed, the Commission is adopting the definitions of "backtesting" and "potential future exposure" as proposed.³³⁵ As noted above, the Commission is combining the definitions of "sensitivity analysis" and "conforming sensitivity analysis." In addition, the Commission believes that while hypothetical portfolios are often useful and important in conducting a sensitivity analysis, hypothetical portfolios may not be appropriate in certain cases. The Commission is modifying the definition so that, under new Rule 17Ad-22(a)(16), "sensitivity analysis" means an analysis that involves analyzing the sensitivity of a model to its assumptions, parameters, and inputs that: (i) Considers the impact on the model of both moderate and extreme changes in a wide range of inputs, parameters, and assumptions, including correlations of price movements or returns if relevant, which reflect a variety of historical and hypothetical market conditions. Sensitivity analysis must use actual and, where applicable, hypothetical portfolios that reflect the characteristics of proprietary positions and customer positions; (ii) when performed by or on behalf of a covered clearing agency involved in activities with a more complex risk profile, considers the most volatile relevant periods, where practical, that have been experienced by the markets served by the clearing agency; and (iii) tests the sensitivity of the model to stressed market conditions, including the market conditions that may ensue after the default of a member and other extreme but plausible

³²⁷ See CCA Standards proposing release, *supra* note 5, at 29531; see also *supra* note 305 and accompanying text (modifying the term "conforming model validation" to "model validation," and moving it to Rule 17Ad-22(a)(9)).

³²⁸ See CFA Institute at 1, 8–9.

³²⁹ See The Clearing House at 14.

³³⁰ See *id.* at 3, 14, 15.

³³¹ See Better Markets at 9. The Commission notes that this "free from influence" requirement applies to model validation requirements in Rules 17Ad-22(e)(4), (e)(6), and (e)(7). See Rule 17Ad-22(a)(9), *infra* Part VI.

³³² See Better Markets at 9–10.

³³³ See Clearing Agency Standards adopting release, *supra* note 5, at 66238.

³³⁴ See The Clearing House at 3, 14.

³³⁵ See *supra* notes 320 and 323. Due to modifications to Rule 17Ad-22(a), the definition of "potential future exposure" is being moved to Rule 17Ad-22(a)(13). The definition of "backtesting" remains in Rule 17Ad-22(a)(1). See *infra* Part VI.

conditions as defined in a covered clearing agency's risk policies.³³⁶ The Commission believes that this reduces the potential for confusion resulting from the use of two separate definitions.

The Commission is also adopting modifications to Rule 17Ad-22(e)(6).³³⁷ First, the Commission is modifying Rule 17Ad-22(e)(6) to remove references to "conforming" consistent with the modification to the definitions of "sensitivity analysis" discussed above and of "model validation" discussed in Part II.C.4.c. Second, to improve clarity, the Commission is modifying Rule 17Ad-22(e)(6)(v) to require policies and procedures that use reliable sources of timely price data and that "use" procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable. Third, because backtests are conducted with respect to the margin model and not the margin resources themselves, the Commission is modifying Rule 17Ad-22(e)(6)(vi)(A) to replace the phrase "margin resources" with "margin model." Fourth, to avoid conflating sensitivity analysis with backtesting, the Commission is modifying Rules 17Ad-22(e)(6)(vi)(B) and (C) to clarify that a sensitivity analysis should be conducted of the margin model and not of margin resources. Specifically, the rule text will replace the phrase "margin resources" with the phrase "margin model." The modifications to Rules 17Ad-22(e)(6)(vi)(A), (B), and (C) are consistent with the discussion of the proposed rule in the CCA Standards proposing release.³³⁸ Fifth, the Commission is modifying Rule 17Ad-22(e)(6)(vi)(C) to replace "and" with "or" so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the criteria described may not be correlated to each other. This modification is consistent with the Commission's description of the proposed rule in the CCA Standards proposing release.³³⁹

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(6), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures for margin:

- Whether its margin system has established margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves;
- whether it has a reliable source of timely price data for its margin system and policies and procedures, including sound valuation models, for addressing circumstances in which pricing data are not readily available or reliable;
- whether it has adopted initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default;
- whether initial margin meets an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure; whether, if it calculates margin at the portfolio level, this applies to each portfolio's distribution of future exposure; whether, if it calculates margin at more granular levels, such as at the sub-portfolio level or by product, this is met for the corresponding distributions of future exposure; and whether the model (i) uses a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the covered clearing agency (including in stressed market conditions), (ii) has an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (iii) to the extent practicable and prudent, limits the need for destabilizing, procyclical changes;
- whether it marks participant positions to market and collects variation margin at least daily to limit the build-up of current exposures and has the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants;
- in calculating margin requirements, whether it allows offsets or reductions in required margin across products that it clears or between products that it and another clearing agency clear, if the risk of one product is significantly and reliably correlated with the risk of the other product; and where two or more clearing agencies are authorized to offer cross-margining, whether they have appropriate safeguards and harmonized overall risk management systems;
- whether it analyzes and monitors its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly, and more frequent when appropriate,

sensitivity analysis; whether it regularly conducts an assessment of the theoretical and empirical properties of its margin model for all products it clears; in conducting sensitivity analysis of the model's coverage, whether the covered clearing agency has taken into account a wide range of parameters and assumptions that reflect possible market conditions, including the most volatile periods that have been experienced by the markets the covered clearing agency serves and extreme changes in the correlations between prices; and

- whether it regularly reviews and validates its margin system.

With respect to Rule 17Ad-22(e)(6)(iii), and policies and procedures related to margin calculations, a covered clearing agency generally should consider whether it calculates margin sufficient to cover its potential future exposure to each participant.

With respect to Rule 17Ad-22(e)(6)(iv) and policies and procedures for price data, the Commission notes that in selecting price data sources, a covered clearing agency generally should consider the ability of the provider to provide data in a variety of market conditions, including periods of market stress, and not select data sources based on their cost alone to ensure that such price data sources are reliable.

With respect to Rule 17Ad-22(e)(6)(v) and policies and procedures for measuring portfolio effects, the Commission notes that measuring portfolio effects across products means a covered clearing agency generally should take into account netting procedures or offsets through which credit exposure may be reduced in measuring credit exposure, including the use of portfolio margining procedures across products where applicable.

With respect to Rule 17Ad-22(e)(6)(vii) and policies and procedures for performing the model validation not less than annually, a covered clearing agency generally should perform the model validation not less than once every twelve months using persons who are independent from management and have appropriate technical skills.

7. Rule 17Ad-22(e)(7): Liquidity Risk

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(7) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne

³³⁶ See Rule 17Ad-22(a)(16), *infra* Part VI.

³³⁷ See Rule 17Ad-22(e)(6), *infra* Part VI.

³³⁸ See CCA Standards proposing release, *supra* note 5, at 29530-31.

³³⁹ See *id.* at 29530.

by it, by meeting, at a minimum, the ten requirements specified in the rule.³⁴⁰

Proposed Rule 17Ad-22(e)(7)(i) would require that a covered clearing agency's policies and procedures be reasonably designed to ensure that it maintains sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that includes the default of the participant family that would generate the largest aggregate payment obligation for it in extreme but plausible market conditions.³⁴¹

Proposed Rule 17Ad-22(e)(7)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it holds qualifying liquid resources sufficient to meet the minimum liquidity resource requirement in each relevant currency for which the covered clearing agency has payment obligations owed to clearing members.³⁴² The Commission also proposed Rule 17Ad-22(a)(15) to define "qualifying liquid resources," which would include three types of assets, in each relevant currency:

- Cash held either at the central bank of issue or at creditworthy commercial banks;
- assets that are readily available and convertible into cash through either:
 - Prearranged funding arrangements without material adverse change limitations, such as committed lines of credit, foreign exchange swaps, and repurchase agreements, or
 - other prearranged funding arrangements determined to be highly reliable even in extreme but plausible market conditions by the board of directors of the covered clearing agency following a review conducted for this purpose not less than annually; and
- other assets that are readily available and eligible for pledging to (or conducting other appropriate forms of transactions with) a relevant central bank, if the covered clearing agency has access to routine credit at such central bank.³⁴³

Proposed Rule 17Ad-22(e)(7)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure it uses accounts and services at a Federal

Reserve Bank, pursuant to Section 806(a) of the Clearing Supervision Act,³⁴⁴ or other relevant central bank, when available and where determined to be practical by the board of directors of the covered clearing agency, to enhance its management of liquidity risk.

Proposed Rule 17Ad-22(e)(7)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure it undertakes due diligence to confirm that it has a reasonable basis to believe each of its liquidity providers, whether or not such liquidity provider is a clearing member, has sufficient information to understand and manage the liquidity provider's liquidity risks, and the capacity to perform as required under its commitments to provide liquidity.

Proposed Rule 17Ad-22(e)(7)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the covered clearing agency maintains and, on at least an annual basis, tests with each liquidity provider, to the extent practicable, its procedures and operational capacity for accessing each type of relevant liquidity resource.

Proposed Rule 17Ad-22(e)(7)(vi)(A) through (C) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to determine the amount and regularly test the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement of proposed Rule 17Ad-22(e)(7)(i) by (A) conducting a stress test of its liquidity resources at least once each day using standard and predetermined parameters and assumptions; (B) conducting a comprehensive analysis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources, and considering modifications to ensure they are appropriate for determining the covered clearing agency's identified liquidity needs and resources in light of current and evolving market conditions at least once each month; and (C) conducting a comprehensive analysis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources more frequently when products cleared or markets served display high volatility or become less liquid, when the size or concentration of positions held by

participants increases significantly, or in other circumstances described in the covered clearing agency's policies and procedures. Proposed Rule 17Ad-22(e)(7)(vi)(D) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to result in reporting the results of the analyses performed under proposed Rule 17Ad-22(e)(7)(vi)(B) and (C) to appropriate decision makers, including the risk management committee or board of directors, at the covered clearing agency for use in evaluating the adequacy of and adjusting its liquidity risk management framework.³⁴⁵

Proposed Rule 17Ad-22(e)(7)(vii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to result in performing an annual or more frequent conforming model validation of its liquidity risk models.³⁴⁶

Proposed Rule 17Ad-22(e)(7)(viii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to address foreseeable liquidity shortfalls that would not be covered by its liquid resources and seek to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations.

Proposed Rule 17Ad-22(e)(7)(ix) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to describe its process for replenishing any liquid resources that it may employ during a stress event.³⁴⁷

Finally, proposed Rule 17Ad-22(e)(7)(x) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it, at least once a year, evaluates the feasibility of maintaining sufficient liquid resources at a minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default of the two participant families that would potentially cause the largest

³⁴⁵ See CCA Standards proposing release, *supra* note 5, at 29534.

³⁴⁶ See *id.*; see also *supra* notes 275–305 and accompanying text (discussing generally the requirements accompanying the definition of "model validation").

³⁴⁷ See CCA Standards proposing release, *supra* note 5, at 29534.

³⁴⁰ See CCA Standards proposing release, *supra* note 5, at 29531–37.

³⁴¹ See *id.* at 29531.

³⁴² See *id.*

³⁴³ See *id.*

³⁴⁴ See 12 U.S.C. 5465(a).

aggregate payment obligation for the covered clearing agency in extreme but plausible market conditions if the covered clearing agency provides CCP services and is either systemically important in multiple jurisdictions or a clearing agency involved in activities with a more complex risk profile.

b. Comments Received and Commission Response

i. General Approach

Six commenters expressed general support for the proposed rule.³⁴⁸ Of these, one commenter stated that proposed Rule 17Ad–22(e)(7) was prudent and appropriate in light of the need for covered clearing agencies to maintain adequate liquidity to minimize systemic risks and that, by requiring ongoing testing and monitoring of underlying assumptions, covered clearing agencies should be able to identify potential problems with sufficient time to respond without significant disruptions.³⁴⁹ Four commenters expressed support for the Commission's proposed approach to qualifying liquid resources other than committed funding arrangements,³⁵⁰ which is discussed further below in Part II.C.7.b.iii.

ii. Due Diligence for Liquidity Providers

Two commenters stated that the requirement in proposed Rule 17Ad–22(e)(7)(iv) regarding policies and procedures to perform due diligence of liquidity providers must take into account the context of the due diligence being performed.³⁵¹ One of these commenters stated that commercial lenders are not likely to provide their borrowers with non-public information on their internal policies and controls,³⁵² and that accordingly covered clearing agencies should not be expected to evaluate a commercial lender's internal risk controls.³⁵³ First,

in the experience of Commission staff, liquidity facilities may not consist only of traditional commercial loans. For example, a covered clearing agency may seek out committed repurchase agreement facilities with counterparties other than traditional commercial lenders. In such a circumstance, the commenter's experience with such counterparties may be different than with a traditional commercial lender.³⁵⁴ Accordingly, in contrast to the commenter's assertion, a covered clearing agency may engage in a relationship with a liquidity provider that is not a typical commercial lender and therefore may be more willing to facilitate due diligence. Second, while the Commission acknowledges that a lender may choose not to provide their borrowers with non-public information on certain internal policies and controls, the proposed rule does not require a covered clearing agency's policies and procedures regarding due diligence for liquidity providers to specifically review all internal policies and controls. Rather, it requires due diligence policies and procedures that confirm the covered clearing agency has a reasonable basis to believe that a liquidity provider understands and manages the liquidity provider's liquidity risks and the capacity to perform as required under its commitments to provide liquidity to the covered clearing agency. If, in performing due diligence consistent with its policies and procedures formulated in accordance with the rule, a covered clearing agency cannot confirm that it has a reasonable basis to believe both of the required criteria, then the covered clearing agency would not have a liquidity provider consistent with Rule 17Ad–22(e)(7)(iv).

The second commenter stated that it is not appropriate to require a covered clearing agency to perform due diligence on a central bank acting as its liquidity provider and requests that the rules clarify that the requirements under Rule 17Ad–22(e)(7)(iv) do not apply where a central bank is a liquidity provider for a covered clearing agency.³⁵⁵ The Commission does not believe that the rule needs to be modified to account for this circumstance, however, as the policies and procedures of the covered clearing agency could account for the different circumstances that arise when a central bank is acting as a liquidity provider.

A third commenter expressed the view that the Commission should clarify the due diligence requirements of

proposed Rule 17Ad–22(e)(7)(iv) to expressly require a covered clearing agency to take into account the potential wrong-way risk associated with reliance on participants or their affiliates as liquidity providers.³⁵⁶ The commenter further stated that the Commission should take additional steps to mitigate wrong-way risk by requiring a covered clearing agency to ensure the appropriate diversification of its liquidity providers and limit its reliance on its participants or their affiliates as potential sources of liquidity.³⁵⁷ The Commission believes that diversifying liquidity providers may be helpful because such diversification would result in less concentrated, and potentially more manageable, financial commitments among a covered clearing agency's liquidity providers. For example, a covered clearing agency generally should conduct an assessment of the liquidity provider's business in light of both the covered clearing agency's own business and the composition of its existing liquidity providers. In turn, a covered clearing agency could assess the likelihood that a liquidity provider might be unable to meet its own liquidity demands at the same time as the covered clearing agency was facing a liquidity shortfall and attempting to draw on liquidity from its liquidity provider, allowing the covered clearing agency to account for the potential wrong-way risk associated with reliance on participants or their affiliates as liquidity providers. Although there may be circumstances where it would be appropriate for a covered clearing agency to incorporate the policies and procedures such as those suggested by the commenter, the Commission's approach to Rule 17Ad–22(e) focuses on principles. The circumstances may vary, and a covered clearing agency should appropriately manage its risks as they arise, considering the full set of tools available and its risk management framework. Accordingly, after careful consideration, the Commission declines to accept the commenter's suggestion with respect to wrong-way risk because it would be inconsistent with the overall approach to Rule 17Ad–22(e).³⁵⁸

In addition, the commenter stated that the reliance on committed funding arrangements in proposed Rule 17Ad–22(a)(15) may lead to this overreliance on participants or their affiliates for liquidity.³⁵⁹ The Commission addresses

³⁴⁸ See, e.g., Barnard at 1 (supporting the proposal, especially as to its proposed financial risk management and liquidity risk requirements); CFA Institute at 9; CME at 4; DTCC at 6; The Clearing House at 3, 13; OCC at 11.

³⁴⁹ See CFA Institute at 9.

³⁵⁰ See CME at 4; DTCC at 6 (noting the appropriate balance in the proposed rule between the need to have sufficient reliable liquidity resources to meet ongoing settlement obligations in the event of participant default, and the realities of the availability and costs of committed liquidity funding); OCC at 11 (supporting the expansion of qualifying liquid resources beyond committed funding arrangements); The Clearing House at 3, 13 (noting that the proposed rule's use of highly reliable funding arrangements, in addition to committed arrangements, provides needed flexibility and is consistent with the PFMI).

³⁵¹ See DTCC at 7; LCH at 4.

³⁵² See DTCC at 7.

³⁵³ See *id.*

³⁵⁴ See *infra* Part II.C.7.b.iii (further discussing such repurchase agreement facilities).

³⁵⁵ See LCH at 4.

³⁵⁶ See The Clearing House at 13.

³⁵⁷ See *id.* at 3.

³⁵⁸ See *supra* Part II.B.

³⁵⁹ See The Clearing House at 3.

this aspect of the comment below in Part II.C.7.b.iii.

iii. Qualifying Liquid Resources

Commenters generally supported the Commission's proposed approach to determining qualifying liquid resources. One commenter supported the Commission's overall approach and, in particular, the inclusion of assets that are readily available and convertible into cash through repurchase agreements.³⁶⁰ Another commenter supported the Commission's approach to the definition of "qualifying liquid resources," and expressed the view that expansion of qualifying liquid resources beyond committed funding arrangements is necessary to ensure the proper functioning of covered clearing agencies.³⁶¹ The commenter noted that a committed liquidity facility would generally be preferable over a non-committed facility, but the commenter also acknowledged that other aspects of a facility (e.g., size or cost of the facility) may tip the balance toward selection of the non-committed facility. In particular, the commenter emphasized the unique liquidity needs of clearing entities, the limited number and capacity of liquidity providers in the market that are willing and able to participate in committed liquidity facilities for clearing entities, and the commercial and regulatory realities that could constrain the availability of committed facilities for covered clearing agencies.³⁶² The Commission is mindful of these concerns, but notes that policies and procedures providing for the use of uncommitted facilities must also satisfy the terms of Rule 17Ad-22(e)(15) to address general business and operational risk that could arise from such uncommitted facilities.

One commenter stated that requiring covered clearing agencies to rely on committed funding arrangements in all cases could increase a covered clearing agency's reliance on its participants or their affiliated banks and potentially exacerbate a liquidity crisis by transferring the risk of a covered clearing agency to its liquidity providers and vice versa.³⁶³ However, the comment assumes that the rule prohibits reliance on other types of facilities or prearranged funding arrangements, which is not the case. To some degree, the purpose of a liquidity facility is to transfer risk from the covered clearing agency to its liquidity providers. Further, the resources

described in the definition of "qualifying liquid resources" should be viewed as part of a hierarchy, where cash should be the primary source of liquid resources, followed first by prearranged funding arrangements and last by other assets readily available and eligible for pledging to a relevant central bank in a jurisdiction that permits such pledges. In addition, within the class of prearranged funding arrangements, available committed arrangements without material adverse change ("MAC") provisions generally should be obtained before seeking to obtain other prearranged funding arrangements determined to be highly reliable even in extreme but plausible market conditions by the covered clearing agency's board of directors. The Commission believes that a covered clearing agency generally should consider having policies and procedures that establish a preference for cash and prearranged funding arrangements, but the Commission acknowledges that a covered clearing agency's policies and procedures may need to account for the extent to which such resources are available to them given the size of their liquidity demands.

With respect to whether and how repurchase agreements might fit within the definition of qualifying liquid resources, one commenter stated that prearranged and highly reliable funding arrangements may be demonstrated through non-committed repurchase agreement facilities with major bank-dealers.³⁶⁴ According to the commenter, a covered clearing agency relying on such a facility would need to ensure that it is structured appropriately to be highly reliable, taking into account the fact that a facility may be used in a clearing member default scenario in extreme market circumstances. The commenter also stated that a covered clearing agency's procedures for making draws on uncommitted repurchase facilities should specifically contemplate the timing of close-out arrangements for defaulted clearing members and should provide for draws on such facilities to be made by specified times during business day mornings to ensure that dealer banks have sufficient time to facilitate liquidation of the U.S. Treasury securities. The commenter believed this approach would be fully consistent with the PFMI.³⁶⁵ The Commission notes that this type of approach, reflected in the policies and procedures of a covered clearing agency as part of a broader attempt to define qualifying liquid

resources comprehensively, could be consistent with the Commission's definition of prearranged funding arrangements determined to be highly reliable even in extreme but plausible market conditions by the board of directors of the covered clearing agency, assuming it was subject to a not less than annual review.³⁶⁶ The Commission believes that the board of directors of a covered clearing agency generally should rely on rigorous analysis of the properties of a prearranged funding arrangement, in making a determination that it was highly reliable in extreme but plausible market conditions.

With respect to the rule's reference to "material adverse change provisions," two commenters recommended that the reference be removed. One commenter noted that the proposed rule text appears to be in tension with the preamble of the CCA Standards proposing release because it includes, among qualifying liquid resources, prearranged funding arrangements other than committed arrangements, but only where such arrangements have no MAC provisions.³⁶⁷ The commenter stated that, by definition, a non-committed facility is uncommitted and therefore MAC provisions are inapplicable.³⁶⁸ The commenter further noted that this is a liquidity standard not set forth in the PFMI, which will lead to confusion and inconsistency in attempting to apply the standard. The commenter recommended that the reference to MAC clauses in the proposed definition of "qualifying liquid resources" be removed.³⁶⁹ The second commenter similarly recommended that the Commission remove the reference to MAC clauses in the definition of qualifying liquid resources for prearranged funding arrangements other than committed arrangements, noting that Master Repurchase Agreements do not have MAC clauses because they are uncommitted facilities.³⁷⁰

In response to the comments, the Commission is modifying the proposed definition of "qualifying liquid resources" so that only paragraph (A) includes a prohibition on MAC clauses. For uncommitted facilities, because they are by their terms uncommitted, the party providing an uncommitted facility generally would have no need to include a MAC clause. In contrast, a party providing a committed facility could choose to contract into an

³⁶⁰ See CME at 4.

³⁶¹ See OCC at 11.

³⁶² See *id.* at 11–12.

³⁶³ See The Clearing House at 13.

³⁶⁴ See ISDA at 4.

³⁶⁵ See *id.*

³⁶⁶ Such policies and procedures should also address the due diligence of the liquidity provider, as discussed above. See *supra* Part II.C.7.b.ii.

³⁶⁷ See ISDA at 5.

³⁶⁸ See *id.*

³⁶⁹ See *id.*

³⁷⁰ See CME at 4.

arrangement with or without a MAC clause, at the party's discretion. As noted above, the Commission believes that a covered clearing agency generally should consider having policies and procedures that establish a preference for cash and prearranged funding arrangements. Within the category of prearranged funding arrangements, the Commission also believes that a covered clearing agency generally should preference committed arrangements over other types of prearranged funding arrangements, and that within the category of committed arrangements, a covered clearing agency generally should preference those without MAC clauses over those with MAC clauses. The Commission notes that a covered clearing agency would, when relying on a committed funding arrangement with a MAC clause pursuant to the definition of "qualifying liquid resources," also need to have policies and procedures demonstrating that such committed facility was a prearranged funding arrangement determined to be highly reliable even in extreme but plausible market conditions by the board of directors following a review conducted for this purpose no less than annually. The Commission also believes that, as a general matter, policies and procedures regarding qualifying liquid resources, including those related to prearranged funding arrangements, would constitute a proposed rule change under Section 19(b) of the Exchange Act and, for designated clearing agencies, an advance notice under the Clearing Supervision Act.

c. Final Rule

The Commission is adopting two modifications to the definition of "qualifying liquid resources" and, because of other modifications to Rule 17Ad-22(a), moving the definition to Rule 17Ad-22(a)(14).³⁷¹ The Commission is modifying paragraph (ii) so that the reference to MAC clauses is tied to committed arrangements rather than prearranged funding arrangements more generally, as previously described in Part II.C.7.b.iii. In addition, because not all central banks permit pledging certain assets that are readily available and eligible for pledging, the Commission is modifying paragraph (iii) to clarify that practices with respect to routine credit at a central bank may vary across jurisdictions.

The Commission is also adopting Rule 17Ad-22(e)(7) with modifications.³⁷² First, the Commission is modifying Rule 17Ad-22(e)(4)(vi)(A) to refer to "stress

testing" rather than "a stress test" to improve consistency with the definition of "stress testing" in Rule 17Ad-22(a)(17). Second, the Commission is modifying Rule 17Ad-22(e)(7)(vi)(C) in two ways. To improve consistency with Rule 17Ad-22(e)(4)(vi)(C), the Commission is adding "or" to link "display high volatility" with "become less liquid" because these concepts are intended to describe events related to the products cleared or markets served. This change corrects a typographical error in the CCA Standards proposing release.³⁷³ The Commission is also replacing "and" with "or" in Rule 17Ad-22(e)(7)(vi)(C) so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the list of criteria is open to other appropriate circumstances described in a covered clearing agency's policies and procedures and may not be correlated. Third, the Commission is making two modifications in adopting Rule 17Ad-22(e)(7)(vi)(D) to correct technical errors in the proposed rule text: (i) References to paragraphs (e)(6)(vii)(B) and (C) will be changed to paragraphs (e)(7)(vi)(B) and (C) respectively; and (ii) the rule will refer to the covered clearing agency's "liquidity" risk management framework, rather than its "credit" risk management framework. These modifications are consistent with the Commission's discussion of the proposed rule in the CCA Standards proposing release.³⁷⁴ Fourth, the Commission is striking "conforming" from Rule 17Ad-22(e)(7)(vii) to be consistent with the modifications to the definition of "model validation" discussed in Part II.C.4.c.

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(7), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address liquidity risk:

- Whether it has a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities;
- whether it has effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity;

- whether it maintains sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios, including but not limited to the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the covered clearing agency in extreme but plausible market conditions;

- for the purpose of meeting its minimum liquid resource requirement, whether its qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions;

- whether it supplements its qualifying liquid resources with other forms of liquid resources and, if so, whether these liquid resources are in the form of assets likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions;

- if it does not have access to routine central bank credit, whether it takes account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances, and does not assume the availability of emergency central bank credit as a part of its liquidity plan;

- whether it obtains a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment;

- where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, whether a liquidity provider's potential access to credit from the central bank of issue may be taken into account;

- whether it regularly tests its procedures for accessing its liquid resources at a liquidity provider;

³⁷¹ See Rule 17Ad-22(a)(14), *infra* Part VI.

³⁷² See Rule 17Ad-22(e)(7), *infra* Part VI.

³⁷³ See CCA Standards proposing release, *supra* note 5, at 29534.

³⁷⁴ See *id.*

- if it has access to central bank accounts, payment services, or securities services, whether it uses these services, where practical, to enhance its management of liquidity risk;

- whether it determines the amount and regularly tests the sufficiency of its liquid resources through rigorous stress testing; whether it has clear procedures to report the results of its stress tests to appropriate decision makers at the covered clearing agency and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework;

- in conducting stress testing, whether it considers a wide range of relevant scenarios, including relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions;

- whether such scenarios take into account the design and operation of the covered clearing agency, include all entities that might pose material liquidity risks to the covered clearing agency (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked clearing agencies), and where appropriate, cover a multiday period, and, whether, in all cases, it documents its supporting rationale for, and has appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains;

- whether it has explicit rules and procedures that enable the covered clearing agency to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants;

- whether these rules and procedures address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations;³⁷⁵ and

- whether these rules and procedures indicate the covered clearing agency's process to replenish any liquidity

resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

In addition, with respect to creditworthy commercial banks under Rule 17Ad-22(a)(14), a covered clearing agency generally should assess the creditworthiness of its commercial banks, such as by considering their particular circumstances in which they operate and the markets which they service.

With respect to assets convertible into cash under Rule 17Ad-22(a)(14), the Commission notes that the mere ownership of assets that a covered clearing agency may consider readily available and convertible into cash—based on factors such as the historical volume of trading in a particular market for such asset—depending on the circumstances may not count towards its “qualifying liquid resources” unless one of the prearranged funding arrangements in place would allow the covered clearing agency to receive cash in a timely manner. With respect to the requirements for qualifying liquid resources more generally, the Commission notes that a covered clearing agency generally should consider the lower of the value of the assets capable of being pledged and the amount of the commitment (or the equivalent availability under a highly reliable prearranged facility) as the amount that counts towards qualifying liquid resources in the event there is any expected difference between the two.³⁷⁶

With respect to Rule 17Ad-22(e)(7)(ii), the Commission notes that, for example, if payment obligations were denominated in U.S. dollars, the minimum liquidity resource requirement would refer to a U.S. dollar amount.

With respect to Rule 17Ad-22(e)(7)(iii) and access to routine credit at a central bank, the Commission notes that a covered clearing agency is not required to use central bank account services but, rather, is required to

establish, implement, maintain and enforce written policies and procedures reasonably designed facilitate such use when available and practical. As noted above, whether the services are available or considered to be practical may vary across jurisdictions.³⁷⁷ Access to routine credit at a relevant central bank, and the collateral required by such central bank to be posted to secure a loan, may be determined at the discretion of the central bank.

With respect to Rule 17Ad-22(e)(7)(iv) and the policies and procedures for due diligence required thereunder, “due diligence” has the same meaning as is commonly understood by market participants. A covered clearing agency generally should not rely solely on representations made by a liquidity provider but instead should conduct an assessment of the liquidity provider's business, in light of the covered clearing agency's own business and the composition of its existing liquidity providers. Policies and procedures to develop a reasonable basis under Rule 17Ad-22(e)(7)(iv) could include interviewing the liquidity provider's staff and reviewing both public and non-public documents that would allow the covered clearing agency to gather information about relevant factors, including but not limited to the strength of the liquidity provider's financial condition, its risk management capabilities, and its internal controls.

With respect to Rule 17Ad-22(e)(7)(v), a covered clearing agency generally should test its access to liquidity resources by verifying that a liquidity provider is able to provide the relevant liquidity resources in the manner intended under the terms of a funding arrangement and without undue delay by, for example, promptly funding a draw on the covered clearing agency's credit facility. The Commission recognizes that testing procedures also could include test draws funded by the liquidity provider or tests of electronic connectivity between the covered clearing agency and the liquidity provider. Testing with liquidity providers may not always be practicable in the absence of committed liquidity arrangements. In addition, a covered clearing agency generally should conduct the testing not less than once every twelve months.

³⁷⁵ The Commission notes that while Rule 17Ad-22(e)(7)(viii) requires policies and procedures to address foreseeable liquidity shortfalls, a covered clearing agency also generally should consider how best to identify unforeseen and potentially uncovered liquidity shortfalls. For example, a covered clearing agency may be able to identify unforeseen liquidity shortfalls using hypothetical stress scenarios and reverse stress testing of liquid resources.

³⁷⁶ For purposes of complying with Rule 17Ad-22(e)(7)(ii), factors that may be relevant for a covered clearing agency to consider when defining its qualifying liquid resources could include (i) the portion of its default fund that is held as cash, (ii) the portion of its default fund that is held as securities, (iii) the portion of any excess default fund contributions held as cash that could be used by the covered clearing agency to meet liquidity needs, (iv) the portion of any excess default fund contributions held as securities that could be used by the covered clearing agency to meet liquidity needs, (v) the amount at any given time of securities or cash delivered by members that a covered clearing agency may be able to use to meet liquidity needs upon the default of a member, and (vi) the borrowing limits under any committed funding arrangement.

³⁷⁷ The Commission notes that the term “central bank” is not limited to a Federal Reserve Bank. A covered clearing agency based in or operating outside of the United States that has access to routine credit at other central banks would be able to take this into consideration when assessing the amount of its qualifying liquid resources.

With respect to Rule 17Ad–22(e)(7)(vii) and policies and procedures for performing the model validation not less than annually, a covered clearing agency generally should perform the model validation not less than once every twelve months.

With respect to Rule 17Ad–22(e)(7)(viii) and foreseeable liquidity shortfalls, foreseeable liquidity shortfalls could include potential shortfalls that can be identified through testing a covered clearing agency's financial resources.³⁷⁸ The Commission recognizes that foreseeable liquidity shortfalls could occur even when a covered clearing agency is in compliance with the proposed requirements of Rule 17Ad–22(e)(7), such as when the covered clearing agency is unable to obtain liquidity pursuant to prearranged funding arrangements that are uncommitted.

With respect to Rule 17Ad–22(e)(7)(x), a covered clearing agency is not required to adopt a “cover two” standard for liquidity risk but is responsible for undertaking such an analysis at least once a year, pursuant to the covered clearing agency's policies and procedures under Rule 17Ad–22(e)(7)(x). In making any determination regarding the sizing of a covered clearing agency's liquid resources to exceed “cover one,” a covered clearing agency could consider, among other things, (i) the business model of the covered clearing agency, such as a utility model (which may be also referred to as an “at cost” model) versus a for-profit model; (ii) diversification of its members' business models as they impact the members' ability to supply liquidity to the covered clearing agency; (iii) concentration of membership of the covered clearing agency, as the breadth of the membership may affect the ability to draw liquidity from members; (iv) levels of usage of the covered clearing agency's services by members, as the concentration of demand on the covered clearing agency's services may bear upon potential liquidity needs; (v) the relative concentration of members' market share in the cleared products; (vi) the degree of alignment of interest between member ownership of the covered clearing agency and the provision of funding to the covered clearing agency; and (vii) the nature of, and risks associated with, the products cleared by the covered clearing agency.

8. Rule 17Ad–22(e)(8): Settlement Finality

a. Proposed Rule

As proposed, Rule 17Ad–22(e)(8) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to define the point at which settlement is final no later than the end of the day on which the payment or obligation is due and, where necessary or appropriate, intraday or in real time.³⁷⁹

b. Comments Received

The Commission received no comments regarding the proposed rule.

c. Final Rule

The Commission is adopting Rule 17Ad–22(e)(8) with one modification.³⁸⁰ To remove potential ambiguity as to the timing of settlement finality under the rule, the Commission is modifying Rule 17Ad–22(e)(8) to state that the point at which settlement is final is “to be” no later than the end of the day on which the payment or obligation is due and, where necessary or appropriate, intraday or in real time. As modified, Rule 17Ad–22(e)(8) identifies the point at which settlement is final, which must be defined in a covered clearing agency's written policies and procedures, and removes the potential ambiguity that could have allowed an alternative interpretation of the rule that did not clearly link the concept of settlement finality to “no later than the end of the day on which the payment or obligation is due and, where necessary or appropriate, intraday or in real time.”

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad–22(e)(8), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address settlement finality:

- Whether its policies and procedures clearly define the point at which settlement is final;
 - whether it completes final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk; and
 - whether it clearly defines the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.
- In addition, clearly defining the point at which settlement is final might include

adopting policies and procedures (i) establishing that a cut-off point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a clearing member and (ii) providing clearing members with guidance regarding extensions for members with operating problems, such as the approval or duration of such extensions. Policies or procedures creating material uncertainty regarding when final settlement will occur or that permit the back-dating or “as of” dating of a transaction that settles after the end of the day on which the payment or obligation is due generally would not comply with Rule 17Ad–22(e)(8). With respect to policies and procedures requiring intraday or real-time finality to reduce risk, such efforts would be necessary and appropriate when, for example, the risks in question are material or when the opportunity to require intraday or real-time finality is available and would be reasonable, whether in economic or other terms, to implement.

9. Rule 17Ad–22(e)(9): Money Settlements

As proposed, Rule 17Ad–22(e)(9) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to conduct its money settlements in central bank money, where available and determined to be practical by the board of directors of the covered clearing agency, and minimizes and manages credit and liquidity risk arising from conducting its money settlements in commercial bank money if central bank money is not used by the covered clearing agency.³⁸¹

The Commission received no comments regarding the proposed rule and is adopting it as proposed.³⁸² Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad–22(e)(9), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address money settlements:

- Whether it conducts its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks;
- if it does not use central bank money, whether it conducts its money settlements using a settlement asset with little or no credit or liquidity risk;

³⁷⁹ See CCA Standards proposing release, *supra* note 5, at 29537–38.

³⁸⁰ See Rule 17Ad–22(e)(8), *infra* Part VI.

³⁸¹ See CCA Standards proposing release, *supra* note 5, at 29538–39.

³⁸² See Rule 17Ad–22(e)(9), *infra* Part VI.

³⁷⁸ See *supra* note 375.

- if it settles in commercial bank money, whether it monitors, manages, and limits its credit and liquidity risks arising from commercial settlement banks by, for example, establishing and monitoring adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalization, access to liquidity, and operational reliability, and whether it monitors and manages the concentration of credit and liquidity exposures to its commercial settlement banks;

- if it conducts money settlements on its own books, whether it minimizes and strictly controls its credit and liquidity risks; and

- whether its legal agreements with any settlement banks state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received are transferable as soon as possible at a minimum by the end of the day, and ideally intraday, to enable the covered clearing agency and its participants to manage credit and liquidity risks.

While Rule 17Ad-22(e)(9) would permit a covered clearing agency to use multiple settlement banks to monitor and manage concentration of payments among its commercial settlement banks, in such circumstances its policies and procedures generally should consider the degree to which concentration of a covered clearing agency's exposure to a commercial settlement bank is affected or increased by multiple relationships with the settlement bank, including (i) where the settlement bank is also a participant in the covered clearing agency, or (ii) where the settlement bank provides back-up liquidity resources to the covered clearing agency.

In addition, the Commission believes that a covered clearing agency generally should consider using commercial bank money only when central bank money is not practicable or available. In some cases, the use of central bank money may not be practical because direct access to central bank accounts and payment services may not be available to all clearing agencies or members in all circumstances. For example, when a covered clearing agency operates in multiple currencies, certain central bank accounts may not be operational at the time money settlements occur.

10. Rule 17Ad-22(e)(10): Physical Delivery Risks

As proposed, Rule 17Ad-22(e)(10) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures

reasonably designed to establish and maintain transparent written standards that state its obligations with respect to the delivery of physical instruments and operational practices that identify, monitor, and manage the risk associated with such physical deliveries.³⁸³

The Commission received no comments regarding the proposed rule and is adopting it as proposed.³⁸⁴ Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(10), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address physical delivery risks:

- Whether its rules clearly state its obligations with respect to the delivery of physical instruments or commodities; and

- whether it has identified, monitored, and managed the risks and costs associated with the storage and delivery of physical instruments or commodities.

The Commission notes that practices regarding physical delivery vary based on the types of assets that a covered clearing agency settles. Nevertheless, a covered clearing agency generally should consider having policies and procedures that state clearly which asset classes it accepts for physical delivery and the procedures surrounding the delivery of each. In addition, physical delivery may require the involvement of multiple parties, including the clearing agency itself, its members, customers, custodians, and transfer agents. In particular, a covered clearing agency generally should consider having policies and procedures that address its relationship with transfer agents generally and, in particular, with respect to instructions for deposit and withdrawal at a custodian.

A covered clearing agency could employ several different arrangements pursuant to the requirements of Rule 17Ad-22(e)(10). For example, if a covered clearing agency takes physical delivery of securities from its members in return for payments of cash, then it generally should inform its members of the extent of the clearing agency's obligations to make payment. A covered clearing agency generally should employ policies and procedures that clearly state any obligations it incurs to members for losses incurred in the delivery process. Policies and procedures generally should also clearly

state rules or obligations regarding definitions for acceptable physical instruments, the location of delivery sites, rules for storage and warehouse operations, and the timing of delivery. Such policies and procedures can help mitigate operational risks associated with physical deliveries by including provisions to review and assess the qualifications of potential employees, including, among other things, reference and background checks and employee training. Such policies and procedures could also relate to theft, loss, counterfeiting, deterioration of or damage to assets, and employee duties for the recordkeeping for and holding of physical assets.

11. Rule 17Ad-22(e)(11): CSDs

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(11)(i) would require a covered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain securities in an immobilized or dematerialized form for their transfer by book entry, ensure the integrity of securities issues, and minimize and manage the risks associated with the safekeeping and transfer of securities. Proposed Rule 17Ad-22(e)(11)(ii) would require a covered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to implement internal auditing and other controls to safeguard the rights of securities issuers and holders, prevent the unauthorized creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains. Finally, proposed Rule 17Ad-22(e)(11)(iii) would require a covered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to protect assets against custody risk through appropriate rules and procedures consistent with relevant laws, rules, and regulations in jurisdictions where it operates.³⁸⁵

b. Comment Received and Commission Response

The Commission received one comment regarding proposed Rule 17Ad-22(e)(11). The commenter expressed concern that the language in proposed Rule 17Ad-22(e)(11)(i), which requires the policies and procedures of a covered clearing agency providing

³⁸³ See CCA Standards proposing release, *supra* note 5, at 29539-40.

³⁸⁴ See Rule 17Ad-22(e)(10), *infra* Part VI.

³⁸⁵ See CCA Standards proposing release, *supra* note 5, at 29540-43.

CSD services to be reasonably designed to ensure the integrity of securities issues, differs materially from PFMI Principle 11 and FRB's Regulation HH, both of which require that an entity "help" ensure the integrity of securities issues.³⁸⁶ The commenter also expressed the concern that no covered clearing agency is in a position to guarantee the integrity of the securities.³⁸⁷ As a result, the commenter urged the Commission to include the words "to help" before "ensure," to avoid any interpretation that clearing agencies providing CSD services are held to a materially higher standard than the commenter believes is the Commission's intention.³⁸⁸ In the alternative, the commenter proposed the substitution of another phrase (e.g., "to promote" or "to protect") that accurately characterized the cooperative nature of CSDs.³⁸⁹

In response to the comment received, the Commission notes that the rule text does not require a covered clearing agency to ensure or guarantee the integrity of securities issues; rather, Rule 17Ad-22(e)(11) requires policies and procedures reasonably designed to ensure the integrity of securities issues. The Commission believes that the policies and procedures nature of the rule mitigates the concern raised by the commenter because the rule requires a covered clearing agency to ensure that its policies and procedures are reasonably designed to ensure the integrity of securities issues and it does not require a covered clearing agency to ensure the integrity of securities issues. The Commission is not modifying proposed Rule 17Ad-22(e)(11) to add the words "to help" before "ensure" because, in the Commission's view, such an addition would inappropriately weaken the rule. Although the rule does not require a guarantee of the integrity of securities issues, the rule does require reasonably designed policies and procedures. Rule 17Ad-22(e)(11) recognizes that reasonably designed policies and procedures with respect to the integrity of securities issues is important for investor protection. In this regard, the Commission believes that such policies and procedures generally should be designed to prohibit overdrafts and debit balances in securities accounts, which can create unauthorized issuances of securities that undermine the integrity of the covered clearing agency's services.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(11) as proposed.³⁹⁰ Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(11), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address CSD services:

- Whether it has appropriate rules, procedures, and controls, including robust accounting practices, to safeguard the rights of securities issuers and holders, to prevent the unauthorized creation or deletion of securities, and to conduct periodic and at least daily reconciliation of the securities it maintains;
- whether it prohibits overdrafts and debit balances in securities accounts;
- whether it maintains securities in an immobilized or dematerialized form for their transfer by book entry and, where appropriate, whether it provides incentives to immobilize or dematerialize securities;
- whether it protects assets against custody risk through appropriate rules and procedures consistent with its legal framework;
- whether it employs a robust system that ensures segregation between its own assets and the securities of its participants and segregation among the securities of participants; and
- whether it identifies, measures, monitors, and manages its risks from other activities that it may perform and whether additional tools may be necessary to address such risks.

In addition, the Commission notes that Rule 17Ad-22(e)(11)(i) is not intended to prohibit a covered clearing agency from continuing to hold physical certificates on behalf of its members where such securities currently exist in paper form or from providing other custody-only services.³⁹¹ The Commission's rules do not prohibit, and in some respects contemplate, the issuance of securities certificates. For example, Rule 17Ad-22(e)(11)(i) would not prohibit a covered clearing agency from holding American depository shares in custody.³⁹²

³⁹⁰ See Rule 17Ad-22(e)(11), *infra* Part VI.

³⁹¹ For example, the Commission understands that, in the United States, CSD services currently include the provision of custody-only services, in addition to book-entry transfer and related services that may also include providing custody.

³⁹² An American depository receipt ("ADR"), whether in a program sponsored or unsponsored by a foreign issuer, is the physical certificate that evidences American depository shares, which represent an ownership interest in a specified

The Commission also notes that the custody risk described in Rule 17Ad-22(e)(11)(iii) may be related to both physical delivery risk and operational risk, the latter including risks such as theft, loss, counterfeiting, and deterioration or damage to assets. To mitigate such risks, a covered clearing agency could consider obtaining insurance coverage to help ensure that (i) records of securities held in custody accurately reflect holdings, and (ii) employee duties for the recordkeeping and holding of securities are separate and discrete duties. The Commission notes that dematerialization of securities alone does not eliminate the applicability of any requirements to protect against custody risk and instead may create new sources of risk, such as hacking or digital piracy.

12. Rule 17Ad-22(e)(12): Exchange-of-Value Settlement Systems

As proposed, Rule 17Ad-22(e)(12) would require a covered clearing agency, for transactions that involve the settlement of two linked obligations, to establish, implement, maintain and enforce written policies and procedures reasonably designed to eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other, regardless of whether the covered clearing agency settles on a gross or net basis and when finality occurs.³⁹³

In response to a request for comment as to whether there are circumstances where it is not feasible or practicable, in an exchange-of-value settlement context, to ensure that the settlement of one obligation is final if and only if the settlement of the corresponding obligation is final, the Commission received one comment. The commenter stated that such a situation occurs when the settlement of a CDS contract occurs following a credit event.³⁹⁴ In this case, the commenter stated that there may be some non-delivery versus payment obligations to be settled, such as loans, and that at least one CCP has policies and procedures to address this situation to secure settlement. The commenter expressed the belief that Rule 17Ad-

number of securities of a foreign issuer that have been deposited with a depository. See Securities Act Release No. 33-6894 (May 23, 1991) 56 FR 24420, 24421 n.5 (May 30, 1991). The shares of a foreign issuer that underlie an ADR are usually held by a custodian appointed by the depository in the country of incorporation of the foreign issuer, may be in paper certificate form, and may be in the ultimate custody of the CSD.

³⁹³ See CCA Standards proposing release, *supra* note 5, at 29543-44.

³⁹⁴ See LCH at 4.

³⁸⁶ See DTCC at 7 (emphasis in original).

³⁸⁷ See *id.* at 7.

³⁸⁸ See *id.* at 8.

³⁸⁹ See *id.*

22(e)(12) should encompass this situation.³⁹⁵

In response, the Commission notes that the commenter has not described a linked obligation as contemplated under Rule 17Ad-22(e)(12), such as the delivery of securities against payment of either cash or securities in connection with the purchase or sale of a security, because the commenter has described a non-delivery versus payment obligation. The Commission therefore believes that the comment is not within the scope of the settlement mechanisms contemplated by Rule 17Ad-22(e)(12). While the Commission believes that a covered clearing agency generally should have policies and procedures to address “free-of-payment” deliveries or the settlement of non-delivery versus payment obligations if it accepts non-delivery versus payment obligations, Rule 17Ad-22(e)(12) addresses settlement mechanisms that eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation occurs.

The Commission also notes that Rule 17Ad-22(e)(8) requires a covered clearing agency to have policies and procedures to define the point at which settlement is final. Where a covered clearing agency’s policies and procedures for ensuring settlement finality apply only when settlement of the corresponding obligation is final, the covered clearing agency may wish to consider corresponding policies and procedures that address legal, contractual, operational, and other risks.

The Commission is adopting Rule 17Ad-22(e)(12) as proposed.³⁹⁶

13. Rule 17Ad-22(e)(13): Participant-Default Rules and Procedures

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(13) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the covered clearing agency has the authority and operational capacity to take timely action to contain losses and liquidity demands and continue to meet its obligations in the event of a participant default. Proposed Rule 17Ad-22(e)(13)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to address the allocation of credit losses it may face if its collateral and other resources are insufficient to fully cover its credit

exposures, including the repayment of any funds the covered clearing agency may borrow from liquidity providers. Proposed Rule 17Ad-22(e)(13)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to describe its process to replenish any financial resources it may use following a member default or other event in which use of such resources is contemplated. Finally, proposed Rule 17Ad-22(e)(13)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require the covered clearing agency’s participants and, when practicable, other stakeholders to participate in the testing and review of its default procedures, including any close-out procedures, at least annually and following material changes thereto.³⁹⁷

b. Comments Received and Commission Response

i. Limitations on Replenishment of Resources

One commenter stated that the Commission’s rule should explicitly require that replenishment of resources through compulsory means (such as assessments on clearing members) be subject to a well-defined cap.³⁹⁸ The Commission is declining to modify Rule 17Ad-22(e)(13) to impose a “cap” on the replenishment of resources by a covered clearing agency. Consideration of whether a cap is appropriate depends on a number of factors related to the covered clearing agency’s recovery plan as a whole and cannot be viewed in isolation, including, in particular, what measures a covered clearing agency could implement in the event that a covered clearing agency experienced losses that exceeded the “cap.” Given this uncertainty and that each covered clearing agency is structured and operated differently, and that collectively they clear different products with different risk profiles and employ different default management procedures, the Commission believes that a cap may not be appropriate in all circumstances and could potentially increase, rather than decrease, systemic risk because it may impede the covered clearing agency’s ability to replenish resources to cover losses in the event of a participant default.³⁹⁹

³⁹⁷ See CCA Standards proposing release, *supra* note 5, at 29544–46.

³⁹⁸ See ISDA at 4.

³⁹⁹ See *infra* Part III.B.3.a.viii (discussing the economic effects of Rule 17Ad-22(e)(13)).

As a general matter, the Commission also believes that the commenters’ recommendation would be inconsistent with the principles-based approach set forth in Rule 17Ad-22(e).⁴⁰⁰ The Commission believes that establishing prescriptive standards (such as a cap) that, on an absolute and ex ante basis, prohibit a covered clearing agency’s use of particular tools for replenishment would make it more difficult for a covered clearing agency to maintain an appropriate balance between affording its participants predictability and certainty, and ensuring that the covered clearing agency can effectively manage risk. The Commission also notes that policies and procedures related to such caps or other alternative approaches to limitations on the replenishment of resources would be related to the development of a covered clearing agency’s recovery and wind-down plans under Rule 17Ad-22(e)(3).⁴⁰¹ The Commission has previously stated in Part II.C.3.b.iii above that, given the nature of recovery planning—as here with caps—such plans are likely to closely reflect the unique characteristics of the covered clearing agency and will vary depending on the products cleared. The Commission believes that these mechanisms under Rule 17Ad-22(e) would help a covered clearing agency to appropriately consider, review, and address the need for a cap on replenishment, pursuant to its governance arrangements.

ii. Risks of Certain Loss Allocation and Limiting Participant Liability

Two commenters recommended models for loss allocation to non-defaulting customers of clearing members.⁴⁰² One of these commenters urged the Commission to provide clarification and guidance that Rule 17Ad-22(e)(13) would (i) ensure participant liability is limited, ascertainable, and manageable and (ii) require a covered clearing agency to adopt rules specifying and providing risk disclosure regarding so-called “end of waterfall” scenarios.⁴⁰³ The commenter stated that guidance is necessary to ensure that Rule 17Ad-22(e)(13) complements the requirements

⁴⁰⁰ See *supra* Part II.B.

⁴⁰¹ See *supra* Part II.C.3.b.iii.

⁴⁰² See The Clearing House at 4; Vanguard at 6–7.

⁴⁰³ See The Clearing House at 4. With respect to these comments, the Commission understands an “end of waterfall” scenario to be a scenario where a covered clearing agency suffers losses that, due to the default of one or more participants, exceed in the aggregate the loss-absorbing resources in the covered clearing agency’s default risk management waterfall.

³⁹⁵ See *id.* at 4–5.

³⁹⁶ See Rule 17Ad-22(e)(12), *infra* Part VI.

of Rule 17Ad–22(b)(1),⁴⁰⁴ certain guidance in the Consultative Recovery Report,⁴⁰⁵ and a number of risk management practices relevant for participants of covered clearing agencies.⁴⁰⁶ In this regard, the commenter noted that participants are subject to single counterparty credit limits, certain accounting criteria for netting their positions cleared at a CCP, and regulatory capital requirements.⁴⁰⁷ The commenter also noted that such guidance is necessary to ensure that a covered clearing agency does not become a transmission mechanism for systemic risk. As a general matter, the commenter expressed opposition to any CCP risk management practice that constitutes an unpredictable and uncontrollable loss allocation arrangement or a restriction on participant withdrawal. For this purpose, the commenter asked the Commission to adopt the following clarification and guidance that: (i) A covered clearing agency must address the consequences of circumstances in which the covered clearing agency's credit losses upon the default of one or more participants exceed the resources designated to absorb such losses; (ii) a covered clearing agency may not provide for (1) the forced allocation of a defaulted portfolio to a non-defaulting participant other than through a successfully completed auction process or otherwise with the participant's agreement, (2) invoicing to non-defaulting participants of losses on cleared positions in the portfolio(s) of one or more defaulting participants or (3) non-voluntary tear-ups of previously matched and cleared positions; and (iii) a covered clearing agency must clearly specify the process for, and effective time of, withdrawal from participant status such that a participant may withdraw upon the later of (1) the closeout or transfer of all its positions and (2) a reasonable prior notice period, without subjecting such withdrawal to a discretionary or subjective approval requirement or subjecting the withdrawing participant to liability for increased exposures after the effective

time of withdrawal.⁴⁰⁸ The remainder of the requested clarification and guidance would entail affording participants increased certainty regarding what exposures and obligations might arise where a CCP encounters an “end of waterfall” scenario. For this reason, the commenter also asked the Commission to clarify that a covered clearing agency may not redefine the economic terms of outstanding cleared contracts without a reasonable prior notice and transition period prior to effectiveness.⁴⁰⁹

The second commenter urged the Commission to prohibit the use of non-defaulting customer initial, variation and excess margin to aid in the recovery of a covered clearing agency in the event of financial stress, such as from credit losses, liquidity shortfalls, or other losses.⁴¹⁰ According to the commenter, in such a case losses would effectively be allocated to participants who have not contributed to the loss. The commenter contended that such exposure is not present in the OTC swaps market, where customer assets are protected in segregated custody accounts. The commenter also stated that participants have no means to assess and mitigate such risk, since they do not have transparency into the financial health and risk management practices of their fellow participants, security-based swap dealers, or the covered clearing agency itself. The commenter instead urged the Commission to consider the development of enhanced recordkeeping and reporting, enhanced oversight and compliance, enhanced risk management and mitigation, increased contributions by SBSs and increased contributions to, and management of, the covered clearing agency guaranty fund.⁴¹¹

Much of the clarification and guidance sought by the commenters, in the Commission's view, would entail broad, ex ante prohibitions on a number of specific default management practices of CCPs, including the use of uncapped assessment authority, prohibitions on the use of non-defaulting customer initial, variation, and excess margin to aid in recovery, forced allocations of defaulted clearing portfolios, invoicing back of losses

arising from a defaulting participant's positions, and partial non-voluntary tear-ups of previously matched and cleared positions. As discussed further above,⁴¹² Rule 17Ad–22(e) does not prescribe a specific tool or arrangement to achieve its requirements. The Commission believes that when determining the content of its policies and procedures with respect to default management, each covered clearing agency must have the ability to enhance its policies and procedures to meet the evolving challenges and risks in the securities market that the covered clearing agency serves. Consistent with the goals sought by the commenters, the Commission has developed through the amendments to Rule 17Ad–22 and new Rule 17Ab2–2, an enhanced oversight and compliance framework that includes enhanced requirements for the policies and procedures of a covered clearing agency that govern financial risk management generally and, in particular, the risk management of guaranty or clearing funds. The Commission therefore is not adopting the changes sought by these commenters.

The Commission believes that each covered clearing agency generally should consider evaluating the strengths and weaknesses of respective tools so that the covered clearing agency can choose the set most appropriate for each relevant recovery scenario, including the sequence in which they should be used. As previously noted in Part II.C.13.b.i, ensuring that a covered clearing agency does not become a transmission mechanism for systemic risk means, in part, striking an appropriate balance between affording its participants predictability and certainty, on the one hand, and ensuring that the covered clearing agency can effectively manage risk so that it can effectively continue its risk mitigating function within the broader financial system, on the other. As a general matter, the Commission believes that striking such a balance can be difficult using broadly prescriptive standards that, on an absolute and ex ante basis, prohibit a covered clearing agency's application of certain risk management tools. Furthermore, particular requirements under Rule 17Ad–22(e) should not be viewed in isolation but instead should be considered holistically and in light of other requirements under the Exchange Act and the Clearing Supervision Act.

The Commission believes that policies and procedures for participant default generally should be established,

⁴⁰⁴ See 17 CFR 240.17Ad–22(b)(1). Rule 17Ad–22(b)(1) states that a clearing agency that performs CCP services shall establish, implement, maintain and enforce written policies and procedures reasonably designed to measure its credit exposures to its participants at least once a day and limit its exposures to potential losses from defaults by its participants under normal market conditions so that the operations of the clearing agency would not be disrupted and non-defaulting participants would not be exposed to losses that they cannot anticipate or control.

⁴⁰⁵ See *supra* note 126.

⁴⁰⁶ See The Clearing House at 4.

⁴⁰⁷ See The Clearing House at 5.

⁴⁰⁸ See *id.* at 6. The commenter has also sought clarification and guidance regarding emergency authority or decision-making at covered clearing agencies and disclosures regarding such decision-making and participant-default rules and procedures. See The Clearing House at 6–7. These comments have been addressed separately in Parts II.C.2.b and II.C.23.b.

⁴⁰⁹ See *id.* at 7.

⁴¹⁰ See Vanguard at 6–7.

⁴¹¹ See *id.* at 7.

⁴¹² See *supra* Part II.B.

maintained, and enforced pursuant to the covered clearing agency's governance process, which must be consistent with the requirements of Section 17A of the Exchange Act, Section 19 of the Exchange Act, and the rules and regulations thereunder, including Rule 19b-4. The individual topics raised by the commenters would have implications for the development of a covered clearing agency's recovery and wind-down plans; however, as noted in Part II.C.3.b.iii above in connection with the Commission's prior discussion of recovery and wind-down plans, the impact of such recovery tools the covered clearing agency's recovery and wind-down plan can only be considered in the context of the plan as a whole and not in isolation. The organizational and governance structures of covered clearing agencies vary, as do the composition of their members and the products they clear, and each is relevant to consideration of potential loss allocation mechanisms.

iii. Stakeholder Participation in Periodic Testing

One commenter expressed concern that the requirement in proposed Rule 17Ad-22(e)(13)(iii) for policies and procedures to require participants and, where practicable, other stakeholders in the covered clearing agency to participate in periodic testing and review of its default procedures may be read to require a covered clearing agency to mandate the participation of all its participants in such tests.⁴¹³ The commenter expressed concern that such a requirement would not be realistically achievable, of sufficient benefit to outweigh the time and costs, or appropriate given the sensitive nature of information involved in such tests. The commenter expressed the belief that covered clearing agencies can accomplish the objective of proposed Rule 17Ad-22(e)(13)(iii) by methods other than mandating participation in annual closeout tests and requested discretion and flexibility to achieve such objective.⁴¹⁴

First, the Commission notes that the commenter provided no estimate of the time or costs of testing.⁴¹⁵ More generally, the Commission notes that the testing requirements in proposed Rule 17Ad-22(e)(13)(iii) are similar to requirements for members or participants to participate in business continuity and disaster recovery plans testing under Regulation SCI, and

therefore registered clearing agencies are already subject to requirements for members to participate in such testing and have had to consider how to treat sensitive material in such testing. As with Rule 1004 of Regulation SCI, the Commission continues to believe that participation rates by members and participants in voluntary industry-led testing has generally been low, and that mandatory participation is the best means to achieve effective and coordinated testing with assured participation by the more significant members and participants.⁴¹⁶ The Commission notes, however, that proposed Rule 17Ad-22(e)(13)(iii) does not specify that all participants in the clearing agency participate in every periodic test and review of its default procedures. A covered clearing agency may designate in its policies and procedures that certain participants, or certain categories of participants, be designated for participation in certain tests.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(13) with one modification.⁴¹⁷ As previously noted,⁴¹⁸ the Commission is moving the requirements in proposed Rules 17Ad-22(e)(13)(i) and (ii) to Rules 17Ad-22(e)(4)(viii) and (ix), respectively, to consolidate requirements for management of a covered clearing agency's default waterfall within a single rule. The Commission believes this modification improves consistency between Rules 17Ad-22(e)(4) and (7). Specifically, Rule 17Ad-22(e)(4) includes requirements intended to facilitate the management of credit risk, and proposed Rules 17Ad-22(e)(13)(i) and (ii) include requirements to address the allocation of credit losses and the replenishment of funds. Similarly, Rule 17Ad-22(e)(7) includes requirements intended to facilitate the management of liquidity risk, and Rules 17Ad-22(e)(7)(viii) and (ix) include requirements to address liquidity shortfalls and replenish liquid resources. In contrast, Rule 17Ad-22(e)(13) requires a covered clearing agency to have policies and procedures addressing its authority and operational capacity to take timely action to contain losses and liquidity demands, and proposed Rule 17Ad-22(e)(13)(iii) included requirements for the testing of

default procedures. Accordingly, the rules have been reorganized.

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(13), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address participant-default rules and procedures:

- Whether it has default rules and procedures that enable it to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default;
 - whether it is well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules;
 - whether it publicly discloses key aspects of its default rules and procedures;
 - whether it involves its participants and other stakeholders in the testing and review of its default procedures, including any close-out procedures; and
 - whether such testing and review is conducted at least annually or following material changes to the rules and procedures to ensure that the testing and review are practical and effective.
- In addition, a covered clearing agency that has financial and operational triggers for default generally should clearly define these triggers.⁴¹⁹ Where triggers are not automatic through the application of objective standards or thresholds, the Commission believes the discretion afforded a covered clearing agency to declare defaults should be clearly defined. For example, a clear definition may include defining which person or group exercises discretionary authority in the event of default and providing specific examples of when the exercise of discretion is appropriate.

With respect to policies and procedures related to managing a participant default, the Commission believes that such policies and procedures generally should address, among other things (i) accessing credit facilities, (ii) managing (which may include hedging open positions and

⁴¹⁹ See Clearing Agency Standards, *supra* note 5, at 29544. An operational default may occur when a participant is not able to meet its obligations due to an operational problem, such as a failure in information technology systems. Rule 17Ad-22(e)(17) includes requirements related to operational risk management. See *infra* Part II.C.17. In addition, the Commission has also adopted Regulation SCI, which establishes requirements for SROs, among other entities, with respect to operational risk management. See *supra* note 30 and accompanying text.

⁴¹³ See DTCC at 8-9.

⁴¹⁴ See *id.*

⁴¹⁵ See *supra* Part III.B.3.a.viii (discussing the economic effect of Rule 17Ad-22(e)(13)(iii)).

⁴¹⁶ See Regulation SCI adopting release, *supra* note 30, at 72349.

⁴¹⁷ See Rule 17Ad-22(e)(13), *infra* Part VI.

⁴¹⁸ See *supra* Part II.C.4.c.

funding collateral positions it is not prudent to close out immediately), transferring (such as through allocation or auction to other members) and/or closing out a defaulting member's positions; and (iii) transferring and/or liquidating applicable collateral. Based on its supervisory experience, the Commission believes that default procedures would generally set forth (i) the action that may be taken (e.g., exercising mutualization of losses); (ii) who may take those actions (e.g., the division of responsibilities when clearing agencies operate links to other clearing agencies); (iii) the scope of the actions that may be taken (e.g., any limits on the total losses that would be mutualized); (iv) potential changes to the normal settlement practices, should these changes be necessary in extreme circumstances, to ensure timely settlement; (v) the management of transactions at different stages of processing; (vi) the sequencing of actions; (vii) the roles, obligations, and responsibilities of the various parties, including non-defaulting members; (viii) the mechanisms to address a covered clearing agency's obligations to non-defaulting members (e.g., the process for clearing trades guaranteed by the covered clearing agency to which a defaulting member is a party); and (ix) the mechanisms to address the defaulting member's obligations to its customers (e.g., the process for dealing with a defaulting member's accounts).

With respect to the operational capacity necessary to comply with requirements to contain losses, the Commission believes that the following measures could help promote operational capacity: (i) Establishing training programs for employees involved in default matters to ensure policies are well implemented; (ii) developing a communications strategy for communicating with stakeholders, including the Commission, concerning defaults; and (iii) making sure the proper tools and resources (whether these are personnel or other) required are available to close out, transfer, or hedge open positions of a defaulting member promptly even in the face of rapid market movements.

With respect to the policies and procedures for testing and review of default procedures, including any close-out procedures, a covered clearing agency generally should perform the testing and review not less than once every twelve months. In addition, a covered clearing agency generally should make efforts to secure the participation of all stakeholders in testing and review of default procedures, but the Commission

recognizes that a covered clearing agency may have limited ability to require said participation by all such stakeholders in all circumstances.

14. Rule 17Ad-22(e)(14): Segregation and Portability

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(14) would apply only to a covered clearing agency that is either a security-based swap clearing agency or a complex risk profile clearing agency. Rule 17Ad-22(e)(14) would require such a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to enable the segregation and portability of positions of a member's customers and the collateral provided to the covered clearing agency with respect to those positions, and effectively protect such positions and related collateral from the default or insolvency of that member.⁴²⁰

b. Comments Received and Commission Response

The Commission received multiple comments on Rule 17Ad-22(e)(14) and, more generally, the Commission's regime for segregation and portability in the U.S. securities markets. While some commenters supported the Commission's proposed principles-based approach, a number of commenters expressed a preference for an approach that would prescribe, and in some instances mandate, a specific segregation and portability framework. In addition, two commenters sought clarification on certain aspects of the proposal relating to portability and protection of customer assets held at a common covered clearing agency participant. The Commission discusses these three groups of comments in turn below.

One commenter strongly supported efforts to improve the protection of customer positions and collateral.⁴²¹ Another commenter also expressed general support for the Commission's objective of protecting customer collateral posted in connection with clearing security-based swaps, and stated that the implementation of a regulatory structure that provided for appropriate protection of collateral would reduce systemic risk by bolstering confidence that losses related to counterparty risk would be manageable.⁴²²

Several commenters, however, urged the Commission to modify the proposed

rule's approach to the treatment of customer positions, particularly with respect to security-based swaps. Three commenters noted the importance of coordinating efforts with other regulators to ensure that the Commission's rules are consistent with other regulatory regimes.⁴²³ Two commenters expressed related concerns that the proposal could result in significantly weaker protections for security-based swaps than exist in the OTC market or in the rules for cleared swaps adopted by the CFTC.⁴²⁴ Of these, one commenter opposed the Commission's approach of providing covered clearing agencies with discretion to adopt policies and procedures regarding holding of margin for security-based swaps.⁴²⁵ The commenter stated that the Commission should instead adopt a mandatory threshold level of protection for customer margin for security-based swaps that is consistent with the protections afforded to swaps and that is appropriate to the breadth and depth of the security-based swap market.⁴²⁶ Moreover, the same commenter, along with two other commenters, recommended that the Commission explicitly adopt the LSOC model as a framework for the segregation and portability of customer positions,⁴²⁷ and two of the three commenters also urged that the Commission's LSOC regime be mandatory and uniform.⁴²⁸

In addition, one commenter that urged the Commission to adopt a specific LSOC mandate also expressed several other related comments. The commenter expressed the need for covered clearing agencies to provide individual segregation as an option for customers.⁴²⁹ The commenter also recommended that both initial and variation margin be passed on to the covered clearing agency, with all excess margin held in a segregated account (the "LSOC with excess" model).⁴³⁰ The commenter further expressed the belief that security-based swap dealers and broker-dealers should not be authorized to rehypothecate or use customer margin or excess margin in its

⁴²³ See *id.* at 4–5 (noting CFTC requirements); LCH at 5 (noting both CFTC requirements and requirements under EMIR); Vanguard at 2 (noting CFTC requirements).

⁴²⁴ See Fidelity at 1–4; Vanguard at 2.

⁴²⁵ See Vanguard at 4.

⁴²⁶ See *id.* (referencing the objectives and principles for the risk management standards prescribed under 12 U.S.C. 5464(b)); see also *supra* note 18.

⁴²⁷ See Fidelity at 1–4; ICI at 4, 6; Vanguard at 2.

⁴²⁸ See ICI at 4; Fidelity at 3–4.

⁴²⁹ See ICI at 12–13.

⁴³⁰ See *id.* at 4–5.

⁴²⁰ See CCA Standards proposing release, *supra* note 5, at 29546–47.

⁴²¹ See OCC at 12.

⁴²² See Fidelity at 1.

business.⁴³¹ Finally, in conjunction with another commenter, this commenter also submitted a second comment letter noting that, to implement LSOC for security-based swap positions, the Commission would need to undertake several initiatives in addition to revising Rule 17Ad-22(e)(14), including amending rules under SIPA, revising proposed Rule 18a-4 under the Exchange Act, amending Rule 15c3-3 under the Exchange Act, and permanently extending the relief provided in the Portfolio Margining order.⁴³²

After careful consideration, the Commission declines to modify Rule 17Ad-22(e)(14) to explicitly prescribe or mandate the segregation and portability frameworks described immediately above. The Commission notes that Rule 17Ad-22(e)(14) provides covered clearing agencies with flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to determine policies and procedures with respect to the means of segregation and portability consistent with the rule. Furthermore, in contrast with the views expressed by the commenters above, the Commission believes that Rule 17Ad-22(e)(14) already requires a mandatory threshold level of protection for customer margin for security-based swaps similar to the threshold level of protection for swaps because it requires policies and procedures reasonably designed to both (i) enable the segregation and portability of positions of a participant's customers and the collateral provided to the covered clearing agency with respect to

those positions, and (ii) protect such positions and related collateral from the default or insolvency of that participant.

The Commission believes that prescribing the particular frameworks identified by the commenters would be inconsistent with the Commission's principles-based approach to Rule 17Ad-22(e).⁴³³ Although a tool or method like LSOC might be appropriate for a covered clearing agency operating in certain domestic markets to meet the requirements of Rule 17Ad-22(e)(14), in other markets other tools or methods, such as an individual segregation method, may also provide the threshold level of protection sought by the commenters while being consistent with the rule. Moreover, in contrast to the markets for cash and listed options in the United States, where the structure for segregation and portability is primarily maintained at the broker-dealer level,⁴³⁴ in the market for

security-based swaps the segregation and portability structure resides in CCPs, and those entities have taken different approaches reflective of the needs of their different structures, members, markets served, and products cleared. For example, the Commission notes that one commenter understood Rule 17Ad-22(e)(14) to permit a covered clearing agency to employ either an LSOC model, consistent with the requirements set forth by the CFTC, or an individual segregation model, consistent with EMIR.⁴³⁵ Accordingly, the Commission does not believe, as requested by the commenters, that the Commission should mandate LSOC on a uniform basis across security-based swap and complex risk profile clearing agencies.

Notwithstanding its decision not to adopt an approach that prescribes or mandates a specific portability and segregation framework, the Commission notes that it has been mindful of the existing structures for segregation and portability for security-based swaps in the United States, and has granted relief intended to allow investors to participate in the market for security-based swaps. Notably, the Commission has issued an order granting conditional exemptive relief from compliance with certain provisions of the Exchange Act in connection with a program to commingle and portfolio margin customer positions in cleared credit default swaps, which include both swaps and security-based swaps, in a segregated account established and maintained in accordance with Section 4d(f) of the Commodity Exchange Act.⁴³⁶ In this regard, the Commission observes that the individual segregation method is one tool that provides a

⁴³¹ See *id.* at 5. Because the commenter's recommendation would govern the activities of security-based swap dealers and broker-dealers, the Commission notes that it is beyond the scope of Rule 17Ad-22.

⁴³² See AMG-ICI at 8-12. The commenter also noted that the adoption of a sound and workable segregation regime is essential to ensure that counterparties are protected in bankruptcy. See ICI at 11-12. The Commission agrees that the development of a covered clearing agency's segregation and portability regime should consider the operational and bankruptcy implications of such a regime. The Commission also notes that the tools available to a covered clearing agency considering such implications will necessarily depend on the legal regime applicable to the covered clearing agency. The commenter recommended that the Commission articulate in a proposal the operational and bankruptcy implications of such a structure to provide market participants the opportunity to comment on these issues. See *id.* at 4. The Commission believes, however, that the operational and bankruptcy implications will depend on the particular tools that a covered clearing agency employs in its segregation and portability regime and also on the legal regimes within which the covered clearing agency operates. Because the Commission is taking a principles-based approach in Rule 17Ad-22(e), the Commission is not making such a proposal under Rule 17Ad-22(e).

⁴³³ See *supra* Part II.A.4.

⁴³⁴ Exchange Act Rule 15c3-3 requires broker-dealers that maintain custody of customer securities and cash (a "carrying broker-dealer") to take two primary steps to safeguard these assets. The steps are designed to protect customers by segregating their securities and cash from the broker-dealer's proprietary business activities. If the broker-dealer fails financially, the securities and cash should be readily available to be returned to customers. In addition, if the failed broker-dealer is liquidated in a formal proceeding under the Securities Investor Protection Act of 1970, the securities and cash would be isolated and readily identifiable as "customer property" and, consequently, available to be distributed to customers ahead of other creditors.

The first step required by Rule 15c3-3 is that a carrying broker must maintain physical possession or control of all fully paid and excess margin securities of their customers. See 17 CFR 240.15c3-3. Physical possession or control means the broker-dealer must hold these securities in one of several locations specified in Rule 15c3-3 and free of liens or any other interest that could be exercised by a third party to secure an obligation of the broker-dealer. Permissible locations include a bank, as defined in section 3(a)(6) of the Exchange Act, and a clearing agency. As described herein, holding jumbo/global positions in the record name and custody of a clearing agency is a fundamental part of current U.S. market structure in which many holders hold indirectly through "street name."

The second step is that a carrying broker-dealer must maintain a reserve of cash or qualified securities in an account at a bank that is at least equal in value to the net cash owed to customers, including cash obtained from the use of customer securities. The account must be titled "Special Reserve Bank Account for the Exclusive Benefit of Customers." The amount of net cash owed to customers is computed pursuant to a formula set forth in Exhibit A to Rule 15c3-3. Under the customer reserve formula, the broker-dealer adds up customer credit items (e.g., cash in customer securities accounts and cash obtained through the use of customer margin securities) and then subtracts from that amount customer debit items (e.g., margin loans). If credit items exceed debit items, the net amount must be on deposit in the customer reserve account in the form of cash and/or qualified securities. A broker-dealer cannot make a withdrawal from the customer reserve account until the next computation and then only if the

computation shows that the reserve requirement has decreased. The broker-dealer must make a deposit into the customer reserve account if the computation shows an increase in the reserve requirement. See 17 CFR 240.15c3-3.

In addition, records of customer positions are subject to broker-dealer recordkeeping rules. Exchange Act Rules 17a-3 and 17a-4 require records be kept for certain periods of time, such as three or six year periods depending upon the type of record. See 17 CFR 240.17a-3, 17a-4.

See also 15 U.S.C. 78c-5 (providing for segregation with respect to security-based swaps); Exchange Act Release No. 34-68071 (Oct. 18, 2012), 77 FR 70213, (Nov. 23, 2012) (proposing Rule 18a-4 under the Exchange Act for segregation with respect to security-based swaps). The Commission has also granted conditional relief under Sections 3E(b), (d), and (e) of the Exchange Act to, among others, clearing entities dually registered with the Commission and the CFTC as registered clearing agencies and DCOs, respectively. See Exchange Act Release No. 34-68433 (Dec. 14, 2012), 77 FR 75211 (Dec. 19, 2012).

⁴³⁵ See LCH at 5.

⁴³⁶ See Exchange Act Release No. 34-68433 (Dec. 14, 2012), 77 FR 75211 (Dec. 19, 2012) ("Portfolio Margining order").

threshold level of protection to customers and may be a tool that a covered clearing agency determines to employ consistent with the requirements of Rule 17Ad-22(e)(14). The Commission also observes that under the “LSOC with excess” model, customer margin is segregated from clearing member margin, and therefore that framework, like LSOC and individual segregation as previously described, is also a tool that may also be relevant to a covered clearing agency’s consideration of how to implement a framework consistent with the requirements of Rule 17Ad-22(e)(14).

In addition, the Commission received two comments that asked the Commission to clarify certain aspects of Rule 17Ad-22(e)(14). One commenter noted that there could be tension between the competing goals of (i) customer portability and (ii) the need for a covered clearing agency to ensure the safety and soundness of itself and the markets.⁴³⁷ The commenter urged the Commission to recognize the need for a covered clearing agency to balance these competing priorities and to avoid any interpretation of proposed Rule 17Ad-22(e)(14) that prohibits a covered clearing agency from liquidating positions, including customer positions, where liquidation is reasonably necessary for the protection of the covered clearing agency.⁴³⁸ In response, the Commission believes that efforts to enable portability at security-based swap clearing agencies should be encouraged, but the Commission also recognizes that non-defaulting clearing members should not be required to take on customer positions to avoid putting the non-defaulting clearing member at risk, exceeding the member’s ability to risk manage the customer’s portfolio, or existing or creating inconsistencies with the member’s risk profile. If a customer’s positions cannot be ported, they will instead be liquidated. Therefore, the Commission does not believe the comment is inconsistent with either current practice or Rule 17Ad-22(e)(14), which does not prohibit the liquidation of customer positions in the event porting would be impracticable, contrary to the customer’s preferences, or pose increased risk to the markets or non-defaulting members.

A second commenter stated that the proposed rule is silent on the issue of protections from fellow-customer risk (*i.e.*, protecting the positions and related collateral of a participant’s customers from losses associated with the

positions of other customers of that participant), and that Section 3E(e) of the Exchange Act prohibits clearing agencies from using deposited property as belonging to any person other than the swaps customer of the depositing broker, dealer, or security-based swap dealer.⁴³⁹ The commenter recommended that the Commission make explicit that a covered clearing agency’s policies and procedures must give effect to Section 3E(e) and that the covered clearing agency should publicly disclose the manner in which its procedures do so.⁴⁴⁰ In response, the Commission notes that Section 3E(e) of the Exchange Act already prohibits such activity and, therefore any proposed rule change under Rule 19b-4 would need to be consistent with Section 3E(e).

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(14) as proposed. The Commission is applying Rule 17Ad-22(e)(14) only to security-based swap clearing agencies and complex risk profile clearing agencies because existing rules for the cash securities and listed options markets applicable to broker-dealers already promote segregation and portability to protect customer positions and funds in those markets. In proposing Rule 17Ad-22(e)(14), the Commission noted that it intended to avoid requiring changes to the existing structure of cash securities and listed options markets in the United States where registered clearing agencies that provide CCP or CSD services play a central role.⁴⁴¹ This approach is consistent with the PFMI.

Transactions in the U.S. cash security and listed options markets are characterized by the following features: (i) Customers of members generally do not have an account at a clearing agency;⁴⁴² (ii) the clearing agency is not able to identify which participants’ customers beneficially own the street name positions registered in the record name of the clearing agency (or its

nominee); and (iii) the clearing agency has no recourse to funds of customers of members. Therefore, neither portability nor segregation occur as a practical matter at the CCP level under the current market structure for cash securities and listed options.⁴⁴³ Further, customer positions and funds in the cash securities and listed options markets are protected under the Securities Investor Protection Act of 1970 (“SIPA”).⁴⁴⁴

With respect to portability, the Commission notes the portability requirement in Rule 17Ad-22(e)(14) would not apply only upon a member default; instead, a covered clearing agency to which Rule 17Ad-22(e)(14) applies generally should have policies and procedures that facilitate porting in the normal course of business, such as when a customer ends its relationship with a member to start a new relationship with a different member, or as a result of other events, such as a merger involving the member. Under Rule 17Ad-22(e)(14), a security-based swap clearing agency or complex risk profile clearing agency generally should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting member’s customers could be effectively transferred to one or more other members.

Consistent with its response to the commenters discussed above, the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(14). Therefore, the Commission is providing the following guidance that a covered clearing agency subject to Rule 17Ad-22(e)(14) generally should consider in establishing and maintaining policies and procedures for segregation and portability:

- Whether it has, at a minimum, segregation and portability arrangements that effectively protect a participant’s customers’ positions and related collateral from the default or insolvency of that participant;
- if it additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, whether it takes steps to ensure that such protection is effective;

⁴⁴³ See CCA Standards proposing release, *supra* note 5, at 29546.

⁴⁴⁴ See 15 U.S.C. 78eee *et seq.* Pursuant to SIPA, when a broker-dealer that is a member of the Securities Investor Protection Corporation (“SIPC”) fails and customer assets are missing, SIPC seeks to return customer cash and securities, and supplements the distribution of the remaining customer assets at the broker-dealer with SIPC reserve funds of up to \$500,000 per customer, including a maximum of \$250,000 for cash claims.

⁴³⁷ See OCC at 12.

⁴³⁸ See *id.*

⁴³⁹ See ISDA at 5.

⁴⁴⁰ See *id.* at 5–6.

⁴⁴¹ See CCA Standards proposing release, *supra* note 5, at 29546.

⁴⁴² A customer of a member also would not have an account at the clearing agency where holding in record name (rather than through street name ownership). This is the case even where such record name owner-customer does not receive a paper security certificate but holds in book-entry form through the direct registration system, as direct registration system accounts are maintained by a transfer agent and not by the clearing agency. See Exchange Act Release No. 34–63320 (Nov. 16, 2010), 75 FR 71473, 71474 (Nov. 23, 2010) (discussing the ability of registered owners to hold their assets on the records of transfer agents in book-entry form through the direct registration system).

- whether it employs an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral, and whether it maintains customer positions and collateral in individual customer accounts or in omnibus customer accounts;
- whether it structures its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants;
- whether it discloses its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral, and, in particular, whether it discloses whether customer collateral is protected on an individual or omnibus basis; and
- whether it discloses any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.

15. Rule 17Ad-22(e)(15): General Business Risk

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(15) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that the covered clearing agency can continue operations and services as a going concern if those losses materialize.⁴⁴⁵ Proposed Rule 17Ad-22(e)(15)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to determine the amount of liquid net assets funded by equity based upon its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken. Proposed Rule 17Ad-22(e)(15)(ii) would require a clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for holding liquid net assets funded by equity equal to the greater of either six months of its current operating expenses or the amount determined by the board of directors to be sufficient to ensure a

recovery or orderly wind-down of critical operations and services of the covered clearing agency, as contemplated by the plans established under proposed Rule 17Ad-22(e)(3)(ii). Additionally, proposed Rule 17Ad-22(e)(15)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for monitoring its business operations and reducing the likelihood of losses.⁴⁴⁶ Finally, proposed Rule 17Ad-22(e)(15)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for maintaining a viable plan, approved by the board of directors and updated at least annually, for raising additional equity should its equity fall close to or below the amount required by the proposed rule as discussed above.⁴⁴⁷

b. Comments Received

Most commenters expressed general support for the Rule 17Ad-22(e)(15), but a number of commenters also raised specific areas of concern and encouraged the Commission to adopt specific, and in some cases prescriptive, requirements under the rule. The Commission addresses each of these comments in turn below.

i. General Comments

One commenter expressed support for the proposed requirements for clearing agencies to identify and monitor general business risk, manage liquid assets, and maintain a viable plan for raising additional equity when needed.⁴⁴⁸ The commenter believed that such requirements contribute to avoiding disruptions in the operations of clearing agencies, as well as the broader market. The commenter also expressed support for the proposed rule's requirements to identify, monitor and manage general business risk and to hold sufficient liquid assets in a manner allowing for a recovery or orderly wind-down if necessary.⁴⁴⁹ A second commenter expressed support for the proposed requirement that covered clearing agencies hold sufficient capital to cover potential general business and operational losses and to enable continuation of business operations and noted a belief that six months of operating expenses is an appropriate base level of funding.⁴⁵⁰ A third

commenter generally endorsed the Commission's proposal to require a covered clearing agency to maintain liquid net assets sufficient to allow the covered clearing agency to continue to operate for no less than six months.⁴⁵¹ A fourth commenter also generally supported the Commission's proposal.⁴⁵² Finally, one commenter requested that the Commission phase-in implementation of Rule 17Ad-22(e)(15),⁴⁵³ and that comment is addressed in Part II.G above.

ii. Application to Derivatives Clearing

One commenter expressed concern that the proposed requirement would be inadequate to address the potential for general business losses incurred by a covered clearing agency that clears large quantities of bespoke swap and derivative instruments, and therefore the commenter urged the Commission to reassess whether clearing of bespoke instruments is appropriate in light of the potential problems in predicting the performance of such instruments during times of stress.⁴⁵⁴ The Commission notes that the purpose of proposing Rule 17Ad-22(e) was not to reassess whether the clearing of bespoke instruments is appropriate, but to focus on the regulatory framework for the regulation of covered clearing agencies and address, among other things, governance and financial risk management. Therefore, the Commission believes that the comment is beyond the scope of this rulemaking.

iii. Liquid Net Assets

The Commission received multiple comments related to the liquid net assets required under Rule 17Ad-22(e)(15)(ii). One commenter stated that, in addition to pre-funded capital and guaranty funds, it should be clear, in advance, that clearing members (and not the FRB or taxpayers) stand behind the organization should it run into financial trouble.⁴⁵⁵ The Commission believes that Rule 17Ad-22(e), taken as a whole, already contemplates and addresses the commenter's concern. As previously noted, the rule requires policies and procedures reasonably designed to promote in a comprehensive way the resiliency of a covered clearing agency and, in particular, its ability to

⁴⁴⁵ See OCC at 13.

⁴⁴⁶ See CFA Institute at 10.

⁴⁴⁷ See OCC at 15 (noting that it would be in a position to comply with such requirement by no later than January 1, 2015).

⁴⁴⁸ See CFA Institute at 10.

⁴⁴⁹ See SRC at 2; see also *supra* note 284 and accompanying text.

⁴⁵⁰ See CCA Standards proposing release, *supra* note 5, at 29547-48.

⁴⁵¹ See *id.* at 29548-49.

⁴⁵² See *id.* at 29549.

⁴⁵³ See CFA Institute at 1-2.

⁴⁵⁴ See *id.* at 10.

⁴⁵⁵ See DTCC at 9.

withstand periods of market stress.⁴⁵⁶ The Commission notes as a general matter that the liquid net assets described in the rule should not be confused with the accounting term “net liquid assets.” For purposes of Rule 17Ad–22(e)(15)(ii), a covered clearing agency generally should consider liquid net assets to mean cash or highly liquid securities. When liquid net assets are funded by equity, a covered clearing agency generally should consider equity to mean common stock, disclosed reserves, and other related earnings. In addition, the Commission notes that Rule 17Ad–22(e)(3)(ii) separately requires policies and procedures for plans for recovery or orderly wind-down.

Two commenters urged the Commission not to take too narrow a view of what sources of funding would be considered liquid net assets funded by equity under the proposed rule.⁴⁵⁷ The first commenter believed that in calculating its six-month liquid asset coverage, a CCP should be allowed to include projected revenues of the CCP over the same six-month period, subject to an appropriate haircut.⁴⁵⁸ The commenter also requested that the Commission clarify that a buffer, such as a contingent capital arrangement requiring clearing members to contribute funds, should be considered an appropriate source of equity funding under the rule.⁴⁵⁹ On these two issues, the Commission believes that the commenter has identified policies and procedures that would not satisfy Rule 17Ad–22(e)(15). Among other things, Rule 17Ad–22(e)(15)(ii) requires policies and procedures for holding liquid net assets funded by equity. If a covered clearing agency is relying on projected revenues or on obtaining liquid net assets through contingent arrangements, then the covered clearing agency is not holding liquid net assets funded by equity. The focus of Rule 17Ad–22(e)(15)(ii) is mitigating the risk that a covered clearing agency would be unable to perform its obligations as a going concern; to minimize such performance risk, the covered clearing agency must necessarily have assets that are readily available, such as cash reserves or cash equivalents. Projected revenues, like contingent funding mechanisms, do not provide certainty that a covered clearing agency can continue to perform its obligations

when general business losses arise because the assets may be unavailable to satisfy business losses.

The same commenter and a second commenter also urged the Commission to clarify and broadly construe what constitutes equity capital to include noncumulative perpetual preferred stock, which would be permanently available.⁴⁶⁰ One of these commenters noted that such preferred stock constitutes additional tier 1 capital under the BCBS capital framework and expressed the belief that the elements of capital that constitute tier 1 capital should be permitted to count as equity under the proposed rule.⁴⁶¹ In response, the Commission believes that the question of whether a particular noncumulative preferred stock would constitute equity capital would depend on the terms and conditions of each instrument and therefore such instruments would need to be assessed on a case-by-case basis. The Commission therefore declines to adopt the position urged by the commenter.

The same commenter further expressed an expectation that liquid net assets funded by equity would be calculated by comparing the clearing agency’s shareholders equity to proprietary cash and liquid marketable securities and deducting unaffiliated third-party debt.⁴⁶² The commenter believed that it is appropriate for a covered clearing agency, where it has significant shareholder equity, to be able to liquefy that equity via intercompany funding so long as the requisite amount of cash and/or liquid securities is held and maintained at the covered clearing agency level. The commenter also emphasized the role that holding company structures play in funding their affiliates, noting that the holding company may have broader access to financial markets to liquefy the equity base of their subsidiaries.⁴⁶³ The commenter argued that such financing would provide a high level of flexibility to meet a covered clearing agency’s needs. In response to the commenter, the Commission is unable to opine on these particular calculations of the commenter’s liquid net assets because the determination of whether a particular liquid net asset calculation meets the requirements of Rule 17Ad–22(e)(15)(ii) would need to be made on a detailed, case-by-case basis. The Commission would need to understand and evaluate, for example, the covered clearing agency’s particular capital

structure, the types of securities being held, the nature and extent of the covered clearing agency’s debt holdings, the structure and elements of the intercompany funding arrangement described by the commenter, and the nature of the access that the holding company has to the relevant markets for the purposes of liquefying any subsidiary equity and how that access differs from that of the covered clearing agency.

In response to the commenter’s position regarding the role that a holding company structure may play in addressing the requirement of Rule 17Ad–22(e)(15), the Commission reiterates prior statements made above that the requirements of Rule 17Ad–22(e) apply to each covered clearing agency registered with the Commission. Therefore, for example, if a covered clearing agency’s parent or holding company were to adopt a company-wide framework addressing the issues covered in Rule 17Ad–22(e)(15), the covered clearing agency nevertheless would itself need to adopt or ratify those policies and procedures with respect to its own business to meet the requirements of Rule 17Ad–22(e)(15).⁴⁶⁴ As adopted, pursuant to Rule 17Ad–22(e)(15)(ii) each covered clearing agency is required to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for holding liquid net assets funded by equity equal to the greater of either six months of its current operating expenses or the amount determined by the board of directors to be sufficient to ensure a recovery or orderly wind-down of critical operations and services of the covered clearing agency.

iv. Viable Plan To Raise Additional Equity

With respect to the requirement for a covered clearing agency’s policies and procedures to be reasonably designed to have a viable plan, updated annually, for raising additional equity when the covered clearing agency’s equity falls below or close to the amount required by the proposed rule, one commenter believed that the proposed rule should require capital-raising to occur prior to a covered clearing agency approaching the required equity threshold.⁴⁶⁵ Otherwise, the commenter stated, the covered clearing agency may be unable to raise the needed equity due to market conditions.⁴⁶⁶ In response, the

⁴⁵⁶ See *supra* notes 284–288 and accompanying text (discussing similar position from commenter regarding Rule 17Ad–22(e)(5)).

⁴⁵⁷ See DTCC at 10; OCC at 13.

⁴⁵⁸ See OCC at 14.

⁴⁵⁹ See *id.*

⁴⁶⁰ See DTCC at 10; OCC at 14.

⁴⁶¹ See DTCC at 10–11.

⁴⁶² See *id.* at 10.

⁴⁶³ See *id.*

⁴⁶⁴ See *supra* Part II.C.3.c.

⁴⁶⁵ See CFA Institute at 10.

⁴⁶⁶ See *id.*

Commission notes that Rule 17Ad–22(e)(15)(iii), as proposed, addresses the commenter's concern by requiring that the plan be viable when the covered clearing agency's equity falls below or close to the amount required by the proposed rule. However, the Commission is providing further guidance below to clarify its position further.

Another commenter expressed the belief that an annual review of the plan for raising additional equity is unnecessary and that a biannual review is sufficient, provided that the plan is reviewed sooner should changes occur.⁴⁶⁷ The Commission continues to believe, however, that an annual review is an appropriate interval to help ensure that each covered clearing agency is mindful of changing market conditions. The Commission believes that, in a two-year window between biannual reviews, so much time passes that a covered clearing agency may find that market conditions have changed so significantly that a once-viable plan to raise additional equity is no longer viable. A yearly review cycle helps ensure that the covered clearing agency remains aware of changing market conditions, facilitating on an annual basis incremental updates to the plan in response to said changing market conditions. Further, the Commission believes that a covered clearing agency could adopt policies and procedures that provide for more frequent review in response to changing market conditions, and that such policies and procedures would help a covered clearing agency better react to periods of market stress. Therefore, the Commission has determined not to adopt the commenter's suggested approach.

c. Final Rule

The Commission is adopting Rule 17Ad–22(e)(15) as proposed. Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad–22(e)(15), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address general business risk:

- Whether it has robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses;
- whether it holds liquid net assets funded by equity (such as common

stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses;

- whether the amount of liquid net assets funded by equity it holds is determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken;
- whether it maintains a viable recovery or orderly wind-down plan and holds sufficient liquid net assets funded by equity to implement this plan that, at a minimum, are funded by equity equal to at least six months of current operating expenses, in addition to resources held to cover participant defaults or other risks addressed by its financial resources;
- whether assets held to cover general business risk are of high quality and sufficiently liquid to allow the covered clearing agency to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions; and
- whether it maintains a viable plan, approved by the board of directors and updated no less than annually, for raising additional equity should its equity fall close to or below the amount needed.

With respect to Rule 17Ad–22(e)(15)(iii) and the policies and procedures for maintaining a viable plan, the Commission believes that a viable plan generally should enable the covered clearing agency to hold sufficient liquid net assets to achieve recovery or orderly wind-down. Therefore, the Commission believes that a covered clearing agency's policies and procedures generally should define when a covered clearing agency's equity falls close to the amount required by the rule, so that the covered clearing agency has policies and procedures that clearly define when the covered clearing agency should initiate the plan to raise additional equity. In developing such policies and procedures, a covered clearing agency generally should consider and account for circumstances that may require a certain length of time before any plan can be implemented. For example, before obtaining shareholder approval to issue new shares, a covered clearing agency may need to call a special meeting subject to a notice period.

In addition, with respect to the plan under Rule 17Ad–22(e)(15)(iii) being approved by the board of directors and updated at least annually, the board of a covered clearing agency generally

should perform the approval not less than once every twelve months.

16. Rule 17Ad–22(e)(16): Custody and Investment Risks

a. Proposed Rule

As proposed, Rule 17Ad–22(e)(16) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to safeguard its own and its participants' assets and minimize the risk of loss and delay in access to these assets. Proposed Rule 17Ad–22(e)(16) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to invest such assets in instruments with minimal credit, market, and liquidity risks.

b. Comments Received and Commission Response

The Commission received one comment on proposed Rule 17Ad–22(e)(16), which generally sought consideration of more prescriptive or granular aspects to the Commission's approach.⁴⁶⁸ The commenter made several points about the proposed rule. First, the commenter noted that to mitigate the risks to participants from current CCP practices for participant collateral, including commingling, rehypothecation or title transfer arrangements, and investment practices, the Commission should provide additional guidance regarding the specific protections a covered clearing agency must employ to safeguard participants' collateral and invest such collateral in instruments with minimal credit, market, and liquidity risks.⁴⁶⁹ Moreover, the commenter stated its belief that house collateral is inadequately segregated, current investment practices expose members to unnecessary risk of loss, and CCP investment policies and practices expose members to interest rate and credit risk through investments in higher-risk and longer-term instruments, putting member principal at risk.⁴⁷⁰

The commenter stated that, due to commingling and inadequate traceability, participants' rights to the return of their collateral upon the insolvency of a CCP are often uncertain and could be impaired.⁴⁷¹ The commenter also noted that some CCPs are permitted to rehypothecate participant securities collateral or to secure their investments using title

⁴⁶⁸ See The Clearing House at 3, 11–12.

⁴⁶⁹ See *id.* at 3, 11.

⁴⁷⁰ See *id.* at 11.

⁴⁷¹ See *id.*

⁴⁶⁷ See DTCC at 11.

transfer arrangements, each of which exposes participants to potential loss due to the unavailability of participant collateral (or its liquidation value) in the CCP's insolvency.⁴⁷²

For the purpose of minimizing investment risk and the risk of loss of participant collateral, the commenter recommended that the Commission confirm the applicability of the following protections with respect to a covered clearing agency's treatment of participant collateral:

- Limit a CCP's ability to encumber or impair participants' rights in guaranty fund contributions and initial margin posted to the CCP in support of proprietary positions.⁴⁷³

- Specify standards for the establishment, designation, and maintenance of accounts for the safekeeping of participant collateral, and related requirements to ensure the treatment of such funds as belonging to the relevant participants in the event of the insolvency of the covered clearing agency and otherwise;⁴⁷⁴

- Further specify the types of highly liquid investments (and, as applicable, eligible counterparties and issuers), and related concentration and weighted average maturity limits, applicable to the investment of participant collateral, as well as the capital of the covered clearing agency committed to the default waterfall;⁴⁷⁵

- Prohibit the rehypothecation of non-cash collateral of non-defaulting participants and limit such rehypothecation in the case of a defaulting participant to circumstances where an immediate liquidation of the non-cash collateral would lead to severe asset value depreciation;⁴⁷⁶ and

- Require to use pledged arrangements when taking collateral, except where title transfer arrangements are necessitated by applicable law.⁴⁷⁷

The commenter also recommended that the Commission specify a covered clearing agency's disclosure obligations with respect to its collateral investment activities, including the extent of reuse of participant collateral, eligible counterparties for collateral rehypothecation, the covered clearing agency or participant's rights to the collateral posted to it and the covered clearing agency's investment policies, balances, and concentrations.⁴⁷⁸

Much of the clarification and guidance sought by the commenter, in

the Commission's view, would entail the imposition of prescriptive and granular requirements on covered clearing agencies with respect to their custody and investment risks. Such ex ante requirements would be inconsistent with the Commission's principles-based approach to Rule 17Ad-22(e).⁴⁷⁹ Although it is possible that the commenter's suggestions could be appropriate in certain circumstances, the Commission believes that these comments do not take into account the variation among covered clearing agencies with respect to the different markets served, products cleared, and risk management needs. Nevertheless, the Commission believes that Rule 17Ad-22(e)(16) already encompasses the commenter's suggestions, and that many covered clearing agencies already employ and can continue to consider these suggestions when designing or revising policies and procedures under the rule. The Commission therefore believes that no modifications to Rule 17Ad-22(e)(16) are necessary.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(16) as proposed. Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(16), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address custody and investment risk:

- Whether it holds its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets;
- whether it has prompt access to its assets and the assets provided by participants, when required;
- whether it evaluates and understands its exposures to its custodian banks, taking into account the full scope of its relationships with each;
- whether its investment strategy is consistent with its overall risk management strategy and fully disclosed to its participants; and
- whether its investments are secured by, or claims on, high-quality obligors, allowing for quick liquidation with little, if any, adverse price effect.

The Commission also notes that failure by a clearing agency to hold assets in instruments with minimal credit, market, and liquidity risk may limit the clearing agency's ability to

access these assets promptly. The Commission therefore believes that covered clearing agencies, in seeking to satisfying the requirements of Rule 17Ad-22(e)(16), generally should seek to minimize the risk of loss or delay in access by holding assets that are highly liquid (e.g., cash, U.S. Treasury securities, or securities issued by a U.S. government agency) and by using only supervised and regulated entities such as banks to act as custodians for the assets and to facilitate settlement. The Commission further notes that the rule does not require that a covered clearing agency invest its own and its participants' assets but that it have policies and procedures for investing such assets in instruments with minimal credit, market, and liquidity risks when it determines to so invest.

17. Rule 17Ad-22(e)(17): Operational Risk Management

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(17) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to manage the covered clearing agency's operational risk. In proposing Rule 17Ad-22(e)(17), the Commission noted that operational risk involves, among other things, the likelihood that deficiencies in information systems or internal controls, human errors or misconduct, management failures, unauthorized intrusions into corporate or production systems, or disruptions from external events such as natural disasters, would adversely affect the functioning of a clearing agency.⁴⁸⁰

Proposed Rule 17Ad-22(e)(17)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Proposed Rule 17Ad-22(e)(17)(ii) would require a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to ensure that systems have a high degree of security, resiliency, operational reliability, and adequate, scalable capacity. Finally, proposed Rule 17Ad-22(e)(17)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a

⁴⁷² See *id.*

⁴⁷³ See *id.* at 11–12.

⁴⁷⁴ See *id.* at 12.

⁴⁷⁵ See *id.*

⁴⁷⁶ See *id.*

⁴⁷⁷ See *id.*

⁴⁷⁸ See *id.*

⁴⁷⁹ See *supra* Part II.B.

⁴⁸⁰ See CCA Standards proposing release, *supra* note 5, at 29551.

business continuity plan that addresses events posing a significant risk of disrupting operations.⁴⁸¹

b. Comments Received and Commission Response

The Commission received one comment that generally supported the Commission's approach in Rule 17Ad-22(e)(17). The commenter expressed a belief that most, if not all, businesses of the size and significance of a covered clearing agency must commit to and undertake plans to manage operations in the event of a disruption, including through the adoption of a formal business continuity plan.⁴⁸² The commenter also argued that anything less risks major repercussions and the loss of investor trust. In response, the Commission notes that Rule 17Ad-22(e)(17) addresses the commenter's concerns by including requirements for policies and procedures with respect to a business continuity plan.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(17) with one modification: Because the text in Rule 17Ad-22(e)(17)(ii) for "establishing and maintaining policies and procedures reasonably designed" is duplicative of the requirement under Rule 17Ad-22(e) to have policies and procedures reasonably designed to establish, maintain, implement, and enforce the requirements thereunder, the Commission is removing the duplicative text. In addition, the Commission notes that Rule 17Ad-22(e)(17) includes similar provisions to Rule 17Ad-22(d)(4), and that, like Rule 17Ad-22(d)(4), Rule 17Ad-22(e)(17) concerns operational risks that stem from deficiencies in internal controls, human errors, and management failures.⁴⁸³ The Commission also notes that Rule 17Ad-22(e)(17) includes requirements related to operational risk management in addition to the requirements in Regulation SCI, previously discussed in Part I.A.4. The Commission therefore notes that a covered clearing agency, in seeking to address the requirements of Rule 17Ad-22(e)(17), generally should remain mindful of related requirements under other Commission rules and regulation.

Further, because the Commission recognizes that there may be a number

of ways to address compliance with Rule 17Ad-22(e)(17), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address operational risk:

- Whether it establishes a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks;
- whether its board of directors clearly define the roles and responsibilities for addressing operational risk and whether it endorses the covered clearing agency's operational risk-management framework;
- whether it clearly defines operational reliability objectives and whether it has policies in place that are designed to achieve its service-level objectives;
- whether the covered clearing agency ensures that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives;
- whether it has comprehensive physical and information security policies that address all potential vulnerabilities and threats;
- whether it has a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption; and
- whether it identifies, monitors, and manages the risks that key participants, other covered clearing agencies, and service and utility providers might pose to its operations.

With respect to "adequate, scalable capacity" under Rule 17Ad-22(e)(17)(ii), the Commission believes that a covered clearing agency generally should have operational systems that can be extended or expanded based on its anticipated business needs. Further, the Commission believes that, to help limit disruptions that may impede the proper functioning of a covered clearing agency, covered clearing agencies generally should review their operations for potential weaknesses and develop appropriate systems, controls, and procedures to address weaknesses the rule seeks to mitigate.

18. Rule 17Ad-22(e)(18): Access and Participation Requirements

As proposed, Rule 17Ad-22(e)(18) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to establish objective, risk-based, and publicly disclosed criteria for participation,

which permit fair and open access by direct and, where relevant, indirect participants and other FMUs. Proposed Rule 17Ad-22(e)(18) also would require that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to require participants to have sufficient financial resources and robust operational capacity to meet obligations arising from participation in the clearing agency and to monitor compliance with participation requirements on an ongoing basis.⁴⁸⁴

The Commission received one comment regarding Rule 17Ad-22(e)(18). The commenter expressed support for the fair and open participation requirements under the proposed rule, the public disclosure of such participation criteria under the proposed rule, and the proposed requirement that such criteria be risk-based.⁴⁸⁵

The Commission is adopting Rule 17Ad-22(e)(18) as proposed. Moreover, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(18), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address access and participation requirements:

- Whether it allows for fair and open access to its services, including by direct and where relevant, indirect participants and other covered clearing agencies, based on reasonable risk-related participation requirements;
- whether its participation requirements are justified in terms of the safety and efficiency of the covered clearing agency and the markets it serves, are tailored to and commensurate with its specific risks, and are publicly disclosed; and
- whether it monitors compliance with its participation requirements on an ongoing basis and clearly defines and publicly discloses procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

The Commission also notes that, in contrast to other requirements in Rule 17Ad-22(e) where the term "transparent" is used in the context of facilitating disclosure "where appropriate," the requirement here for policies and procedures reasonably

⁴⁸¹ See *id.*

⁴⁸² See CFA Institute at 11.

⁴⁸³ See CCA Standards proposing release, *supra* note 5, at 29551; see also *infra* Part IV.C.17 (also discussing the similar provisions between Rules 17Ad-22(e)(17) and (d)(4)); Clearing Agency Standards, *supra* note 5, at 66248 (discussing Rule 17Ad-22(d)(4)).

⁴⁸⁴ See CCA Standards proposing release, *supra* note 5, at 29551-52.

⁴⁸⁵ See CFA Institute at 11.

designed to establish “publicly disclosed” criteria for participation would necessarily require that the relevant policies and procedures be reasonably designed to provide for disclosure of such criteria for participation. The Commission also notes that membership standards at covered clearing agencies generally should seek to limit the potential for member defaults and, as a result, losses to non-defaulting members in the event of a member default. Using risk-based criteria helps to protect investors by limiting the participants of a covered clearing agency to those for which the covered clearing agency has assessed the likelihood of default.

19. Rule 17Ad–22(e)(19): Tiered Participation Arrangements

a. Proposed Rule

As proposed, Rule 17Ad–22(e)(19) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify, monitor, and manage the material risks to the covered clearing agency arising from arrangements in which firms that are indirect participants in the covered clearing agency rely on the services provided by direct participants in the covered clearing agency to access the covered clearing agency’s payment, clearing, or settlement facilities (hereinafter “tiered participation arrangements”). In addition, proposed Rule 17Ad–22(e)(19) would require that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review the material risks to the covered clearing agency arising from such tiered participation arrangements.⁴⁸⁶

b. Comments Received and Commission Response

The Commission received several comments regarding tiered participation arrangements under Rule 17Ad–22(e)(19). One commenter believed that regular reviews of tiered participation arrangements are an important part of a covered clearing agency’s ability to perform prompt and accurate clearance and settlement, to protect investors, and to safeguard securities and funds.⁴⁸⁷ However, some commenters focused on particular aspects of the proposal in seeking to have the Commission consider a specific approach or issue. Comments directed to these particular

substantive aspects of Rule 17Ad–22(e)(19) are discussed below.

i. Need for Due Diligence of Indirect Participants

One commenter believed that the Commission did not provide sufficient guidance regarding who would be indirect participants of a covered clearing agency and, as a result, cannot ascertain whether it is correctly reading the proposed rule.⁴⁸⁸ The commenter further expressed the view that it is not appropriate for a covered clearing agency to perform due diligence on the clients of its clearing members for the following reasons:

- The covered clearing agency has no direct, contractual relationship to these clients;
- Performing due diligence on what may be a very large number of clients could be very burdensome for the covered clearing agency; and
- Clients may object to due diligence inquiries from a covered clearing agency and choose to move their business to another CCP that is not required to perform such due diligence.⁴⁸⁹

Instead, the commenter expressed a view that a covered clearing agency can reasonably rely on the due diligence that its clearing members perform on their clients and should not have to perform its own due diligence on these indirect participants.⁴⁹⁰

In response, the Commission first notes that the scope of Rule 17Ad–22(e)(19) does not only contemplate clients of clearing members. Instead, the rule also contemplates situations where other parties may enter into a contractual arrangement with a clearing member, particularly arrangements that create credit exposures to the clearing member, such as where a third party acts as guarantor to an obligation on behalf of the clearing member, may be indirect participants in the covered clearing agency. The Commission therefore believes that the alternative approach suggested by the commenter above does not entirely contemplate the scope of indirect participants addressed by the Rule 17Ad–22(e)(19).

The Commission acknowledges that there are limits on the extent to which a covered clearing agency can, in practice, observe or influence a direct participant’s commercial or contractual relationships, and that these limits will, in turn, affect the appropriateness of a covered clearing agency performing due diligence on its indirect participants. However, a clearing agency will often

have access to information, including through the due diligence that a member performs on its clients as well as information on transactions undertaken on behalf of indirect participants. A clearing agency can also set direct participation requirements that may include criteria relating to how direct participants manage relationships with their customers in-so-far as these criteria are relevant for the safe, efficient, and effective operation of the clearing agency. Accordingly, a covered clearing agency generally should have the ability to identify the types of risk that could arise from tiered participation and should monitor concentrations of such risk. Further, the Commission notes that some direct and indirect participants of the covered clearing agency will be registered with the Commission as, for example, a broker-dealer, and therefore be subject to their own requirements for reporting and financial responsibility,⁴⁹¹ which a covered clearing agency could use in developing policies and procedures for tiered participation arrangements. In light of the availability of the tools described above, the Commission does not believe that the commenter’s suggestion for a covered clearing agency to rely on due diligence performed by its clearing members is an appropriate alternative for the purposes of addressing the requirements a covered clearing agency must satisfy under Rule 17Ad–22(e)(19).

ii. Need To Obtain Information From Clearing Members

One commenter expressed concern that proposed Rule 17Ad–22(e)(19) could be interpreted as requiring a covered clearing agency to obtain information from its clearing members identifying with specificity each of the customers attached to each cleared transaction and to routinely monitor customer-level risk with respect to each such customer.⁴⁹² The commenter acknowledged that covered clearing agencies should have the ability to gather certain information from its

⁴⁸⁶ See CCA Standards proposing release, *supra* note 5, at 29553.

⁴⁸⁷ See CFA Institute at 11–12.

⁴⁸⁸ See LCH at 5.

⁴⁸⁹ See *id.*

⁴⁹⁰ See *id.*

⁴⁹¹ See, e.g., 17 CFR 240.15c3–1, 15c3–3 (setting forth net capital and customer protection requirements for broker-dealers); 17 CFR 240.17h–1T, 17h–2T (setting forth requirements that certain broker-dealers maintain, preserve, and file a quarterly summary of certain information regarding those affiliates, subsidiaries and holding companies whose business activities are reasonably likely to have a material impact on their own financial and operating condition); 17 CFR 240.17a–3, 17a–4, 17a–5, 17a–11 (setting forth requirements for broker-dealers to maintain books and records, file periodic reports including quarterly and annual financial statements, and report to the Commission and the appropriate SRO regarding net capital, recordkeeping, and other operational problems, within certain time periods).

⁴⁹² See OCC at 15.

direct participants and that some circumstances may require clearing agencies to monitor the systemic risk created by one or more significant indirect participants, but the commenter believed it is inappropriate for a covered clearing agency to routinely police the systemic risks created by each indirect participant.⁴⁹³ In response, the Commission notes that Rule 17Ad–22(e)(19) requires a covered clearing agency to have policies and procedures governing risk management that considers a clearing member's customer relationships, but it does not require a covered clearing agency to actively risk manage those customer relationships on behalf of each clearing member. Instead, Rule 17Ad–22(e)(19) requires policies and procedures that identify, monitor, and manage the material risks to the covered clearing agency arising from tiered participation arrangements. Such policies and procedures would require a covered clearing agency to account for the range of risks stemming from each clearing member, which necessarily includes risks resulting from the clearing member's relationships with its customers, as previously described above. To engage in effective risk management of a clearing member, the covered clearing agency would need a complete picture of cleared transactions attributed to each clearing member, but it may require less specific information from the clearing member with respect to customers so long as the information it does receive provides the covered clearing agency with a comprehensive understanding of the material risks posed to the covered clearing agency by each clearing member.⁴⁹⁴

iii. Recommendation for a Risk-Based Approach

One commenter expressed the belief that covered clearing agencies should use a risk-based approach when developing policies and procedures to implement the requirement that a covered clearing agency have policies and procedures reasonably designed to identify, monitor, and manage the risks to the clearing agency arising from indirect participants.⁴⁹⁵ The commenter expressed the belief that a covered clearing agency should provide direct participants with information relevant to their activities (both direct and indirect) that is available to the clearing agency, thus enabling direct participants to use such information to evaluate and

manage its correspondent customer relationships.⁴⁹⁶ The commenter also expressed a view that a covered clearing agency should evaluate the risks presented to it by indirect relationships in the context of a direct participant's overall risk management policies and procedures.⁴⁹⁷ The commenter expressed the belief that such policies will need to take into account the level of information available to the covered clearing agency and that there needs to be a distinction between the supervisory oversight of the direct participant by its primary supervisor and the type of oversight that a clearing agency can be expected to provide.

The Commission agrees that such a risk-based approach could be one approach to achieving compliance with Rule 17Ad–22(e)(19), but believes that each covered clearing agency should determine the appropriate approach for determining compliance with Rule 17Ad–22(e)(19) in light of the composition of its members and the products they clear, as well as its risk management framework. Policies and procedures at a covered clearing agency for managing risks from indirect participants will necessarily be constrained to some degree by the lack of a direct contractual agreement between the covered clearing agency itself and the indirect participant. The Commission notes, however, that evaluating and managing the risk from direct participants, pursuant to Rule 17Ad–22(e)(19), would require policies and procedures consistent with the Commission's statements in Parts II.C.19.b.i and ii above. As noted there, the Commission acknowledges that direct and indirect participants in a covered clearing agency may be regulated entities themselves subject to reporting and other requirements that may help facilitate the covered clearing agency's management of risk from tiered participation arrangements.⁴⁹⁸

c. Final Rule

The Commission is adopting Rule 17Ad–22(e)(19) as proposed. Because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad–22(e)(19), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address tiered participation arrangements:

- Whether a covered clearing agency ensures that its rules, procedures, and agreements allow it to gather sufficient information about indirect participation to identify, monitor, and manage any material risks to the covered clearing agency arising from such tiered participation arrangements;

- whether it identifies material dependencies between direct and indirect participants that might affect the covered clearing agency;

- whether it identifies indirect participants responsible for a significant proportion of transactions processed by the covered clearing agency and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the covered clearing agency to manage the risks arising from these transactions; and

- whether it regularly reviews risks arising from tiered participation arrangements and takes mitigation action when appropriate.

In addition to the guidance above, the Commission notes that, when addressing its compliance with Rule 17Ad–22(e)(19), a covered clearing agency could consider whether its rules, policies, procedures, and agreements with direct participants allow it to gather basic information about indirect participants to identify, monitor, and manage any material risks to the covered clearing agency arising from such tiered participation arrangements. This information should help enable the covered clearing agency to identify (i) the proportion of activity that direct participants conduct on behalf of indirect participants, (ii) direct participants that act on behalf of a material number of indirect participants, (iii) indirect participants with significant volumes or values of transactions in the system, and (iv) indirect participants whose transaction volumes or values are large relative to those of the direct participants through which they access the covered clearing agency. In this vein, a covered clearing agency could consider an indirect participant's status as a designated market maker or supplemental liquidity provider in identifying material risks to the covered clearing agency. A covered clearing agency could also consider different trading strategies or changes in trading strategies used by indirect participants in identifying, monitoring, and managing material risks to the covered clearing agency.

The Commission also notes that Rule 17Ad–22(e)(19) is intended to promote the ongoing management of risks associated with tiered participation arrangements stemming from the

⁴⁹³ See *id.*

⁴⁹⁴ See *supra* note 491 (describing examples of such information that is available for certain participants that are separately registered with the Commission).

⁴⁹⁵ See DTCC at 11.

⁴⁹⁶ See *id.*

⁴⁹⁷ See *id.*

⁴⁹⁸ See *supra* notes 491, 494, and accompanying text.

dependencies and risk exposures that such arrangements can create. However, because proposed Rule 17Ad-22(e)(19) only addresses the situation where indirect participants in the covered clearing agency rely on direct participants, the Commission notes that Rule 17Ad-22(e)(19) would not apply in the circumstance where a covered clearing agency providing CSD services has members that are broker-dealers maintaining accounts for retail customers.

20. Rule 17Ad-22(e)(20): Links

a. Proposed Rule

As proposed, Rule 17Ad-22(e)(20) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify, monitor, and manage risks related to any link with one or more other clearing agencies, FMUs, or trading markets.⁴⁹⁹ In proposing the rule, the Commission proposed to define “link” in Rule 17Ad-22(a)(10) to mean any set of contractual and operational arrangements between a covered clearing agency and one or more other clearing agencies, FMUs, or trading venues that connect them directly or indirectly for the purposes of participating in settlement, cross margining, expanding its services to additional instruments and participants, or for any other purposes material to their business.⁵⁰⁰

b. Comments Received and Commission Response

The Commission received no comments regarding the substance of the proposed rule. One comment requested that the Commission phase-in implementation of Rule 17Ad-22(e)(20),⁵⁰¹ and that comment is addressed in Part II.G below.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(20) as proposed.⁵⁰² The Commission is adopting the definition of “link” with one modification and moving it to Rule 17Ad-22(a)(8), as previously discussed.⁵⁰³ Specifically, in the definition of “link,” the Commission

is replacing the word “venues” with “markets” to improve consistency with Rule 17Ad-22(e)(20).⁵⁰⁴

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(20), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address links:

- Whether it identifies, monitors, and manages all potential sources of risk arising from the link arrangement, before entering into a link arrangement and on an ongoing basis once the link is established;
- whether a link has a well-founded legal basis, in all relevant jurisdictions, that support its design and provides adequate protection to the covered clearing agencies involved in the link;
- whether linked CSDs measure, monitor, and manage the credit and liquidity risk arising from each other;
- whether provisional transfers of securities between linked CSDs are prohibited or, at a minimum, the retransfer of provisionally transferred securities are prohibited prior to the transfer becoming final.
- whether an investor CSD can only establish a link with an issuer CSD if the arrangement provides a high level of protection for the rights of the investor CSD’s participants;
- whether an investor CSD that uses an intermediary to operate a link with an issuer CSD measures, monitors, and manages the additional risks arising from the use of the intermediary.
- before entering into a link with a CCP, whether it identifies and manages the potential spill-over effects from the default of the linked CCP; and
- when in a CCP link arrangement, whether it is able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the covered clearing agency’s ability to fulfill its obligations to its own participants at any time.

In addition, the Commission reiterates that the requirements for policies and procedures for linkages must be addressed by each covered clearing agency at the level of the covered clearing agency.⁵⁰⁵ Therefore, each covered clearing agency under Rule 17Ad-22(e) would itself need to adopt or ratify policies and procedures for linkages with respect to its own business, even if it is a member of a

group or under a holding company that has group-level policies and procedures.

21. Rule 17Ad-22(e)(21): Efficiency and Effectiveness

As proposed, Rule 17Ad-22(e)(21) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it is efficient and effective in meeting the requirements of its participants and the markets it serves. Proposed Rule 17Ad-22(e)(21)(i) through (iv) would require a covered clearing agency’s management to regularly review the efficiency and effectiveness of its (i) clearing and settlement arrangements; (ii) operating structure, including risk management policies, procedures, and systems; (iii) scope of products cleared, settled, or recorded; and (iv) use of technology and communication procedures.⁵⁰⁶

The Commission received one comment in support of the proposed approach. The commenter expressed support for the requirement that a covered clearing agency review its efficiency and effectiveness in meeting the requirements of its participants and the markets it serves and for the specific areas to be reviewed as set forth in proposed Rule 17Ad-22(e)(21).⁵⁰⁷

The Commission is adopting Rule 17Ad-22(e)(21) with one modification: The Commission is removing reference to “recorded” products under Rule 17Ad-22(e)(21)(iii) because recording products is not a function of covered clearing agencies. In addition, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(21), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address efficiency and effectiveness:

- Whether its design meets the needs of its participants and the markets it serves, particularly with regard to choice of a clearance and settlement arrangement, operating structure, scope of products cleared, settled, or recorded, and use of technology and procedures;
- whether it clearly defines goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities; and

⁴⁹⁹ See CCA Standards proposing release, *supra* note 5, at 29553.

⁵⁰⁰ See *id.* at 29554. The Commission received no comments regarding the definition of “link” and is adopting it with one modification, as discussed in Part II.C.20.c. Because of other modifications to Rule 17Ad-22(a), the definition of “link” is also being moved to Rule 17Ad-22(a)(8). See *infra* Part VI.

⁵⁰¹ See DTCC at 13–14 & n.46.

⁵⁰² See Rule 17Ad-22(e)(20), *infra* Part VI.

⁵⁰³ See *supra* note 500.

⁵⁰⁴ See Rule 17Ad-22(a)(8), *infra* Part VI.

⁵⁰⁵ See *supra* Part II.B.3.c.

⁵⁰⁶ See CCA Standards proposing release, *supra* note 5, at 29554.

⁵⁰⁷ See CFA Institute at 12.

- whether it establishes mechanisms for the regular review of its efficiency and effectiveness.

22. Rule 17Ad–22(e)(22): Communication Procedures and Standards

a. Proposed Rule

As proposed, Rule 17Ad–22(e)(22) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it uses, or at a minimum accommodates, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, and settlement.

b. Comments Received and Commission Response

Two commenters expressed views regarding Rule 17Ad–22(e)(22). The first commenter supported the Commission's proposed rules requiring the use of internationally accepted communication procedures and standards. The commenter expressed the belief that such a requirement will result in more effective communication with direct and indirect participants and will result in a more prompt and accurate process.⁵⁰⁸

The second commenter noted that users of its systems that process transactions only in a particular market typically rely on long-standing, highly automated communications methods and messaging formats that are viewed as industry-standard, regardless of international standards. The commenter urged that these users not be required to retool their communication systems in such a market to comply with international communication standards and that such a requirement may impose substantial costs devoid of any material benefits. The commenter noted that the proposed rule permits a covered clearing agency to accommodate international standards as an equally appropriate means of satisfying the requirement as is the exclusive use of a standard (e.g., a clearing agency providing such an accommodation can permit users who wish to use international standards exclusively to do so, without forcing those users who do not wish (and have no need to) use the international standards to convert to them). Additionally, the commenter read the proposed provision as intending to provide sufficient flexibility to enable a covered clearing agency, when evaluating systems upgrades or new services, to take into account several factors to select the

protocol that it deems most appropriate for the circumstances.⁵⁰⁹

In response to the second commenter, the Commission notes that Rule 17Ad–22(e)(22) requires policies and procedures that at a minimum accommodate international standards. A covered clearing agency that does not rely on existing international standards as part of its own communication protocols could comply with Rule 17Ad–22(e)(22) by having policies and procedures that require its systems to be able to receive communications from and transmit communications to a system that uses the international standards. However, the Commission also believes that accommodating international standards does not require implementing international standards as the only or primary communication protocol, particularly if other automated messaging formats exist that are widely used and considered industry standard in the United States.

c. Final Rule

The Commission is adopting Rule 17Ad–22(e)(22) as proposed.⁵¹⁰ The Commission notes that the ability of participants to communicate with a covered clearing agency in a timely, reliable, and accurate manner is important to achieving prompt and accurate clearance and settlement.

23. Rule 17Ad–22(e)(23): Disclosure of Rules, Key Procedures, and Market Data

a. Proposed Rule

As proposed, Rule 17Ad–22(e)(23) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain clear and comprehensive rules and procedures that provide for the specific disclosures enumerated in the rule, as discussed below. Proposed Rule 17Ad–22(e)(23)(i)–(iii) would require such policies and procedures to specifically require a covered clearing agency to (i) publicly disclose all relevant rules and material procedures, including key aspects of its default rules and procedures; (ii) provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency; and (iii) publicly disclose relevant basic data on transaction volume and values.

⁵⁰⁹ See DTCC at 11–12.

⁵¹⁰ Relevant internationally accepted communication procedures and standards could include messaging standards such as SWIFT, FIX, and FpML.

Proposed Rule 17Ad–22(e)(23)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain clear and comprehensive rules and procedures that provide for a comprehensive public disclosure of its material rules, policies, and procedures regarding governance arrangements and legal, financial, and operational risk management, accurate in all material respects at the time of publication, including (i) a general background of the covered clearing agency, including its function and the market it serves, basic data and performance statistics on its services and operations, such as basic volume and value statistics by product type, average aggregate intraday exposures to its participants, and statistics on the covered clearing agency's operational reliability, and a description of its general organization, legal and regulatory framework, and system design and operations; (ii) a standard-by-standard summary narrative for each applicable standard set forth in proposed Rules 17Ad–22(e)(1) through (22) with sufficient detail and context to enable the reader to understand its approach to controlling the risks and addressing the requirements in each standard; (iii) a summary of material changes since the last update of the disclosure; and (iv) an executive summary of the key points regarding each.⁵¹¹ Proposed Rule 17Ad–22(e)(23)(v) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure the comprehensive public disclosure required under proposed Rule 17Ad–22(e)(23)(iv) is updated not less than every two years, or more frequently following changes to its system or the environment in which it operates to the extent necessary, to ensure statements previously provided remain accurate in all material respects.⁵¹²

b. Comments Received and Commission Response

One commenter expressed support for the Commission's proposed requirements regarding the disclosures set forth in proposed Rule 17Ad–22(e)(23). The commenter expressed the belief that such disclosures are necessary to enhance transparency and allow investors and other participants to obtain the information necessary to evaluate covered clearing agencies and also believes that such an approach may

⁵¹¹ See *id.* at 29556.

⁵¹² See *id.* at 29557.

⁵⁰⁸ See CFA Institute at 12.

add to market discipline.⁵¹³ A second commenter expressed support for strong and effective transparency requirements for covered clearing agencies.⁵¹⁴ However, a number of commenters requested that the Commission consider amending the rule to incorporate more granular or prescriptive guidance and requirements, with a particular focus on achieving consistency with international standards and enhanced disclosures regarding emergency actions by covered clearing agencies. The Commission discusses these particular comments below.

i. Comprehensive Public Disclosure

One commenter read the leading language in proposed Rule 17Ad-22(e)(23)(iv) to imply a requirement to create a comprehensive document that should address how the clearing agency's governance arrangements, legal structure, approach to risk management, and financial arrangements operate, as opposed to implying a separate obligation to publicly disclose all such policies and procedures, irrespective of whether they relate to internal operational policies or are otherwise comprehended within the requirements of 17Ad-22(e)(23)(i).⁵¹⁵ The Commission believes that the commenter's interpretation of the leading language in proposed Rule 17Ad-22(e)(23)(iv) is consistent with the requirements of the rule.

In the CCA Standards proposing release, the Commission made several statements regarding the requirements under Rule 17Ad-22(e)(23):

- With respect to the basic data and performance statistics envisioned by the rule, the Commission identified, as relevant to the requirement, statistics on the covered clearing agency's operational reliability so that the relevant stakeholders and the general public have data regarding, for example, performance targets for systems and the actual performance thereof over specified periods, as well as targets for recovery.
- With respect to the standard-by-standard summary narrative, the Commission sought to elicit a summary discussion of the covered clearing agency's implementation of policies and procedures that would need to be established, implemented, maintained and enforced by a covered clearing agency in response to proposed Rules 17Ad-22(e)(1) through (22).
- With respect to material changes to the disclosure, the Commission stated

that it would expect a covered clearing agency to consider its particular circumstances, such as, for example, changes in the scope of services provided by the covered clearing agency, in satisfying this requirement.⁵¹⁶

The Commission further notes that the comprehensive public disclosure is intended to elicit all material information that would address compliance with each of the requirements in Rule 17Ad-22(e), along with information such as its function and the markets it serves and basic data and performance statistics. Moreover, in proposing Rule 17Ad-22(e)(23), the Commission also stated that two purposes of Rule 17Ad-22(e)(23) were to (i) provide participants with the information necessary to, at a minimum, identify and evaluate the risks and costs associated with the use of a covered clearing agency, thereby promoting transparency and enhancing competition and market discipline, and (ii) provide other stakeholders, including regulators and the public, with information that facilitates informed oversight and decision-making regarding each covered clearing agency.

The Commission is modifying Rule 17Ad-22(e)(23)(iv) so that the language more closely tracks the categories of requirements in Rule 17Ad-22(e) and the statements immediately above. The purpose of this modification is to make clear that the comprehensive public disclosure is intended to describe the material rules, policies and procedures of the covered clearing agency related to compliance with Rule 17Ad-22(e), rather than require a complete disclosure of all rules, policies, and procedures. As adopted, the leading language of Rule 17Ad-22(e)(23)(iv) will require policies and procedures providing for a comprehensive public disclosure that describes the covered clearing agency's material rules, policies, and procedures regarding its legal, governance, risk management, and operating framework, accurate in all material respects at the time of publication.

ii. Consistency With International Standards

One commenter recommended that the Commission provide guidance that it will interpret and administer Rule 17Ad-22(e)(23) as being consistent with PFMI disclosure framework to ensure that clearing participants have sufficient information to conduct diligence and assess the risks of exposure to a covered

clearing agency and to maintain consistency with evolving international standards.⁵¹⁷ In response, and as previously noted, the Commission intends to interpret and administer Rule 17Ad-22(e)(23) consistent with Section 17A of the Exchange Act and, to the extent consistent with Section 17A, with relevant international standards such as the PFMI and the PFMI disclosure framework.⁵¹⁸ Additionally, the Commission notes that a covered clearing agency could consider the PFMI quantitative disclosures to develop its policies and procedures in compliance with Rule 17Ad-22(e)(23).⁵¹⁹ The Commission believes that the PFMI, the PFMI disclosure framework, and the PFMI quantitative disclosures can be useful tools to help a covered clearing agency consider how to disclose information to its participants, other relevant stakeholders, or the public. However, the Commission also notes that publishing the PFMI disclosure framework or the PFMI quantitative disclosures does not, in and of itself, constitute compliance with Rule 17Ad-22(e)(23).⁵²⁰ As previously discussed, Rule 17Ad-22(e)(23) requires that a covered clearing agency (i) publicly disclose all relevant rules and material procedures, including key aspects of its default rules and procedures; (ii) provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency; and (iii) publicly disclose relevant basic data on transaction volume and values. It also requires, as discussed in Part II.C.23.b.i, a comprehensive public disclosure consistent with Rule 17Ad-22(e)(23)(iv). The Commission believes that covered clearing agencies may use a number of different approaches to make disclosures under Rule 17Ad-22(e)(23), and the Commission notes that policies and procedures for such disclosures must be in compliance with Rule 17Ad-22(e)(23).

iii. Disclosures Regarding Emergency Actions

One commenter stated that, when taking emergency actions, CCPs must consider the interests of members and

⁵¹⁷ See ISDA at 6; see also *supra* note 41 (providing a citation for the PFMI disclosure framework).

⁵¹⁸ See *supra* Part I.A.5. (discussing the relevant international standards).

⁵¹⁹ See *supra* note 41 (providing a citation for the PFMI quantitative disclosures).

⁵²⁰ A covered clearing agency independently prepares and publishes these disclosure documents, and the Commission does not review, opine on, or approve them.

⁵¹³ See CFA Institute at 13.

⁵¹⁴ See The Clearing House at 15.

⁵¹⁵ See DTCC at 13.

⁵¹⁶ See CCA Standards proposing release, *supra* note 5, at 29557.

market stability in addition to those of CCP owners.⁵²¹ The commenter identified the following concerns:

- Changes to CCP rules and procedures and other actions taken during emergencies can affect the economic position of members, imposing unexpected losses and liquidity demands, and can thus have spillover effects in the broader market.⁵²²

- Unchecked and unbounded discretion could permit a CCP to alter the fundamental economic relationship between it and its members without notice or a chance for members to evaluate the consequences of such changes.⁵²³

In response, the Commission notes that the above comments are most directly relevant to the Commission's discussion of crisis and emergency decision-making with respect to Rule 17Ad-22(e)(2). The Commission has previously addressed comments regarding crisis or emergency decision-making in Part II.C.2.b.v.

iv. Disclosures Regarding Participant-Default Rules and Procedures

One commenter recommended that the Commission make some clarifications to the requirement in proposed Rule 17Ad-22(e)(23)(ii) that a covered clearing agency provide sufficient detail to enable participants to identify and evaluate the risks they incur by participating in the covered clearing agency. Specifically, the commenter recommended that the Commission require the covered clearing agency to disclose (i) to its participants the policies and procedures established by the covered clearing agency pursuant to proposed Rule 17Ad-22(e)(13), and (ii) to its participants and their customers, the financial risks to which they would be subject in a scenario in which the covered clearing agency's credit losses upon the default of one or more participants exceed the resources designated to absorb such losses.⁵²⁴ As discussed above in connection with the requirements for the comprehensive public disclosure, the two purposes of proposing Rule 17Ad-22(e)(23) were to (i) provide participants with the information necessary to, at a minimum, identify and evaluate the risks and costs associated with the use of a covered clearing agency, and (ii) provide other stakeholders, including regulators and the public, with information that

facilitates informed oversight and decision-making regarding each covered clearing agency.⁵²⁵ Pursuant to Rule 17Ad-22(e)(23)(iv), the comprehensive public disclosure is intended to provide participants with the information necessary to, at a minimum, identify and evaluate the risks and costs associated with the use of a covered clearing agency. In addition, a covered clearing agency's recovery and wind-down plans consistent with Rule 17Ad-22(e)(3) would also provide further insight into the financial risks to which participants and their customers may be subject in a scenario in which the covered clearing agency's credit losses exceed the resources designated to absorb such losses. Accordingly, the Commission believes that the required public disclosure will encompass the information that the commenter seeks.

The same commenter also recommended that the Commission clarify that a covered clearing agency may not, pursuant to emergency authority or otherwise, modify its rules, policies, or procedures in a manner that would materially increase a non-defaulting participant's exposure to loss or the extent of the covered clearing agency's recourse to a non-defaulting participant's assets, or redefine the economic terms of outstanding cleared contracts, without a reasonable prior notice and transition period prior to effectiveness.⁵²⁶ The commenter further stated that a reasonable prior notice period for such a modification would be one that is sufficient to enable a non-defaulting participant to complete the process of withdrawal from participant status, in accordance with the rules of the covered clearing agency, under reasonable assumptions that take into account the demonstrated liquidity of the relevant product or asset type.⁵²⁷ In addition, the commenter stated that any such modification that takes place following the occurrence of a default or series of defaults involving one or more participants and prior to expiration of the covered clearing agency's "cooling-off period" should not take effect until after the expiration of that period.⁵²⁸ For the commenter's purposes, the term "cooling-off period" referred to the period following the default of one or more participants during which losses accrued by the covered clearing agency may be satisfied by recourse to the clearing or guaranty fund contributions of non-defaulting participants, notwithstanding the intervening

withdrawal from participant status of one or more such participants.⁵²⁹ The commenter's recommendations contemplated that cooling-off periods will continue to be specified in the rules of a covered clearing agency, subject to Commission review. According to the commenter, although appropriate cooling-off periods may vary by product or asset type, the commenter believed that the Commission should, in reviewing a covered clearing agency's rules, ensure that its cooling-off period(s) are of sufficient duration following a participant default (or the last in a series of substantially contemporaneous participant defaults) to allow the relevant market to return to stability under reasonable assumptions.⁵³⁰ In response, the Commission notes that the above comments are beyond the scope of Rule 17Ad-22(e)(23), which pertains to disclosures, but instead are relevant to crisis and emergency decision-making, which are discussed above in Part II.C.2.b.v.

v. Additional Disclosures

One commenter believed that, to enhance participants' ability to evaluate their risks, the Commission should require a covered clearing agency to provide their participants with additional, more specific disclosures regarding its default rules and procedures, custody and collateral investment activities, methodologies for determining initial margin requirements and clearing or guaranty fund contributions, stress testing methodologies, and the covered clearing agency's treatment of participant initial margin and clearing or guaranty fund contributions.⁵³¹ The Commission notes that each of these topic areas are addressed by requirements under Rule 17Ad-22(e),⁵³² and therefore these topic

⁵²⁹ See *id.*

⁵³⁰ See *id.*

⁵³¹ See The Clearing House at 3, 15. The commenter further stated that, based on current disclosure practices, members are unable to effectively measure or manage their risk exposure to CCPs, and that disclosure to a CCP's risk committee is generally insufficient due to confidentiality restrictions, which prevents the risk committee from being able to share relevant information with their employer clearing member (and, further, not all clearing members even have employees on the CCP's risk committee). See *id.*, annex at 26, 27.

⁵³² See *supra* Parts II.C.4 (discussing requirements for guaranty fund contributions, allocation of losses pursuant to the default waterfall, and stress testing for credit risk under Rule 17Ad-22(e)(4)), II.C.5 (discussing requirements for collateral under Rule 17Ad-22(e)(5)), II.C.6 (discussing requirements for margin under Rule 17Ad-22(e)(6)), II.C.7 (discussing requirements for stress testing for liquidity risk under Rule 17Ad-22(e)(7)), II.C.13 (discussing requirements for participant-default

⁵²¹ See The Clearing House, annex, at 24.

⁵²² See *id.*

⁵²³ See *id.* at 25.

⁵²⁴ See The Clearing House at 7.

⁵²⁵ See *supra* Part II.C.23.b.i.

⁵²⁶ See The Clearing House at 7.

⁵²⁷ See *id.* at 7 n.16.

⁵²⁸ See *id.*

areas are also the types of material information that would constitute elements of the comprehensive public disclosure required under Rule 17Ad-22(e)(23)(iv).⁵³³

To facilitate sufficient disclosure, the commenter recommended that the Commission adopt the recommendations developed by the FRB of New York's Payments Risk Committee for participant due diligence of CCPs in these and other areas.⁵³⁴ The commenter stated that obtaining information in these areas is necessary for participants to adequately identify and evaluate the risks they incur by participating in a CCP. Like the PFMI disclosure framework and the PFMI quantitative disclosures, the framework set forth by the FRB Payments Risk Committee may be another useful tool to help a covered clearing agency consider how best to disclose information to its participants, other relevant stakeholders, or the public, but, as noted above, should not be viewed as a substitute for compliance with Rule 17Ad-22(e)(23) and the requirements of Section 17A of the Exchange Act. The Commission further notes that the disclosure required by Rule 17Ad-22(e)(23) marks a significant increase in the level and detail of disclosure that a covered clearing agency will be required to provide to its participants and the public, and that such disclosure will also encompass much of the information covered in the framework established by the FRB Payments Risk Committee. Therefore, the Commission declines to further modify Rule 17Ad-22(e)(23).

The commenter further stated that because a CCP's internal models are not usually disclosed at a sufficient level of detail, participants are often unable to predict initial margin requirements, clearing or guaranty fund contributions, or possible loss allocations accurately and, as a result, cannot anticipate exposures or hedge resulting risks.⁵³⁵ The commenter also stated that participants typically do not have sufficient insight into the stress framework and stress scenarios that are intended to ensure sufficiency of total financial resources and as such are unable to determine the CCP's ability to withstand multiple participants' failures

or market stress.⁵³⁶ As noted above, the disclosure required by policies and procedures under Rule 17Ad-22(e)(23) marks a significant increase in the level and detail of disclosure that a covered clearing agency will be required to provide to its participants and the public and addresses in significant portion the commenter's concerns.

In addition, to promote participants' ability to identify and evaluate their risks, the commenter recommended that the Commission clarify that a covered clearing agency must provide to its participants each fiscal quarter, or at any time upon request, the following minimum information:

- The methodologies for determining initial margin requirements and clearing or guaranty fund contributions, at a level of detail adequate to enable participants to replicate the covered clearing agency's calculations;⁵³⁷
- The methodologies for stress testing the adequacy of the clearing or guaranty fund, including the assumptions and scenarios that formed the basis of the stress test and the results of the stress test, which shall include but not be limited to an analysis of the adequacy of the defaulting participant's resources available to cover losses arising from the liquidation, transfer or termination of the positions in its portfolio;⁵³⁸ and
- The covered clearing agency's treatment and segregation of participant initial margin and clearing or guaranty fund contributions.⁵³⁹

In suggesting that such information be required to be disclosed, the commenter suggested that members of CCPs should also be able to accurately predict the fees, margin requirements and guaranty fund contribution requirements associated with participation in the CCP and changes to the member's portfolio or clearing activity.

Where the above disclosure is not possible, the commenter stated that the Commission should instead require a covered clearing agency to develop computational solutions that provide its participants with the ability to

determine the costs, initial margin, clearing or guaranty fund contributions, clearing or guaranty fund performance and loss allocations associated with changes to each respective participant's portfolio or hypothetical portfolio, participant defaults and other relevant information.⁵⁴⁰ Mandating disclosure of this frequency and granularity would be inconsistent with the principles-based approach the Commission is taking in Rule 17Ad-22(e), and Rule 17Ad-22(e)(23) addresses in significant portion the commenter's concerns.

The commenter also stated that CCPs should be required to provide advance notice to members of any proposed changes to policies, procedures, models, or other elements of the CCPs' operations that could have a material adverse economic effect on members. According to the commenter, such advance notice is necessary to protect members' ability to manage their risk by withdrawal from the CCP if necessary, and further CCPs should seek member input on any such changes through a formal consultation process to the extent possible.⁵⁴¹ The Commission believes that the rule filing process under Section 19(b) of the Exchange Act and Rule 19b-4 thereunder, as well as the process for advance notices under Section 806(e) of the Clearing Supervision Act, address this comment, including by providing the opportunity for member input upon the proposed rule change.

c. Final Rule

The Commission is adopting Rule 17Ad-22(e)(23) with modifications. First, the Commission is striking the language "maintain clear and comprehensive rules and procedures" under Rule 17Ad-22(e)(23) because Rule 17Ad-22(e) already requires that a covered clearing agency have written policies and procedures reasonably designed to establish, implement, maintain and enforce the requirements thereunder. Consistent with this change, the Commission is also striking "providing" from Rule 17Ad-22(e)(23)(iv). Second, the Commission is modifying paragraph (iv) as described in Part II.C.23.b.i. Third, the Commission is also modifying paragraph (iv)(D) to correct technical errors in the proposed rule text so that it refers to the standards set forth in paragraphs (e)(1) through (23) (rather than (e)(1) through (22)). The Commission believes that providing a summary narrative for Rule 17Ad-22(e)(23) is appropriate because Rule 17Ad-22(e)(23) requires policies and

rules and procedures under Rule 17Ad-22(e)(13)), and I.L.C.16 (discussing requirements for custody and investment policies under Rule 17Ad-22(e)(16)).

⁵³³ See *supra* Part II.C.23.b.i.

⁵³⁴ See The Clearing House at 15; see also Payments Risk Committee, Recommendations for Supporting Participant Due Diligence of Central Counterparties (Feb. 5, 2013).

⁵³⁵ See The Clearing House at 15.

⁵³⁶ See *id.*

⁵³⁷ See The Clearing House at 16.

⁵³⁸ See *id.* The commenter stated that stress frameworks mandated by the Commission should form the baseline set of assumptions/scenarios for a covered clearing agency, and those frameworks should be based on sufficiently severe stressed macroeconomic conditions to provide a consistent initial baseline from which covered clearing agencies can begin to estimate the extent of their need for loss-absorbing resources. These baseline assumptions/scenarios should be bolstered by specific scenarios unique to the particular asset class and should include idiosyncratic stresses on basis and higher order risk exposures embedded in the covered clearing agency's portfolio. See *id.* at 16 n.44.

⁵³⁹ See The Clearing House at 16.

⁵⁴⁰ See The Clearing House at 16.

⁵⁴¹ See *id.*

procedures to (i) publicly disclose all relevant rules and material procedures, including key aspects of its default rules and procedures; (ii) provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency; and (iii) publicly disclose relevant basic data on transaction volume and values, in addition to requiring the standard-by-standard summary narrative required by Rule 17Ad-22(e)(23)(iv)(D). A summary narrative for Rule 17Ad-22(e)(23) would allow for a better understanding of a covered clearing agency's policies and procedures for compliance with this rule.

Further, because the Commission recognizes that there may be a number of ways to address compliance with Rule 17Ad-22(e)(23), the Commission is providing the following guidance that a covered clearing agency generally should consider in establishing and maintaining policies and procedures that address disclosure of rules, key procedures, and market data:

- Whether it adopts clear and comprehensive rules and procedures that are fully disclosed to participants;
- whether it discloses clear descriptions of the system's design and operations, as well as its and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the covered clearing agency;
- whether it provides all necessary and appropriate documentation and training to facilitate participants' understanding of the covered clearing agency's rules and procedures and the risks they face from participating in the covered clearing agency;
- whether it publicly discloses its fees at the level of individual service it offers as well as its policies on any available discounts; and
- whether it completes regularly and discloses publicly responses to the PFMI disclosure framework.

In addition, the Commission notes that, as with public disclosures contemplated in conjunction with Rule 17Ad-22(e)(23), a covered clearing agency could comply with the proposed requirement by posting the relevant documentation to its Web site.

D. Rule 17Ab2-2

1. Proposed Rule

The Commission proposed Rule 17Ab2-2 to establish procedures for the Commission to make determinations affecting covered clearing agencies. Under the proposed rule, the

Commission would make determinations in three cases, as discussed below. In each case, under proposed Rule 17Ab2-2(d), the Commission would publish notice of its intention to consider such determinations, together with a brief statement of the grounds under consideration, and provide at least a 30-day public comment period prior to any determination. The Commission may provide the clearing agency subject to the proposed determination opportunity for hearing regarding the proposed determination. Under proposed Rule 17Ab2-2(e), notice of determinations in each case would be given by prompt publication thereof, together with a statement of written reasons supporting the determination. In proposing Rule 17Ab2-2, the Commission noted that determinations could be made as part of the registration process upon receiving an application for registration as a clearing agency or at some point after registration, if the Commission determines that a clearing agency does not meet the definition of a covered clearing agency upon registration but does so at a later date, as either market conditions or the characteristics of the clearing agency itself change.⁵⁴²

As proposed, Rule 17Ab2-2 provides the Commission with procedures for making determinations in the following three cases:

- Pursuant to Rule 17Ab2-2(a), the Commission may, if it deems appropriate, upon application by any registered clearing agency or member thereof or on its own initiative, determine whether a registered clearing agency should be considered a covered clearing agency. In determining whether a registered clearing agency should be considered a covered clearing agency, the Commission may consider characteristics such as the clearing of financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults or other such factors as it deems appropriate in the circumstances.⁵⁴³

- Pursuant to Rule 17Ab2-2(b), the Commission may, if it deems appropriate, upon application by any clearing agency or member thereof, or on its own initiative, determine whether a covered clearing agency meets the definition of "systemically important in multiple jurisdictions." In determining whether a covered clearing agency is systemically important in multiple

jurisdictions, the Commission may consider (i) whether the covered clearing agency is a designated clearing agency; (ii) whether the clearing agency has been determined to be systemically important by one or more jurisdictions other than the United States through a process that includes consideration of whether the foreseeable effects of a failure or disruption of the designated clearing agency could threaten the stability of each relevant jurisdiction's financial system;⁵⁴⁴ or (iii) such other factors as the Commission may deem appropriate in the circumstances. The Commission also noted that analysis of other factors could include whether foreign regulatory authorities have designated the covered clearing agency as systemically important and whether any findings were made in anticipation of that designation.⁵⁴⁵

- Pursuant to Rule 17Ab2-2(c), the Commission may, if it deems appropriate, determine whether any of the activities of a clearing agency providing CCP services, in addition to clearing agencies registered with the Commission for the purpose of clearing security-based swaps, have a more complex risk profile. In determining whether a clearing agency's activity has a more complex risk profile, the Commission may consider (i) characteristics such as the clearing of financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults; or (ii) such other characteristics as it deems appropriate in the circumstances.⁵⁴⁶

2. Comments Received and Commission Response

The Commission received two comments that generally supported the Commission's approach in Rule 17Ab2-2.⁵⁴⁷ However, a number of commenters also raised concerns about particular procedural and substantive aspects of the Rule 17Ab2-2, and the Commission discusses each of these in turn below.

⁵⁴⁴ The Commission notes that this provision of proposed Rule 17Ab2-2(b) parallels the definition of systemic importance in Section 803(9) of the Clearing Supervision Act, which states that systemic importance means a situation where the failure of or a disruption to the functioning of an FMI could create, or increase, the risk of significant liquidity or credit problems spreading among financial institutions or markets and thereby threaten the stability of the financial system of the United States. See 12 U.S.C. 5462(9).

⁵⁴⁵ See CCA Standards proposing release, *supra* note 5, at 29558.

⁵⁴⁶ See *id.* at 29559.

⁵⁴⁷ See CFA Institute at 5, 14; OSEC at 2.

⁵⁴² See CCA Standards proposing release, *supra* note 5, at 29557-58.

⁵⁴³ See *id.* at 29558.

a. Determinations Regarding “Covered Clearing Agency” Status Generally

One commenter argued that Rule 17Ab2–2 lacks clear standards for determining when and according to which standards a registered clearing agency would be found to be a covered clearing agency, and further stated that such determinations are based upon factors that may be entirely defined by the Commission during the determinations process itself.⁵⁴⁸ In response to this comment, and in light of the Commission’s separate proposal to amend the definition of “covered clearing agency,”⁵⁴⁹ the Commission has determined not to adopt Rule 17Ab2–2(a). Because the Commission had determined not to adopt Rule 17Ab2–2(a), the subsequent paragraphs in Rule 17Ab2–2 will be renumbered accordingly.

b. Determinations Regarding “Covered Clearing Agency” Status for Dually Registered Entities

In another commenter’s view, any decision to apply the enhanced standards for covered clearing agencies should take into account whether, and the extent to which, the clearing agency is already subject to similar or comparable standards under other regulation.⁵⁵⁰ The commenter noted that the proposed rules take this approach with respect to dually registered SIDCOs for which the CFTC is the supervisory agency under the Clearing Supervision Act and believed a similar exclusion would be appropriate for clearing agencies subject to other regulatory frameworks.⁵⁵¹ The commenter cited as examples regulation by the Bank of England under existing U.K. legislation and, for those clearing agencies that have been granted authorization as a CCP under EMIR, the regulations under EMIR.⁵⁵²

Because the Commission has determined not to adopt Rule 17Ab2–2(a), the commenter’s concerns regarding determinations under Rule 17Ab2–2(a) for dually registered clearing agencies have been addressed.

c. Determinations Regarding “Complex Risk Profile”

One commenter expressed concern about the proposed criteria for determining whether a clearing agency is involved in activities with a more complex risk profile under proposed

Rule 17Ab2–2(c), which triggers enhanced requirements for policies and procedures related to credit and liquidity risk management.⁵⁵³ The commenter believed that it is necessary to consider additional factors, including the proportion of the covered clearing agency’s clearing activities involving higher risk products as well as the manner in which it manages those risks. In the absence of considering such additional factors, the commenter expressed concern that a trivial amount of clearing of credit default options, in comparison to more standardized options, could trigger a cover two requirement, when a clearing agency may have other means to address the added risk, such as through an enhanced margin system.⁵⁵⁴ The commenter suggested that the Commission clarify that it is not its intention to interpret the rules in such a manner.⁵⁵⁵ A second commenter believed that the proposed wording of paragraphs (1) and (2) under proposed Rule 17Ab2–2(c) is vague.⁵⁵⁶ The commenter believed it is unclear whether “characteristics such as the clearing of financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults” and “such other characteristics as it deems appropriate in the circumstances” are independent analyses by which a clearing agency may be judged or whether they should be considered jointly.

In response to these comments, the Commission is modifying the proposed criteria to be considered in determining whether any of the activities of a clearing agency providing CCP services have a more complex risk profile in Rule 17Ab2–2 to remove the reference to “[s]uch other characteristics as it may deem appropriate in the circumstances, as factors supporting a finding of a more complex risk profile.”⁵⁵⁷ Further, the Commission notes that it could, as part of its analysis under the rule, also consider the extent to which a clearing agency clears financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults. The Commission believes that this approach mitigates the concern

raised by the commenter that a clearing agency clearing only a trivial amount of credit default options could be subject to the “cover two” requirement in Rule 17Ad–22(e)(4).

In addition, in light of the concerns regarding the scope of such other characteristics as the Commission may deem appropriate in the circumstances, the Commission is also removing the similar criteria—“such other factors as it may deem appropriate in the circumstances”—from proposed Rule 17Ab2–2(b).⁵⁵⁸

d. Sufficiency of Procedures Generally

One commenter stated that proposed Rule 17Ab2–2 does not provide the subjected clearing agency with an opportunity for a hearing.⁵⁵⁹ The commenter further stated that it is not apparent under the proposed framework that a registered clearing agency would be able to meaningfully impact any proceeding in which the Commission seeks to determine that it should be subject to the requirements for covered clearing agencies, exacerbating regulatory uncertainty.⁵⁶⁰

As discussed above, the Commission has determined not to adopt Rule 17Ab2–2(a), and therefore no process would exist under Rule 17Ab2–2 by which the Commission could designate a registered clearing agency as a covered clearing agency. The Commission notes, nonetheless, that the procedures set forth in Rule 17Ab2–2, as previously discussed, include provisions for publishing notice of the Commission’s intention to consider determinations under Rule 17Ab2–2, including a brief statement of the grounds under consideration, and for providing at least a 30-day public comment period. The Commission believes that this should provide a clearing agency with ample opportunity to present data, views, and arguments supporting why it should not be subject to the requirements for covered clearing agencies. Nevertheless, the rule also provides that the clearing agency subject to the proposed determination may be provided an opportunity for hearing, which provides the possibility of an opportunity for additional input.

e. Procedures for Removing “Covered Clearing Agency” Status

One commenter believed that the Commission should establish a process,

⁵⁴⁸ See CME at 3.

⁵⁴⁹ See CCA Definition proposing release, *supra* note 82, at 25–26.

⁵⁵⁰ See ICEEU at 4–5.

⁵⁵¹ See *id.* at 5.

⁵⁵² See *id.*

⁵⁵³ See OCC at 7.

⁵⁵⁴ See *id.*

⁵⁵⁵ See *id.* at 8.

⁵⁵⁶ See Joyce.

⁵⁵⁷ In addition, as noted in Part II.D.2.a above, the Commission has determined not to adopt proposed Rule 17Ab2–2(a). The Commission is therefore renumbering Rule 17Ab2–2 so that proposed Rule 17Ab2–2(c) is being moved to Rule 17Ab2–2(b). See *infra* Part VI.

⁵⁵⁸ As discussed in Part II.D.2.a above, the Commission has determined not to adopt proposed Rule 17Ab2–2(a), and therefore, in adopting proposed Rule 17Ab2–2(b), the Commission is moving it to Rule 17Ab2–2(a). See *infra* Part VI.

⁵⁵⁹ See CME at 3.

⁵⁶⁰ See *id.*

including a public comment period, for determinations regarding covered clearing agency status and recommends that a process for removing that status (due to, for example, a change in circumstances such that the clearing agency no longer meets the criteria for designation) also be established. The commenter stated that it should include a public comment period and advance notice to clearing members of at least 180 days prior to the effectiveness of such change in status.⁵⁶¹ The Commission believes that such procedures will ensure that each clearing agency is subject to the appropriate rule set on an ongoing basis. In response to this comment, the Commission is adding new paragraph (d) to Rule 17Ab2–2 to provide for a process to rescind any determination made pursuant to Rule 17Ab2–2(a), (b), or (c). This new rule includes the same procedural elements as for determinations under Rules 17Ab2–2(b) and (c), including publication with a 30-day comment period. The commenter requested that clearing members be provided notice at least 180 days prior to the effectiveness of a change in status. The Commission believes that the effective date for any such determination should be based on the facts and circumstances of the clearing agency for which removal of covered clearing agency status is being considered.

3. Final Rule

The Commission has determined not to adopt proposed Rule 17Ab2–2(a), as discussed above. The Commission is adopting proposed Rules 17Ab2–2(b) through (g) with the modifications described above. Because the Commission is not adopting proposed Rule 17Ab2–2(a), the Commission is renumbering the remaining paragraphs under Rule 17Ab2–2 accordingly.

E. Rule 17Ad–22(f)

As proposed, Rule 17Ad–22(f) would codify the Commission's special enforcement authority over designated clearing agencies for which the Commission acts as the supervisory agency, pursuant to the Clearing Supervision Act. Under Section 807(c) of the Clearing Supervision Act, for purposes of enforcing the provisions of the Clearing Supervision Act, a designated clearing agency is subject to, and the Commission has authority under, the provisions of subsections (b) through (n) of Section 8 of the Federal Deposit Insurance Act in the same manner and to the same extent as if a

designated clearing agency were an insured depository institution and the Commission were the appropriate Federal banking agency for such insured depository institution.⁵⁶² The Commission received no comments regarding the proposed rule and is adopting Rule 17Ad–22(f) as proposed.

F. Amendment to Rule 17Ad–22(d)

To facilitate consistency between existing Rule 17Ad–22(d) and proposed Rule 17Ad–22(e), the Commission proposed to amend the first paragraph of Rule 17Ad–22(d) so that it would not apply to covered clearing agencies. Rule 17Ad–22(d) provides that a registered clearing agency shall establish, implement, maintain and enforce written policies and procedures reasonably designed to fulfill the requirements of Rules 17Ad–22(d)(1) through (15), as applicable. As proposed, the amended Rule 17Ad–22(d) would instead apply only to a registered clearing agency other than a covered clearing agency.

The Commission received general comments regarding the overall structure and application of Rule 17Ad–22 in light of proposed Rule 17Ad–22(e) and the existing requirements under Rule 17Ad–22(d), and has addressed those comments in Part I.C.2. The Commission did not receive any comments addressed to the proposed amendment to the first paragraph of Rule 17Ad–22(d), and the Commission is adopting the amendment as proposed.

G. Effective and Compliance Dates

One commenter believed that a phase-in of Rule 17Ad–22(e) is necessary and appropriate.⁵⁶³ The commenter suggested that the implementation phase-in extend to at least one year following publication of Rule 17Ad–22(e), citing in particular the requirements related to linkages in Rule 17Ad–22(e)(20) and views that compliance with such rules will require extensive cooperation and coordination among the relevant entities.⁵⁶⁴ Another commenter specifically requested sufficient time for covered clearing agencies to implement the requirements with respect to equity capital funding pursuant to proposed Rule 17Ad–22(e)(15).⁵⁶⁵

⁵⁶² See 12 U.S.C. 5466(c); see also 12 U.S.C. 1818 (relevant provisions under the Federal Deposit Insurance Act).

⁵⁶³ See DTCC at 13.

⁵⁶⁴ See *id.* at 13–14 & n.46.

⁵⁶⁵ See OCC at 15. The Commission has since issued an order approving a proposed rule change by OCC concerning a proposed capital plan. See Exchange Act Release No. 34–74452 (Mar. 6, 2015), 80 FR 13058 (Mar. 12, 2015) (order approving

The amendments to Rule 17Ad–22 and new Rule 17Ab2–2 will become effective 60 days after publication in the **Federal Register** (“effective date”). As proposed, a covered clearing agency would have been required to meet the requirements of Rule 17Ad–22(e) on the effective date. However, after consideration of the views of the commenters, the Commission has determined to adopt a compliance date of 120 days after the effective date (“compliance date”). The Commission believes it is important to establish enhanced requirements for covered clearing agencies given the potentially significant risks posed by their size, systemic importance, global reach, and/or the risks inherent in the products they clear, and therefore continues to believe that implementation of the requirements in Rule 17Ad–22(e) should be prompt. The Commission notes that one commenter requesting a phase-in approach for Rule 17Ad–22(e)(15) stated it would be in compliance with the proposed requirements no later than January 1, 2015,⁵⁶⁶ which has already passed. The other commenter raised several concerns regarding the need to review existing policies and procedures, develop and draft new policies and procedures, submit, where appropriate, proposed rule changes and advance notices for Commission review, raise additional capital or qualifying liquid resources, and hire and train additional personnel.⁵⁶⁷ The Commission believes that the additional time it is providing with the compliance date of 120 days after the effective date addresses this concern.

In addition, one commenter requested that the Commission clarify how it intends to apply the rules to applications for registration as a clearing agency that are pending when the rules are finalized.⁵⁶⁸ The Commission intends to review any application for registration as a clearing agency pursuant to the requirements of Section 17A of the Exchange Act and the rules and regulations thereunder, including Rule 17Ad–22 and any amendments thereto, and notes that the compliance date would apply to all covered clearing agencies, including an applicant for registration as a clearing agency whose application is pending upon the compliance date that would, if registered, meet the definition of a

proposed rule change by OCC concerning a proposed capital plan for raising additional capital that would support its function as a SIFMU).

⁵⁶⁶ See *supra* note 565.

⁵⁶⁷ See DTCC at 14.

⁵⁶⁸ See LCH at 3.

⁵⁶¹ See ISDA at 2.

covered clearing agency. In reviewing such an application, Section 17A(b)(3) of the Exchange Act requires that a clearing agency shall not be registered unless the Commission determines that an applicant's rules and operations satisfy each of the requirements set forth in Section 17A(b)(3).⁵⁶⁹ Following registration, any registered clearing agency that falls within the definition of a covered clearing agency would need to address compliance with each of the requirements in Rule 17Ad-22(e) no later than the compliance date.

The Commission also notes that the staff regularly conducts examinations, including those required under Section 807 of the Clearing Supervision Act,⁵⁷⁰ and supervisory reviews of registered clearing agencies that are covered clearing agencies.⁵⁷¹ Accordingly, the staff will periodically evaluate the results of these reviews and examinations of covered clearing agencies to evaluate the extent to which covered clearing agencies have achieved and maintained compliance with Rule 17Ad-22(e); the various outcomes observed in how the covered clearing agencies seek to implement the requirements of Rule 17Ad-22(e), and possible reasons for such variations; and any other observations relevant to implementation of Rule 17Ad-22(e).

III. Economic Analysis

As noted above, registered clearing agencies have become an essential part of the infrastructure of the U.S. securities markets. Many securities transactions are centrally cleared by clearing agencies, and central clearing has become more prevalent in the market for security-based swaps.⁵⁷² For

example, in the cash markets, DTCC processed \$1.508 quadrillion in financial transactions in 2015. Within DTCC, NSCC processed an average daily value of \$976.6 billion in equity securities, FICC cleared \$917.1 trillion of transactions in government securities and \$48.2 trillion of transactions in agency mortgage-backed securities, and DTC settled \$112.3 trillion of securities and held securities valued at \$45.4 trillion.⁵⁷³ In the listed options markets, OCC cleared more than 4.1 billion contracts and held margin of \$98.3 billion at the end of 2015.⁵⁷⁴

While central clearing generally benefits the markets in which it is available, clearing agencies can pose substantial risk to the financial system as a whole, due in part to the fact that central clearing concentrates risk in the clearing agency. Disruption to a clearing agency's operations, or failure on the part of a clearing agency to meet its obligations, could therefore serve as a potential source of contagion, resulting in significant costs not only to the clearing agency itself or its members but also to other market participants or the broader U.S. financial system.⁵⁷⁵ As a

result, proper management of the risks associated with central clearing is necessary to ensure the stability of the U.S. securities markets and the broader U.S. financial system. The mandate in Title VII of the Dodd-Frank Act for central clearing of security-based swaps, wherever possible and appropriate, further reinforces this need.⁵⁷⁶ When a clearing agency provides CCP services, central clearing replaces bilateral counterparty exposures with exposures against the clearing agency. Consequently, a move from voluntary clearing to mandatory clearing of security-based swaps, holding the volume of security-based swap transactions constant, would increase economic exposures against clearing agencies that centrally clear security-based swaps. Increased exposures in turn raise the possibility that these clearing agencies may serve as a transmission mechanism for systemic events.

Clearing agencies have incentives to implement a risk management framework that can effectively manage the risks posed by central clearing. First, the ongoing viability of a clearing agency depends on its reputation and the confidence that market participants have in its services. Clearing agencies therefore have an incentive to reduce the likelihood that a member default or operational outage would disrupt settlement of a particular transaction or set of transactions. Second, some clearing agencies operate as member-owned utilities and mutualize default risk across their members, and thus non-defaulting participants are subject to losses that occur above the defaulter's margin and clearing fund. Clearing agencies that operate under such models thus have an economic interest in sound risk management to reduce the expected level of losses that must be mutualized. Other clearing agencies are publicly traded and therefore could have different incentives because non-member-owners may have a lower economic stake in the clearing agency than member-owners under a mutualized structure. Such an ownership structure could increase the incentive for owners, particularly those that are non-members, to take risks, though these incentives may be tempered by rules of the clearing agency

⁵⁷³ See DTCC, 2015 Annual Report, available at <http://www.dtcc.com/annuals/2015/index.php>.

⁵⁷⁴ See OCC, 2015 Annual Report, available at <http://www.theocc.com/components/docs/about/annual-reports/occ-2015-annual-report.pdf>.

⁵⁷⁵ See generally Dietrich Domanski, Leonardo Gambacorta, and Cristina Picillo, Central Clearing: Trends and Current Issues, BIS Quarterly Review (Dec. 2015), available at https://www.bis.org/publ/qtrpdf/r_qt1512g.pdf (describing links between CCP financial risk management and systemic risk); Darrell Duffie, Ada Li & Theo Lubke, Policy Perspectives on OTC Derivatives Market Infrastructure, at 9 (Fed. Reserve Bank N.Y. Staff Reps., Mar. 2010), available at http://www.newyorkfed.org/research/staff_reports/sr424.pdf ("If a CCP is successful in clearing a large quantity of derivatives trades, the CCP is itself a systemically important financial institution. The failure of a CCP could suddenly expose many major market participants to losses. Any such failure, moreover, is likely to have been triggered by the failure of one or more large clearing members, and therefore to occur during a period of extreme market fragility."); Pirrong, The Inefficiency of Clearing Mandates, Policy Analysis, No. 655, at 11–14, 16–17, 24–26 (2010), available at <http://www.cato.org/pubs/pas/PA665.pdf>, at 11–14, 16–17, 24–26 (stating, among other things, that "CCPs are concentrated points of potential failure that can create their own systemic risks," that "[a]t most, creation of CCPs changes the topology of the network of connections among firms, but it does not eliminate these connections," that clearing may lead speculators and hedgers to take larger positions, that a CCP's failure to effectively price counterparty risks may lead to moral hazard and adverse selection problems, that the main effect of clearing would be to "redistribute losses consequent to a bankruptcy or run," and that clearing entities have failed or come close to failing in the past, including in connection with the 1987 market break); Froukelien Wendt, Central Counterparties: Addressing Their Too Important to Fail Nature (IMF Working Paper, Jan. 2015), available at <http://papers.ssrn.com/sol3/Delivery.cfm/wp1521.pdf> (assessing the potential

channels for contagion arising from CCP interconnectedness); Manmohan Singh, Making OTC Derivatives Safe—A Fresh Look, at 5–11 (IMF Working Paper, Mar. 2011), available at <http://www.imf.org/external/pubs/ft/wp/2011/wp1166.pdf> (addressing factors that could lead central counterparties to be "risk nodes" that may threaten systemic disruption).

⁵⁷⁶ See *supra* Part I.A.2.

⁵⁶⁹ See 15 U.S.C. 78q–1(b)(3).

⁵⁷⁰ Section 807 annual examinations of designated clearing agencies are conducted in order to determine: (1) The nature of the operations of, and the risks borne by, the designated financial market utility; (2) the financial and operational risks presented by the designated market utility to financial institutions, critical markets, or the broader financial system; (3) the resources and capabilities of the designated financial market utility to monitor and control such risks; (4) the safety and soundness of the designated financial market utility; and (5) the designated financial market utility's compliance with the Clearing Supervision Act and the rules and orders prescribed under the Clearing Supervision Act. See 12 U.S.C. 5466(a).

⁵⁷¹ See *supra* Part I.A.1.

⁵⁷² The Commission is using "central clearing" here and below to refer to both the clearance and settlement of securities transactions. In this regard, "clearing" is performed by a CCP, and "settlement" is performed for certain securities transactions by a CSD, which then holds those securities in its role as the central depository. Because clearing agencies can provide either CCP or CSD services, the Commission uses "clearing agencies" here and below to refer to CCPs and CSDs collectively. "Registered clearing agencies" are those CCPs and CSDs that are registered with the Commission.

that are consistent with Section 17A(b)(3)(C) of the Exchange Act, which requires that the clearing agency's rules assure fair representation of its shareholders and participants in the selection of the clearing agency's directors and administration of its affairs.⁵⁷⁷

Further, Section 17A of the Exchange Act requires that the rules of a clearing agency protect investors and the public interest.⁵⁷⁸ Nevertheless, incentives for sound risk management may be tempered by pressures to reduce costs and maximize profits that are distinct from goals set forth in governing statutes.⁵⁷⁹ This tension may result in a clearing agency making decisions that result in tradeoffs between the costs and benefits of risk management that are not socially efficient because a clearing agency's decision-making process may not fully reflect the costs and benefits that accrue to other financial market participants as a result of its decisions. Further, even if clearing agencies do internalize costs that they impose on their clearing members, they may fail to internalize the consequences of their risk management decisions on other entities within the financial system that are connected to them through relationships with their clearing members.⁵⁸⁰ Such a failure represents a financial network externality imposed by clearing agencies on the broader financial system and suggests that financial stability, as a public good, may be under-produced in equilibrium.

As discussed in more detail below, the amendments to Rule 17Ad-22 and Rule 17Ab2-2 represent a strengthening of the Commission's regulation of registered clearing agencies. In particular, Rule 17Ad-22(e) establishes requirements for the operation and governance of registered clearing agencies that meet the definition of "covered clearing agency." The Commission believes that the more specific requirements imposed by Rule 17Ad-22(e) will further mitigate the potential for moral hazard associated with risk management at a covered clearing agency. For instance, in the absence of policies and procedures that require periodic stress-testing and validation of credit and liquidity risk models, a covered clearing agency could

potentially choose to recalibrate models in periods of low volatility and avoid recalibration in periods of high volatility, causing it to underestimate the risks that it faces during periods of market stress. The Commission believes that the specific requirements in Rule 17Ad-22(e) with respect to stress testing and validation of credit and liquidity models would be more effective at mitigating these particular manifestations of incentive misalignments than the requirements in Rules 17Ad-22(b) or (d).

The Commission believes, as a result, that Rule 17Ad-22(e) provides a general benefit of reducing the likelihood of a clearing agency failure. This general benefit accrues to the extent that clearing agencies do not already conform to the requirements in Rule 17Ad-22(e). Despite the potential incentive problems noted above, and perhaps in anticipation of regulatory efforts, some registered clearing agencies have already taken steps to update their policies and procedures in manners that may be consistent with the requirements in Rule 17Ad-22(e). The Commission also notes that, in some instances, the practices that Rule 17Ad-22(e) codifies as minimum requirements are current practices at some registered clearing agencies. In these cases, the Commission believes that imposing these requirements on covered clearing agencies will have the effect of imposing consistent, higher minimum risk management standards across all covered clearing agencies. In adopting these rules, the Commission is also mindful of the benefits that would accrue by adopting regulatory approaches that are generally consistent with those of the CFTC and FRB.

The Commission is sensitive to the economic consequences and effects of the amendments to Rule 17Ad-22 and Rule 17Ab2-2, including their benefits and costs. The Commission acknowledges that, since many of these rules require a covered clearing agency to adopt new policies and procedures, the economic effects and consequences of these rules include those flowing from the substantive results of those new policies and procedures. Under Section 3(f) of the Exchange Act, whenever the Commission engages in rulemaking under the Exchange Act and is required to consider or determine whether an action is necessary or appropriate in the public interest, it must consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation.⁵⁸¹

Further, as noted above, Section 17A of the Exchange Act directs the Commission to have due regard for the public interest, the protection of investors, the safeguarding of securities and funds, and maintenance of fair competition among brokers and dealers, clearing agencies, and transfer agents when using its authority to facilitate the establishment of a national system for clearance and settlement transactions in securities.⁵⁸² Section 23(a)(2) of the Exchange Act also 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.⁵⁸³

The Commission has attempted to quantify the benefits and costs anticipated to flow from the amendments to Rule 17Ad-22 and Rule 17Ab2-2. In the CCA Standards proposing release, the Commission requested comment on all aspects of the economic analysis of the proposed rules, including their benefits and costs, as well as any effect the proposed rules may have on competition, efficiency, and capital formation, and encouraged commenters to provide data and analysis to help further quantify or estimate the potential benefits and costs of the proposed rules. Although it did not receive comments specifically directed at the economic analysis, the Commission has considered the comments, and, as in some cases indicated below, certain data needed to quantify the costs and benefits associated with the rules remains unavailable. For example, implementing policies and procedures that require stress testing of financial resources available to a covered clearing agency at least once each day may require additional investment in infrastructure, but the particular infrastructure requirements will depend on existing systems and a covered clearing agency's choice of modeling techniques.

As discussed above,⁵⁸⁴ the Commission believes that Rule 17Ad-22(e), in requiring reasonably designed policies and procedures strikes an appropriate balance between directing covered clearing agencies to engage in specific conduct or practices and allowing each covered clearing agency to design its own policies and procedures without any framework. In adopting Rule 17Ad-22(e), the Commission is providing guidance to help covered clearing agencies identify and develop reasonable policies and

⁵⁷⁷ See 15 U.S.C. 78q-1(b)(3)(C).

⁵⁷⁸ See 15 U.S.C. 78q-1(b)(3)(F).

⁵⁷⁹ See *supra* Parts I.A.1 and 2 (describing the requirements under the Exchange Act and the Clearing Supervision Act).

⁵⁸⁰ See Daron Acemoglu, Asuman Ozdaglar & Alireza Tahbaz-Salehi, Systemic Risk and Stability in Financial Networks (NBER Working Paper No. 18727, Jan. 2013), available at <http://www.nber.org/papers/w18727>.

⁵⁸¹ See 15 U.S.C. 78c(f).

⁵⁸² See *supra* Part I.A.1.

⁵⁸³ See 15 U.S.C. 78w(a)(2).

⁵⁸⁴ See Part II.B.

procedures. The guidance outlines key issues and building blocks that a covered clearing agency generally should consider as it develops policies and procedures in compliance with Rule 17Ad-22(e). While this guidance provides covered clearing agencies with additional information about the types of considerations that may be relevant to meeting requirements under Rule 17Ad-22(e), the Commission does not believe that considering these issues will entail substantial costs beyond the estimates presented below.

Overall, the Commission believes that the amendments to Rule 17Ad-22 and Rule 17Ab2-2 should result in improvements in risk management with respect to systemic risk, as well as with respect to legal, credit, liquidity, general business, custody, investment, and operational risk. Further, the Commission believes that the amendments to Rule 17Ad-22 should result in an increase in financial stability insofar as they result in minimum standards at covered clearing agencies that are higher than those standards implied by current practices at covered clearing agencies. In particular cases, such as requirements for the management of liquidity risk and general business risk, an increase in financial stability may occur as a result of higher risk management standards at covered clearing agencies that lower the probability that either covered clearing agencies or their members default. As explained in Part III.B.2, reduced default probabilities for covered clearing agencies may, in turn, improve efficiency and capital formation.

A. Economic Baseline

To consider the effect of the amendments to Rule 17Ad-22 and Rule 17Ab2-2 on market activity, including possible effects on efficiency, competition, and capital formation, the Commission is using an economic baseline that considers the current market for central clearing, including the number of registered clearing agencies, the distribution of members across these clearing agencies, and the volume of transactions these clearing agencies process. As noted above, there are currently five registered clearing agencies that provide CCP services and one that provides CSD services, and these entities processed and cleared a large number of contracts and securities. For example, for 2015 DTCC reported processing over \$1.5 quadrillion in financial market transactions, DTCC cleared over 4.1 billion in contract

volume, and ICE cleared over 6 million futures and OTC contracts each day.⁵⁸⁵

With respect to the distribution of members across clearing agencies, Table 1 shows that membership rates vary.

TABLE 1—MEMBERSHIP STATISTICS FOR REGISTERED CLEARING AGENCIES⁵⁸⁶

		Number
DTC	Full Service Members.	255
FICC	GSD Members	106
	MBSD Members	77
ICE	Clear Credit Members.	30
	Clear Europe Members.	80
	—Clear Europe Members that clear CDS.	21
NSCC ..	Full Service Members.	163
OCC	Total Members	114

The Commission notes that registered clearing agencies are currently characterized by specialization and limited competition. Central clearing exhibits high barriers to entry and economies of scale. These features of the existing market, and the resulting concentration of central clearing within a handful of entities, informs the Commission's examination of the effects of the amendments to Rule 17Ad-22 and Rule 17Ab2-2 on competition, efficiency, and capital formation, as discussed further below.⁵⁸⁷

To further assess the economic effects of the amendments to Rule 17Ad-22 and Rule 17Ab2-2, including possible effects on efficiency, competition, and capital formation, the Commission is also considering as part of the baseline (i) the current regulatory framework for registered clearing agencies, and (ii) the current practices of registered clearing

agencies that relate to Rule 17Ad-22(e). Each is discussed further below.

1. Regulatory Framework for Registered Clearing Agencies

As previously discussed, the current regulatory framework for registered clearing agencies begins with Section 17A of the Exchange Act, which directs the Commission to facilitate the establishment of (i) a national system for the prompt and accurate clearance and settlement of securities transactions and (ii) linked or coordinated facilities for clearance and settlement of securities transactions. Further, Section 17A and Rule 17Ab2-1 require an entity that meets the definition of a clearing agency to register with the Commission or obtain from the Commission an exemption from registration prior to performing the functions of a clearing agency.⁵⁸⁸ After registration, the Commission supervises registered clearing agencies using various tools, including (i) the rule filing process for SROs set forth in Section 19(b) of the Exchange Act and rules thereunder, (ii) examinations of clearing agencies, and (iii) other provisions of the Exchange Act.⁵⁸⁹ Titles VII and VIII of the Dodd-Frank Act have expanded the Commission's role with respect to the regulation of clearing agencies. Specifically, Title VII amended Section 17A of the Exchange Act by adding, among other provisions, new paragraphs (g) through (j), which provide the Commission with authority to adopt rules governing security-based swap clearing agencies.⁵⁹⁰ The Clearing Supervision Act, adopted in Title VIII, provides for enhanced regulation of SIFMUs and, more generally, for enhanced coordination between the Commission and FRB by facilitating regulator on-site examinations and information sharing. It further provides that the Commission and CFTC shall coordinate with the FRB to jointly develop risk management supervision programs for SIFMUs and that the Commission and CFTC can each prescribe risk management standards governing the operations related to the PCS activities of SIFMUs for which each is the supervisory agency, in consultation with the FSOC and FRB and taking into consideration relevant international standards and existing prudential requirements.⁵⁹¹

In 2012, the Commission adopted Rule 17Ad-22 under the Exchange Act to strengthen the substantive regulation

⁵⁸⁵ See *supra* notes 573–574 and accompanying text.

⁵⁸⁶ Membership statistics are taken from the Web sites of each of the listed clearing agencies as of March 2016. See DTCC, DTC Member Directories, available at <http://www.dtcc.com/client-center/dtc-directories>; DTCC, FICC–GOV Member Directories, available at <http://www.dtcc.com/client-center/ficc-gov-directories>; DTCC, FICC–MBS Member Directories, available at <http://www.dtcc.com/client-center/ficc-mbs-directories>; DTCC, NSCC Member Directories, available at <http://www.dtcc.com/client-center/nscc-directories>; ICE, ICE Clear Credit Participants, available at <https://www.theice.com/clear-credit/participants>; ICE, ICE Clear Europe Membership, available at <https://www.theice.com/clear-europe/membership>; OCC, Member Directory, <http://www.optionsclearing.com/membership/member-information>.

⁵⁸⁷ See *infra* Part III.B.2 (discussing the effect of the adopted rules on competition, efficiency, and capital formation).

⁵⁸⁸ See *supra* Part I.A.1.

⁵⁸⁹ See *supra* notes 11–16 and accompanying text.

⁵⁹⁰ See *supra* note 17 and accompanying text.

⁵⁹¹ See *supra* notes 18–25 and accompanying text.

of registered clearing agencies, promote the safe and reliable operation of registered clearing agencies, and improve efficiency, transparency, and access to registered clearing agencies.⁵⁹² In its economic analysis of the Clearing Agency Standards release, the Commission noted that the economic characteristics of clearing agencies, including economies of scale, barriers to entry, and the particulars of their legal mandates, may limit competition and confer market power on such clearing agencies, which may lead to lower levels of service, higher prices, or under-investment in risk management systems.⁵⁹³ The requirements in Rule 17Ad-22 establish an enhanced regulatory framework for clearing agencies that raise systemic risk concerns due to, among other things, their size, systemic importance, global reach, or the risks inherent in the products they clear.⁵⁹⁴

a. Determinations by the Commission

Among other things, the Commission makes determinations regarding the registration of clearing agencies and proposed rule changes. Rule 17Ad-22(d) has applied to registered clearing agencies since January 2013, and no mechanism exists under Rule 17Ad-22 for the Commission to make determinations of the type that appear in Rule 17Ab2-2.⁵⁹⁵

b. BCBS Capital Framework

In addition to requirements under the Exchange Act, the Dodd-Frank Act, and Rule 17Ad-22, other regulatory efforts are relevant to the Commission's analysis of the economic effects of Rule 17Ad-22(e). In 2012, the BCBS first published the capital framework, which sets forth rules governing the capital charges arising from bank exposures to CCPs related to OTC derivatives, exchange-traded derivatives, and securities financing transactions, and the BCBS finalized the framework in 2014.⁵⁹⁶ The BCBS capital framework is designed to create incentives for banks to clear derivatives and securities financing transactions with CCPs licensed in a jurisdiction where the relevant regulator has adopted rules or regulations consistent with the PFMI. Specifically, the BCBS capital framework introduces new capital charges based on counterparty risk for banks conducting derivatives

transactions or securities financing transactions through a CCP.⁵⁹⁷

Capital charges under the BCBS capital framework relate to a bank's trade exposure and default fund exposure to a CCP and are a function of multiplying these exposures by a corresponding risk weight. Historically, these exposures have carried a risk weight of zero. These weights have increased as banking regulators have adopted rules consistent with the BCBS capital framework. The risk weight assigned under the BCBS capital framework varies depending on whether the counterparty is a QCCP. For example, risk weights for trade exposures to a CCP generally would vary between twenty and 100 percent depending on the CCP's credit quality, while trade exposures to a QCCP would carry only a two-percent risk weight.⁵⁹⁸ In addition, bank exposures to CCP default funds would carry a risk weight of 1250 percent. While bank exposures to QCCP default funds will also carry a 1250 percent risk weight at low levels, under the BCBS capital framework, default fund exposures' contribution to a bank's risk weighted assets will be limited to at most eighteen percent of the bank's trade exposures to a given QCCP.

Many jurisdictions have already adopted rules that implement requirements under the BCBS capital framework. For example, the BCBS reports that, as of March 2016, all twenty-seven member jurisdictions have risk-based capital rules in force, twenty-four have rules for countercyclical capital buffers, and twenty-three have implemented or drafted rules related to systematically important banks.⁵⁹⁹ In the United States, the FRB and Office of the Comptroller of the Currency jointly issued regulatory capital rules for U.S. banks consistent with the BCBS capital framework effective January 1, 2014. The rules subject bank exposures to CCPs and QCCPs to increased risk

weights as specified in the BCBS capital framework.⁶⁰⁰ In addition to specifying risk weights, the rules define the term QCCP for banks supervised by the FRB and the Office of the Comptroller of the Currency. According to these rules, QCCP status applies to any CCP that is a SIFMU or, if not located in the United States, any CCP that is regulated and supervised in a manner equivalent to a SIFMU.⁶⁰¹ In addition, a CCP can become a QCCP if it meets the following standards: It requires all parties to contracts cleared by the CCP to be fully collateralized on a daily basis; and it is regulated by the FRB and demonstrates to the satisfaction of the FRB that the CCP is (i) in sound financial condition, (ii) subject to supervision by the Commission, CFTC, or FRB or, if not located in the United States, subject to effective oversight by a national supervisory authority in its home country, and (iii) meets or exceeds the risk management standards for CCPs established under the Dodd-Frank Act or, if not located in the United States, meets or exceeds similar risk-management standards established under the law of its home country that are consistent with international standards for CCP risk management as established by the relevant standard setting body. Under this definition, each covered clearing agency would be a QCCP either because it is a SIFMU or because it is a CCP that is regulated and supervised in a manner equivalent to a SIFMU, and therefore U.S. bank clearing members would be subject to the lower capital requirements on exposures to QCCPs under the BCBS capital framework.

Within the European Union, EMIR permits legal persons incorporated under the law of an EU member state to use non-EU CCPs only if those CCPs have been recognized under EMIR. Further, only non-EU CCPs recognized under EMIR will meet the conditions necessary to be considered a QCCP for EU bank clearing members. Article 25 of EMIR outlines a recognition procedure for non-EU CCPs and Article 89 provides a timeline for recognition.⁶⁰² FICC, NSCC, and OCC have applied for recognition under EMIR.⁶⁰³ In February

⁵⁹⁷ Since the BCBS capital framework applies lower capital requirements only to bank exposures related to OTC and exchange-traded derivatives activity and securities financing transactions, the Commission currently expects that, among all registered clearing agencies, FICC, ICEEU, and OCC would be those affected by the BCBS capital framework. Each would meet the definition of "covered clearing agency."

⁵⁹⁸ The BCBS capital framework, as well as the rules adopted by the FRB and Office of the Comptroller of the Currency consistent with that framework, applies lower risk weights of two or four percent to indirect exposures of banks to QCCPs. See BCBS capital framework, *supra* note 44, paras. 114-15; Regulatory Capital Rules, *supra* note 45, at 62103.

⁵⁹⁹ See BCBS, Tenth progress report on adoption of the Basel regulatory framework, at 1 (Apr. 2016), available at <https://www.bis.org/bcbs/publ/d354.pdf>.

⁶⁰⁰ See 12 CFR 217.2 (defining "qualifying central counterparty"); see also Regulatory Capital Rules, *supra* note 45, at 62166.

⁶⁰¹ See 12 CFR 217.2.

⁶⁰² See Eur. Comm'n, Practical Implementation of the EMIR Framework to Non-EU Central Counterparties (CCPs) (May 13, 2013), available at http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/130513_equivalence-procedure_en.pdf.

⁶⁰³ These three clearing agencies agreed to have their names publicly disclosed and do not necessarily represent the full set of registered

⁵⁹² See *supra* note 26 and accompanying text.

⁵⁹³ See CCA Standards proposing release, *supra* note 5, at 29579.

⁵⁹⁴ See *supra* note 29 and accompanying text.

⁵⁹⁵ See *supra* Part II.D.

⁵⁹⁶ See *supra* note 44 and accompanying text.

2016, the European Commission and CFTC announced that they will follow a common approach for CCPs. The European Commission plans to adopt an equivalence decision that will allow ESMA to recognize U.S. CCPs regulated by the CFTC, such that these entities can provide services in the EU while complying primarily with CFTC rules and regulations.⁶⁰⁴

Additionally, the BCBS capital framework, as adopted by the FRB, Office of the Comptroller of the Currency, and banking regulators in other jurisdictions, impose capital requirements related to unconditionally cancellable commitments and other off-balance sheet exposures. For example, the FRB and Office of the Comptroller of the Currency require banks to include ten percent of the notional amount of unconditionally cancellable commitments in their calculation of total leverage exposure.⁶⁰⁵ The rules place a floor of three percent on the ratio of tier one capital to total assets for banks subject to advanced approaches to risk-based capital rules.⁶⁰⁶ To the extent that clearing agencies rely on financial resources from banks as part of their risk management activities, these constraints on off-balance sheet exposures could raise the cost of such activities.

c. Other Regulatory Efforts

Efforts by the CFTC and FRB to adopt rules that are consistent with the PFMI are also relevant to the economic analysis of the amendments to Rule 17Ad-22. Both the CFTC and FRB have indicated publicly that they have completed all measures necessary to incorporate fully the PFMI into their regulatory frameworks.⁶⁰⁷

2. Current Practices

Current industry practices are a critical element of the economic baseline for registered clearing agencies. Registered clearing agencies must operate in compliance with Rule 17Ad-22, though they may vary in the

particular ways they achieve such compliance. Some variation in practices across registered clearing agencies derives from the products they clear and the markets they serve. The Commission also understands that, since it published the CCA Standards proposing release, some registered clearing agencies have amended their rules with the aim of achieving consistency with some of the standards in the PFMI. Because the Commission believes that the requirements in Rule 17Ad-22(e) are consistent with the PFMI and further the objectives of Section 17A of the Exchange Act, the Clearing Supervision Act, and Title VII of the Dodd-Frank Act, the Commission also believes that Rule 17Ad-22(e) represents, where it imposes higher minimum standards on covered clearing agencies, an additional step towards improved risk management.

An overview of current practices is set forth below and includes discussion of covered clearing agency policies and procedures regarding general organization and risk management, including the management of legal, credit, liquidity, business, custody, investment, and operational risk. This discussion is based on the Commission's general understanding of current practices as of the date of this adoption and reflects the Commission's experience supervising registered clearing agencies.

a. Legal Risk

Legal risk is the risk that a registered clearing agency's rules, policies, or procedures may not be enforceable and concerns, among other things, its contracts, the rights of members, netting arrangements, discharge of obligations, and settlement finality. Cross-border activities of a registered clearing agency may also present elements of legal risk.

Rule 17Ad-22(d)(1) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a well-founded, transparent, and enforceable legal framework for each aspect of its activities in all relevant jurisdictions.⁶⁰⁸ Each registered clearing agency makes a large portion of these policies and procedures available to members and participants. In addition, each also publishes their rule books and other key procedures publicly to promote the transparency of their legal frameworks.⁶⁰⁹

b. Governance

Rule 17Ad-22(d)(8) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to have governance arrangements that are clear and transparent to fulfill the public interest requirements in Section 17A of the Exchange Act applicable to clearing agencies, to support the objectives of owners and participants, and to promote the effectiveness of the clearing agency's risk management procedures.⁶¹⁰ Important elements of a registered clearing agency's governance arrangements include its ownership structure; its charter, bylaws, and charters for committees of its board and management committees; its rules, policies, and procedures; the composition and role of its board, including the structure and role of board committees; reporting lines between management and the board; and the processes that provide for management accountability with respect to the registered clearing agency's performance.

Each registered clearing agency has a board that governs its operations and supervises senior management. Each registered clearing agency also has an independent audit committee of the board and has established a board committee or committee of members tasked with overseeing the clearing agency's risk management functions. The boards of registered clearing agencies that would be subject to Rule 17Ad-22(e) as covered clearing agencies currently include non-management members.

Since the Commission proposed Rule 17Ad-22(e), certain registered clearing agencies have revised their governance policies. For example, some clearing agencies have established additional committees of the board to focus on risk management and technology issues,⁶¹¹ and one clearing agency has modified its nomination process for directors and increased the number of public directors on its board of directors.⁶¹²

are publicly available on each registered clearing agency's Web site.

⁶¹⁰ See 17 CFR 240.17Ad-22(d)(8); see also CCA Standards proposing release, *supra* note 5, at 29581.

⁶¹¹ See, e.g., Exchange Act Release No. 34-77042 (Feb. 3, 2016), 81 FR 6915 (Feb. 9, 2016) (order approving the adoption by OCC of a charter of a new committee of the board of directors, the technology committee); Exchange Act Release No. 34-74026 (Jan. 9, 2015), 80 FR 2160 (Jan. 15, 2015) (order approving proposed rule change related to ICE Clear Europe's board risk committee).

⁶¹² See Exchange Act Release No. 34-72564 (July 8, 2014), 79 FR 40824 (July 14, 2014) (order approving a proposed rule change by OCC

clearing agencies that applied for recognition under EMIR. See ESMA, List of CCPs Established in Non-EEA Countries Which Have Applied for Recognition Under Article 25 of Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC Derivatives, CCPs and TRs (EMIR) (Dec. 16, 2013), available at https://www.esma.europa.eu/sites/default/files/library/list_of_applicants_tc-ccps.pdf.

⁶⁰⁴ See ESMA, ESMA resumes U.S. CCP recognition process following EU-U.S. agreement available at https://www.esma.europa.eu/sites/default/files/library/2016-278_eu-us_approach_ccp_equivalence.pdf.

⁶⁰⁵ See Regulatory Capital Rules, *supra* note 45, at 62169.

⁶⁰⁶ See *id.* at 62284. The Regulatory Capital Rules require compliance no later than 2018.

⁶⁰⁷ See *supra* note 43.

⁶⁰⁸ See 17 CFR 240.17Ad-22(d)(1); CCA Standards proposing release, *supra* note 5, at 29580.

⁶⁰⁹ The rule book of each registered clearing agency, as well as select policies and procedures,

c. Framework for the Comprehensive Management of Risks

Rules 17Ad–22(b) and (d) require registered clearing agencies to establish, implement, maintain and enforce written policies and procedures reasonably designed to measure and mitigate credit exposures, identify operational risks, evaluate risks arising in connection with cross-border and domestic links for the purpose of clearing or settling trades, achieve DVP settlement, and implement risk controls to cover the clearing agency's credit exposures to participants.⁶¹³ Rule 17Ad–22(d)(4) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to establish business continuity plans setting forth procedures for the recovery of operations in the event of a disruption.⁶¹⁴ Rule 17Ad–22(d)(11) further requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to make key aspects of the clearing agency's default procedures publicly available and establish default procedures that ensure that the clearing agency can take timely action to contain losses and liquidity pressures and to continue meeting its obligations in the event of a participant default.⁶¹⁵

In addition to meeting these requirements, the Commission understands that registered clearing agencies also specify actions to be taken when their resources are insufficient to cover their losses.⁶¹⁶ These actions may include assessment rights on clearing members, forced allocation, and contract termination. Since the Commission proposed Rule 17Ad–22(e), certain clearing agencies have modified policies and procedures that address how resources are collected from members to manage financial risks. For example, one clearing agency has revised its rules to require that intraday margin be collected and margin assets

not withdrawn when a member's reasonably anticipated settlement obligations would exceed the liquidity resources available to the clearing agency to satisfy those clearing obligations.⁶¹⁷

d. Financial Risk Management

Registered clearing agencies that provide CCP services have a variety of options available to mitigate the financial risks to which they are exposed. While the manner in which a CCP chooses to mitigate these financial risks depends on the precise nature of the CCP's obligations, a common set of procedures have been implemented by many CCPs to manage credit and liquidity risks. Broadly, these procedures enable CCPs to manage their risks by reducing the likelihood of member defaults, limiting potential losses and liquidity pressure in the event of a member default, implementing mechanisms that allocate losses across members, and providing adequate resources to cover losses and meet payment obligations as required.

Registered clearing agencies that provide CCP services must be able to effectively measure their credit exposures to properly manage those exposures. A CCP faces the risk that its exposure to a member can change as a result of a change in prices, positions, or both. CCPs can ascertain current credit exposures to each member by, in some cases, marking each member's outstanding contracts to current market prices and, to the extent permitted by their rules and supported by law, by netting any gains against any losses. Rule 17Ad–22 includes certain requirements related to financial risk management by CCPs, including requirements to measure credit exposures to members and to use margin requirements to limit these exposures. These requirements are general in nature and provide registered clearing agencies flexibility to measure credit risk and set margin. Within the bounds of Rule 17Ad–22, CCPs may employ models and choose parameters that they conclude are appropriate to the markets they serve.

The current practices of registered clearing agencies that provide CCP services generally include the following procedures: (1) Measuring credit

exposures at least once a day; (2) setting margin coverage at a 99% confidence level over some set period; (3) using risk-based models; (4) establishing a fund that mutualizes losses of defaults by one or more participants that exceed margin coverage; (5) maintaining sufficient financial resources to withstand the default of at least the largest participant family; and (6) in the case of security-based swap transactions, maintaining enough financial resources to be able to withstand the default of their two largest participant families.⁶¹⁸

i. Credit Risk

Rule 17Ad–22(b)(1) requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to measure their credit exposures at least once per day.⁶¹⁹ Several CCPs have policies and procedures designed to require measuring credit exposures multiple times per day.

Rule 17Ad–22(b)(3) requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions.⁶²⁰ It further requires CCPs for security-based swaps to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain additional financial resources sufficient to withstand, at a minimum, a default by the two participant families to which it has the largest exposures in extreme but plausible market conditions, in its capacity as a CCP for security-based swaps.⁶²¹ Accordingly, the Commission notes that Rule 17Ad–22(b)(3) imposes a “cover two” requirement on CCPs for security-based swaps to protect such CCPs from the

concerning the consolidation of the governance committee and nominating committee into a single committee, changes to the nominating process for directors, and increasing the number of public directors on board of directors).

⁶¹³ See 17 CFR 240.17Ad–22(b) and (d); *see also* Clearing Agency Standards adopting release, *supra* note 5.

⁶¹⁴ See 17 CFR 240.17Ad–22(d)(4); *see also* Clearing Agency Standards adopting release, *supra* note 5, at 66248–49.

⁶¹⁵ See 17 CFR 240.17Ad–22(d)(11).

⁶¹⁶ See David Elliot, Central Counterparty Loss-Allocation Rules, at tbl. 1A (Bank of England Financial Stability Paper No. 20, Apr. 2013), available at http://www.bankofengland.co.uk/research/Documents/fspapers/fs_paper20.pdf (noting the loss-allocation rules applied at the end of a clearing agency waterfall).

⁶¹⁷ See Exchange Act Release No. 34–72266 (May 28, 2014), 79 FR 32008 (June 3, 2014) (notice of filing and immediate effectiveness of proposed rule change by OCC to require that intraday margin be collected and margin assets not be withdrawn when a clearing member's reasonably anticipated settlement obligations to the clearing agency would exceed the clearing agency's liquidity resources available to satisfy such obligations).

⁶¹⁸ See, e.g., CFTC–SEC Staff Roundtable on Clearing of Credit Default Swaps, at 123 (Oct. 2010), available at http://www.cftc.gov/ucm/groups/public/@swaps/documents/djsubmission7_djsubmission7_102210-transcrip.pdf (Stan Ivanov of ICE stating, “[A]t ICE we look at two simultaneous defaults of the two biggest losers upon extreme conditions”); *see also* ICE, CDS Client Clearing Overview, at 8 (Aug. 2013), available at https://www.theice.com/publicdocs/clear_credit/ICE_Clear_Credit_Client_Clearing_Overview.pdf (noting that the guaranty fund covers the simultaneous default of the two largest clearing members); CME Rulebook, Ch. 8H, Rule 8H07, available at <http://www.cmegroup.com/rulebook/CME/1/8H/8H.pdf>.

⁶¹⁹ See 17 CFR 240.17Ad–22(b)(1).

⁶²⁰ See 17 CFR 240.17Ad–22(b)(2).

⁶²¹ See *id.*

extreme jump-to-default risk and nonlinear payoffs associated with the nature of the financial products they clear and the participants in the markets they serve. Meanwhile, CCPs that clear products other than security-based swaps are subject to a “cover one” requirement.⁶²² Rule 17Ad-22(b)(3) also states that such policies and procedures may provide that additional financial resources be maintained by the CCP in combined or separately maintained funds.⁶²³

Under existing rules, CCPs collect contributions from their members for the purpose of establishing guaranty or clearing funds to mutualize losses under extreme but plausible market conditions. Currently, the guaranty funds or clearing funds consist of liquid assets and their sizes vary depending on a number of factors, including the products the CCP clears and the characteristics of CCP members. In particular, the guaranty funds for CCPs that clear security-based swaps are relatively larger, as measured by the size of the fund as a percentage of the total and largest exposures, than the guaranty or clearing funds maintained by CCPs for other financial instruments. CCPs generally take the liquidity of collateral into account when determining member obligations. Applying haircuts to assets posted as margin, among other things, mitigates the liquidity risk associated with selling margin assets in the event of a participant default.

Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have amended some of their policies with regards to credit risk. Such modifications include, for example, provisions that require real-time submission of all locked-in trade data submitted for trade recording and prohibit pre-netting and other practices that prevent real-time trade submission.⁶²⁴ Another clearing agency has made modifications to its policies and procedures for stress testing frameworks.⁶²⁵

ii. Collateral and Margin

Rule 17Ad-22(b)(2) requires a registered clearing agency that provides CCP services to establish, implement,

maintain and enforce written policies and procedures reasonably designed to use margin requirements to limit their exposures to participants.⁶²⁶ This margin can also be used to reduce a CCP’s losses in the event of a participant default.

Registered clearing agencies that provide CCP services take positions as substituted counterparties once their trade guarantee goes into effect. Therefore, if a counterparty whose obligations the registered clearing agency has guaranteed defaults, the covered clearing agency may face market risk, which can take one of two forms. First, a covered clearing agency is subject to the risk of movement in the market prices of the defaulting member’s open positions. Where a seller defaults and fails to deliver a security, the covered clearing agency may need to step into the market to buy the security to complete settlement and deliver the security to the buyer. Similarly, where a buyer defaults, the covered clearing agency may need to meet payment obligations to the seller. Thus, in the interval between when a member defaults and when the covered clearing agency must meet its obligations as a substituted counterparty to complete settlement, market price movements expose the covered clearing agency to market risk. Second, the covered clearing agency may need to liquidate non-cash margin collateral posted by the defaulting member. The covered clearing agency is therefore exposed to the risk that erosion in market prices of the collateral posted by the defaulting member could result in the covered clearing agency having insufficient financial resources to cover the losses in the defaulting member’s open positions.

To manage their exposure to market risk resulting from fulfilling a defaulting member’s obligations, registered clearing agencies compute margin requirements using inputs such as portfolio size, volatility, and sensitivity to various risk factors that are likely to influence security prices. Moreover, since the size of price movements is, in part, a function of time, registered clearing agencies may limit their exposure to market risk by marking participant positions to market daily and, in some cases, more frequently. CCPs also use similar factors to determine haircuts applied to assets posted by members in satisfaction of margin requirements. To manage market risk associated with collateral liquidation, CCPs consider the current prices of assets posted as collateral and price volatility, asset liquidity, and the

correlation of collateral assets and a member’s portfolio of open positions. Further, because CCPs need to value their margin assets in times of financial stress, their rulebooks may include features such as market-maker domination charges that increase clearing fund obligations regarding open positions of members in securities in which the member serves as a dominant market maker. The reasoning behind this charge is that, should a member default, liquidity in products in which the member makes markets may fall, leaving these positions more difficult to liquidate for non-defaulting participants.

Rule 17Ab-22(b)(2) also requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to use risk-based models and parameters to set margin requirements.⁶²⁷ The generally recognized standard for such models and parameters is, under normal market conditions, price movements that produce changes in exposures that are expected to breach margin requirements or other risk controls only 1% of the time (*i.e.*, at a 99% confidence interval) over a designated time horizon.⁶²⁸ Currently, CCPs use margin models to ensure coverage at a single-tailed 99% confidence interval. Losses beyond this level are typically covered by the CCP’s guaranty fund. This standard comports with existing international standards for bank capital requirements, which require banks to measure market risks at a 99% confidence interval when determining regulatory capital requirements.⁶²⁹

⁶²⁷ See *id.*

⁶²⁸ See 17 CFR 240.17Ad-22(a)(4). The Commission notes that because of modifications to Rule 17Ad-22(a), the definition of “normal market conditions” is being moved to Rule 17Ad-22(a)(11). The Commission is not altering the definition of “normal market conditions.” See Rule 17Ad-22(a)(11), *infra* Part VI.

⁶²⁹ See BCBS, International Convergence of Capital Measurement and Capital Standards: A Revised Framework (June 2004), available at <http://www.bis.org/publ/bcbs107.pdf>; see also Darryll Hendricks & Beverly Hirtle, New Capital Rule Signals Supervisory Shift (Secondary Mortgage Mkts, Sept. 1998), available at http://www.freddiemac.com/finance/smm/july98/pdfs/hen_hirt.pdf.

Prior to this standard, banks measured value-at-risk using a range of confidence intervals from 90–99%. See BCBS, An Internal Model-Based Approach to Market Risk Capital Requirements, at 12 (Apr. 1995), available at <http://www.bis.org/publ/bcbs17.pdf>. When determining the minimum quantitative standards for calculating risk measurements, the BCBS noted then the importance of specifying “a common and relatively conservative confidence level,” choosing the 99% confidence interval over other less conservative measures. See *id.*

⁶²² See *supra* Part II.C.4.a (discussing the requirements for “cover one” and “cover two”).

⁶²³ See *id.*

⁶²⁴ See Exchange Act Release No. 34–69890 (June 28, 2013), 78 FR 40538 (July 5, 2013) (order approving NSCC’s proposed rule change to require that all locked-in trade data submitted to it for trade recording be submitted in real-time).

⁶²⁵ See Exchange Act Release No. 34–77982 (June 2, 2016), 81 FR 36979 (June 8, 2016) (order approving ICE Clear Credit’s proposed rule change to update and formalize its stress testing framework).

⁶²⁶ See 17 CFR 240.17Ad-22(b)(2).

Rule 17Ad-22(b)(2) also requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to review such margin requirements and the related risk-based models and parameters at least monthly.⁶³⁰ CCPs are accordingly required to establish a model validation process that evaluates the adequacy of margin models, parameters, and assumptions. Additionally, CCPs are required to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for an annual model validation consisting of evaluating the performance of the CCPs' margin models and the related parameters and assumptions associated with such models by a qualified person who is free from influence from the persons responsible for the development or operation of the models being validated.⁶³¹

Certain clearing agencies have amended their policies and procedures governing collateral and margin requirements since the Commission proposed Rule 17Ad-22(e). For example, one clearing agency has amended its rules to require that intraday margin be collected and to prohibit margin from being withdrawn if the agency anticipates that the settlement obligations would exceed the liquidity resources available to the agency to satisfy such settlement obligations.⁶³²

Other revisions include modifications to risk models to monitor margin coverage and risk exposure. For example, modifications include accounting for factors such as procyclicality or implied volatility of certain options to reflect future market

fluctuations.⁶³³ Amendments to backtesting procedures are designed to assist clearing agencies in determining the amount of margin to collect from clearing members.⁶³⁴

Additionally, certain modifications address exposure to wrong-way risk. For example, one clearing agency revised its margin methodology as applied to the family-issued securities of certain members to exclude these securities from the volatility component and then by charging an amount calculated, in part, by applying a haircut rate to the absolute value of the long net unsettled positions in the member's family-issued securities.⁶³⁵ Other clearing agencies have adjusted their risk models to account for accumulation of general wrong-way risk at the portfolio level, while others have modified their policies with respect to the assets accepted as permitted cover, as well as limits on the value of the collateral that may be accepted as permitted cover.⁶³⁶

iii. Liquidity Risk

In addition to credit risk and the aforementioned market risk, registered clearing agencies also face liquidity or funding risk. Currently, covered clearing agencies have varying degrees of formality with respect to their standards and practices relating to liquidity shortfalls. To complete the settlement process, registered clearing agencies that employ netting rely on incoming payments from participants in net debit positions to make payments to participants in net credit positions. If a participant does not have sufficient funds or securities in the form required to fulfill a payment obligation immediately when due (even though it may be able to pay at some future time), or if a settlement bank is unable to make an incoming payment on behalf of a participant, a registered clearing agency may face a funding shortfall. Such

funding shortfalls may occur due to a lack of financial resources necessary to meet delivery or payment obligations, however even registered clearing agencies that do hold sufficient financial resources to meet their obligations may not carry those in the form required for delivery or payments to participants.

A registered clearing agency that provides CCP services may hold additional financial resources to cover potential funding shortfalls in the form of collateral. As noted above, CCPs may take the liquidity of collateral into account when determining member obligations. Applying haircuts to illiquid assets posted as margin mitigates the liquidity risk associated with selling margin assets in the event of participant default. Some registered CCPs also arrange for liquidity provision from other financial institutions using lines of credit. Additionally, some registered clearing agencies enter into prearranged funding agreements with their members pursuant to their rules. For example, members of one registered clearing agency are obligated, under certain pre-defined circumstances, to enter into repurchase agreements against securities that would have been delivered to a defaulting member.

No rule under the Exchange Act currently requires a registered clearing agency through its written policies and procedures to address liquidity risk. Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have amended their policies and procedures regarding liquidity risk including, for example, through sources such as committed credit facilities, private placements of debt, and committed securities repurchase agreements. Such provisions can assist the ability of clearing agencies to complete settlement obligations, particularly in the instances where a clearing member defaults. Additionally, certain clearing agencies have clarified certain rules by which they manage liquidity, including how they will access and use internal liquidity resources.⁶³⁷

e. Settlement

Rule 17Ad-22(d)(5) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to employ money settlement arrangements that eliminate

Since its adoption in 1998, the standard has become a generally recognized practice of banks to quantify credit risk as the worst expected loss that a portfolio might incur over an appropriate time horizon at a 99% confidence interval. See Kenji Nishiguchi, Hiroshi Kawai & Takanori Sasaki, Capital Allocation and Bank Management Based on the Quantification of Credit Risk, at 83 (FRBNY Econ. Policy Rev., Oct. 1998), available at <http://www.newyorkfed.org/research/epr/98v04n3/9810n1sh.pdf>; Jeff Aziz & Narat Charupat, Calculating Credit Exposure and Credit Loss: A Case Study, at 34 (Sept. 1998), available at <http://www.bis.org/bcbs/ca/alreque98.pdf>.

⁶³⁰ See 17 CFR 240.17Ad-22(b)(2).

⁶³¹ See 17 CFR 240.17Ad-22(b)(4).

⁶³² See Exchange Act Release No. 34-72266 (May 28, 2014), 79 FR 32008 (June 3, 2014) (notice of filing and immediate effectiveness of OCC's proposed rule change to require that intraday margin be collected and margin assets not be withdrawn when a clearing member's reasonably anticipated settlement obligations would exceed the clearing agency's liquidity resources available to satisfy such settlement obligations).

⁶³³ See, e.g., Exchange Act Release No. 34-72756 (Aug. 4, 2014), 79 FR 46479 (Aug. 8, 2014) (order approving ICE Clear Europe's proposed rule change to credit default swap risk policies); Exchange Act Release No. 34-76781 (December 28, 2015), 81 FR 135 (order approving OCC's proposed rule change to modify its margin methodology by incorporating variations in implied volatility).

⁶³⁴ See, e.g., Exchange Act Release No. 34-75290 (June 24, 2015), 80 FR 37323 (June 30, 2015) (notice of no objection to OCC's advance notice concerning modifications to backtesting procedures in order to enhance monitoring of margin coverage and model risk exposure).

⁶³⁵ See Exchange Act Release No. 34-76077 (Oct. 5, 2015), 80 FR 61256 (Oct. 9, 2015) (notice of no objection to NSCC's proposed rule change to enhance its margining methodology as applied to family-issued securities of certain members).

⁶³⁶ See, e.g., Exchange Act Release No. 34-75887 (Sept. 10, 2015), 80 FR 55672 (Sept. 16, 2015) (order approving ICE Clear Credit's proposed rule change to revise its risk management framework).

⁶³⁷ See, e.g., Exchange Act Release No. 34-72944 (Aug. 28, 2014), 79 FR 52789 (Aug. 28, 2014) (order approving ICE Clear Credit's proposed rule change related to its authority to use guaranty fund and house initial margin as an internal liquidity resource).

or strictly limit the clearing agency's settlement bank risks and require funds transfers to the clearing agency to be final when effected.⁶³⁸ Rule 17Ad-22(d)(12) further requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that final settlement occurs no later than the end of the settlement day.⁶³⁹ Accordingly, for example, certain registered clearing agencies provide for final settlement of securities transfers no later than the end of the day of the transaction. Rule 17Ad-22(d)(15) also requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to state to its participants the clearing agency's obligations with respect to physical deliveries and identify and manage the risks from these obligations.⁶⁴⁰

Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have amended their policies and procedures governing money settlements. These include, for example, provisions to convert U.S. Treasuries into cash when the sale of pledged securities cannot be settled on a same-day basis.⁶⁴¹

f. CSDs

Rule 17Ad-22(d)(10) requires a registered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain securities in an immobilized or dematerialized form for transfer by book entry to the greatest extent possible. Currently, some securities, such as mutual fund securities and government securities, are issued primarily or solely on a dematerialized basis. Dematerialized shares do not exist as physical certificates but are held in book entry form in the name of the owner (which, where the master security holder file is not maintained on paper due to the use of technology, is also referred to as electronic custody). Other types of securities may be issued in the form of one or more physical security certificates, which could be held by the CSD to facilitate immobilization. Alternatively, securities may be held by the beneficial owner in record name, in the form of book-entry

positions, where the issuer offers the ability for a security holder to hold through the direct registration system. Whether immobilization occurs at the CSD or through direct registration depends on what is provided for by the issuer.

When a trade occurs, the depository's accounting system credits one participant account and debits another participant account. Transactions between counterparties in dematerialized shares are recorded by the registrar responsible for maintaining the paper or electronic register of security holders, such as by a transfer agent, and reflected in customer accounts.

Registered CSDs currently reconcile ownership positions in securities against CSD ownership positions on the security holders list daily, mitigating the risk of unauthorized creation or deletion of shares.

g. Exchange-of-Value Settlement Systems

Rule 17Ad-22(d)(13) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment,⁶⁴² which serves to link obligations by conditioning the final settlement of one upon the final settlement of the other. One registered clearing agency, for example, operates a Model 2 DVP system that provides for gross securities transfers during the day followed by an end-of-day net funds settlement. Under the rules governing the clearing agency's system, the delivering party in a DVP transaction is assured that it will be paid for the securities once they are credited to the receiving party's securities account. DVP eliminates the risk that a buyer would lose the purchase price of a security purchased from a defaulting seller or that a seller would lose the sold security without receiving payment for a security acquired by a defaulting buyer.

For example, one registered clearing agency has rules governing its continuous net settlement ("CNS") system, under which it becomes the counterparty for settlement purposes at the point its trade guarantee attaches, thereby assuming the obligation of its members that are receiving securities to receive and pay for those securities, and the obligation of members that are

delivering securities to make the delivery. Unless the clearing agency has invoked its default rules, it is not obligated to make those deliveries until it receives from members with delivery obligations deliveries of such securities; rather, deliveries that come into CNS ordinarily are promptly redelivered to parties that are entitled to receive them through an allocation algorithm. Members are obligated to take and pay for securities allocated to them in the CNS process. These rules also provide mechanisms to allow receiving members a right to receive high priority in the allocation of deliveries, and also permit a member to buy-in long positions that have not been delivered to it by the close of business on the scheduled settlement date.

h. Participant-Default Rules and Procedures

Rule 17Ad-22(d)(11) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to make key aspects of its default procedures publicly available and establish default procedures that ensure it can take timely action to contain losses and liquidity pressures and to continue meeting its obligations in the event of a participant default. The rules of registered clearing agencies typically state what constitutes a default, identify whether the board or a committee of the board may make that determination, and describe what steps the clearing agency may take to protect itself and its members. In this regard, registered clearing agencies typically attempt, among other things, to hedge and liquidate a defaulting member's positions. Rules of registered clearing agencies also include information about the allocation of losses across available financial resources.

i. Segregation and Portability

No rule under the Exchange Act currently requires a registered clearing agency through its written policies and procedures to enable the portability of positions of a member's customers and the collateral provided in connection therewith. Additionally, no rule under the Exchange Act currently requires a registered clearing agency through its written policies and procedures to protect the positions of a member's customers from the default or insolvency of the member.⁶⁴³

⁶⁴³ See *supra* note 434 (discussing existing rules applicable to registered broker-dealers that address customer security positions and funds in cash securities and listed option markets, thereby

Continued

⁶³⁸ See 17 CFR 240.17Ad-22(d)(5).

⁶³⁹ See 17 CFR 240.17Ad-22(d)(12).

⁶⁴⁰ See 17 CFR 240.17Ad-22(d)(15).

⁶⁴¹ See Exchange Act Release No. 34-74456 (March 6, 2015), 80 FR 13055 (Mar. 12, 2015) (order approving ICE Clear Credit's proposed rule change to revise its Treasury operations policies and procedures).

⁶⁴² See 17 CFR 240.17Ad-22(d)(13); see also Clearing Agency Standards adopting release, *supra* note 5, at 66256.

Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have modified their policies and procedures on segregation and portability. These amendments include implementing changes to the structure of customer accounts to enhance segregation options for customers and establishing new types of individually segregated accounts and omnibus accounts for cleared transactions, as well as modifications to these frameworks, as well as adopting an individual client segregation framework and modifications related to the omnibus client segregation model.⁶⁴⁴ There have also been changes specifying certain fees applicable to segregated customer accounts, margin flow comingled accounts, and individually segregated sponsored accounts.⁶⁴⁵

j. General Business Risk

Business risk refers to the risks and potential losses arising from a registered clearing agency's administration and operation as a business enterprise that are neither related to member default nor separately covered by financial resources designated to mitigate credit or liquidity risk. While Rule 17Ad-22 sets forth requirements for registered clearing agencies to identify, monitor, and mitigate or eliminate a broad array of risks through written policies and procedures, no rule under the Exchange Act expressly requires a registered clearing agency through its written policies and procedures to identify, monitor, and manage general business risk or to meet a capital requirement. Nonetheless, registered clearing agencies currently have certain internal controls in place to mitigate business risk. Some clearing agencies, for instance, have policies and procedures that identify an auditor who is responsible for examining accounts, records, and transactions, as well as other duties prescribed in the audit program. Other registered clearing agencies allow members to collectively audit the books of the clearing agency on an annual basis, at their own expense.

promoting segregation and portability at the broker-dealer level).

⁶⁴⁴ See, e.g., Exchange Act Release Nos. 34-72755 (Aug. 4, 2014), 79 FR 46481 (Aug. 8, 2014), 34-72754 (Aug. 4, 2014), 79 FR 46477 (Aug. 8, 2014) (approval orders related to ICE Clear Europe's proposed rule changes related to segregation and portability), and 34-73344 (Oct. 14, 2014), 76 FR 62694 (Oct. 20, 2014) (notice of filing and immediate effectiveness of proposed rule change related to segregation and portability).

⁶⁴⁵ See, e.g., Exchange Act Release No. 34-75657 (Aug. 10, 2015), 80 FR 48937 (Aug. 14, 2015) (notice of filing and immediate effectiveness of ICE Clear Europe's proposed rule change to adopt revised fee schedule).

Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have revised their policies and procedures related to general business risk. Such modifications include amendments to a shareholder agreement that are intended to increase the working capital available to conduct the business of the operating subsidiaries and allow the clearing agencies to maintain operations for a longer period during times of financial stress.⁶⁴⁶

k. Custody and Investment Risks

Registered clearing agencies face default risk from commercial banks that they use to effect money transfers among participants, to hold overnight deposits, and to safeguard collateral. Rule 17Ad-22(d)(3) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to (i) hold assets in a manner that minimizes risk of loss or delay in its access to them; and (ii) invest assets in instruments with minimal credit, market, and liquidity risks.⁶⁴⁷ Registered clearing agencies currently seek to minimize the risk of loss or delay in access by holding assets that are highly liquid (e.g., cash, U.S. Treasury securities, or securities issued by a U.S. government agency) and by engaging banks to custody the assets and facilitate settlement. Typically, registered clearing agencies take steps to ensure that assets held in custody are protected from claims from the custodian's creditors using trust accounts or equivalent arrangements. Additionally, a designated clearing agency may have or gain access to a Federal Reserve account and services.⁶⁴⁸ Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have made modifications to the procedures and policies related to custody and investment risks. For example, one clearing agency adopted rules addressing certain investment losses on margin and guaranty fund contributions provided by clearing members.⁶⁴⁹

l. Operational Risk

Operational risk refers to a broad category of potential losses arising from

⁶⁴⁶ See Exchange Act Release No. 34-74142 (Jan. 27, 2015), 80 FR 5188 (Jan. 30, 2015) (notice of no objection to NSCC and FICC advance notices to amend and restate the third and amended restated shareholders agreement).

⁶⁴⁷ See 17 CFR 240.17Ad-22(d)(3).

⁶⁴⁸ See *supra* Part I.C.7 (discussing the requirements under Rule 17Ad-22(e)(7)(iii)).

⁶⁴⁹ See Exchange Act Release No. 34-72551 (July 8, 2014), 79 FR 16361 (July 14, 2014) (order approving ICE Clear Europe's proposed rule change regarding investment losses and non-default losses).

deficiencies in internal processes, personnel, and information technology. Registered clearing agencies face operational risk from both internal and external sources, including human error, system failures, security breaches, and natural or man-made disasters. Rule 17Ad-22(d)(4) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify sources of operational risk and to minimize those risks through the development of appropriate systems, controls and procedures.⁶⁵⁰ It also requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to (i) implement systems that are reliable, resilient, and secure, and have adequate, scalable capacity; and (ii) have business continuity plans that allow for timely recovery of operations and fulfillment of a clearing agency's obligations.⁶⁵¹

As a result, registered clearing agencies have developed and currently maintain plans to ensure the safeguarding of securities and funds, the integrity of automated data processing systems, and the recovery of securities, funds, or data under a variety of loss or destruction scenarios.⁶⁵² These plans may include turning operations over to a secondary site that is located a sufficient distance from the primary location to ensure a distinct geographic risk profile. In addition, registered clearing agencies generally maintain an internal audit department to review the adequacy of their internal controls, procedures, and records with respect to operational risks. Some registered clearing agencies also engage independent accountants to perform an annual study and evaluation of the internal controls relating to their operations.⁶⁵³

As discussed above, the Commission adopted Regulation SCI in November 2014, in part, to help reduce the occurrence of systems issues, and improve resiliency when systems problems do occur at certain SROs, such as registered clearing agencies and to enhance the Commission's oversight and enforcement of securities market technology infrastructure. Regulation

⁶⁵⁰ See 17 CFR 240.17Ad-22(d)(4).

⁶⁵¹ See *id.*

⁶⁵² Many of these practices had been previously developed pursuant to prior Commission guidelines. See *supra* Part I.A.1 (discussing related requirements under Regulation SCI).

⁶⁵³ See, e.g., NSCC, Assessment of Compliance with the CPSS/IOSCO Recommendations for Central Counterparties (Nov. 2011), available at <http://www.dtcc.com/legal/policy-and-compliance.aspx>.

SCI requires that registered clearing agencies, as SCI entities, have policies and procedures that include business continuity and disaster recovery plans that include maintaining backup and recovery capabilities sufficiently resilient and geographically diverse and that are reasonably designed to achieve two-hour resumption of critical SCI systems following a wide-scale disruption. In particular, as discussed above, in the Regulation SCI adopting release the Commission explained its view that for clearance and settlement systems a return to “normal operations” following a systems disruption would include all steps necessary to effectuate timely and accurate end of day settlement.⁶⁵⁴ Since the Commission proposed Rule 17Ad-22(e), certain clearing agencies have revised aspects of their operational risk policies and procedures, including for the purposes of complying with Regulation SCI. For example, one clearing agency revised its policies and procedures for testing of business continuity and disaster recovery plans, including with respect to a member’s requirement to participate in such testing.⁶⁵⁵

m. Access and Participation Requirements

Rule 17Ad-22(b)(5) requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide the opportunity for a person that does not perform any dealer or security-based swap dealer services to obtain membership on fair and reasonable terms at the clearing agency to clear securities for itself or on behalf of other persons.⁶⁵⁶ Rule 17Ad-22(b)(6) requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to have membership standards that do not require participants to maintain a portfolio of any minimum size or a minimum transaction volume.⁶⁵⁷ Rule 17Ad-22(b)(7) requires a registered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to

provide a person that maintains net capital equal or greater than \$50 million with the ability to obtain membership at the clearing agency, provided such persons are able to comply with reasonable membership standards, with higher net capital requirements permissible subject to Commission approval.⁶⁵⁸

In addition, Rule 17Ad-22(d)(2) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require participants to have sufficient financial resources and robust operational capacity to meet obligations arising from participation in the clearing agency, have procedures in place to monitor that participation requirements are met on an ongoing basis, and have participation requirements that are objective and publicly disclosed, and permit fair and open access.⁶⁵⁹ Typically, a registered clearing agency’s rulebook requires applicants for membership to provide certain financial and operational information prior to being admitted as a member and on an ongoing basis as a condition of continuing membership. Registered clearing agencies review this information to ensure that the applicant has the operational capability to meet the other demands of interfacing with the clearing agency. In particular, registered clearing agencies typically require that an applicant demonstrate that it has adequate personnel capable of handling transactions with the clearing agency and adequate physical facilities, books and records, and procedures to fulfill its anticipated commitments to, and to meet the operational requirements of, the clearing agency and other members with necessary promptness and accuracy. As a result, an applicant needs to demonstrate that it has adequate personnel capable of handling transactions with the clearing agency and adequate physical facilities, books and records, and procedures to conform to conditions or requirements in these areas that the clearing agency reasonably may deem necessary for its protection. Registered clearing agencies have published these requirements on their Web sites.

Registered clearing agencies use an ongoing monitoring process to help them understand relevant changes in the financial condition of their members and to mitigate credit risk exposure of the clearing agency to its members. The risk management staff analyzes financial statements filed with regulators, as well

as information obtained from other SROs and gathered from various financial publications, so that the clearing agency may evaluate, for instance, whether members maintain sufficient financial resources and robust operational capacity to meet their obligations as participants in the clearing agency pursuant to existing Rule 17Ad-22(d)(2)(i).

Table 1 contains membership statistics for registered clearing agencies.⁶⁶⁰ Current membership generally reflects features of cleared markets. The decision to become a clearing member depends on the products being cleared and the structure of these asset markets, as well as the current state of regulation for cleared markets. For example, the structure of security-based swap markets and the payoffs to security-based swap contracts differs markedly from that of equity markets and common stock, which may explain some of the differences between the concentrated membership of certain clearing agencies and the relatively broader membership of others.

n. Tiered Participation Arrangements

Tiered participation arrangements occur when clearing members (direct participants) provide access to clearing services to third parties (indirect participants). No rule under the Exchange Act currently requires a registered clearing agency through its written policies and procedures to identify, monitor, and manage material risks arising from tiered participation arrangements. The Commission understands, however, that certain registered clearing agencies have policies and procedures currently in place to identify, monitor, or manage such arrangements. Specifically, such clearing agencies rely on information gathered from, and distributed by, direct participants to manage these tiered participation arrangements. For example, under some covered clearing agencies’ rules, direct participants generally have the responsibility to indicate to the clearing agency whether a transaction submitted for clearing represents a proprietary or customer position. Such rules further require direct participants to calculate, and notify the clearing agency of the value of, each customer’s collateral. Direct participants also communicate with indirect participants regarding the clearing agency’s margin and other requirements.

⁶⁵⁴ See *supra* note 37 and accompanying text.

⁶⁵⁵ See Exchange Act Release No. 34-76278 (Oct. 27, 2015), 80 FR 67450 (Nov. 2, 2015) (notice of filing and immediate effectiveness of FICC’s proposed rule change to provide additional details regarding the requirement that members participate in annual testing of business continuity and disaster recovery plans).

⁶⁵⁶ See 17 CFR 240.17Ad-22(b)(5).

⁶⁵⁷ See 17 CFR 240.17Ad-22(b)(6).

⁶⁵⁸ See 17 CFR 240.17Ad-22(b)(7).

⁶⁵⁹ See 17 CFR 240.17Ad-22(d)(2).

⁶⁶⁰ See *supra* Part III.A.

o. Links

Rule 17Ad-22(d)(7) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to evaluate the potential sources of risks that can arise when the clearing agency establishes links either cross-border or domestically to clear or settle trades, and ensure that the risks are managed prudently on an ongoing basis.⁶⁶¹

Each registered clearing agency is linked to other clearing organizations, trading platforms, and service providers. For instance, a link between U.S. and Canadian clearing agencies allows U.S. members to clear and settle valued securities transactions with participants of a Canadian securities depository. The link is designed to facilitate cross-border transactions by allowing members to use a single depository interface for U.S. and Canadian dollar transactions and eliminate the need for split inventories.⁶⁶² Registered clearing agencies that provide CCP services currently establish links to allow members to realize collateral and other operational efficiencies.

p. Efficiency and Effectiveness

Rule 17Ad-22(d)(6) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require the clearing agency to be cost-effective in meeting the requirements of participants while maintaining safe and secure operations.⁶⁶³ Registered clearing agencies have procedures to control costs and to regularly review pricing levels against operating costs. These clearing agencies may use a formal budgeting process to control expenditures, and may review pricing levels against their costs of operation during the annual budget process. Registered clearing agencies also analyze workflows to make recommendations to improve their operating efficiency.

q. Communication Procedures and Standards

Although no rule under the Exchange Act expressly requires a registered clearing agency through its written policies and procedures to use or accommodate relevant internationally accepted communication procedures

and standards, the Commission believes that registered clearing agencies already use these standards. Registered clearing agencies typically rely on electronic communication with market participants, including members. For example, some registered clearing agencies have rules in place stating that clearing members must retrieve instructions, notices, reports, data, and other items and information from the clearing agency through electronic data retrieval systems. Some registered clearing agencies have the ability to rely on signatures transmitted, recorded, or stored through electronic, optical, or similar means. Other clearing agencies have policies and procedures that provide for certain emergency meetings using telephonic or other electronic notice.

r. Disclosure

Disclosures by registered clearing agencies serve to limit the size of potential information asymmetries between registered clearing agencies, their members, and market participants. Rule 17Ad-22(d)(9) requires a registered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide market participants with sufficient information for them to identify and evaluate risks and costs associated with using the clearing agency's services.⁶⁶⁴ Information regarding the operations and services of each registered clearing agency can be viewed publicly either on the clearing agency's Web site or a Web site maintained by an affiliate of the clearing agency. Because a registered clearing agency is an SRO,⁶⁶⁵ it must file with the Commission any proposed rule or any proposed change in, addition to, or deletion from its rules, and the Commission reviews all proposed rule changes and publishes them for comment.⁶⁶⁶ Proposed rule changes also are available for public viewing on each clearing agency's Web site.

Besides providing market participants with information on the risks and costs associated with their services, registered clearing agencies regularly provide information to their members to assist them in managing their risk exposures and potential funding obligations. Some of these disclosures may be common to all members—such as information about the composition of clearing fund assets—while other disclosures that concern particular positions or

obligations may only be made to individual members.

Finally, the Commission notes that most registered clearing agencies currently publish on their Web sites their responses to the PFMI quantitative disclosures.⁶⁶⁷ These disclosures are to be updated semi-annually.

B. Consideration of Benefits, Costs, and the Effect on Competition, Efficiency, and Capital Formation

The discussion below sets forth the potential economic effects stemming from the adopted rules. The section begins by framing more general economic issues related to the amendments to Rule 17Ad-22 and Rule 17Ab2-2. The discussion that follows considers the effects of the rules on efficiency, competition, and capital formation. The section ends with a discussion of the benefits and costs flowing from specific provisions of the amendments to Rule 17Ad-22 and Rule 17Ab2-2.

1. General Economic Considerations

This section considers potential impacts of the amendments, as a whole, through their effects on systemic risk, the discretion with which covered clearing agencies operate, market integrity, concentration in the market for clearing services and among clearing members, and QCCP status.

a. Systemic Risk

A large portion of financial activity in the United States ultimately flows through one or more registered clearing agencies that would become covered clearing agencies under the amendments to Rule 17Ad-22. These clearing agencies have direct links to members and indirect links to the customers of members. They are also linked to each other through common members, operational processes, and in some cases cross-margining and cross-guaranty agreements. These linkages allow covered clearing agencies to provide opportunities for risk-sharing but also allow them to serve as potential conduits for risk transmission. Covered clearing agencies play an important role in fostering the proper functioning of financial markets. If they are not effectively managed, however, they may transmit financial shocks to other financial market participants through their responses to clearing member default.

The centralization of clearance and settlement activities at covered clearing agencies allows market participants to reduce costs, increase operational

⁶⁶¹ See 17 CFR 240.17Ad-22(d)(7).

⁶⁶² See Exchange Act Release No. 52784 (Nov. 16, 2005), 71 FR 70902 (Nov. 23, 2005); Exchange Act Release No. 55239 (Feb. 5, 2007), 72 FR 6797 (Feb. 13, 2007).

⁶⁶³ See 17 CFR 240.17Ad-22(d)(6).

⁶⁶⁴ See 17 CFR 240.17Ad-22(d)(9).

⁶⁶⁵ See *supra* Part I.A.1.

⁶⁶⁶ See *supra* notes 12–13.

⁶⁶⁷ See *supra* note 41.

efficiency, and manage risks more effectively.⁶⁶⁸ While providing benefits to market participants, the concentration of these activities at a covered clearing agency implicitly exposes market participants to the risks faced by covered clearing agencies themselves, making risk management at covered clearing agencies a key element of systemic risk mitigation.

b. Discretion

The Commission recognizes that the degree of discretion permitted by the amendments to Rule 17Ad-22 partially determines their economic effect. Even where current practices at covered clearing agencies would not need to change significantly to comply with the rules, as adopted, covered clearing agencies could still potentially face costs associated with the limitations on discretion that will result from the rules, including costs related to limiting a clearing agency's flexibility to respond to changing economic environments. For example, to the extent that covered clearing agencies currently in compliance with Rule 17Ad-22(e) value the ability to periodically allow net liquid assets to drop below the minimum level specified by the rules, they may incur additional costs because under Rule 17Ad-22(e) they lose the option to do so.

Although there may be costs to limiting the degree of discretion covered clearing agencies have over risk management policies and procedures, the Commission believes there are also potential benefits. As discussed above, clearing agencies may not fully internalize the social costs of poor internal controls and thus, given additional discretion, may not craft appropriate risk management policies and procedures. For example, even if existing regulation provides clearing agencies with the incentives necessary to manage risks appropriately in a static sense, they may not provide clearing agencies with incentives to update their risk management programs in response to dynamic market conditions. Additionally, efforts at cost reduction or profit maximization could encourage clearing agencies to reduce the quality of risk management by, for example, choosing to update parameters and assumptions rapidly in periods of low volatility while maintaining stale parameters and assumptions in periods of high volatility. By reducing covered clearing agencies' discretion over their policies and procedures, the amendments to Rule 17Ad-22 may reduce the likelihood that risk

management practices lag behind changing market conditions by requiring periodic analysis of model performance while paying particular attention to periods of high volatility or low liquidity.

Subjecting covered clearing agencies to more specific requirements may have other benefits for cleared markets as well. Academic research has explored the ways in which regulation affects liquidity in financial markets when participants are "ambiguity averse," where ambiguity is defined as uncertainty over the set of payoff distributions for an asset.⁶⁶⁹ Such investors may heavily weigh worst-case scenarios when they decide whether to hold the asset. The Commission believes that regulation aimed at enhancing standards for covered clearing agencies while reducing their discretion may reduce the ambiguity associated with holding cleared assets in the presence of credit risk and settlement risk⁶⁷⁰ and thus may allow investors to rule out worst-case states of the world. In this regard, more specific rules may encourage participation in cleared markets by investors that benefit from resulting risk-sharing opportunities.⁶⁷¹

c. Market Integrity

The Commission believes that the amendments to Rule 17Ad-22 could provide the benefit of reduced potential for market fragmentation that may arise from different requirements across regulatory regimes. These benefits would flow to markets that are also supervised by the CFTC and FRB, and internationally, since cleared markets are global in nature and linked to one another through common participants.

Failure to maintain consistency with other regulators may disrupt cleared markets in a number of ways. Significant differences across regulatory regimes may encourage participants to restructure their operations to avoid a particular regulatory regime.⁶⁷² Such

differences may reduce the liquidity of cleared products in certain markets if they result in an undersupply of clearing services. Further, inconsistency in regulation across jurisdictions may increase the likelihood that restructuring by market participants in response such inconsistency results in concentrating clearing activity in regimes with a weaker commitment to policies and procedures for sound risk management. Differences across regulatory regimes could also affect the products that a clearing agency chooses to clear. In turn, a shift in product choice could result in more concentrated liquidity for certain markets.

In the case of clearing agency standards, there are additional motivations for consistency with other regulatory requirements. The Commission believes that such consistency would prevent the application of inconsistent regulation and thereby reduce the likelihood that participants in cleared markets would restructure and operate in less-regulated markets. Additionally, such consistency would allow foreign bank clearing members and foreign bank customers of clearing members of covered clearing agencies to be subject to lower capital requirements under the BCBS capital framework.⁶⁷³

Based on its consultation and coordination with other regulators, the Commission believes Rule 17Ad-22(e) is consistent and comparable, where possible and appropriate, with the rules and policy statement adopted by the FRB and the rules adopted by the CFTC, as well as the headline principles in the PFMI. The Commission's rules differ from those requirements adopted by the CFTC and FRB in terms of the specific portions of the key considerations and explanatory text in the PFMI that are, or are not, referenced or emphasized.

Further, CPMI-IOSCO members are also in various stages of implementing the standards in the PFMI into their own regulatory regimes, and the Commission believes that adopting a set of requirements generally consistent with the relevant international standards would result in diminished

⁶⁶⁹ See e.g., Itzhak Gilboa & David Schmeidler, Maxmin Expected Utility with Non-Unique Prior, 18 J. Mathematical Econ. 141 (1989) (proposing an axiomatic foundation of a decision rule based on maximizing expected minimum payoff of a strategy).

⁶⁷⁰ Specifically, by performing key roles in the transaction process, clearing agencies serve to maintain higher minimum payoffs in poor states of the world, by, for example, immobilizing securities or adopting DVP systems.

⁶⁷¹ See e.g., David Easley & Maureen O'Hara, Microstructure and Ambiguity, 65 J. Fin. 1817 (2010) (using a theoretical model of trade on venues that differ in rules, the authors show how rules that reduce market-related ambiguity may induce a participatory equilibrium).

⁶⁷² See, e.g., Arnoud W.A. Boot, Silva Dezöelan, & Todd T. Milbourn, Regulatory Distortions in a Competitive Financial Services Industry, 16 J. Fin.

Serv. Res. 249 (2000) (showing that, in a simple industrial organization model of bank lending, a change in the cost of capital resulting from regulation results in a greater loss of profits when regulated banks face competition from non-regulated banks than when regulations apply equally to all competitors); Victor Fleischer, Regulatory Arbitrage, 89 Tex. L. Rev. 227 (2010) (discussing how, when certain firms are able to choose their regulatory structure, regulatory costs are shifted onto those entities that cannot engage in regulatory arbitrage).

⁶⁷³ See BCBS capital framework, *supra* note 44.

⁶⁶⁸ Cf. PFMI, *supra* note 2, at 9.

likelihood that participants in cleared markets would restructure and operate in less-regulated markets.⁶⁷⁴ Additionally, international standards such as the BCBS capital framework could create complications for U.S. clearing agencies not subject to regulations based on the PFMI as a result of the BCBS capital framework's treatment of QCCPs. In particular, if U.S. clearing agencies do not obtain QCCP status from foreign banking regulators who have adopted rules conforming to the BCBS capital framework because, for instance, the regulatory framework is not consistent with the PFMI, foreign bank members of U.S. clearing agencies may have incentives to move their clearing business to clearing agencies in jurisdictions where they might obtain lower capital requirements under the BCBS capital framework.⁶⁷⁵

d. Concentration

The economic effects associated with the amendments to Rule 17Ad-22 may also be partially determined by the economic characteristics of clearing agencies. Generally, the economic characteristics of FMIs, including clearing agencies, include specialization, economies of scale, barriers to entry, and a limited number of competitors.⁶⁷⁶ Such characteristics, coupled with the particulars of an FMI's legal mandate, could result in market power, leading to lower levels of service, higher prices, and under-investment in risk management systems.⁶⁷⁷

The centralization of clearing activities in a relatively small number of clearing agencies somewhat insulated from market forces may result in a reduction in their incentives to innovate and to invest in the development of appropriate risk management practices on an ongoing basis,⁶⁷⁸ particularly when combined with the cost reduction pressures noted previously.⁶⁷⁹ However,

the Commission notes that the inverse may not necessarily hold. In other words, additional competition in the market for clearing services may not necessarily result in improved risk management. For instance, aggressive price-cutting in a "race to the bottom" may result in clearing agencies accepting lower-quality collateral, requiring lower margin and default fund contributions, lowering access requirements, or holding lower reserves, potentially undermining their risk management efforts.⁶⁸⁰

Market power may raise particular issues with respect to the allocation of benefits and costs flowing from these amendments to Rule 17Ad-22 and precipitate changes in the structure of the financial networks that are served by covered clearing agencies. For example, as a result of limited competition,⁶⁸¹ existing covered clearing agencies may easily pass the incremental costs associated with enhanced standards on to their members, who may share these costs with their customers, potentially resulting in increased transaction costs in cleared securities.

If incremental increases in costs lead clearing agencies to charge higher prices for their services, then certain clearing members may choose to terminate membership and cease to clear transactions for their customers. Should

this situation occur, the result may be further concentration among clearing members, where each remaining member clears a higher volume of transactions. In this case, clearing agencies and the financial markets they serve would be more exposed to these larger clearing members. Moreover, customers would have fewer resources or options for obtaining such services, clearing agencies would have fewer non-defaulting members to take on defaulting members portfolios, and clearing agencies that rely on clearing members to participate in default auctions would hold auctions with fewer participants. The remaining clearing members may, however, each internalize more of the costs their activity in cleared markets imposes on the financial system.

The increased importance of a small set of clearing members, in turn, may result in firms not previously systemically important increasing in systemic importance. This is particularly true for clearing members that participate in multiple markets, both cleared and not cleared.⁶⁸² However, adequate regulation of capital levels and margin amounts at surviving clearing members could mean that, though shocks to these members may be larger, the propagation of shocks may be limited to a smaller set of entities and their equity holders.

e. QCCP Status and Externalities on Clearing Members

An effect of the amendments to Rule 17Ad-22 is that covered clearing agencies required to comply with the adopted rules may be more likely to qualify as QCCPs in non-U.S. jurisdictions that have adopted the BCBS capital framework's QCCP definition. Under the BCBS capital framework, a QCCP is defined as an entity operating as a CCP that is prudentially supervised in a jurisdiction where the relevant regulator has established, and publicly indicated that it applies to the CCP on an ongoing basis, domestic rules and regulations that are consistent with the PFMI.⁶⁸³ Because the amendments to Rule 17Ad-22 are consistent with the PFMI, the Commission believes that foreign bank clearing members of certain covered clearing agencies and foreign banks

Economic and Social Factors (NBER, 1962), available at <http://www.nber.org/chapters/c2144.pdf>.

⁶⁸⁰ See CPSS, Market Structure Development in the Clearing Industry: Implications for Financial Stability, at sec. 5 (Nov. 2010), available at <http://www.bis.org/publ/cpss92.pdf>; see also Siyi Zhu, Is There a 'Race to the Bottom' in Central Counterparties Competition?—Evidence from LCH.Clearnet SA, EMCF and EuroCCP, DNB Occasional Studies, Vol. 9, No. 6 (2011); John Kiff et al., Credit Derivatives: Systemic Risks and Policy Options (IMF Working Paper No. 254, Nov. 2009), available at <http://www.imf.org/external/pubs/ft/wp/2009/wp09254.pdf>.

⁶⁸¹ See generally Nadia Linciano, Giovanni Siciliano & Gianfranco Trovatore, The Clearing and Settlement Industry: Structure Competition and Regulatory Issues (Italian Secs. & Exch. Comm'n Research Paper 58, May 2005), available at <http://www.ssrn.com/abstract=777508> (concluding in part that the core services offered by the clearance and settlement industry tend toward natural monopolies because the industry can be characterized as a network industry, where consumers buy systems rather than single goods, consumption externalities exist, costs lock-in consumers once they choose a system, and production improves with economies of scale); Heiko Schmiedel, Markku Malkamäki & Juha Tarkka, Economies of Scale and Technological Development in Securities Depository and Settlement Systems, at 10 (Bank of Fin. Discussion Paper 26, Oct. 2002), available at <http://www.suomenpankki.fi/en/julkaisut/tutkimukset/keskustelualoitteet/Documents/0226.pdf> ("The overall results of this study reveal the existence of substantial economies of scale among depository and settlement institutions. On average, the centralized U.S. system is found to be the most cost effective settlement system and may act as the cost saving benchmark.").

⁶⁸² See, e.g., Mark J. Roe, Clearinghouse Overconfidence, 101 Cal. L. Rev. 1641 (2013), available at <http://scholarship.law.berkeley.edu/californialawreview/vol101/iss6/3> (arguing that counterparty risk concentrated within CCPs may be transferred to the broader financial system through links between clearing members and their clients).

⁶⁸³ See supra notes 44–45 and accompanying text (discussing the BCBS capital framework).

⁶⁷⁴ See supra note 43.

⁶⁷⁵ See supra notes 44–45 and *infra* Part III.B.1.e (discussing the BCBS capital framework and the economic effect of QCCP status under the BCBS capital framework, respectively).

⁶⁷⁶ See supra note 39 (defining "financial market infrastructure").

⁶⁷⁷ Cf. PFMI, supra note 2, at 11.

⁶⁷⁸ The Commission notes that this result depends on the relationship between the cost of innovations in risk management and the private benefits to a clearing agency in terms of reduced default risk. Absent competitive pressures, a clearing agency may nevertheless invest in the development of risk management practices so long as the marginal benefits of risk reduction exceed the marginal cost.

⁶⁷⁹ See Kenneth J. Arrow, Economic Welfare and the Allocation of Resources for Invention 609–626, in *The Rate and Direction of Inventive Activity*:

clearing indirectly through clearing members of covered clearing agencies may benefit from covered clearing agencies obtaining QCCP status. In particular, bank clearing members and bank indirect participants of covered clearing agencies that could attain QCCP status would face lower capital requirements with respect to cleared derivatives and repurchase agreement transactions because, under the BCBS capital framework, capital requirements for bank exposures to QCCPs are lower than capital requirements for bank exposures to non-qualifying CCPs for these products. Although the FRB and the Office of the Comptroller of the Currency have already adopted rules implementing the BCBS capital framework that would identify all covered clearing agencies (with the exception of ICEEU) as QCCPs for the purposes of applying risk weights to assets at U.S. banks,⁶⁸⁴ the adopted amendments to Rule 17Ad-22 may result in non-U.S. bank clearing members experiencing lower capital requirements related to exposures against covered clearing agencies relative to a baseline scenario in which foreign banking regulators do not determine that a covered clearing agency is a QCCP.⁶⁸⁵

The BCBS capital framework affects capital requirements for bank exposures to central counterparties in two important ways. The first relates to trade exposures, defined under the BCBS capital framework as the current and potential future exposure of a clearing member or indirect participant in a CCP arising from OTC derivatives, exchange-traded derivatives transactions, and securities financing transactions. If these exposures are held against a QCCP, they will be assigned a risk weight of 2%. In contrast, exposures against non-qualifying CCPs do not receive lower capital requirements relative to bilateral exposures and are assigned risk weights between 20% and 100%, depending on counterparty credit risk. Second, the BCBS capital framework imposes a cap on risk weights applied to default fund contributions, limiting risk-weighted assets (subject to a 1250% risk weight) to a cap of 20% of a clearing member's trade exposures against a QCCP. This is in contrast to treatment of exposures against non-qualifying CCPs, which are uncapped and subject to a 1250% risk weight. Because QCCP status generally

impacts capital treatment, any benefits of attaining QCCP status will likely accrue, at least in part, to foreign clearing members or foreign indirect participants subject to the BCBS capital framework.⁶⁸⁶ As a result of lower risk weights applied to exposures and a cap on capital requirements against default fund obligations, clearing members of QCCPs subject to BCBS capital framework may experience an improved capital position relative to bank members of non-QCCPs. This may lower funding costs for bank members of QCCPs.⁶⁸⁷

Non-U.S. banks that are constrained by BCBS tier one capital requirements would face a shock to risk-weighted assets once capital rules come into force.⁶⁸⁸ The size of the shock depends on regulators' determinations with regard to QCCP status. Regardless of the size of the shock and to come into compliance with capital rules, however, affected banks will have to raise capital or reduce leverage. In the absence of perfect markets, these banks may incur ongoing costs as a result.

In quantifying the benefits of achieving QCCP status, the Commission based its estimate on publicly available information with regard to OCC.⁶⁸⁹ To estimate the upper bound for the potential benefits accruing to bank clearing members at OCC as a result of QCCP status, the Commission identified a sample of 28 bank clearing members at OCC and, for each bank, collected information about total assets, risk weighted assets, net income and tier one capital ratio at the holding company level for 2015.⁶⁹⁰ The Commission then

allocated trade exposures and default fund exposures across the sample of bank clearing members based on the level of risk-weighted assets.⁶⁹¹ The Commission measured the impact on risk-weighted assets for non-U.S. bank clearing members under two different capital treatment regimes. The first regime is in the absence of QCCP status, assuming a 100% risk weight applied to trade exposures and 1250% risk weight applied to default fund exposures for non-U.S. members. In the second regime, OCC obtains QCCP status, and banks are allowed to apply a 2% risk weight applied to trade exposures and a 1250% risk weight to default fund exposures up to a total exposure cap of 20% of trade exposures.⁶⁹² If OCC is determined to be a QCCP, then the increase in risk weighted assets will be smaller in magnitude, implying a smaller adjustment at lower cost. The Commission estimates that benefits associated with OCC obtaining QCCP status stemming from lower capital requirements against trade exposures to QCCPs as a result of the adopted rules to have an upper bound of \$1.2 billion per year, or approximately 0.73% of the total 2015 net income reported by the sample of bank clearing members at OCC.

The Commission's analysis is limited in several respects and relies on several

net income, and tier 1 capital ratios were collected from Y-9C reports available at the National Information Center, <https://www.ffiec.gov/nicpubweb/nicweb/nichome.aspx>. For non-U.S. bank holding companies, Commission staff obtained corresponding data from financial statements and supplementary financial materials posted to bank Web sites. Where necessary, values were converted back to U.S. dollars at December 31, 2015 exchange rates obtained from the Federal Reserve, available at <http://www.federalreserve.gov/releases/h10/hist/>.

⁶⁹¹ For example, one bank in the sample, with 5.53% of total risk-weighted assets, was assigned 5.53% of the total trade and default fund exposures while another bank in the sample, with 4.21% of total risk weighted assets, was assigned 4.21% of these exposures. Because trade exposures of OCC members against OCC are nonpublic, the Commission used the balance of OCC margin deposits and deposits in lieu of margin held at OCC, \$73.54 billion, as a proxy for trade exposures. OCC's 2015 clearing fund deposits were valued at \$12.08 billion. See OCC, 2015 Annual Report, available at <http://www.optionsclearing.com/components/docs/about/annual-reports/occ-2015-annual-report.pdf>.

⁶⁹² The BCBS capital framework allows banks to compute default fund exposures in two ways. Method 1 involves computing capital requirements for each member proportional to its share of an aggregate capital requirement for all clearing members in a scenario where to average clearing members default. The Commission currently lacks data necessary to compute default fund exposures under this approach, instead we use Method 2, which caps overall exposure to a QCCP at 20% of trade exposures. See BCBS capital framework, *supra* note 44, Annex 4, paras. 121–25 (outlining two methods for computing default fund exposures).

⁶⁸⁴ See *infra* Part III.B.1.e.

⁶⁸⁵ The Commission notes that benefits to banks that may arise as a result of the rules may be contingent upon regulators in other jurisdictions taking action to recognize the QCCP status of covered clearing agencies.

⁶⁸⁶ For a discussion of the effects of QCCP status on competition between bank and non-bank clearing members, see Part III.B.2.a.

⁶⁸⁷ See *supra* note 597 (noting that the Commission currently expects the lower capital treatment under the BCBS capital framework to affect registered clearing agencies FICC, ICEEU, and OCC, each of which would meet the definition of a "covered clearing agency").

⁶⁸⁸ As discussed above, the FRB and Office of Comptroller of the Currency have adopted rules implementing capital requirements under the BCBS capital framework that make capital treatment for exposures to CCPs independent of the adopted rules for U.S. banks regulated by these two agencies, and therefore the Commission believes no benefits would accrue to U.S. bank clearing members of FICC and OCC.

⁶⁸⁹ Under the BCBS capital framework, ICEEU and FICC's repurchase agreement segment would also be eligible for QCCP status. However, FICC does not report counterparties to repo agreements, and ICEEU does not separately report exposures related to security-based swap clearing, so we are currently unable to quantify potential benefits related to QCCP status for these entities.

⁶⁹⁰ The Commission used the set of entities it identified as banks on OCC's member list, available at <http://www.optionsclearing.com/membership/member-information/>. For U.S. bank holding companies, 2015 total assets, risk weighted assets,

assumptions. First, a limitation of our proxy for trade exposures and our use of OCC's clearing fund is that the account balances include deposits by bank clearing members, who would experience lower capital requirements under the BCBS capital framework, and non-bank clearing members who would not. The Commission assumes, for the purposes of establishing an upper bound for the benefits to market participants that are associated with QCCP status for OCC under the adopted rules, that the balance of both OCC's margin account and OCC's default fund are attributable only to bank clearing members. Additionally, we assume an extreme case where, in the absence of QCCP status, trade exposures against a CCP would be assigned a 100% risk weight, causing the largest possible shock to risk-weighted assets for affected banks.

Lower capital requirements on trade exposures to OCC would produce effects in the real economy only under certain conditions. First, agency problems, taxes, or other capital market imperfections could result in banks targeting a particular capital structure. Second, capital constraints on bank clearing members subject to the BCBS capital framework must bind so that higher capital requirements on bank clearing members subject to the BCBS capital framework in the absence of QCCP status would cause these banks to exceed capital constraints if they chose to redistribute capital to shareholders or invest capital in projects with returns that exceed their cost of capital. Using publicly available data, however, it is not currently possible to determine whether capital constraints will bind for bank clearing members when rules applying the BCBS capital framework come into force, so to estimate an upper bound for the effects of QCCP status on bank clearing members we assume that tier one capital constraints for all bank clearing members of OCC would bind in an environment with zero weight placed on bank exposures to CCPs.⁶⁹³

⁶⁹³ The Commission notes that, at present, no bank in its sample of bank clearing members of OCC is bound by capital requirements under the BCBS capital framework. For U.S. bank holding companies, tier 1 capital ratios were collected from Y-9C reports available at the National Information Center, <https://www.ffiec.gov/nicpubweb/nicweb/nichome.aspx>. For non-U.S. bank holding companies, Commission staff obtained corresponding data from financial statements and supplementary financial materials posted to bank Web sites. The Commission used data from 2013–2016 for its sample of U.S. bank clearing members, and from 2012–2015 for its sample of non-U.S. bank clearing members and assumed no bank-specific countercyclical capital buffers for these banks. This suggests a minimum tier 1 capital ratio of 10.1%, exceeding the BCBS minimum by 1.6%.

For the purposes of quantifying potential benefits from QCCP status, the Commission has also assumed that banks choose to adjust to new capital requirements by deleveraging. In particular, the Commission assumed that banks would respond by reducing risk-weighted assets equally across all risk classes until they reach the minimum tier one capital ratio under the Basel framework of 8.5%. We measure the ongoing costs to each non-U.S. bank by multiplying the implied change in total assets by each bank's return on assets, estimated using up to 14 years of annual financial statement data.⁶⁹⁴

The BCBS capital requirements for exposures to CCPs yield additional benefits for QCCPs that the Commission is currently unable to quantify due to lack of data concerning client clearing arrangements by banks. For client exposures to clearing members, the BCBS capital framework allows participants to reflect the shorter close-out period of cleared transactions in their capitalized exposures. The BCBS framework's treatment of exposures to CCPs also applies to client exposures to CCPs through clearing members. This may increase the likelihood that bank clients of bank clearing members that are subject to the BCBS capital framework share some of the benefits of QCCP status.

Furthermore, the fact that the BCBS capital framework applies to bank clearing members may have important implications for competition and concentration. While Rule 17Ad–22(e) may extend lower capital requirements against exposures to CCPs to non-U.S. bank clearing members of covered clearing agencies,⁶⁹⁵ the benefits of QCCP status will still be limited to bank clearing members. However, the costs associated with compliance with Rule 17Ad–22(e) may be borne by all clearing members, regardless of whether or not they are supervised as banks. A potential consequence of this allocation of costs and benefits may be “crowding out” of members of QCCPs that are not banks and will not experience benefits with respect to the BCBS capital framework. This may result in an unintended consequence of increased concentration of clearing activity among

⁶⁹⁴ This data has been taken from Compustat and from publicly available financial statements. Due to data limitations, for certain banks a shorter window was used for this calculation. The minimum sample window was six years.

⁶⁹⁵ See *supra* note 45 and accompanying text (noting that banks supervised by the FRB and Office of the Comptroller of the Currency would treat covered clearing agencies as QCCPs for the purposes of calculating regulatory capital ratios).

bank clearing members. As noted in Part III.B.1.d, this increased concentration could mean that each remaining clearing member becomes more important from the standpoint of systemic risk transmission.

In addition to benefits for bank clearing members, certain benefits resulting from QCCP status may also accrue to covered clearing agencies. If banks value lower capital requirements attributable to QCCP status, bank clearing members may prefer membership at QCCPs to membership at CCPs that are not QCCPs. A flight of clearing members from covered clearing agencies in the absence of QCCP status would result in default-related losses being mutualized across a narrower member base. Additionally, if the flight from covered clearing agencies results in lower transactional volume at these clearing agencies, then economies of scale may be lost, resulting in higher clearing fees and higher transaction costs in cleared products.

2. Effect on Competition, Efficiency, and Capital Formation

The amendments to Rule 17Ad–22 and Rule 17Ab2–2 have the potential to affect competition, efficiency, and capital formation. As with the rest of the benefits and costs associated with the amendments to Rule 17Ad–22, the Commission believes that several of the effects described below only occur to the extent that covered clearing agencies do not already have operations and governance mechanisms that conform to the requirements in Rule 17Ad–22(e). Additionally, the Commission believes that consistency with international regulatory frameworks, as embodied by the PFMI, which may promote the integrity of cleared markets, could have substantial effects on competition, efficiency, and capital formation.

a. Competition

Two important characteristics of the market for clearance and settlement services are high fixed costs and economies of scale. Large investments in risk management and information technology infrastructure costs, such as financial data database and network maintenance expenses, are components of high fixed costs for clearing agencies. Consequently, the clearance and settlement industry exhibits economies of scale in that the average total cost per transaction, which includes fixed costs, diminishes with the increase in transaction volume as high fixed costs are spread over a larger number of transactions.

Furthermore, high fixed costs translate into barriers to entry that

preclude competition. Lower competition is an important source of market power for clearing agencies. As a result, clearing agencies possess the ability to exert market power and influence the fees charged for clearance and settlement services in the markets they serve.⁶⁹⁶ Any costs resulting from the adopted amendments may have the effect of raising already high barriers to entry. As the potential entry of new clearing agencies becomes more remote, existing clearing agencies may be able to reduce service quality, restrict the supply of services, or increase fees above marginal cost in an effort to earn economic rents from participants in cleared markets.⁶⁹⁷

Even if they could not take advantage of a marginal increase in market power, clearing agencies may use their market power to pass any increases in costs that flow from the adopted amendments to their members. This may be especially true in the cases of member-owned clearing agencies, such as DTC, FICC, NSCC, and OCC, where members lack the opportunity to pass costs through to outside equity holders. Allowing clearing members to serve on the board of directors of a covered clearing agency may align a covered clearing agency's incentives with its membership. Certain complications may also arise, however, when clearing members sit on boards of covered clearing agencies as members of the board and may choose to allocate the costs of enhanced risk management inefficiently across potential competitors, in an effort to reduce their own share of these costs.

Members who are forced to internalize the costs of additional requirements under Rule 17Ad-22(e) may seek to terminate their membership. Additionally, prospective clearing members may find it difficult to join clearing agencies, given the additional costs they must internalize.⁶⁹⁸ Remaining clearing members may gain market power as a result, enabling them to extract economic rents from their customers. Rent extraction could take the form of higher transaction costs in cleared markets, thereby reducing efficiency, as discussed below.

The Commission also acknowledges that Rule 17Ad-22(e)(19) may affect competition among firms that choose to become clearing members, and those who provide clearing services indirectly, through a clearing member.

Monitoring and managing the risks associated with indirect participation in clearing may be costly. If monitoring and managing the risks associated with indirect participation in clearing proves costly for clearing agencies and if clearing agencies are able to pass the additional costs related to monitoring and managing risks to clearing members, it may cause marginal clearing members unable to absorb these additional costs to exit. While these exits may be socially efficient, since they reflect the internalization of costs otherwise imposed upon other participants in cleared markets through increased probability of clearing agency default, they may nevertheless result in lower competition among clearing members for market share, potentially providing additional market power to the clearing members that remain. Exits by clearing members could also reduce the resources available for customers to obtain replacement clearing services.

The Commission believes, however, that management of risks from indirect participation is important in mitigating the risks that clearing agencies pose to financial stability. The tiered participation risk exposures, including credit, liquidity, and operational risks inherent in indirect participation arrangements, may present risks to clearing agencies, their members, and to the broader financial markets. For instance, if the size of an indirect participant's positions is large relative to a clearing member's capacity to absorb risks, this may increase the clearing member's default risk. Consequently, a clearing agency with indirect participation arrangements may be exposed to the credit risk of an indirect participant through its clearing members. Similarly, a margin call on, or a default by, an indirect participant could constrain liquidity of its associated clearing members, making it more difficult for these members to manage their positions at the clearing agency.

The consistency across regulatory frameworks contemplated by the adopted rules may also affect competition. Financial markets in cleared products are global, encompassing many countries and regulatory jurisdictions. Consistency with international regulatory frameworks may facilitate entry of clearing agencies into new markets. By contrast, conflicting or duplicative regulation across jurisdictions, or even within jurisdictions, may cause competitive friction that inhibits entry and helps clearing agencies behave like local monopolists. Consistency in regulation can facilitate competition

among clearing agencies so long as regulation is not so costly as to discourage participation in any market. Additionally, the Commission believes that Rule 17Ad-22(e)(23) may facilitate competition among clearing agencies across jurisdictions by requiring public disclosures that enable market participants to compare clearing agencies more easily.

The consistency across regulatory requirements contemplated by the adopted rules may affect competition among banks in particular. Clearing derivative and repurchase agreement transactions through QCCPs will result in lower capital requirements for banks under the BCBS capital framework. Therefore, consistency with the PFMI may allow banks that clear these products through covered clearing agencies to compete on equal terms with banks that clear through other clearing agencies accorded QCCP status. This effect potentially countervails higher barriers to entry that enhanced risk management standards may impose on clearing members by lowering the marginal cost of clearing these transactions. Furthermore, covered clearing agencies potentially compete with one another for volume from clearing members. Since clearing members receive better treatment for exposures against QCCPs, clearing members will find it less costly to deal with QCCPs. Failure to establish requirements consistent with the PFMI may place U.S. covered clearing agencies at a competitive disadvantage globally.

The ability of covered clearing agencies to obtain QCCP status may also affect competition among clearing agencies. Under the BCBS capital framework, QCCP status would have practical relevance only for covered clearing agencies providing CCP services for derivatives, security-based swaps, and securities financing transactions. To the extent that the adopted rules increase the likelihood that banking regulators that have implemented the BCBS capital framework in their jurisdiction recognize covered clearing agencies as QCCPs, banks that clear at covered clearing agencies will experience lower capital requirements. Since clearing agencies may compete for volume from clearing members that are also banks, the adopted rules may remove a competitive friction between covered clearing agencies and other clearing agencies that enjoy recognition as QCCPs by banking regulators. As a corollary, the adopted rules could potentially disadvantage any registered clearing agencies that are not covered

⁶⁹⁶ See, e.g., CCA Standards proposing release, *supra* note 5, at 29593.

⁶⁹⁷ See *id.*

⁶⁹⁸ See *supra* Part III.B.1.d (discussing concentration both in the market for clearing services and among clearing members).

clearing agencies.⁶⁹⁹ The Commission also notes that the ability of registered clearing agencies to voluntarily apply for covered clearing agency status under Rule 17Ab2–2(a) may potentially allow entrants to achieve QCCP status if the Commission determines they should receive covered clearing agency status and they otherwise meet the requirements of the BCBS capital framework.

Further competitive effects may flow from the adoption as a result of the determinations under Rule 17Ab2–2 for clearing agencies engaged in activities with a more complex risk profile and clearing agencies that are systemically important in multiple jurisdictions. These entities will be responsible for maintaining additional financial resources sufficient to cover the default of the two participant families that would potentially cause the largest aggregate credit exposures in extreme but plausible market conditions as well as undertake an annual feasibility analysis for extending liquidity risk management from “cover one” to “cover two.” These clearing agencies will have to collect these resources from participants, either through higher margin requirements or guaranty fund contributions, or indirectly through third-party borrowing arrangements secured by member resources. Regardless of how clearing agencies obtain these additional resources, the requirement to do so potentially raises the costs to use services provided by covered clearing agencies. Moreover, these additional costs could raise barriers to entry in the market or to opt out of clearing altogether.

b. Efficiency

The amendments to Rule 17Ad–22 may affect efficiency in a number of ways, though as discussed previously, most of these effects will only flow to the extent that covered clearing agencies do not already comply with the amendments. First, because the amendments result in general consistency with the PFMI and requirements adopted by the CFTC and FRB, consistency likely fosters efficiency by reducing the risk that covered clearing agencies will be faced with conflicting or duplicative regulation when clearing financial products across multiple regulatory jurisdictions.

Consistency across regulatory regimes in multiple markets may also result in efficiency improvements. Fully integrated markets would allow clearing agencies to more easily exploit economies of scale because clearing agencies tend to have low marginal costs and, thus, could provide clearance and settlement services over a larger volume of transactions at a lower average cost. Differences in regulation, on the other hand, may result in market fragmentation, allowing clearing agencies to operate as local monopolists. The resulting potential for segmentation of clearing and settlement businesses along jurisdictional lines may lead to overinvestment in the provision of clearing services and reductions in efficiency as clearing agencies open and operate solely within jurisdictional boundaries. If market segmentation precludes covered clearing agencies from clearing transactions for customers located in another jurisdiction with a market too small to support a local clearing agency, fragmentation may result in under-provisioning of clearing and settlement services in these areas, in turn reducing the efficiency with which market participants share risk.

The amendments may also affect efficiency directly if they mitigate covered clearing agencies’ incentives to underinvest in risk management and recovery and wind-down procedures. CCP default and liquidation is likely a costly event, so to the extent that the rules mitigate the risk of CCP default and prescribe rules for orderly recovery and wind-down, they will produce efficiency benefits. Another direct effect on efficiency may come if registered clearing agencies attempt to restructure their operations in ways that would allow them to fall outside of the scope of Rule 17Ad–22(e).

Finally, price efficiency and the efficiency of risk sharing among market participants may be affected by the amendments. On one hand, the cost of a transaction includes costs related to counterparty default that are typically unrelated to fundamental asset payoffs. Academic research using credit default swap transaction data has revealed a statistically significant, though economically small, relationship between the credit risk of a counterparty and the spreads implicit in transaction prices.⁷⁰⁰ Enhanced risk management by

clearing agencies may reduce this component of transaction costs. By reducing deviations of prices from fundamental value, the amendments may increase price efficiency. If lower transaction costs or reduced ambiguity facilitates participation in cleared markets by investors who would benefit from opportunities for risk-sharing in these markets,⁷⁰¹ then this transmission channel may result in more efficient allocation of risk. On the other hand, the amendments may have adverse implications for price efficiency in cleared markets if they drive up transaction costs as higher costs of risk management enter asset prices. An increase in transaction costs could cause certain market participants to avoid trading altogether, reducing liquidity in cleared products and opportunities for risk sharing among investors in these markets.

c. Capital Formation

The implications for capital formation that flow from the amendments to Rule 17Ad–22 and Rule 17Ab2–2 stem mainly from incremental costs that result from compliance with more specific standards and benefits in the form of more efficient risk sharing.

In cases where current practice falls short of the amendments, covered clearing agencies may have to invest in infrastructure or make other expenditures to come into compliance, which may divert capital from other uses. In line with our previous discussion of cost allocation in the market for clearing services, these resources may come from clearing members and their customers.⁷⁰²

At the same time, the Commission believes that the standards contemplated under the rules may foster capital formation. As mentioned earlier, clearing agencies that are less prone to failure may help reduce transaction costs in the markets they clear.⁷⁰³ Conceptually, the component of transaction costs that reflects counterparty credit risk insures one counterparty against the default of

dealer’s credit spread would produce a one-basis-point increase in transaction prices. They explain the magnitude of this relationship by noting that their sample included transactions that were mostly collateralized, which would diminish the sensitivity of transaction prices to counterparty credit risk.

⁷⁰¹ If investors who might benefit from risk-sharing in cleared markets are ambiguity-averse, then regulation that addresses payoffs in times of financial strain may induce their participation. See *supra* note 669 and accompanying text.

⁷⁰² See *supra* Part III.B.1 (discussing the economic effects of the rules on the market for clearing services).

⁷⁰³ See *supra* Part III.B.1.a (discussing the economic effects of the rules on systemic risk).

⁶⁹⁹ See *supra* note 597 (noting that the Commission currently expects the lower capital treatment under the BCBS capital framework to affect registered clearing agencies FICC, ICEEU, and OCC, each of which would meet the definition of a “covered clearing agency” in Rule 17Ad–22(a)(5)).

⁷⁰⁰ See e.g., Navneet Arora, Priyank Gandhi & Francis Longstaff, Counterparty Credit Risk and the Credit Default Swap Market, 103 J. Fin. Econ. 280 (2012). Using transaction prices and quotes by 14 different CDS dealers, the authors identified how dealers’ credit risk affects transaction prices. They observed a relationship between spreads and credit risk implying that a 645-basis-point increase in a

another.⁷⁰⁴ Reductions in counterparty default risk allow the corresponding portion of transaction costs to be allocated to more productive uses by market participants who otherwise would bear these costs.

If, on balance, the adopted amendments cause transaction costs to decrease in cleared markets, then the expected value of trade may increase. Counterparties that are better able to diversify risk through participation in cleared markets may be more willing to invest in the real economy rather than choosing to engage in precautionary savings.

3. Effect of Amendments to Rule 17Ad-22 and Rule 17Ab2-2

The discussion below outlines the costs and benefits considered by the Commission as they relate to the rules being adopted today. These specific costs and benefits are in addition to the more general costs and benefits anticipated under the Commission's proposal discussed in Part III.B.1 and include, in particular, the costs and benefits stemming from the availability of QCCP status under the BCBS capital framework. Many of the costs and benefits discussed below are difficult to quantify. This is particularly true where clearing agency practices are anticipated to evolve and adapt to changes in technology and other market developments. The difficulty in quantifying costs and benefits of the adopted rules is further exacerbated by the fact that in some cases the Commission lacks information regarding the specific practices of clearing agencies that could assist in quantifying certain costs. For example, as noted in Part I.A.1.a.i(4), without detailed information about the composition of illiquid assets held by clearing agencies and their members, the Commission cannot provide reasonable estimates of costs associated with satisfying substantive requirements under Rules 17Ad-22(e)(7)(i) and (ii). Another example, discussed in Part I.A.1.a.i(5), is testing and validation of financial risk models, where the Commission is only able to estimate that costs will fall within a range. In this case, the costs associated with substantive requirements under the rules may depend on the types of risk models employed by clearing agencies, which are, in turn, dictated by the markets they serve. As a result, much of the discussion is qualitative in nature, though where possible, the costs and benefits have been quantified.

a. Rule 17Ad-22(e)

The Commission recognizes that the scope of Rule 17Ad-22(e) is an important determinant of its economic effect. Having considered the anticipated costs and benefits associated with Rule 17Ad-22(e), the Commission believes Rule 17Ad-22(e) should apply to a "covered clearing agency," as defined in Rule 17Ad-22(a)(5).⁷⁰⁵ In particular, as discussed below, the Commission believes that an important benefit resulting from the enhanced risk management requirements in the rules is a reduction in the risk of a failure of a covered clearing agency. For example, these benefits may be significant due to the clearing agencies' size, exposure to, and interconnectedness with market participants, and the effect their failure may have on markets, market participants, and the broader financial system. For complex risk profile clearing agencies, significant benefits may flow as a result of their higher baseline default risk.

As an alternative, the Commission could have extended the scope of Rule 17Ad-22(e) to cover all registered clearing agencies. The Commission acknowledges, however, that clearing agencies are involved in differing products and markets that carry varying levels of risk. Further, the costs of compliance with the rules may represent barriers to entry for clearing agencies. By continuing to apply Rule 17Ad-22(d) to registered clearing agencies that are not covered clearing agencies, the Commission believes that the scope of Rule 17Ad-22(e) appropriately preserves the potential for the continuing development of the national system for clearance and settlement and maintains innovation in the operation of registered clearing agencies.⁷⁰⁶

i. Rule 17Ad-22(e)(1): Legal Risk

Because, as noted above, Rule 17Ad-22(e)(1) would require substantially the same set of policies and procedures as Rule 17Ad-22(d)(1),⁷⁰⁷ the Commission

believes that Rule 17Ad-22(e)(1) would likely impose limited material additional costs on covered clearing agencies and produce limited benefits, in line with the general economic considerations discussed in Part III.B.1.

ii. Rule 17Ad-22(e)(2): Governance

Each covered clearing agency has a board of directors that governs its operations and oversees its senior management. Rule 17Ad-22(e)(2) would establish more detailed requirements for governance arrangements at covered clearing agencies relative to those imposed on registered clearing agencies under Rule 17Ad-22(d)(8).⁷⁰⁸

The Commission understands that any covered clearing agency subject to the rule has policies and procedures in place that clearly prioritize the risk management and efficiency of the clearing agency. However, the Commission believes that covered clearing agencies do not already have in place policies and procedures with respect to other requirements under Rule 17Ad-22(e)(2). Based on its supervisory experience, the Commission believes that some covered clearing agencies may need to update their policies and procedures to comply with Rule 17Ad-22(e)(2)(iv). These updates will entail certain basic compliance costs, and covered clearing agencies may also incur assessment costs related to analyzing current governance arrangements to determine the extent to determine which they do not meet the requirements of the amendments. The estimated costs in terms of paperwork are discussed in Part IV. If, as a result of new policies and procedures, a covered clearing agency is required to recruit new directors, the Commission estimates a cost per director of \$73,912.⁷⁰⁹

While there are potential costs associated with compliance, the Commission believes that benefits would potentially accrue from these requirements. Specifically, the Commission believes that enhanced governance arrangements would further promote safety and efficiency at the clearing agency—motives that may not be part of a clearing agency's governance arrangements in the absence of regulation. Policies and procedures required under Rule 17Ad-22(e)(2)

⁷⁰⁵ See Part II.A.1.

⁷⁰⁶ The Commission notes that under Rule 17Ab2-2(a), a registered clearing agency that is not involved in activities with a more complex risk profile and is not a designated clearing agency may apply for covered clearing agency status, which would subject them to the requirements of Rule 17Ad-22(e). The Commission believes that this may occur if the registered clearing agency believes such status may credibly signal the quality of the services it provides or if it is seeking to obtain QCCP status under the BCBS capital framework.

⁷⁰⁷ See *supra* note 179; *supra* Part II.C.1 (discussing the full set of requirements under Rule 17Ad-22(e)(1)); *supra* Part III.A.2.a (discussing current practices among registered clearing agencies regarding legal risk); see also 17 CFR 240.17Ad-22(d)(1).

⁷⁰⁸ See *supra* Part II.C.2 (discussing the full set of requirements under Rule 17Ad-22(e)(2)).

⁷⁰⁹ The Commission estimated a cost per director of \$68,000 in proposing Regulation MC. See Exchange Act Release No. 34-63107 (Oct. 14, 2010), 75 FR 65881, 65921 & n.215 (Oct. 26, 2010). The \$73,912 estimate reflects this amount in 2015 dollars, using consumer price inflation data provided by the Bureau of Labor Statistics.

⁷⁰⁴ See *supra* note 700.

would also reinforce governance arrangements at covered clearing agencies by requiring board members and senior management to have appropriate experience and skills to discharge their duties and responsibilities.

Compliance with these requirements could reduce the risk that insufficient internal controls within a covered clearing agency endanger broader financial stability. While the benefits of compliance are difficult to quantify, the Commission believes that they flow predominantly from a reduced probability of covered clearing agency default.

iii. Rule 17Ad–22(e)(3): Comprehensive Framework for the Management of Risks

The Commission believes that Rule 17Ad–22(e)(3) would aid covered clearing agencies in implementing a systematic process to examine risks and assess the probability and impact of those risks.⁷¹⁰ Rule 17Ad–22(e)(3)(i) specifies that a risk management framework include policies and procedures reasonably designed to identify, measure, monitor, and manage the range of risks that arise in or are borne by the covered clearing agency. Critically, these policies and procedures would be subject to review on a specified basis and approval by the board of directors annually. A sound framework for comprehensive risk management under regular review would have the benefits of providing covered clearing agencies with a better awareness of the totality of risks they face in the dynamic markets they serve. In addition, the requirement to have policies and procedures that provide for an independent audit committee of the board and that provide internal audit and risk management functions with sufficient resources, authority, and independence from management, as well as access to risk and audit committees of the board, would reinforce governance arrangements directly related to risk management at covered clearing agencies. A holistic approach to risk management could help ensure that policies and procedures that covered clearing agencies adopt pursuant to the rules work in tandem with one another. For example, such an approach could result in risk-based membership standards under Rule 17Ad–22(e)(18) that are consistent with policies and procedures related to the allocation of credit losses under Rule 17Ad–22(e)(13)(i). The Commission believes ensuring that a

covered clearing agency's risk management activities fit within a unified framework could mitigate the risk of financial losses to covered clearing agencies' members and participants in the markets they serve.

Additionally, the rule extends requirements under Rules 17Ad–22(d)(4) and 17Ad–22(d)(11) by requiring plans for recovery and orderly wind-down.⁷¹¹ To the extent that covered clearing agencies do not already have such plans in place, they would incur incremental costs to develop such plans. Recovery and resolution planning can benefit both clearing members and, more generally, participants in markets where products are cleared. Many of the costs and benefits of such plans depend critically on the specific recovery and wind-down tools that covered clearing agencies choose to include in their rules. The presence of such plans could reduce uncertainty over the allocation of financial losses to clearing members in the event that a covered clearing agency faces losses due to member default or for other reasons that exceed its prefunded default resources. Further, recovery and orderly wind-down plans that detail the circumstances under which clearing services may be suspended or terminated may mitigate the risk of market disruption in periods of financial stress. Market participants who face the possibility that the assets they trade may no longer be cleared and settled by a CCP may be unwilling to trade such assets at times when risk sharing is most valuable. While the effects are difficult to quantify, the Commission believes that recovery and orderly wind-down plans ensure that a covered clearing agency is able to remain resilient in times of market stress.

Based on its supervisory experience, the Commission believes that all covered clearing agencies have an independent audit committee of the board. The Commission further believes that most covered clearing agencies already have policies or procedures that may be relevant to issues arising in recovery and/or wind-down of clearing operations. As a result, the benefits and costs associated with these requirements will likely be limited to incremental changes associated with covered clearing agencies' review of such policies and procedures and further development of plans for recovery and orderly wind-down and to registered clearing agencies that become covered clearing agencies.

⁷¹¹ See *supra* Part II.C.3.b.iii (discussing the requirements for recovery and orderly wind-down plans under Rule 17Ad–22(e)(3)(ii)).

iv. Rules 17Ad–22(e)(4) through (7): Financial Risk Management

(1) Rule 17Ad–22(e)(4): Credit Risk

Rule 17Ad–22(e)(4) would establish requirements for credit risk management by covered clearing agencies.⁷¹² Based on its supervisory experience, the Commission believes that all entities that would be covered clearing agencies are already in compliance with Rules 17Ad–22(e)(4)(i) through (iv). Pursuant to Rule 17Ad–22(b)(3), registered clearing agencies that provide CCP services currently maintain additional financial resources to meet the “cover one” requirement, and registered clearing agencies that would be complex risk profile clearing agencies under the adopted rules currently maintain financial resources to meet the “cover two” requirement.⁷¹³ All covered clearing agencies exclude resources that are not prefunded when calculating this coverage.⁷¹⁴ As a result, the Commission believes little or no additional direct costs or benefits will result from these requirements unless registered clearing agencies were to become covered clearing agencies and include resources that are not prefunded towards their resource requirements. The requirement to include only prefunded resources when calculating the financial resources available to meet the standards under Rules 17Ad–22(e)(4)(ii) and (iii) potentially reduces the risk that covered clearing agencies request financial resources from their members in times of financial stress, when members are least able to provide these resources.

While requiring “cover two” for complex risk profile clearing agencies and for covered clearing agencies designated systemically important in multiple jurisdictions would place additional requirements on the affected clearing agencies, the Commission believes that the requirement is appropriate because disruption to these entities due to member default carries relatively higher expected costs than for other covered clearing agencies. These relatively higher expected costs arise from the fact that covered clearing agencies designated systemically important in multiple jurisdictions are exposed to foreign financial markets and

⁷¹² See *supra* Part II.C.4 (discussing the full set of requirements under Rule 17Ad–22(e)(4)).

⁷¹³ The Commission also notes that no covered clearing agency would be systemically important in multiple jurisdictions unless and until the Commission made such a determination pursuant to Rule 17Ab2–2. See *supra* Part II.D (discussing the determinations process under Rule 17Ab2–2).

⁷¹⁴ See *supra* Part III.A.2.d.i (discussing current practices regarding credit risk management at registered clearing agencies).

⁷¹⁰ See *supra* Part II.C.3 (discussing the full set of requirements under Rule 17Ad–22(e)(3)).

may serve as a conduit for the transmission of risk; for complex risk profile clearing agencies, high expected costs may arise from discrete jump-to-default price changes in the products they clear and higher correlations in the default risk of members.⁷¹⁵

Rule 17Ad-22(e)(4)(vi) and (vii) would also impose additional costs by requiring additional measures to be taken with respect to the testing of a covered clearing agency's financial resources and model validation of a covered clearing agency's credit risk models. These requirements do not currently exist as part of the standards applied to registered clearing agencies.⁷¹⁶ Covered clearing agencies may incur additional costs under expanded and more frequent testing of total financial resources if the formal requirement that results of monthly testing be reported to appropriate decision makers is a practice not currently used by covered clearing agencies. A range of costs for these new requirements is discussed in Part I.A.1.a.i(5).

Frequent monitoring and stress testing of total financial resources, model validations, and reporting of results of the monitoring and testing to appropriate personnel within the clearing agency could help rapidly identify any gaps in resources required to ensure stability, even in scenarios not anticipated on the basis of historical data. Moreover, the requirement to test and, when necessary, update the assumptions and parameters supporting models of credit risk will support the adjustment of covered clearing agency financial resources to changing financial conditions, and mitigate the risk that covered clearing agencies will strategically manage updates to their risk models in support of cost reduction or profit maximization.

The Commission believes that most covered clearing agencies will be required to update their policies and procedures as a result of Rules 17Ad-22(e)(4)(viii) and (ix). Clearing members may experience benefits from 17Ad-22(e)(4)(viii), which requires covered clearing agencies to provide disclosure to members regarding the allocation of default losses when these losses exceed the level of financial resource it has available. As a result of this additional transparency, clearing members may

experience an improved ability to manage their expectations of potential obligations against the covered clearing agency, which may increase the likelihood of orderly wind-downs in the event of member default. Crafting such allocation plans by covered clearing agencies may entail certain compliance costs, as discussed further in Part III.B.3.d. Further, covered clearing agencies may allocate default losses in a number of ways that may themselves have implications for participation, competition, and systemic risk.⁷¹⁷ For example, if, as a part of a default resolution plan, selective tear-up is contemplated after a failed position auction, then clearing members who expect low loss exposure in the tear-up may not have adequate incentives to participate in the position auction, even if they are better able to absorb losses than clearing members who expect high exposure in the tear-up plan. This would increase the chances of a failed auction and the chances of a protracted and more disruptive wind-down. Thus, the total costs of any loss allocation plan may depend largely on the particular choices embedded in covered clearing agencies' plans.

Rule 17Ad-22(e)(4)(ix) contains new provisions related to the replenishment of financial resources that do not appear in Rule 17Ad-22(d)(11). The Commission believes that the rules related to replenishment of financial resources may reduce the potential for systemic risk and contagion in cleared markets, as they facilitate covered clearing agencies' prompt access to these resources in times of financial stress.

(2) Rule 17Ad-22(e)(5): Collateral

Rule 17Ad-22(e)(5) would require a covered clearing agency to have policies and procedures reasonably designed to limit the assets it accepts as collateral to those with low credit, liquidity, and market risks, and to set and enforce appropriately conservative haircuts and concentration limits. Collateral haircut and concentration limit models would be subject to a not-less-than-annual review of their sufficiency.⁷¹⁸ Rule 17Ad-22(d)(3) currently requires registered clearing agencies to have policies and procedures reasonably designed to hold assets in a manner that minimizes risk of loss or risk of delay in access to them and invest assets in

instruments with minimal credit, market, and liquidity risk.

By focusing on the nature of assets and not on accounts, the Commission believes the adopted rule may allow covered clearing agencies the ability to manage collateral more efficiently. In particular, under the adopted rule, a covered clearing agency would have the option of accepting collateral that is riskier than cash and holding this collateral at commercial banks, potentially increasing default risk exposure. On the other hand, the requirement to regularly review concentration limits and haircuts mitigates the risk that a covered clearing agency's collateral policies fail to respond to changing economic conditions. Based on its supervisory experience, the Commission understands that all registered clearing agencies that would meet the definition of a covered clearing agency already conform to the requirements under the adopted rule related to the nature of assets they may accept as collateral and the haircuts and concentration limits they apply to collateral assets, so the associated costs and benefits that would result from these requirements would apply only if registered clearing agencies not already in compliance were to become covered clearing agencies.

As a result of the rule, these covered clearing agencies and registered clearing agencies that become covered clearing agencies may experience additional costs as a result of the annual review requirements for the sufficiency of collateral haircut and concentration limit models. Based on its supervisory experience, the Commission believes that many clearing agencies that require collateral would need to develop policies and procedures to review haircuts and concentration limits annually. Enforcement of the haircut requirement would also require additional resources. A range of costs for these new requirements is discussed in Part I.A.1.a.i(5). Adherence to these requirements by these entrants could extend the benefits of prompt loss coverage, incentive alignment, and systemic risk mitigation to a larger volume of cleared transactions.

(3) Rule 17Ad-22(e)(6): Margin

Rule 17Ad-22(e)(6) would require a covered clearing agency that provides CCP services to have policies and procedures reasonably designed to require it to cover credit exposures using a risk-based margin system and to establish minimum standards for such a system. It would require these policies and procedures to cover daily collection of variation margin. The rule also

⁷¹⁵ Cf. PFMI, *supra* note 2, at 43 (discussing Principle 4, Explanatory Note 3.4.19).

⁷¹⁶ Rule 17Ad-22(b)(4) requires a registered clearing agency's policies and procedures be reasonably designed to provide for an annual validation of its margin models and the related parameters and assumptions. See 17 CFR 240.17Ad-22(b)(4).

⁷¹⁷ See, e.g., Elliot, *supra* note 616 (discussing various loss-allocation rules and CCP recovery and wind-down).

⁷¹⁸ See *supra* Part II.C.5 (discussing the full set of requirements under Rule 17Ad-22(e)(5)).

requires a set of policies and procedures generally designed to support a reliable margin system. Among these are policies and procedures to ensure the use of reliable price data sources and appropriate methods for measuring credit exposure, which could improve margin system accuracy. Finally, covered clearing agencies would be required to have policies and procedures related to the testing and verification of margin models.⁷¹⁹ Rules 17Ad-22(a)(6) and (14) support these requirements by addressing the means of verification for margin models and the level of coverage required of a margin system against potential future exposures, respectively. Based on its supervisory experience, however, the Commission understands that all current covered clearing agencies have policies and procedures that conform to the requirements under Rules 17Ad-22(e)(6)(i) through (v) and (vii), and some will have to update their policies and procedures to comply with Rule 17Ad-22(e)(6)(vi).

Similar to Rules 17Ad-22(e)(4) and (7), covered clearing agencies that do not already engage in backtesting of margin resources at least once each day or engage in a monthly analysis of assumptions and parameters, as well as registered clearing agencies that become covered clearing agencies in the future, may incur incremental compliance costs as a result of the adopted rule. Since margin plays a key role in clearing agency risk management, however, requiring that margin be periodically verified and modified as a result of changing market conditions may mitigate the risks posed by covered clearing agencies to financial markets in periods of financial stress. Further, periodic review of model specification and parameters reduces the likelihood that covered clearing agencies opportunistically update margin models in times of low volatility and fail to update margin models in times of high volatility. A range of costs for verification and modification of margin models is discussed in Part I.A.1.a.i(5). Further, since risk-based initial margin requirements may cause market participants to internalize some of the costs borne by the CCP as a result of large or risky positions,⁷²⁰ ensuring that

margin models are well-specified and correctly calibrated with respect to economic conditions will help ensure that they continue to align the incentives of clearing members with the goal of financial stability.

(4) Rule 17Ad-22(e)(7): Liquidity Risk

Rule 17Ad-22(e)(7) would require a covered clearing agency to have policies and procedures reasonably designed to effectively monitor, measure, and manage liquidity risk.⁷²¹ Parties to securities and derivatives transactions rely on clearing agencies for prompt clearance and settlement of transactions. Market participants in centrally cleared and settled markets are often linked to one another through intermediation chains in which one party may rely on proceeds from sales of cleared products to meet payment obligations to another party. If insufficient liquidity causes a clearing agency to fail to meet settlement or payment obligations to its members, consequences could include the default of a clearing member who may be depending on these funds to make a payment to another market participant, with losses then transmitted to others that carry exposure to this market participant if the market participant is depending on payments from the clearing members to make said payments to others. Therefore, the benefits related to liquidity risk management generally flow from the reduced risk of systemic risk transmission by covered clearing agencies as a result of liquidity shortfalls, either in the normal course of operation or as a result of member default.

Enhanced liquidity risk management may produce additional benefits. Clearing members would face less uncertainty over whether a covered clearing agency has the liquidity resources necessary to make prompt payments which would reduce any need to hedge the risk of nonpayment. Potential benefits from enhanced liquidity risk management may also extend beyond members of covered clearing agencies or markets for centrally cleared and settled securities. Clearing members are often members of larger financial networks, and the ability of a covered clearing agency to meet payment obligations to its members can directly affect its members' ability to meet payment obligations outside of the cleared market. Thus, management of liquidity risk may mitigate the risk of contagion between asset markets.

Based on its supervisory experience, the Commission believes that some covered clearing agencies would need to create new policies and procedures, or update existing policies and procedures, to meet requirements under the various subsections of Rule 17Ad-22(e)(7). These actions would entail compliance costs, as described in Part III.B.3.d. Further, the Commission believes that for some covered clearing agencies the adopted requirements would require them to establish new practices. The cost of adherence to the rule would likely be passed on to market participants in cleared markets, as discussed in more detail below.

Under Rule 17Ad-22(e)(7)(i), a covered clearing agency would be required to have policies and procedures reasonably designed to require maintaining sufficient resources to achieve "cover one" for liquidity risk. This requirement mirrors the "cover one" requirement for credit risk in Rule 17Ad-22(e)(4)(iii). Based on its supervisory experience, the Commission believes that many covered clearing agencies do not currently meet a "cover one" requirement for liquidity and thus will likely incur costs to comply with this rule. As discussed earlier, whether covered clearing agencies choose to gather liquidity directly from members or instead choose to rely on third-party arrangements, the costs of liquidity may be passed on to other market participants, eventually increasing transaction costs.⁷²² The requirement may, however, reduce the procyclicality of covered clearing agencies' liquidity demands, which may reduce costs to market participants in certain situations. For instance, the requirement would reduce the likelihood that a covered clearing agency would have to call on its members to contribute additional liquidity in periods of financial stress, when liquidity may be most costly.

Under Rule 17Ad-22(e)(7)(ii), a covered clearing agency would be required to have policies and procedures reasonably designed to ensure that it meets the minimum liquidity resource requirement in Rule 17Ad-22(e)(7)(i) with qualifying liquid resources.⁷²³ Qualifying liquid resources would include cash held at the central bank or at a creditworthy commercial bank, assets that are readily converted into cash pursuant to committed lines of credit, committed foreign exchange swaps, committed

⁷¹⁹ See *supra* Part II.C.6 (discussing the full set of requirements under Rule 17Ad-22(e)(6)).

⁷²⁰ See, e.g., Philipp Haene & Andy Sturm, Optimal Central Counterparty Risk Management (Swiss Nat'l Bank Working Paper, June 2009) (addressing the tradeoff between margin and default fund, considering collateral costs, clearing member default probability, and the extent to which margin requirements are associated with risk mitigating incentives).

⁷²¹ See *supra* Part II.C.7 (discussing the full set of requirements under Rule 17Ad-22(e)(7)).

⁷²² See *supra* Part III.B.1.d (discussing the effect of the rules on concentration in the market for clearing services and among clearing members).

⁷²³ See Rule 17Ad-22(a)(14), *infra* Part VI (defining "qualifying liquid resources").

repurchase agreements or other highly reliable prearranged funding agreements, or assets that may be pledged to a central bank in exchange for cash (if the covered clearing agency has access to routine credit at a central bank). The Commission notes that the adopted rules allow covered clearing agencies some measure of flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to manage their qualifying liquid resources and that covered clearing agencies would be able to use creditworthy commercial bank services where appropriate.

Based on its supervisory experience, the Commission believes that some covered clearing agencies currently do not meet the liquidity requirements with qualifying liquid resources. As an alternative to the adopted rules, the Commission could have restricted the definition of qualifying liquid resources to assets held by covered clearing agencies. These covered clearing agencies and the markets they serve would benefit from the adopted minimum requirements for liquidity resources in terms of the reduced risk of liquidity shortfalls and associated contagion risks described above. However, qualifying liquid resources may be costly for covered clearing agencies to maintain on their own balance sheets. Such resources carry an opportunity cost. Assets held as cash are, by definition, not available for investment in less liquid assets that may be more productive uses of capital. This cost may ultimately be borne by clearing members who contribute liquid resources to covered clearing agencies to meet minimum requirements under Rule 17Ad-22(e)(7)(ii) and their customers.

The Commission notes that, under the adopted rules, covered clearing agencies have flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to meet their qualifying liquid resource requirements in a number of ways. In perfect capital markets, maintaining on-balance-sheet liquidity resources should be no more costly than entering into committed lines of credit or prearranged funding agreements backed by less-liquid assets that would allow these assets to be converted into cash. However, market frictions, such as search frictions, may enable banks to obtain liquidity at lower cost than other firms. In the presence of such frictions, obtaining liquidity using committed and uncommitted funding arrangements provided by banks may prove a less costly option for some covered clearing agencies than holding additional liquid resources on their

balance sheets. In particular, the Commission believes that requiring covered clearing agencies to enter into committed or uncommitted funding arrangements would decrease the costs that would be experienced by them in the event they sought to liquidate securities holdings during periods of market disruptions and increase the likelihood that they meet funding obligations to market participants by reducing the risk of delay in converting non-cash assets into cash.

The Commission notes that committed or uncommitted funding arrangements would only count towards minimum requirements to the extent that covered clearing agencies had securities available to post as collateral, so use of these facilities may require covered clearing agencies to require their members to contribute more securities. If these securities are costly for clearing members to supply, then additional required contributions to meet minimum requirements under Rule 17Ad-22(e)(7)(ii) may impose costs on clearing members and their customers. Similarly, prearranged funding arrangements may entail implicit costs to clearing members. Prearranged funding arrangements could impose costs on clearing members if they are obligated to contribute securities towards a collateral pool that the covered clearing agency would use to back borrowing. Alternatively, clearing members may be obligated under a covered clearing agency's rules to act as counterparties to repurchase agreements. Under the latter scenario, clearing members would bear costs associated with accepting securities in lieu of cash. Additionally, the Commission notes certain explicit costs specifically associated with these arrangements outlined below.

Counterparties to committed arrangements allowable under Rule 17Ad-22(a)(14) charge covered clearing agencies a premium to provide firm liquidity commitments and additional out-of-pocket expenses will be incurred establishing and maintaining committed liquidity arrangements. The Commission estimates that the total cost of committed funding arrangements will be approximately 30 basis points per year, including upfront fees, legal fees, commitment fees, and collateral agent fees.⁷²⁴ Furthermore, the Commission is

⁷²⁴ See Letter from Kim Taylor, President, CME Clearing, to Melissa Jurgens, Office of the Secretariat, CFTC (Sept. 16, 2013), at 13 & n.48 (noting CME's assumption that the cost of committed liquidity or committed repurchase facilities is approximately \$3 million for every \$1 billion of required committed facilities, including

aware of other potential consequences of these arrangements. In some instances, they may cause entities outside of a covered clearing agency to bear risks ordinarily concentrated within the covered clearing agency, while, in others, these arrangements may result in increased exposure of covered clearing agencies to certain members.⁷²⁵ Financial intermediaries that participate in committed credit facilities may be those least able to provide liquidity in times of financial stress, so these commitments may represent a route for risk transmission.⁷²⁶ Finally, the Commission notes that covered clearing agencies may face constraints in the size of credit facilities available to them. Recent market statistics have estimated the total size of the committed credit facility market in the U.S. at \$2.3 trillion with 15 of 3,740 facilities exceeding \$10 billion in size.⁷²⁷ Given the volume of activity at covered clearing agencies, it is possible that they may only be able to use committed credit facilities to meet a portion of their liquidity requirements under Rule 17Ad-22(e)(7)(ii).

A covered clearing agency may alternatively use a prearranged funding arrangement determined to be highly reliable in extreme but plausible market conditions to raise liquid resources backed by non-cash assets but that does not require firm commitments from liquidity providers. This strategy would avoid certain of the explicit fees associated with firm commitments, while incurring costs related to the annual review and maintenance of such arrangements. Based on its supervisory experience and discussions with market participants, the Commission believes the cost associated with commitment fees to be between 5 and 15 basis points per year. Given the 30 basis point cost associated with committed funding arrangements, mentioned above, uncommitted facilities could entail

upfront fees, commitment fees, legal fees, and collateral agent fees).

⁷²⁵ See *id.* at 11.

⁷²⁶ See Letter from Robert C. Pickel, CEO, ISDA to Secretary, CFTC (Sept. 16, 2013), at 4 (discussing collateral and liquidity requirements); see also Craig Pirrong, *Clearing and Collateral Mandates: A New Liquidity Trap?*, 24 J. Applied Corp. Fin. 67 (2012).

⁷²⁷ These estimates are based on the number of deals issued in 2015 as reported by the DealScan database from Thomson Reuters Markets LLC. Suspended and cancelled deals were omitted. U.S. deals were defined based on the country of the borrower's principal executive offices, as reported in DealScan, due to data availability. In cases of multiple facilities within the deal, the loan deal date is the earliest facility date. Estimates for corporate borrowers refer to non-financial private sector borrowers.

costs of between 15 and 25 basis points.⁷²⁸ Prearranged funding arrangements may ultimately prove less costly than holding cash and may be more widely available than committed arrangements, while still reducing the likelihood of delay faced by covered clearing agencies that attempt to market less-liquid assets. As mentioned above in the context of committed credit facilities, the Commission acknowledges that financial institutions who offer to provide liquidity to covered clearing agencies on an uncommitted basis may be least able to do so in times of financial stress, when access to liquidity is most needed by the covered clearing agency. Without a commitment in place, counterparties retain the option to fail to provide liquidity during stressed conditions, when liquidity is most valuable to clearing agencies and the markets they serve. To the extent covered clearing agencies may establish requirements for clearing members to provide liquidity to ensure compliance with the Commission's adopted rules, the costs experienced by members indirectly may exceed those associated with committed credit facilities.

Finally, covered clearing agencies that have access to routine credit at a central bank could meet the qualifying liquid resources requirement with assets that are pledgeable to a central bank, if that jurisdiction permits such pledges or the transactions by the covered clearing agency. The Commission notes that this may represent the lowest cost option for covered clearing agencies, but understands that this latter provision would represent an advantage only if and when a covered clearing agency receives the benefit of access to routine central bank borrowing. The Commission anticipates that at such future time access to routine credit at a central bank would provide covered clearing agencies with additional flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, with respect to resources used to comply with the liquidity risk management requirements of Rules 17Ad-22(e)(7)(i) and (ii).

The total cost of maintaining qualifying liquid resources pursuant to Rules 17Ad-22(e)(7)(i) and (ii) is composed of the cost of each liquidity source including assets held by covered clearing agencies, committed credit

facilities and prearranged funding agreements, multiplied by the quantity of each of these liquidity sources held by covered clearing agencies. The Commission is unable to quantify the cost of cash held by clearing agencies and securities required to back credit facilities since such estimates would require detailed information about additional required contributions of clearing members under the adopted rules, as well as clearing members' best alternative to holding cash and securities.⁷²⁹ As mentioned above, however, the Commission has limited information about the costs associated with committed and uncommitted credit facilities. Based on this information, we are able to quantify the costs associated with committed credit facilities that will result from the requirement to maintain qualifying liquid resources. The Commission estimates that the cost of compliance with the adopted rules will be between \$122 million and \$204 million per year as a result of the requirement to enter into prearranged funding agreements for non-cash assets used to meet liquidity requirements under Rules 17Ad-22(e)(7)(i) and (ii). This analysis assumes that covered clearing agencies will enter into such agreements at arm's length on an uncommitted basis. Based on staff discussions with market participants, the Commission understands that alternative arrangements between covered clearing agencies and their members may be obtained at lower cost, though these arrangements may come with increased wrong-way risk.⁷³⁰

⁷²⁹ Covered clearing agencies may choose to allocate the costs associated with increased liquidity requirements based on a number of factors related to the markets they serve and their membership. See, e.g., Exchange Act Release No. 34-70999 (Dec. 5, 2013), 78 FR 75400 (Dec. 11, 2013) (Commission order approving NSCC rule change to institute supplemental liquidity deposits to its clearing fund designed to increase liquidity resources to meet its liquidity needs).

⁷³⁰ To produce this range, the Commission used a combination of publicly available information from SRO rule filings, comment letters, and 2015 annual financial statements, and non-public information gathered as a result of its regulatory role. For each covered clearing agency, the Commission assumed that the covered clearing agency's guaranty fund represents the sole source of liquidity used to satisfy its minimum liquidity requirements under the adopted rules. To compute the level of qualifying liquid resources currently held by each covered clearing agency, the Commission assumed that cash in the covered clearing agency's guaranty fund remains fixed at current levels and added to this any amount from credit facilities that could be backed by the value of securities held in the covered clearing agency's guaranty funds.

Taking the sum of these current qualifying liquid resources over all covered clearing agencies and subtracting this from the sum of the "cover one" guaranty fund requirement over all covered clearing

U.S. Treasury securities would not fall under the definition of qualifying liquid resources. The Commission understands that U.S. Treasury markets represent some of the largest and most liquid markets in the world, see Part III.A.2.k, and that, in "flights to quality" and "flights to liquidity" in times of financial stress, U.S. Treasuries trade at a premium to other assets.⁷³¹ If, as an alternative to the adopted rules, the Commission included U.S. government securities in the definition of qualifying liquid resources, the Commission estimates the cost of complying with requirements under Rule 17Ad-22(e)(7)(i) and (ii) would be reduced by between \$32 million and \$204 million per year.⁷³² The Commission believes,

agencies results in the total shortfall relative to minimum requirements under Rules 17Ad-22(e)(7)(i) and (ii). The Commission further assumed that covered clearing agencies would cover this shortfall using prearranged funding agreements backed by additional securities posted to guaranty funds by clearing members. Finally, the Commission multiplied the total prearranged funding amount by between 0.15% and 0.25% to arrive at a range of ongoing costs.

This range estimate has been updated since the proposal. While it relies on the same methodology, this estimate relies on more recent financial information from covered clearing agencies. Cf. CCA Standards proposing release, *supra* note 5, at 29600.

⁷³¹ See Alessandro Beber, Michael W. Brandt & Kenneth A. Kavajecz, Flight-to-Quality or Flight-to-Liquidity? Evidence from the Euro-Area Bond Market, 22 Rev. Fin. Stud. 925 (2009) (decomposing sovereign yield spreads into credit and liquidity components and showing that credit quality matters for bond valuation but that, in times of market stress, investors chase liquidity, not quality); Markus K. Brunnermeier & Lasse Heje Pedersen, Market Liquidity and Funding Liquidity, 22 Rev. Fin. Stud. 2201 (2009) (showing, in a theoretical model, how with low wealth shocks, demand for illiquid assets falls off more sharply than demand for liquid assets); Francis A. Longstaff, The Flight-to-Liquidity Premium in U.S. Treasury Bond Prices, 77 J. Bus. 511 (2004) (estimating the liquidity premium associated with U.S. Treasuries relative to close substitutes); Dimitri Vayanos Flight to Quality, Flight to Liquidity, and the Pricing of Risk (NBER Working Paper No. 10327, Feb. 2004) (showing, in a theoretical model, that during volatile times, assets' liquidity premia increase), available at <http://www.nber.org/papers/w10327.pdf>.

⁷³² The Commission re-estimated the level of prearranged funding agreements required to meet requirements under Rules 17Ad-22(e)(7)(i) and (ii) using the data and methodology described in note 730, except in this case the Commission assumed that all non-defaulting member resources applied to funding obligations were a mix of cash and U.S. Treasuries for a lower bound, and assumed that all resources applied to funding obligations were a mix of cash and U.S. Treasuries for an upper bound.

Taking the sum of these current qualifying liquid resources over all covered clearing agencies and subtracting this from the sum of cover one guaranty fund requirement over all covered clearing agencies results in the total shortfall relative to minimum requirements under Rules 17Ad-22(e)(7)(i) and (ii) if U.S. government and agency securities were considered qualifying liquid resources. As above, the Commission further assumed that covered clearing agencies would cover this shortfall using

⁷²⁸ Subtracting the lower bound of commitment fees (5 basis points) from the estimated total cost of a committed facility (30 basis points) yields an estimate of the upper bound of the fees associated with an uncommitted facility (30 - 5 = 25 basis points). We estimate the lower bound of fees associated with an uncommitted facility analogously (30 - 15 = 15 basis points).

however, that there are benefits to including government securities only if prearranged funding agreements exist. In particular, given the quantity of these securities financed by the largest individual dealers, fire-sale conditions could materialize if collateral is liquidated in a disorderly manner, which could prevent covered clearing agencies from meeting payment obligations.⁷³³

Rule 17Ad-22(e)(7)(iii) requires a covered clearing agency to establish implement, maintain and enforce written policies and procedures reasonably designed to ensure it uses accounts and services at a Federal Reserve Bank or other relevant central bank, when available and where determined to be practical by the board of directors, to enhance its management of liquidity risk.⁷³⁴ The Commission believes that it may be beneficial for covered clearing agencies to use central bank account services because doing so would reduce exposure to commercial bank default risk. Moreover, for some covered clearing agencies, central bank services may represent the lowest-cost admissible funding arrangement under the adopted rule. The Commission understands, however, that central bank services may not be practical because direct access to central bank accounts and services may not be available to all clearing agencies or members in all circumstances.

Rules 17Ad-22(e)(7)(iv) and (v) address relations between covered clearing agencies and their liquidity providers. The Commission believes that a key benefit of these adopted rules would be an increased level of assurance that liquidity providers would be able to supply liquidity to covered clearing agencies on demand. Such assurance is especially important because of the possibility that covered clearing agencies may rely on outside liquidity providers to convert non-cash assets into cash using prearranged funding arrangements or committed facilities, pursuant to Rule 17Ad-22(e)(7)(ii) and the definition of

prearranged funding agreements backed by additional securities posted to guaranty funds by clearing members and multiplied this amount by between 0.15% and 0.25% to arrive at a range of ongoing costs.

As above, this range estimate has been updated since the proposal. While it relies on the same methodology, this estimate relies on more recent financial information from covered clearing agencies. Cf. CCA Standards proposing release, *supra* note 5, at 29601.

⁷³³ See Brian Begalle et al., *The Risk of Fire Sales in the Tri-Party Repo Market*, at 19 & n.37 (FRBNY Staff Report No. 616, May 2013), available at http://www.newyorkfed.org/research/staff_reports/sr616.pdf.

⁷³⁴ See Rule 17Ad-22(e)(7)(iii), *infra* Part VI.

qualifying liquid resources in Rule 17Ad-22(a)(14). The required policies and procedures would ensure the covered clearing agency undertakes due diligence to confirm that it has a reasonable basis to believe each of its liquidity providers understand the liquidity risk borne by the liquidity provider, and that the liquidity provider would have the capacity to provide liquidity under commitments to the covered clearing agency. Finally, covered clearing agencies would be required, under the adopted rule, to maintain and test the covered clearing agency's procedures and operational capacity for accessing liquidity under their agreements. The Commission believes that, besides the costs associated with new or updated policies and procedures discussed in Part IV.C, covered clearing agencies and liquidity providers may experience costs associated with the adopted rules as a result of the requirement to test liquidity resources, such as, for example, fees associated with conducting test draws on a covered clearing agency's credit lines. Costs associated with ongoing monitoring and compliance related to testing are included in the Commission's estimate of quantifiable costs presented in Part III.B.3.d.

Rules 17Ad-22(e)(7)(vi) and (vii) may impose costs on covered clearing agencies as a result of requirements for testing the sufficiency of liquidity resources and validating models used to measure liquidity risk. The testing and model validation requirements of these adopted rules are similar to requirements for testing and model validation for credit risk in Rules 17Ad-22(e)(4)(vi) and (vii), and the Commission believes that these adopted rules would yield similar benefits. Frequent monitoring and testing liquidity resources could help rapidly identify any gaps in resources required to meet payment obligations. Moreover, the requirement to test and, when necessary, update the assumptions and parameters supporting models of liquidity risk will support the adjustment of covered clearing agency liquidity resources to changing financial conditions and mitigate the risk that covered clearing agencies will strategically manage updates to their liquidity risk models in support of cost-reduction or profit-maximization.

Rule 17Ad-22(e)(7)(viii) addresses liquidity shortfalls at a covered clearing agency, and the Commission believes the adopted rule would reduce ambiguity related to settlement delays in the event of liquidity shocks. Among other things, by requiring procedures

that seek to avoid delay of settlement payments, this adopted rule would require covered clearing agencies to address liquidity concerns in advance rather than relying on strategies of delaying accounts payable in the event of liquidity shocks. As discussed previously, effective liquidity risk management by covered clearing agencies that serves to eliminate uncertainty on the part of clearing members that payments by the covered clearing agency will be made on time may allow these clearing members to allocate their liquidity resources to more efficient uses than holding precautionary reserves.⁷³⁵ The Commission believes the rule may reduce some of the flexibility covered clearing agencies have in the absence of the rule, which could impose additional costs on these clearing agencies as discussed in Part III.B.1.b.

Rule 17Ad-22(e)(7)(ix) would require a covered clearing agency to have policies and procedures reasonably designed to describe its process for replenishing any liquid resources that it may employ during a stress event.⁷³⁶ The ability to replenish liquidity resources is critical to ensure that covered clearing agencies are able to continue operations after a stress event. Beyond the general benefits associated with liquidity risk management noted earlier, this adopted rule would yield particular benefits insofar as it would reduce uncertainty about covered clearing agency liquidity resources at precisely those times when information about liquidity may be most important to market participants.

Finally, Rule 17Ad-22(e)(7)(x) would require a covered clearing agency that provides CCP services and is either systemically important in multiple jurisdictions or is a clearing agency involved in activities with a more complex risk profile to conduct a feasibility analysis for "cover two."⁷³⁷ The primary cost associated with this rule will be an annual analysis by the affected covered clearing agencies. Costs associated with a feasibility study would likely include the cost of staffing and consulting, which will depend on the scope of products cleared and the particular approach taken by each covered clearing agencies. The costs associated with this requirement are included in Part III.B.3.d.

⁷³⁵ See *supra* Part III.B.2.b.

⁷³⁶ See Rule 17Ad-22(e)(7)(ix), *infra* Part VI.

⁷³⁷ See Rule 17Ad-22(e)(7)(x), *infra* Part VI.

(5) Testing and Validation of Risk Models

Rules 17Ad–22(e)(4) through (7) include requirements for covered clearing agencies to have policies and procedures reasonably designed to test and validate models related to financial risks. Covered clearing agencies may incur additional costs under expanded and more frequent testing of financial resources if the requirements for testing and validation do not conform to practices currently used by covered clearing agencies.⁷³⁸ These costs are composed of two portions. The first encompasses startup costs related to collection and storage of data elements necessary to implement testing and validation, along with investments in software tools and human capital to support these functions. The second portion of costs includes the ongoing, annual costs of conducting testing and validation under the adopted rules.

Based on its supervisory experience and discussions with industry participants, the Commission believes that startup costs to support testing and validation of credit risk, margin, and liquidity risk models at covered clearing agencies could fall in the range of \$5 million to \$25 million for each covered clearing agency. This range primarily reflects investments in information technology to process data already available to covered clearing agencies for stress testing and validation purposes. The range's width reflects differences in markets served by, as well as the scope of operations of, each covered clearing agency. Based on its supervisory experience and discussions with industry participants, the Commission estimates a lower bound of \$1 million per year for ongoing costs related to testing of risk models.

Should each covered clearing agency choose to hire external consultants for the purposes of performing model validation required under Rules 17Ad–22(e)(4) and 17Ad–22(e)(7) through written policies and procedures, the Commission estimates the ongoing cost associated with hiring such consultants would be approximately \$4,509,120 in the aggregate.⁷³⁹

⁷³⁸ The Commission notes that while the stress testing provisions in Rules 17Ad–22(e)(4) through (7) include new requirements for covered clearing agencies, Rule 17Ad–22(b)(4) requires registered clearing agencies that provide CCP services for security-based swaps to have policies and procedures for a general margin model validation requirement. See *supra* note 716.

⁷³⁹ This figure was calculated as follows: 2 Consultants for 40 hours per week at \$653 per hour = \$52,240 × 12 weeks = \$644,160 per clearing agency × 7 covered clearing agencies = \$4,509,120. The \$671 per hour figure for a consultant was calculated using www.payscale.com, modified by

The Commission acknowledges that it could have, as an alternative, rules that would require testing and validation of financial risk models at covered clearing agencies at different frequencies. For example, the Commission could have required backtesting of margin resources less frequently than daily. Such a policy could imply less frequent adjustments in margin levels that may result in over- or under-margining. The Commission believes that the frequencies of testing and validation of financial risk models that it has adopted are appropriate given the risks faced by covered clearing agencies and current market practices related to frequency of meetings of risk management committees and boards of directors at covered clearing agencies.

v. Rules 17Ad–22(e)(8) Through (10): Settlement and Physical Delivery

Rules 17Ad–22(e)(8) through (10) require covered clearing agencies to have policies and procedures reasonably designed to address settlement risk. Many of the issues raised by settlement are similar to those raised by liquidity. Uncertainty in settlement may make it difficult for clearing members to fulfill their obligations to other market participants within their respective financial networks if they hold back precautionary reserves, as discussed above. Based on its supervisory experience, the Commission believes that the benefits and costs for the majority of covered clearing agencies will likely be limited. Registered clearing agencies that become covered clearing agencies in the future, by contrast, may bear more significant costs as a result of the enhanced standards.

Settlement finality is important to market participants for a number of reasons. Reversal of transactions can be costly to participants. For example, if transactions are reversed, buyers and sellers of securities may be exposed to additional market risk as they attempt to reestablish desired positions in cleared products. Similarly, reversal of transactions may render participants expecting to receive payment from the covered clearing agency unable to fulfill payment obligations to their counterparties, exposing these additional parties to the transmitted credit risk. Finally, settlement finality can help facilitate default management

Commission staff to account for an 1800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead.

The Commission previously estimated that ongoing costs associated with hiring external consultants to fulfill the requirements of Rule 17Ad–22(b)(4) would be approximately \$3.9 million per year. See Clearing Agency Standards adopting release, *supra* note 5, at 66261.

procedures by covered clearing agencies since they improve transparency of members' positions. Unless settlement finality is established by covered clearing agencies, market participants may attempt to hedge reversal risk for themselves. This could come at the cost of efficiency if it means that, on the margin, participants are less likely to use cleared products as collateral in other financial transactions.

In addition, settlement in central bank money, where available and determined to be practical by the board of directors of the covered clearing agency, as the adopted rules would require, greatly reduces settlement risk related to payment agents. Using central bank accounts to effect settlement rather than settlement banks removes a link from the intermediation chain associated with clearance and settlement. As a result, a covered clearing agency would be less exposed to the default risk of its settlement banks. In cases where settlement banks maintain links to other covered clearing agencies, for example as liquidity providers or as members, reducing exposure to settlement bank default risk may be particularly valuable.

As in the case of Rule 17Ad–22(e)(7)(iii), the Commission acknowledges there may be circumstances where it is appropriate for covered clearing agencies to use commercial banks for conducting money settlements even when comparable services are available from a central bank. Accordingly, the Commission believes it is appropriate to allow covered clearing agencies flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to also use commercial bank account services to effect settlement, subject to a requirement that covered clearing agencies monitor and manage the risks associated with such arrangements.

vi. Rule 17Ad–22(e)(11): CSDs

CSDs play a key role in modern financial markets. For many issuers, many transactions in their securities involve no transfer of physical certificates.

Paperless trade generally improves transactional efficiency. Book-entry transfer of securities may facilitate conditional settlement systems required by Rule 17Ad–22(e)(12). For example, book-entry transfer in a delivery versus payment system allows securities to be credited to an account immediately upon debiting the account for the payment amount. Institutions and individuals may elect to no longer hold and exchange certificates that represent

their ownership of securities. An early study showed that the creation of DTC resulted in a 30–35% reduction in the physical movement of certificates.⁷⁴⁰ Among other benefits, to the extent that delays in exchanging paper certificates result in settlement failures, immobilization and dematerialization of shares reduces the frequency of these failures.⁷⁴¹

For markets to realize the transactional benefits of paperless trade, however, requires confidence that CSDs can correctly account for the number of securities in their custody and for the book entries that allocate these securities across participant accounts. To realize these benefits, the rules also require covered CSDs to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure the integrity of securities issues, minimize the risks associated with transfer of securities, and protect assets against custody risk. Based on its supervisory experience, the Commission believes that registered CSDs already have infrastructure in place to meet these requirements. However, CSDs may face incremental compliance costs in instances where they must modify their rules to implement appropriate controls. Compliance costs may be higher for potential new CSDs that are determined to be covered clearing agencies in the future.

vii. Rule 17Ad

22(e)(12): Exchange-of-Value Settlement Systems

Clearance and settlement of transactions between two parties to a trade involves an exchange of one obligation for another. Regarding transactions in securities, these claims can be securities or payments for securities. A particular risk associated with transactions is principal risk, which is the risk that only one obligation is successfully transferred between counterparties. For example, in a purchase of common stock, a party faces principal risk if, despite successfully paying the counterparty for the purchase, the counterparty may fail to deliver the shares.

⁷⁴⁰ See Neal L. Wolkoff & Jason B. Werner, *The History of Regulation of Clearing in the Securities and Futures Markets, and Its Impact on Competition*, 30 Rev. Banking & Fin. L. 313, 323 (2010).

⁷⁴¹ See Commission, *Study of Unsafe and Unsound Practices of Brokers and Dealers*, H.R. Doc. No. 231, 92nd Cong., 1st Sess. 13, at 168 (1971) (suggesting that the delivery and transfer process for paper certificates were a principal cause of failures to deliver and receive during the “paperwork crisis” of the late 1960s).

The adopted requirements under Rule 17Ad–22(e)(12) are substantially the same as those in Rule 17Ad–22(d)(13).⁷⁴² As a result, covered clearing agencies that have been in compliance with Rule 17Ad–22(d)(13) face no substantially new requirements under Rule 17Ad–22(e)(12). The Commission expects the adopted rule would likely impose limited material additional costs on covered clearing agencies. It would also produce benefits in line with the general economic considerations discussed in Part III.B.1. The economic effects may differ for registered clearing agencies that become covered clearing agencies in the future.

viii. Rule 17Ad–22(e)(13): Participant-Default Rules and Procedures

Rule 17Ad–22(e)(13) requires covered clearing agencies to have policies and procedures for participant default with additional specificity relative to current requirements for registered clearing agencies under Rule 17Ad–22(d)(11). In particular, Rule 17Ad–22(e)(13) requires policies and procedures that address the testing and review of default procedures.

Based on its supervisory experience, the Commission believes all covered clearing agencies currently test and review default procedures at least annually, so the costs of this requirement would apply only to registered clearing agencies that may become covered clearing agencies in the future. The Commission also believes that broad-based participation in the testing of default procedures could reduce disruption to cleared markets in the event of default. However, to the extent that testing of these procedures requires participation by members of covered clearing agencies, members’ customers, and other stakeholders, these parties may bear costs under the rules. The Commission is unable to quantify the economic effects of participation in these tests at this time.

As an alternative to the rules, the Commission could have adopted more prescriptive requirements for default procedures at covered clearing agencies. The Commission believes that differences in cleared assets and in the characteristics of clearing members supports allowing each covered clearing agency flexibility, subject to its obligations and responsibilities as an SRO under the Exchange Act, to

⁷⁴² See *supra* Part II.C.13 (discussing the full set of requirements under Rule 17Ad–22(e)(13)); *supra* Part III.A.2.g (discussing current practices among registered clearing agencies regarding exchange-of-value settlement systems); see also 17 CFR 240.17Ad–22(d)(13).

determine its own default procedures pursuant to Rule 17Ad–22(e)(13).

ix. Rule 17Ad–22(e)(14): Segregation and Portability

Rule 17Ad–22(e)(14) applies only to a covered clearing agency that is either a security-based swap clearing agency or a complex risk profile clearing agency. It requires such a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to enable the segregation and portability of positions of a participant’s customers and the collateral provided to the covered clearing agency with respect to those positions, and effectively protect such positions and related collateral from the default or insolvency of that participant.⁷⁴³

Segregation and portability of customer positions serves a number of useful purposes in certain cleared markets. In the normal course of business, the ability to efficiently identify and move an individual customer’s positions and collateral between clearing members enables customers to easily terminate a relationship with one clearing member and initiate a relationship with another. This may facilitate competition between clearing members by ensuring customers are free to move their accounts from one clearing member to another based on their preferences, without being unduly limited by operational barriers.⁷⁴⁴

Segregation and portability may be especially important in the event of participant default. By requiring that customer collateral and positions remain segregated, covered clearing agencies can facilitate, in the event of a clearing member’s insolvency, the recovery of customer collateral and the movement of customer positions to one or more other clearing members. Further, portability of customer positions may facilitate the orderly wind down of a defaulting member if customer positions may be moved to a non-defaulting member. Porting of positions in a default scenario may yield benefits for customers if the alternative is closing-out positions at one clearing

⁷⁴³ See *supra* Part II.B.14.a (discussing applicability of Rule 17Ad–22(e)(14) and the existing rules for the cash securities and listed options markets applicable to broker-dealers which already promote segregation and portability to protect customer positions and funds in those markets).

⁷⁴⁴ See, e.g., Paul Klemperer, *Competition When Consumers Have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade*, 62 Rev. Econ. Stud. 515 (1995) (presenting an overview of switching costs and their effects on competition).

member and reestablishing them at another clearing member. The latter strategy would cause customers to bear transactions costs, which might be especially high in times of financial stress.

The Commission notes that, in its view, for those clearing agencies to which Rule 17Ad-22(e)(14) applies, these adopted rules are flexible in their approach to implementing segregation and portability requirements. The most efficient means of implementing these requirements may depend on the products that a covered clearing agency clears as well as other business practices at a covered clearing agency. For example, a clearing agency's decision whether or not to collect margin on a gross or net basis may bear on its decision to port customer positions and collateral on an individual or omnibus basis, and while an individual account structure may provide a higher degree of protection from a default by another customer, it may be operationally and resource intensive for a covered clearing to implement and may reduce the efficiency of its operations. Moreover, some clearing agencies may already employ the LSOC model for segregation and portability of customer positions in security-based swaps because of existing CFTC requirements for swaps.

As a result, the costs and benefits of Rule 17Ad-22(e)(14) will depend on specific rules implemented by covered clearing agencies as well as how much these rules differ from current practice. Based on its supervisory experience, the Commission believes that the current practices at covered clearing agencies to which the rule would apply already meet segregation requirements under the rule, so any costs and benefits for covered clearing agencies would flow from implementing portability requirements, though the rule potentially raises a barrier to entry for security-based swap clearing agencies or clearing agencies involved in activities with a more complex risk profile that seek to become covered clearing agencies.

x. Rule 17Ad-22(e)(15): General Business Risk

While Rules 17Ad-22(e)(4) and 17Ad-22(e)(7) require that covered clearing agencies have policies and procedures reasonably designed to address credit risk and liquidity risk, Rule 17Ad-22(e)(15) requires that covered clearing agencies have policies and procedures reasonably designed to address general business risk. The Commission believes that general business losses experienced by covered clearing agencies represent a distinct risk to cleared markets, given limited competition and specialization of clearing agencies. In this regard, the loss of clearing services due to general business losses would likely result in major market disruption. The rule requires a covered clearing agency to have policies and procedures reasonably designed to mitigate the risk that business losses result in the disruption of clearing services. Under these policies and procedures covered clearing agencies would hold sufficient liquid resources funded by equity to cover potential general business losses, which at a minimum would constitute six months of operating expenses. The Commission believes that the benefits of such policies and procedures would flow primarily from covered clearing agencies that would be required to increase their holdings of liquid net assets funded by equity, enabling them to sustain their operations for sufficient time and achieve orderly wind-down if such action is eventually necessary.

The Commission could have adopted a higher or lower minimum level of resources, for example, corresponding to one quarter of operating expenses or one year of operating expenses. The Commission believes, however, that the rules, as adopted, afford covered clearing agencies sufficient flexibility, subject to their obligations and responsibilities as SROs under the Exchange Act, to determine the level of resources to hold while maintaining a minimum standard that supports continued operations in the event of general business losses. As another alternative, the Commission could have allowed covered clearing agencies additional flexibility to determine the

nature of the financial resources held to mitigate the effects of general business risk or the means by which these resources are funded. The Commission believes, however, that by specifying that these resources be liquid in nature, the rule would limit any delays by covered clearing agencies that suffer business losses from paying expenses required for continued operations. Additionally, by specifically requiring that a covered clearing agency draw liquid net resources from members as equity capital, the rules may also encourage members to more closely monitor the business operations of a covered clearing agency, which may reduce the likelihood of losses.

Based on its supervisory experience, the Commission believes that certain covered clearing agencies would be required to establish and maintain policies and procedures providing for specified levels of equity capital and higher levels of liquid net assets as a result of Rule 17Ad-22(e)(15).⁷⁴⁵ However, the Commission believes that based on current market practices, covered clearing agencies may not bear substantial costs to implement these policies and procedures. Table 2 contains summary information from five registered clearing agencies obtained from quantitative disclosures made by these registered clearing agencies pursuant to the PFMI.⁷⁴⁶ These disclosures suggest that all five of these registered clearing agencies each currently hold more net liquid assets funded by equity than would be required to cover six months of operating expenses. While similar quantitative disclosures are not currently published by DTC, DTC does publish an annual disclosure framework pursuant to the PFMI,⁷⁴⁷ which states that as of June 30, 2014, DTC maintained liquid net assets funded by equity in an amount exceeding six months of its projected operating expenses.⁷⁴⁸ This analysis suggests that based on available information about liquid net assets funded by equity operating expenses, covered clearing agencies would not be required to raise additional equity capital to implement these policies and procedures with respect to net liquid assets.

TABLE 2—NET LIQUID ASSETS FUNDED BY EQUITY AND OPERATING EXPENSES AT REGISTERED CLEARING AGENCIES⁷⁴⁹

	FICC	ICC	ICEEU	NSCC	OCC
Value of liquid net assets funded by equity	214	53	358	321	247

⁷⁴⁵ Additional equity capital may be raised through share issuance or by retaining earnings.
⁷⁴⁶ See *supra* note 41.

⁷⁴⁷ See *id.*
⁷⁴⁸ See The Depository Trust Company Disclosure under the Principles for Financial Market

Infrastructures (Dec. 2015), at 80, available at <http://www.dtcc.com/legal/policy-and-compliance>.

TABLE 2—NET LIQUID ASSETS FUNDED BY EQUITY AND OPERATING EXPENSES AT REGISTERED CLEARING AGENCIES ⁷⁴⁹—Continued

	FICC	ICC	ICEEU	NSCC	OCC
Six months of current operating expenses	77	23	138	144	243

However, the Commission acknowledges that policies and procedure adopted by covered clearing agencies pursuant to Rule 17Ad-22(e)(15) may nevertheless result in certain costs for covered clearing agencies. First, covered clearing agencies would incur ongoing costs to implement, maintain, and enforce policies and procedures under Rule 17Ad-22(e)(15). To the extent that maintenance and enforcement of these policies and procedures indicate that additional capital is required to manage a covered clearing agency's general business risks, it may determine that it needs to increase liquid net assets. Second, as a result of these new policies and procedures, covered clearing agencies will have less control over their capital structures, as by implementing these policies and procedures they would be compelled to maintain a certain minimum level of liquid net assets despite the availability of new, less liquid, investment opportunities. Absent market frictions, such a change in capital structure should have no effect on the value of a covered clearing agency.⁷⁵⁰ Nevertheless, the Commission acknowledges that market imperfections such as asymmetric information, moral hazard, and regulation may imply that covered clearing agencies that would need to raise additional equity capital incur opportunity costs for holding this additional capital rather than investing it in projects or distributing it back to

equity holders who might, in turn, invest in projects.

Clearing agencies that issue equity to satisfy the new requirements would additionally face costs related to issuance. The Commission recognizes that the cost of maintaining additional equity resembles an insurance premium against the losses associated by market disruption in the absence of clearing services.

xi. Rule 17Ad-22(e)(16): Custody and Investment Risks

Rule 17Ad-22(e)(16) requires a covered clearing agency to have policies and procedures reasonably designed to safeguard both their own assets as well as the assets of participants, broadening the requirement applicable to registered clearing agencies in Rule 17Ad-22(d)(3) to the protection of participants' assets.

The Commission believes that this may have benefits in terms of protecting against systemic risk, to the extent that covered clearing agencies to this point have treated their own assets differently by applying greater safeguards to those assets than with respect to assets of their members and members' clients. Protection of member assets is important to cleared markets because, for example, the assets of a member in default serve as margin and represent liquidity supplies that a covered clearing agency may access to cover losses. If covered clearing agencies can quickly access these liquidity sources, they may be able to limit losses to non-defaulting members.

Participants may benefit from Rule 17Ad-22(e)(16) in other ways. Requiring a covered clearing agency's policies and procedures to safeguard its assets and participant assets and to invest in assets with minimal credit, liquidity, and market risk may reduce uncertainty in the value of participant assets and participants' exposure to mutualized losses. This may allow participants to deploy their own capital more efficiently. Furthermore, easy access to their own capital enables members to more freely terminate their participation in covered clearing agencies.

Based on its supervisory experience, the Commission believes that current practices at covered clearing agencies meet the requirements under Rule 17Ad-22(e)(16) in most cases, so the additional costs and benefits flowing

from these requirements would be generally limited to registered clearing agencies that may enter the set of covered clearing agencies in the future.

xii. Rule 17Ad-22(e)(17): Operational Risk Management

Because, as noted above, Rule 17Ad-22(e)(17) would require substantially the same set of policies and procedures as Rule 17Ad-22(d)(4),⁷⁵¹ the Commission believes that Rule 17Ad-22(e)(17) would likely impose limited material additional costs on covered clearing agencies and produce limited benefits, in line with the general economic considerations discussed in Part III.B.1.

xiii. Rules 17Ad-22(e)(18) Through (20): Membership Requirements, Tiered Participation, and Linkages

As discussed earlier, covered clearing agencies play an important role in the markets they serve. They often enjoy a central place in financial networks that enables risk sharing, but may also enable them to serve as conduits for the transmission of risk throughout the financial system. Rules (18) through (20) require covered clearing agencies to have policies and procedures reasonably designed to explicitly consider and manage the risks associated with the particular characteristics of their network of direct members, the broader community of customers, and other parties that rely on the services provided by the covered clearing agencies or other partners that the covered clearing agency is connected to through relevant linkages. The Commission believes that these efforts carry benefits insofar as they reduce the extent to which covered clearing agencies may impose negative externalities on financial markets.

As economies of scale contribute to the business dynamics of clearing and settlement, there is often only one clearing agency or a small number of clearing agencies for a particular class of security. Consequently, membership in a clearing agency may influence competitive dynamics between members and indirect participants, such as intermediaries, in cleared markets.

⁷⁵¹ See *supra* Part II.C.17 (discussing the full set of requirements under Rule 17Ad-22(e)(17)); see also 17 CFR 240.17Ad-22(d)(4).

⁷⁴⁹ The figures in Table 2 are based on quantitative disclosures published by registered clearing agencies pursuant to the PFMI. Figures for FICC and NSCC were obtained from CPMI IOSCO Quantitative Disclosure Results—2016 Q1 (June 30, 2016), available at <http://www.dtcc.com/legal/policy-and-compliance>; figures for OCC were obtained from PFMI Quantitative Disclosure (Mar. 31, 2016), available at <http://www.optionsclearing.com/components/docs/about/corporate-information/pfmi-disclosures/quant-disclosure-janmar2016.pdf>; figures for Ice Clear Europe were obtained from ICE Clear Europe—CDS (2016 Q1) available at <https://www.theice.com/clear-europe/regulation#quantitative-disclosures>; and figures for ICE Clear Credit were obtained from Regulatory Disclosures (2016 Q1) available at <https://www.theice.com/clear-credit/regulation>.

⁷⁵⁰ See Franco Modigliani & Merton H. Miller, The Cost of Capital, Corporation Finance and the Theory of Investment, 48 a.m. Econ. Rev. 261 (1958) (showing the irrelevance of capital structure in perfect markets).

Members and indirect participants may compete for the same set of customers, but indirect participants must have relationships with members to access clearing services. Members, therefore, may have incentives in place to extract economic rents from indirect participants by imposing higher fees or restricting access to clearing services.

Permitting fair and open access to clearing agencies and their services may promote competition among market participants and may result in lower costs and efficient clearing and settlement services. Open access to clearing agencies may reduce the likelihood that credit and liquidity risk become concentrated among a small number of clearing members, each of which retain a large number of indirect participants through tiered arrangements. Further, links between clearing agencies may facilitate risk management across multiple security classes and improve the efficiency of collateral arrangements.

(1) Rule 17Ad-22(e)(18): Member Requirements

While fair and open access to clearing agencies may promote competition and enhance the efficiency of clearing and settlement services, these improvements should not come at the expense of prudent risk management. The soundness of clearing members contributes directly to the soundness of a clearing agency and mutualization of losses within clearing agencies expose each clearing member to the default risk of every other clearing member. Accordingly, it is important for clearing agencies to control and effectively manage the risks to which they are exposed by their direct and indirect participants by establishing risk-related requirements for participation.

Based on its supervisory experience, the Commission believes that current practices among most covered clearing agencies involve a mix of objective financial and business requirements stipulated in publicly-available rulebooks and discretion exercised by the covered clearing agency. As a result and based on its supervisory experience, the Commission believes that some changes to policies and procedures at covered clearing agencies may be required under the rule.

(2) Rule 17Ad-22(e)(19): Tiered Participation Arrangements

The Commission believes that Rule 17Ad-22(e)(19) may improve covered clearing agencies' ability to manage their exposure to market participants that are not clearing members, but access payment, clearing, or settlement

facilities through their relationships with clearing members. A covered clearing agency that is able to effectively manage its exposure to its members but fails to identify, monitor, and manage its exposures to non-member firms may overlook dependencies that are critical to the stability of cleared markets. This is particularly true if indirect participants in the covered clearing agency are large and might potentially precipitate the default of one or more direct members.

The data necessary to compute summary statistics that would be helpful in quantifying the costs and benefits of the rule, including those that would indicate the size of indirect participants and the volume of transactions in which they are involved, are not available. Nevertheless, the Commission is sensitive to the fact that costs associated with the rules may result in concentration of clearing services among fewer clearing members. Part of this process of consolidation may mean an increase in the volume of trading activity that involves indirect members, making identification of risks associated with indirect members even more critical. Based on its supervisory experience, however, the Commission believes that certain covered clearing agencies already have policies and procedures in place that would satisfy the requirements of the rule even in the absence of such explicit requirements under existing rules. Costs and benefits from the rule would come from those other registered clearing agencies that require updates to their policies and procedures to come into compliance with the rule.

The Commission is sensitive to the fact that indirect participants play a key role in maintaining competition in markets for intermediation of trading in securities insofar as they offer investors a broader choice of intermediaries to deal with in centrally cleared and settled securities markets. If elements of policies and procedures under this rule make indirect participation marginally more costly, then transactions costs for investors may increase.

(3) Rule 17Ad-22(e)(20): Links

Links between clearing agencies and their members are only one way that clearing agencies interface with the financial system. A clearing agency may also establish links with other clearing agencies and FMUs through a set of contractual and operational arrangements. For a clearing agency, the primary purpose of establishing a link would be to expand its clearing and settlement services to additional financial instruments, markets, and

institutions. Established links among clearing agencies and FMUs may enable direct and indirect market participants to have access to a broader spectrum of clearing and settlement services.

Sound linkages between clearing agencies that provide CCP services may also provide their customers with more efficient collateral arrangements and cross-margining benefits. Cross-margining potentially relaxes liquidity constraints in the financial system by reducing total required margin collateral. Resources that would otherwise be posted as margin may be allocated to more productive investment opportunities.

A clearing agency that establishes a link or multiple links may also impose costs on participants in markets it clears by indirectly exposing them to systemic risk from linked entities. The Commission acknowledges that clearing agencies that form linkages may be exposed to additional risks, including credit and liquidity risks, as a consequence of these links. Links may, however, produce benefits for members to the extent that diversification and hedging across their combined portfolio reduces their margin requirements. At the same time, because such an agreement requires the linked clearing agencies to each guarantee cross-margining participants' obligations to the other clearing agency, cross-margining potentially exposes members of one clearing agency to default risk from members of the other.

By requiring that covered clearing agencies have policies and procedures reasonably designed to identify, monitor, and manage risks related to any link, Rule 17Ad-22(e)(20), like Rule 17Ad-22(d)(7), reduces the likelihood that such links serve as channels for systemic risk transmission. Because Rule 17Ad-22(e)(20) differs only marginally from Rule 17Ad-22(d)(7), the Commission believes that the costs and benefits flowing from the adopted rule will be incremental, to the extent that the additional specificity in Rule 17Ad-22(e)(20) causes covered clearing agencies to modify current practices. The Commission has aggregated these costs below.

xiv. Rule 17Ad-22(e)(21): Efficiency and Effectiveness

Rule 17Ad-22(e)(21) would impose on covered clearing agencies requirements in addition to those currently applied to registered clearing agencies under Rule 17Ad-22(d)(6) by also requiring covered clearing agencies to have policies and procedures that ensure that a covered clearing agency's

management review efficiency and effectiveness in four key areas:

- Efficiency and effectiveness in clearing and settlement arrangements may reduce participants' transaction costs and enhance liquidity by reducing the amount of collateral that customers must provide for transactions and the opportunity cost associated with providing such collateral. Where appropriate, net settlement arrangements can reduce collateral requirements. Similarly, clearing arrangements that include a broad scope of products enable clearing members to take advantage of netting efficiencies across positions.

- Efficient and effective operating structures, including risk management policies, procedures, and systems, may reduce the likelihood of failures that may lead to impairment of a clearing agency's capacity to complete settlement and interfering with its ability to monitor and manage credit exposures.

- An efficient scope of products that a clearing agency clears, settles, or records may provide its participants and customers with more efficient collateral arrangements and cross-margining benefits that ultimately reduce transaction costs and improve liquidity in cleared markets.

- Efficient and effective use of technology and communication procedures facilitates effective payment, clearing and settlement, and recordkeeping.

The Commission believes that requirements related to the efficient and effective operation of covered clearing agencies are appropriate given the market power enjoyed by these entities, as discussed in Part III.B.1.d. Limited competition in the market for clearing services may blunt incentives for covered clearing agencies to provide high quality services at low cost to market participants in the absence of regulation.

Based on its supervisory experience, the Commission believes that some covered clearing agencies would be required to make updates to their policies and procedures as a result of the rule. As a result, the Commission expects incremental costs and benefits to flow from the adopted rule only to the extent that this additional specificity causes covered clearing agencies to modify current practices.

xv. Rule 17Ad-22(e)(22):
Communication Procedures and
Standards

Based on its supervisory experience, the Commission believes that some changes to policies and procedures

would be necessary to meet requirements under Rule 17Ad-22(e)(22).⁷⁵² These costs are included as a part of implementation costs, as discussed below. However, the Commission understands that covered clearing agencies already accommodate internationally accepted communication procedures and standards and anticipates only incremental costs resulting from the rule, in addition to the above discussed benefits. Registered clearing agencies that may become covered clearing agencies in the future may need to conform their practices to internationally accepted communication procedures and standards, as well as adopt new policies and procedures as a result of the rule, resulting in more substantial costs.

xvi. Rule 17Ad-22(e)(23): Disclosure of
Rules, Key Procedures, and Market Data

Enhanced disclosure may also improve the efficiency of transactions in cleared products and improve financial stability more generally by improving the ability of members of covered clearing agencies to manage risks and assess costs. Additional information would reduce the potential for uncertainty on the part of clearing members regarding their obligations to covered clearing agencies. Rule 17Ad-22(e)(23) requires a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to require specific disclosures. As in Rules 17Ad-22(d)(9) and (11), covered clearing agencies would be required under Rule 17Ad-22(e)(23) to disclose default procedures to the public and disclose sufficient information to participants to allow them to manage the risks, fees, and other material costs associated with membership.

Under Rule 17Ad-22(e)(23), a covered clearing agency must establish, implement, maintain and enforce written policies and procedures reasonably designed to update, on a biannual basis, public disclosures that describe the covered clearing agency's market and activities, along with information about the agency's legal, governance, risk management, and operating frameworks, including specifically covering material changes since the last disclosure, a general background on the covered clearing agency, a rule-by-rule summary of compliance with Rules 17Ad-22(e)(1) through (22), and an executive summary. The rule adds a new requirement, relative to existing

requirements for registered clearing agencies under Rule 17Ad-22(d)(9), to update the disclosure biannually and to include, among other things, specific data elements, including details about system design and operations, transaction values and volumes, average intraday exposure to participants, and statistics on operational reliability.

Additional transparency may have benefits for participants and cleared markets more generally. For example, if information about the systems that support a covered clearing agency is public, investors may be more certain that the market served by this agency is less prone to disruption and more accommodating of trade. Furthermore, public disclosure of detailed operating data may facilitate evaluation of each covered clearing agency's operating record by market participants. Further, under Rule 17Ad-22(e)(23)(iv), these disclosures would be made about specific categories related to the compliance with Rule 17Ad-22(e) that potentially facilitate comparisons between covered clearing agencies. Additional availability of information on operations may increase the likelihood that clearing agencies compete to win market share from participants that value operational stability. This additional market discipline may provide additional incentives for covered clearing agencies to maintain reliability. Finally, updating the public disclosure every two years or more frequently following certain changes as required pursuant to Rule 17Ad-22(e)(23)(v) would support the benefits of enhanced public disclosures by ensuring that information provided to the public remains up-to-date. The Commission believes this would reduce the likelihood that market participants are forced to evaluate covered clearing agencies on the basis of stale data.

Clearing members, in particular, may benefit from additional disclosure of risk management and governance arrangements. These details potentially have significant bearing on clearing members' risk management because they may remove uncertainty surrounding members' potential obligations to a covered clearing agency. In certain circumstances, additional disclosures may reveal to members that the expected costs of membership exceed the expected benefits of membership, and that exit from the clearing agency may be privately optimal. In addition to the costs of concentration among members discussed in earlier sections, the Commission also recognizes the potential for systemic benefits from termination. Member exit on the basis of

⁷⁵² See *supra* Part II.C.22 (discussing the full set of requirements under Rule 17Ad-22(e)(22)).

more precise information may reduce the risk posed to other financial market participants by members who, given additional information, might prefer to terminate their membership, due to an inability to manage the risks to which a covered clearing agency exposes them. While exit from clearing agencies may have consequences for competition among clearing members, the Commission believes that encouraging the participation of firms that are not able to bear the risks of membership is not an appropriate means of mitigating the effects of market power on participants in cleared markets.

While it is possible that some covered clearing agencies will require changes to policies and procedures as a result of the adopted rules, the Commission believes that the effect of Rule 17Ad-22(e)(23) will not have a substantial impact on compliance costs because covered clearing agencies already gather data and information for preparing their responses to the PFMI quantitative disclosures, which are updated semiannually.

b. Rule 17Ab2-2

Rule 17Ab2-2 provides procedures for the Commission to determine whether a covered clearing agency is systemically important in multiple jurisdictions or has a complex risk profile and therefore should be subject to stricter risk management standards under Rule 17Ad-22(e). The Commission intends for Rule 17Ab2-2 to provide the Commission with discretion to consider those criteria relevant to the facts and circumstances of a registered clearing agency when subject to a determination.

Rule 17Ab2-2(a) includes criteria the Commission may consider in determining whether a covered clearing agency is systemically important in multiple jurisdictions. These criteria are based on input from a set of other bodies comprised of FSOC and regulators in other jurisdictions. As a result, it is possible that the flow of costs and benefits from Rule 17Ad-22(e) may be partially determined by the decisions of other regulatory bodies.

Rule 17Ab2-2(b), includes criteria that the Commission may use to determine that a clearing agency has a complex risk profile. For example, the Commission may consider the extent to which the clearing agency clears financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults.

Indirect effects of the determination process may have important economic

effects on the ultimate volume of clearing activity, beyond the economic effects of the proposed requirements themselves. An important feature of Rule 17Ab2-2 is providing transparency for the determinations process. Transparency may allow a registered clearing agency to plan for resulting obligations under Rule 17Ad-22(e).

To the extent that Rule 17Ad-22(e) may increase costs for a covered clearing agency relative to its peers, such clearing agency may have incentives to restructure its business to avoid a Commission determination or otherwise exit any services made prohibitively expensive by such a determination. Such potential consequential effects would be among the considerations for the Commission to review in connection with any specific decision under Rule 17Ab2-2. Restructuring may involve spinning off business lines into separate entities, limiting the scope of clearing activities to certain markets, or limiting the scale of clearing activities within a single market. Any of these outcomes could result in inefficiencies. As discussed in Part III.B.1.c, registered clearing agencies may incur costs as a result of restructuring. Registered clearing agencies that break up along product lines or fail to consolidate when consolidation is efficient may fail to take advantage of economies of scope and result in inefficient use of collateral. Similarly, clearing agencies that limit their scale may provide lower levels of clearing services to the markets that they serve.

The impact of adopting Rule 17Ab2-2, which can affect the application of Rule 17Ad-22(e), could have direct costs on covered clearing agencies in the form of legal or consulting costs incurred as a result of seeking a determination from the Commission. In instances where these clearing agencies choose to apply to the Commission for status under Rule 17Ab2-2, the Commission believes that a registered clearing agency's voluntary application would suggest that the applicant's private benefits from enhanced requirements under Rule 17Ad-22(e) as a result of the Commission's determination that it is systemically important in multiple jurisdictions justify its costs. Quantifiable costs related to determinations under Rule 17Ab2-2 are noted in Part III.B.3.d.

In response to a comment about establishing a process for a covered clearing agency to be removed from that status, the Commission has decided to adopt such procedures in Rule 17Ab2-2(c). Specifically, if a clearing agency no longer meets the determination of

covered clearing status, it can apply to be removed. This ability to remove the enhanced requirements can facilitate a clearing agency's ability innovate or enter new markets. Collectively, this could support the continued development of the national system for clearance and settlement.

c. Rule 17Ad-22(f)

Rule 17Ad-22(f) includes a provision that specifies Commission authority over designated clearing agencies for which it is the supervisory agency. Since this provision codifies existing statutory authority, the Commission does not anticipate any economic effects from this rule.

d. Quantifiable Costs and Benefits

As discussed above, the amendments to Rule 17Ad-22 and Rule 17Ab2-2 would impose certain costs on covered clearing agencies. As discussed in Part III.B.3.a.ii, if a covered clearing agency is required to recruit new directors, the Commission estimates a cost per director of \$73,912.⁷⁵³ As discussed in Part I.A.1.a.i(4), the Commission estimates costs associated with liquidity resources under Rules 17Ad-22(e)(7) and (a)(15) would likely fall between \$122 million and \$204 million per year across all covered clearing agencies. As discussed in Part I.A.1.a.i(5), the Commission believes that startup costs related to financial risk management systems for existing covered clearing agencies, related to new testing and model validation requirements to be between \$5 million to \$25 million. The Commission also estimates a lower bound on ongoing costs related to these requirements of \$1 million per year. If covered clearing agencies were to hire external consultants for the purposes of performing model validation required under Rules 17Ad-22(e)(4) and (7) through policies and procedures, the Commission estimates the ongoing cost associated with hiring such consultants would be about \$4,509,120 in the aggregate.⁷⁵⁴

In addition, Rules 17Ad-22(e)(3), (4), (6), (7), (15) and (21) all include elements of review by either a covered clearing agency's board or its management on an ongoing basis. The Commission estimates the cost of ongoing review for these adopted rules at approximately \$39,376 per year.⁷⁵⁵

⁷⁵³ See *supra* note 709.

⁷⁵⁴ See *supra* Part I.A.1.a.i(5), in particular note 739.

⁷⁵⁵ To monetize the cost of board review, the Commission used a recent report by Bloomberg stating that the average director works 250 hours and earns \$251,000, resulting in an estimated \$1000 per hour for board review. As a proxy for the cost

The rules would also impose certain implementation burdens and related costs on covered clearing agencies.⁷⁵⁶ These costs generally include assessment costs to determine compliance with the adopted rules and costs related to new policies and procedures and updates to existing policies and procedures required by the rules. In Part IV.C, the Commission estimates the burdens of these implementation requirements for covered clearing agencies.

For a new entrant into the set of covered clearing agencies from the set of registered clearing agencies, the Commission estimates the startup compliance costs associated with policies and procedures to be \$592,215,⁷⁵⁷ and compliance costs associated with the determinations process under Rule 17Ab2–2 to be \$7,764.⁷⁵⁸ Based on its supervisory experience, the Commission believes

of management review, the Commission is estimating \$461 per hour, based upon the Director of Compliance cost data from the SIFMA table, *see infra* note 756. The Commission estimates the total cost of review for each clearing agency as follows: ((Board Review for 32 hours at \$1000 per hour) + (Management Review for 16 hours at \$461 per hour)) = \$39,376.

⁷⁵⁶ To monetize the internal costs the Commission staff used data from the SIFMA publications, Management and Professional Earnings in the Security Industry—2013, and Office Salaries in the Securities Industry—2013, modified by the Commission staff to account for an 1800 hour work-year and multiplied by 5.35 (professionals) or 2.93 (office) to account for bonuses, firm size, employee benefits and overhead. These figures have been adjusted for inflation using data published by the Bureau of Labor Statistics. Commission staff also estimated an hourly rate for a Chief Financial Officer. The Web site www.salary.com reports that median CFO annual salaries in 2016 were \$306,789. A Grant Thornton LLP survey estimated that in 2016 public company CFOs will receive an average annual salary of \$303,975. Using an approximate midpoint of these two estimates of \$305,000 per year, and dividing by an 1800-hour work year and multiplying by the 5.35 factor which normally is used to include benefits but here is used as an approximation to offset the fact that New York salaries are typically higher than the rest of the country, the result is \$906 per hour.

⁷⁵⁷ The total initial cost for an entrant that is not a CSD and does engage in activities with a more complex risk profile was calculated as follows: ((Assistant General Counsel for 428 hours at \$440 per hour) + (Compliance Attorney for 365 hours at \$334 per hour) + (Administrative Assistant for 2 hours at \$76 per hour) + (Computer Operations Department Manager for 300 hours at \$416 per hour) + (Senior Business Analyst for 85 hours at \$259 per hour) + (Senior Risk Management Specialist for 114 hours at \$338 per hour) + (Chief Compliance Office for 102 hours at \$501 per hour) + (Senior Programmer for 53 hours at \$313 per hour) + (Chief Financial Officer for 50 hours at \$906 per hour) + (Financial Analyst for 70 hours at \$259 per hour)) = \$626,850.

⁷⁵⁸ The total cost associated with determinations under Rule 17Ab2–2 was calculated as follows: ((Assistant General Counsel for 2 hours at \$440 per hour) + (Compliance Attorney for 3 hours at \$300 per hour) + (Outside Counsel for 5 hours at \$400 per hour)) × 2 registered clearing agencies = \$7,764.

that in many cases registered clearing agencies are already in compliance with many of the requirements included in the rules, so this cost represents an upper bound on upfront costs. Conditioned on its current understanding of current market practice at covered clearing agencies, the Commission estimates that the total costs across all existing covered clearing agencies will be \$4,268,075.⁷⁵⁹ The Commission estimates that in the aggregate existing covered clearing agencies would be subject to ongoing costs associated with the rule in the amount of approximately \$926,603 per year.⁷⁶⁰

A benefit of the rules that the Commission is able to quantify is the impact of QCCP status of OCC to non-U.S. bank clearing members at OCC. This benefit comes as a result of lower capital requirements against exposures to QCCPs relative to non-qualifying CCPs. In Part III.B.1.e, the Commission provided an estimate of the upper bound of this benefit, \$1.2 billion per year, or 0.73% of the aggregate 2015 net income reported by bank clearing members at OCC. The Commission believes that the actual benefits flowing from QCCP status would likely be higher due to benefits for foreign bank members of FICC and ICEEU, in addition to the benefits with respect to OCC discussed above.⁷⁶¹

The Commission believes that the rules will result in an increase in financial stability insofar as they result in minimum standards at covered clearing agencies that are higher than those standards implied by current practices at covered clearing agencies. Some of this increased stability may come as a result of lower activity as the adopted rules cause participants to internalize a greater proportion of the costs that their activity imposes on the

⁷⁵⁹ The total initial cost was calculated as follows: ((Assistant General Counsel for 2,906 hours at \$440 per hour) + (Compliance Attorney for 2,475 hours at \$334 per hour) + (Administrative Assistant for 14 hours at \$76 per hour) + (Computer Operations Department Manager for 2,030 hours at \$416 per hour) + (Senior Business Analyst for 565 hours at \$259 per hour) + (Senior Risk Management Specialist for 773 hours at \$338 per hour) + (Chief Compliance Office for 699 hours at \$501 per hour) + (Senior Programmer for 361 hours at \$313 per hour) + (Chief Financial Officer for 350 hours at \$906 per hour) + (Financial Analyst for 490 hours at \$259 per hour) + (Intermediate Accountant for 15 hours at \$162 per hour)) = \$4,268,075.

⁷⁶⁰ The total ongoing cost was calculated as follows: ((Compliance Attorney for 1,851 hours at \$334 per hour) + (Administrative Assistant for 137 hours at \$76 per hour) + (Senior Business Analyst for 151 hours at \$259 per hour) + (Senior Risk Management Specialist for 70 hours at \$338 per hour) + (Risk Management Specialist for 1,251 hours at \$188 per hour)) = \$926,603.

⁷⁶¹ *See supra* note 689 and accompanying text.

financial system, reducing the costs of default, conditional on a default event occurring. Increased stability may also come as a result of higher risk management standards at covered clearing agencies that effectively lower the probability that either covered clearing agencies or their members default.

IV. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (“PRA”) imposes certain requirements on federal agencies in connection with the conducting or sponsoring of any “collection of information.”⁷⁶² An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number. Further, 44 U.S.C. 3507(a) provides that, before adopting or revising a collection of information requirement, an agency must, among other things, publish notice in the **Federal Register** stating that the agency has submitted the proposed collection of information to the Office of Management and Budget (“OMB”) and setting forth certain required information, including (i) a title for the collection of information; (ii) a summary of the collection of information; (iii) a brief description of the need for the information and the proposed use of the information; (iv) a description of the likely respondents and proposed frequency of response to the collection of information; (v) an estimate of the paperwork burden that shall result from the collection of information; and (vi) notice that comments may be submitted to the agency and director of OMB.⁷⁶³

Certain provisions of Rule 17Ad–22(e) impose new collection of information requirements under the PRA. The Commission submitted these collections of information to the OMB for review in accordance with 44 U.S.C. 3507 and 5 CFR 1320.11. Because the Commission is revising the collection of information under Rule 17Ad–22 to account for new Rule 17Ad–22(e), the Commission will use the same title and control number: “Clearing Agency Standards for Operation and Governance,” OMB Control No. 3235–0695. Since Rule 17Ab2–2 contains a new collection of information requirement, the title and control number are “Determinations Affecting Covered Clearing Agencies,” OMB Control No. 3235–0728.

The Commission provided notice of the below PRA estimates in the CCA Standards proposing release and

⁷⁶² *See* 44 U.S.C. 3501 *et seq.*; 44 U.S.C. 3502(3).

⁷⁶³ *See* 44 U.S.C. 3507(a)(1)(D); *see also* 5 CFR 1320.5(a)(1)(iv).

received no comments in response.⁷⁶⁴ As discussed further below, the Commission has modified the final PRA estimates to account for the modifications to Rules 17Ad-22(e) and 17Ab2-2 described in Part II and to Rule 17Ad-22(c)(1) described in Part I.C.3.

A. Summary of Collection of Information and Use of Information

Below is a summary of the collection of information and the use of information for Rules 17Ad-22(e) and 17Ab2-2. The Commission received no comments regarding the summary or the use of information. In addition, because the Commission is modifying Rule 17Ad-22(c)(1) in response to comments addressed above, Rule 17Ad-22(c)(1) is also discussed below.⁷⁶⁵ The Commission notes that the policies and procedures would also be used by the Commission as part of its ongoing efforts to monitor and enforce compliance with the federal securities laws through, among other things, examinations and inspections.

1. Rule 17Ad-22(e)(1)

As proposed, Rule 17Ad-22(e)(1) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a well-founded, clear, transparent and enforceable legal basis for each aspect of its activities in all relevant jurisdictions. The Commission is adopting Rule 17Ad-22(e)(1) as proposed.⁷⁶⁶

The purpose of this information collection is to reduce the potential for legal risk at covered clearing agencies, such as the risk that participants face legal uncertainty due to a lack of clarity or completeness regarding conflicts with applicable laws.

2. Rule 17Ad-22(e)(2)

As proposed, Rules 17Ad-22(e)(2)(i) through (iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for governance arrangements that are clear and transparent, clearly prioritize the safety and efficiency of the covered clearing agency, and support the public interest requirements in Section 17A of the Exchange Act and the objectives of owners and participants. Proposed Rule 17Ad-22(e)(2)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies

and procedures reasonably designed to provide for governance arrangements establishing that the board of directors and senior management have appropriate experience and skills to discharge their duties and responsibilities.⁷⁶⁷

The Commission is adopting Rule 17Ad-22(e)(2) with two modifications, as previously discussed in Part II.C.2.c. First, the Commission is adding new paragraph (v) to require policies and procedures that specify clear and direct lines of responsibility. The Commission believes that clearly delineating lines of responsibility will help foster accountability of the board of directors and senior management, a concern expressed by commenters. The Commission also believes that this requirement complements the requirements in Rule 17Ad-22(e)(iv) addressing the qualifications of the board and management.⁷⁶⁸ Second, the Commission is adopting new paragraph (vi) to require a covered clearing agency's governance arrangements to consider the interests of participants' customers, securities issuers and holders, and other relevant stakeholders of the covered clearing agency. The Commission believes that the comments received in response to Rule 17Ad-22(e)(2), at a general level, express concern as to whether a covered clearing agency will have governance arrangements sufficiently robust to incorporate the views of the relevant stakeholders and to withstand the influence of potentially improper incentives. The Commission believes that this modification helps mitigate these concerns by adding a requirement to consider the interests of the relevant stakeholders. The Commission also believes that they complement the other requirements in Rule 17Ad-22(e)(2) and flow from the existing requirements in Section 17A of the Exchange Act, in particular the fair representation, investor protection, and public interest requirements discussed previously.⁷⁶⁹

The purpose of this information collection is to prioritize the safety and efficiency of covered clearing agencies, to help ensure that each covered clearing agency's governance arrangements consider the interests of the relevant stakeholders, to promote the establishment of boards of directors at covered clearing agencies that are composed of qualified members with clear and direct lines of responsibility, and to promote accountability of the

board of directors and senior management.

3. Rule 17Ad-22(e)(3)

As proposed, Rule 17Ad-22(e)(3) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain a sound risk management framework for comprehensively managing legal, credit, liquidity, operational, general business, investment, custody, and other risks that arise in or are borne by the covered clearing agency. Proposed Rule 17Ad-22(e)(3)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for risk management policies, procedures, and systems designed to identify, measure, monitor, and manage the range of risks that arise in or are borne by the covered clearing agency, and subject them to review on a specified periodic basis and approval by the board of directors annually. Proposed Rule 17Ad-22(e)(3)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure it establishes plans for the recovery and orderly wind-down of the covered clearing agency necessitated by credit losses, liquidity shortfalls, losses from general business risk, or any other losses. Proposed Rule 17Ad-22(e)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide risk management and internal audit personnel with sufficient authority, resources, independence from management, and access to the board of directors. Proposed Rule 17Ad-22(e)(3)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide risk management and internal audit personnel with oversight by and a direct reporting line to a risk management committee and an audit committee of the board of directors, respectively. Proposed Rule 17Ad-22(e)(3)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for an independent audit committee.

The Commission is adopting Rule 17Ad-22(e)(3) with one modification. To make clear that the audit committee described in Rule 17Ad-22(e)(3)(iv) and the independent audit committee described in Rule 17Ad-22(e)(3)(v) are

⁷⁶⁴ See CCA Standards proposing release, *supra* note 5, at 29560-75.

⁷⁶⁵ See *supra* Part I.C.3.

⁷⁶⁶ See *supra* Part II.C.1.

⁷⁶⁷ See *supra* Part II.C.2.

⁷⁶⁸ See *supra* Part II.C.2.b.iii.

⁷⁶⁹ See *supra* Part II.C.2.c.

not separate audit committees, the Commission is adding “independent” before audit committee in Rule 17Ad–22(e)(3)(iv).⁷⁷⁰

The purpose of this information collection is to enhance each covered clearing agency’s ability to identify, monitor, and manage the risks that covered clearing agencies face, including by subjecting the relevant policies and procedures to regular review, and to facilitate an orderly recovery and wind-down process in the event that a covered clearing agency is unable to continue operating as a going concern.

4. Rule 17Ad–22(e)(4)

As proposed, Rule 17Ad–22(e)(4) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively identify, measure, monitor, and manage its credit exposures to participants and those exposures arising from its payment, clearing, and settlement processes.

Proposed Rule 17Ad–22(e)(4)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. Proposed Rule 17Ad–22(e)(4)(ii) would require a covered clearing agency that provides CCP services, and that is “systemically important in multiple jurisdictions” or “a clearing agency involved in activities with a more complex risk profile,” to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain additional financial resources, to the extent not already maintained pursuant to proposed Rule 17Ad–22(e)(4)(i), at a minimum level necessary to enable it to cover a wide range of foreseeable stress scenarios, including but not limited to the default of the two participant families that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions (hereinafter the “cover two” requirement). Meanwhile, proposed Rule 17Ad–22(e)(4)(iii) would require a covered clearing agency that is not subject to proposed Rule 17Ad–22(e)(4)(ii) to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain additional financial resources, to the extent not already maintained

pursuant to proposed Rule 17Ad–22(e)(4)(i), at the minimum to enable it to cover a wide range of foreseeable stress scenarios, including the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions (hereinafter the “cover one” requirement). Proposed Rule 17Ad–22(e)(4)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to include prefunded financial resources, excluding assessments for additional guaranty fund contributions or other resources that are not prefunded, when calculating the financial resources available to meet the standards under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable. Proposed Rule 17Ad–22(e)(4)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain the financial resources required under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable, in combined or separately maintained clearing or guaranty funds.

Proposed Rule 17Ad–22(e)(4)(vi) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to test the sufficiency of its total financial resources available to meet the minimum financial resource requirements under proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable, by conducting a stress test of its total financial resources at least once each day using standard predetermined parameters and assumptions. Proposed Rule 17Ad–22(e)(4)(vi) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to conduct a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and consider modifications to ensure they are appropriate for determining the covered clearing agency’s required level of default protection in light of current market conditions. When the products cleared or markets served by a covered clearing agency display high volatility or become less liquid, and when the size or concentration of positions held by the entity’s participants increases significantly, the proposed rule would require a covered clearing agency to

have policies and procedures for conducting comprehensive analyses of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly. Proposed Rule 17Ad–22(e)(4)(vi) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for the reporting of the results of this analysis to the appropriate decision makers at the covered clearing agency, including its risk management committee or board of directors, and to require the use of the results to evaluate the adequacy of and to adjust its margin methodology, model parameters, and any other relevant aspects of its credit risk management policies and procedures, in supporting compliance with the minimum financial resources requirements in proposed Rules 17Ad–22(e)(4)(i) through (iii), as applicable.⁷⁷¹

Finally, proposed Rule 17Ad–22(e)(4)(vii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require a conforming model validation for its credit risk models to be performed not less than annually or more frequently as may be contemplated by the covered clearing agency’s risk management policies and procedures. The Commission also proposed to define “conforming model validation” to mean an evaluation of the performance of each material risk management model used by a covered clearing agency, including initial margin models, liquidity risk models, and models used to generate guaranty fund requirements, along with the related parameters and assumptions associated with such models. The proposed definition would further require that the model validation be performed by a qualified person who is free from influence from the persons responsible for the development or operation of the models or policies being validated so that risk models can be candidly assessed.⁷⁷²

The Commission is adopting Rule 17Ad–22(e)(4) with modifications, as previously discussed in Part II.C.4.c. The Commission is adopting two modifications to Rule 17Ad–22(e)(4)(vii). First, because the Commission is modifying the definition of “conforming model validation” by striking “conforming,” as previously discussed in Part II.C.4.c, the Commission is modifying Rule 17Ad–22(e)(4)(vii) to conform to the revised

⁷⁷⁰ See *supra* Part II.C.3.

⁷⁷¹ See *id.* at 29526–27.

⁷⁷² See *supra* Part II.C.4.

definition. Second, to be consistent with the corresponding requirement for model validation of liquidity risk models in Rule 17Ad-22(e)(7)(vii), the Commission is modifying Rule 17Ad-22(e)(4)(vii) by striking “to be performed.”⁷⁷³

The Commission is also adopting four other modifications to Rule 17Ad-22(e)(4), as previously discussed in Part II.C.4.c. First, the Commission is modifying Rule 17Ad-22(e)(4)(v) so that it references only paragraphs (e)(4)(ii) and (iii) (and not paragraph (e)(4)(i)), consistent with the Commission’s discussion of the proposed rule in the CCA Standards proposing release. Second, to make clear that prefunded financial resources should be exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded, the Commission is modifying Rule 17Ad-22(e)(4)(iv) to state “exclusive of” assessments rather than “excluding” assessments. Third, the Commission is modifying Rule 17Ad-22(e)(4)(vi)(A) to refer to “stress testing” rather than “a stress test” to improve consistency with the definition of “stress testing” in Rule 17Ad-22(a)(17). Fourth, the Commission is revising Rule 17Ad-22(e)(4)(vi)(C) to replace “and” with “or” so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the criteria described may not be correlated to each other. Fifth, the Commission is correcting a technical error in Rule 17Ad-22(e)(4)(vi)(D): references to paragraphs (e)(4)(iv)(B) and (C) will be changed to paragraphs (e)(4)(vi)(B) and (C) respectively. Sixth, the Commission is moving requirements proposed in Rule 17Ad-22(e)(13) to Rule 17Ad-22(e)(4) so that all requirements pertinent to a covered clearing agency’s management of credit risk are contained in one rule. This modification is discussed below in Part IV.A.13.⁷⁷⁴

The purpose of this information collection is to identify and limit credit exposures to participants and to satisfy all of its settlement obligations in the event of a participant default, to address the allocation of credit losses if collateral and other resources are insufficient to fully cover its credit exposures following a participant default, and to describe the covered clearing agency’s process to replenish financial resources following such a default.

5. Rule 17Ad-22(e)(5)

As proposed, Rule 17Ad-22(e)(5) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to limit the assets it accepts as collateral to those with low credit, liquidity, and market risks, and also require policies that set and enforce appropriately conservative haircuts and concentration limits if the covered clearing agency requires collateral to manage its own or its participants’ credit exposures. In addition, Rule 17Ad-22(e)(5) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to include a not-less-than-annual review of the sufficiency of a covered clearing agency’s collateral haircuts and concentration limits. The Commission is adopting Rule 17Ad-22(e)(5) as proposed.⁷⁷⁵

The purpose of the information collection is to enable a covered clearing agency to be able to maintain sufficient collateral by using appropriately conservative haircuts and concentration limits.

6. Rule 17Ad-22(e)(6)

As proposed, Rule 17Ad-22(e)(6) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to cover its credit exposures to its participants by establishing a risk-based margin system that is monitored by management on an ongoing basis and regularly reviewed, tested, and verified. Proposed Rule 17Ad-22(e)(6)(i) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to result in a margin system that, at a minimum, considers and produces margin levels commensurate with the risks and particular attributes of each relevant product, portfolio, and market. Proposed Rule 17Ad-22(e)(6)(ii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the margin system would mark participant positions to market and collect margin, including variation margin or equivalent charges if relevant, at least daily, and include the authority and operational capacity to make intraday margin calls in defined circumstances. Proposed

Rule 17Ad-22(e)(6)(iii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to calculate margin sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Proposed Rule 17Ad-22(e)(6)(iv) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it uses reliable sources of timely price data and procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable. Proposed Rule 17Ad-22(e)(6)(v) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure the use of an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products.

Proposed Rule 17Ad-22(e)(6)(vi) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to establish a risk-based margin system that is monitored by management on an ongoing basis. Proposed Rule 17Ad-22(e)(6)(vi) would also require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review, test, and verify its risk-based margin system by conducting backtests of its margin resources at least once each day using standard predetermined parameters and assumptions. Proposed Rule 17Ad-22(e)(6)(vi) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review, test, and verify its risk-based margin system by conducting a conforming sensitivity analysis of its margin resources and its parameters and assumptions for backtesting on at least a monthly basis, and considering modifications to ensure the backtesting practices are appropriate for determining the adequacy of the covered clearing agency’s margin resources. Proposed Rule 17Ad-22(e)(6)(vi) would require a covered clearing agency that provides CCP

⁷⁷³ See *supra* Part II.C.4.c.

⁷⁷⁴ See also *supra* Part II.C.13.c.

⁷⁷⁵ See *supra* Part II.C.5.

services to establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review, test, and verify its risk-based margin system by conducting a conforming sensitivity analysis of its margin resources and its parameters and assumptions for backtesting more frequently than monthly during periods of time when the products cleared or markets served display high volatility or become less liquid, and when the size or concentration of positions held by the covered clearing agency's participants increases or decreases significantly. Proposed Rule 17Ad-22(e)(6)(vi) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review, test, and verify its risk-based margin system by reporting the results of its analyses above to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its margin methodology, model parameters, and any other relevant aspects of its credit risk management framework.⁷⁷⁶

Finally, proposed Rule 17Ad-22(e)(6)(vii) would require a covered clearing agency that provides CCP services to establish, implement, maintain and enforce written policies and procedures reasonably designed to require not less than annually a conforming model validation of the covered clearing agency's margin system and related models.⁷⁷⁷

The Commission is adopting Rule 17Ad-22(e)(6) with modifications, as previously discussed in Part II.C.6.c. First, the Commission is modifying Rule 17Ad-22(e)(6) to remove references to "conforming" consistent with the modification to the definitions of "sensitivity analysis" discussed in Part II.C.6.c and of "model validation" discussed in Part II.C.4.c. Second, to improve clarity, the Commission is modifying Rule 17Ad-22(e)(6)(v) to require policies and procedures that use reliable sources of timely price data and that "use" procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable. Third, because backtests are conducted with respect to the margin model and not margin resources, the Commission is modifying Rule 17Ad-22(e)(6)(vi)(A) to replace the phrase "margin resources" with "margin model." Fourth, to avoid

conflating sensitivity analysis with backtesting, the Commission is modifying Rules 17Ad-22(e)(6)(vi)(B) and (C) to clarify that a sensitivity analysis should be conducted of the margin model and not of margin resources. Fifth, the Commission is modifying Rule 17Ad-22(e)(6)(vi)(C) to replace "and" with "or" so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the criteria described may not be correlated to each other.

The purpose of the information collection is to enable a covered clearing agency to be able to collect sufficient margin subject to regular sensitivity analysis, monthly backtesting, and an annual model validation.

7. Rule 17Ad-22(e)(7)

As proposed, Rule 17Ad-22(e)(7) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to effectively measure, monitor, and manage the liquidity risk that arises in or is borne by it, by meeting, at a minimum, the ten requirements specified in the rule.

Proposed Rule 17Ad-22(e)(7)(i) would require that a covered clearing agency's policies and procedures be reasonably designed to ensure that it maintains sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that includes the default of the participant family that would generate the largest aggregate payment obligation for it in extreme but plausible market conditions.

Proposed Rule 17Ad-22(e)(7)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it holds qualifying liquid resources sufficient to meet the minimum liquidity resource requirement in each relevant currency for which the covered clearing agency has payment obligations owed to clearing members.

Proposed Rule 17Ad-22(e)(7)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure it uses accounts and services at a Federal Reserve Bank, pursuant to Section 806(a) of the Clearing Supervision Act, or other relevant central bank, when available and where determined to be practical by the board of directors of the

covered clearing agency, to enhance its management of liquidity risk.

Proposed Rule 17Ad-22(e)(7)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure it undertakes due diligence to confirm that it has a reasonable basis to believe each of its liquidity providers, whether or not such liquidity provider is a clearing member, has sufficient information to understand and manage the liquidity provider's liquidity risks, and the capacity to perform as required under its commitments to provide liquidity.

Proposed Rule 17Ad-22(e)(7)(v) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the covered clearing agency maintains and, on at least an annual basis, tests with each liquidity provider, to the extent practicable, its procedures and operational capacity for accessing each type of relevant liquidity resource.

Proposed Rule 17Ad-22(e)(7)(vi)(A) through (C) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to determine the amount and regularly test the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement of proposed Rule 17Ad-22(e)(7)(i) by (A) conducting a stress test of its liquidity resources at least once each day using standard and predetermined parameters and assumptions; (B) conducting a comprehensive analysis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources, and considering modifications to ensure they are appropriate for determining the covered clearing agency's identified liquidity needs and resources in light of current and evolving market conditions at least once each month; and (C) conducting a comprehensive analysis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources more frequently when products cleared or markets served display high volatility or become less liquid, when the size or concentration of positions held by participants increases significantly, or in other circumstances described in the covered clearing agency's policies and procedures. Proposed Rule 17Ad-22(e)(7)(vi)(D) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures

⁷⁷⁶ See *id.* at 29530.

⁷⁷⁷ See *supra* Part II.C.6.

reasonably designed to result in reporting the results of the analyses performed under proposed Rule 17Ad-22(e)(7)(vi)(B) and (C) to appropriate decision makers, including the risk management committee or board of directors, at the covered clearing agency for use in evaluating the adequacy of and adjusting its liquidity risk management framework.

Proposed Rule 17Ad-22(e)(7)(vii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to result in performing an annual or more frequent conforming model validation of its liquidity risk models.⁷⁷⁸

Proposed Rule 17Ad-22(e)(7)(viii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to address foreseeable liquidity shortfalls that would not be covered by its liquid resources and seek to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations.

Proposed Rule 17Ad-22(e)(7)(ix) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to describe its process for replenishing any liquid resources that it may employ during a stress event.

Finally, proposed Rule 17Ad-22(e)(7)(x) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it, at least once a year, evaluates the feasibility of maintaining sufficient liquid resources at a minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default of the two participant families that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions if the covered clearing agency provides CCP services and is either systemically important in multiple jurisdictions or a clearing agency involved in activities with a more complex risk profile.⁷⁷⁹

The Commission is adopting Rule 17Ad-22(e)(7) with modifications, as

previously discussed in Part II.C.7.c. First, the Commission is modifying Rule 17Ad-22(e)(7)(vi)(A) to refer to “stress testing” rather than “a stress test” to improve consistency with the definition of “stress testing” in Rule 17Ad-22(a)(17). Second, the Commission is modifying Rule 17Ad-22(e)(7)(vi)(C) in two ways. To improve consistency with Rule 17Ad-22(e)(4)(vi)(C), the Commission is adding “or” to link “display high volatility” with “become less liquid” because these concepts are intended to describe events related to the products cleared or markets served. The Commission is also replacing “and” with “or” in Rule 17Ad-22(e)(7)(vi)(C) so that the criteria for conducting analysis more frequently than monthly are disjunctive rather than conjunctive, since the list of criteria is open to other appropriate circumstances described in a covered clearing agency’s policies and procedures and may not be correlated. Third, the Commission is making two modifications in adopting Rule 17Ad-22(e)(7)(vi)(D) to correct technical errors in the proposed rule text: (i) References to paragraphs (e)(6)(vi)(B) and (C) will be changed to paragraphs (e)(7)(vi)(B) and (C) respectively; and (ii) the rule will refer to the covered clearing agency’s “liquidity” risk management framework, rather than its “credit” risk management framework. Fourth, the Commission is striking “conforming” from Rule 17Ad-22(e)(7)(vii) to be consistent with the modifications to the definition of “model validation” discussed in Part II.C.4.c.

The purpose of this information collection is to identify and limit liquidity risk so that a covered clearing agency can satisfy its settlement obligations on an ongoing and timely basis by holding a sufficient amount of qualifying liquid resources and performing regular stress testing of its liquid resources. The purpose of this information collection is also to help ensure that a covered clearing agency addresses foreseeable liquidity shortfalls and can replenish any liquid resources that it may employ in a stress event. The purpose of this information collection is also to help ensure that a covered clearing agency manages the risks posed by its liquidity providers.

8. Rule 17Ad-22(e)(8)

As proposed, Rule 17Ad-22(e)(8) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to define the point at which settlement is final no later than the end of the day on which the payment or obligation is due and, where

necessary or appropriate, intraday or in real time.⁷⁸⁰

The Commission is adopting Rule 17Ad-22(e)(8) with one modification, as previously discussed in Part II.C.8.c. To remove potential ambiguity as to the timing of settlement finality under the rule, the Commission is modifying Rule 17Ad-22(e)(8) to state that the point at which settlement is final is “to be” no later than the end of the day on which the payment or obligation is due and, where necessary or appropriate, intraday or in real time.

The purpose of this information collection is to promote consistent standards of timing and reliability in the settlement process.

9. Rule 17Ad-22(e)(9)

As proposed, Rule 17Ad-22(e)(9) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to conduct its money settlements in central bank money, where available and determined to be practical by the board of directors of the covered clearing agency, and minimizes and manages credit and liquidity risk arising from conducting its money settlements in commercial bank money if central bank money is not used by the covered clearing agency. The Commission is adopting Rule 17Ad-22(e)(9) as proposed.⁷⁸¹

The purpose of this information collection is to promote reliability in a covered clearing agency’s settlement operations.

10. Rule 17Ad-22(e)(10)

As proposed, Rule 17Ad-22(e)(10) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to establish and maintain transparent written standards that state its obligations with respect to the delivery of physical instruments and operational practices that identify, monitor, and manage the risk associated with such physical deliveries. The Commission is adopting Rule 17Ad-22(e)(10) as proposed.⁷⁸²

The purpose of this information collection is to provide a covered clearing agency’s participants with the information necessary to evaluate the risks and costs associated with participation in the covered clearing agency.

11. Rule 17Ad-22(e)(11)

As proposed, Rule 17Ad-22(e)(11)(i) would require a covered clearing agency

⁷⁷⁸ See *id.*; see also *supra* notes 275–305 and accompanying text (discussing generally the requirements accompanying the definition of “model validation”).

⁷⁷⁹ See *supra* Part II.C.7.

⁷⁸⁰ See *supra* Part II.C.8.

⁷⁸¹ See *supra* Part II.C.9.

⁷⁸² See *supra* Part II.C.10.

that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain securities in an immobilized or dematerialized form for their transfer by book entry, ensure the integrity of securities issues, and minimize and manage the risks associated with the safekeeping and transfer of securities. Proposed Rule 17Ad-22(e)(11)(ii) would require a covered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to implement internal auditing and other controls to safeguard the rights of securities issuers and holders and prevent the unauthorized creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains. Proposed Rule 17Ad-22(e)(11)(iii) would require a covered clearing agency that provides CSD services to establish, implement, maintain and enforce written policies and procedures reasonably designed to protect assets against custody risk through appropriate rules and procedures consistent with relevant laws, rules, and regulations in jurisdictions where it operates. The Commission is adopting Rule 17Ad-22(e)(11) as proposed.⁷⁸³

The purpose of this information collection is to reduce securities transfer processing costs and the risks associated with securities settlement and custody, as well as increase the speed and efficiency of the settlement process.

12. Rule 17Ad-22(e)(12)

As proposed, Rule 17Ad-22(e)(12) would require a covered clearing agency, for transactions that involve the settlement of two linked obligations, to establish, implement, maintain and enforce written policies and procedures reasonably designed to eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other, regardless of whether the covered clearing agency settles on a gross or net basis and when finality occurs. The Commission is adopting Rule 17Ad-22(e)(12) as proposed.⁷⁸⁴

The purpose of this information collection is to promote the elimination of principal risk in transactions with linked obligations.

13. Rule 17Ad-22(e)(13)

As proposed, Rule 17Ad-22(e)(13) would require a covered clearing agency

to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that the covered clearing agency has the authority and operational capacity to take timely action to contain losses and liquidity demands and continue to meet its obligations in the event of a participant default. Proposed rule 17Ad-22(e)(13)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to address the allocation of credit losses it may face if its collateral and other resources are insufficient to fully cover its credit exposures, including the repayment of any funds the covered clearing agency may borrow from liquidity providers. Proposed Rule 17Ad-22(e)(13)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to describe its process to replenish any financial resources it may use following a member default or other event in which use of such resources is contemplated. Finally, proposed Rule 17Ad-22(e)(13)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to require the covered clearing agency's participants and, when practicable, other stakeholders to participate in the testing and review of its default procedures, including any close-out procedures, at least annually and following material changes thereto.⁷⁸⁵

The Commission is adopting Rule 17Ad-22(e)(13) with modifications, as previously discussed in Part II.C.13.c and noted in Part IV.A.4. The Commission is moving the requirements in proposed Rules 17Ad-22(e)(13)(i) and (ii) to Rules 17Ad-22(e)(4)(viii) and (ix), respectively, to consolidate requirements for management of a covered clearing agency's default waterfall within a single rule. The Commission believes this modification improves consistency between Rules 17Ad-22(e)(4) and (7). Specifically, Rule 17Ad-22(e)(4) includes requirements intended to facilitate the management of credit risk, and proposed Rules 17Ad-22(e)(13)(i) and (ii) include requirements to address the allocation of credit losses and the replenishment of funds. Similarly, Rule 17Ad-22(e)(7) includes requirements intended to facilitate the management of liquidity risk, and Rules 17Ad-22(e)(7)(viii) and (ix) include requirements to address liquidity

shortfalls and replenish liquid resources. In contrast, Rule 17Ad-22(e)(13) is intended to ensure that a covered clearing agency has policies and procedures addressing its authority and operational capacity to take timely action to contain losses and liquidity demands, and proposed Rule 17Ad-22(e)(13)(iii) includes requirements related to the testing of default procedures.

The purpose of this information collection is to facilitate the functioning of a covered clearing agency in the event that a participant fails to meet its obligations, as well as limit the extent to which a participant's failure can spread to other participants or the covered clearing agency itself.

14. Rule 17Ad-22(e)(14)

As proposed, Rule 17Ad-22(e)(14) would require a covered clearing agency that is a security-based swap clearing agency or a complex risk profile clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to enable the segregation and portability of positions of a member's customers and the collateral provided to the covered clearing agency with respect to those positions, and effectively protect such positions and related collateral from the default or insolvency of that member. The Commission is adopting Rule 17Ad-22(e)(14) as proposed.⁷⁸⁶

The purpose of this information collection is to facilitate the safe and effective holding and transfer of customers' positions and collateral in the event of a participant's default or insolvency.

15. Rule 17Ad-22(e)(15)

As proposed, Rule 17Ad-22(e)(15) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that the covered clearing agency can continue operations and services as a going concern if those losses materialize. Proposed Rule 17Ad-22(e)(15)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to determine the amount of liquid net assets funded by equity based upon its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as

⁷⁸³ See *supra* Part II.C.11.

⁷⁸⁴ See *supra* Part II.C.12.

⁷⁸⁵ See *supra* Part II.C.13.

⁷⁸⁶ See *supra* Part II.C.14.

appropriate, of its critical operations and services if such action is taken. Proposed Rule 17Ad-22(e)(15)(ii) would require a clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for holding liquid net assets funded by equity equal to the greater of either six months of its current operating expenses or the amount determined by the board of directors to be sufficient to ensure a recovery or orderly wind-down of critical operations and services of the covered clearing agency, as contemplated by the plans established under Rule 17Ad-22(e)(3)(ii). Additionally, proposed Rule 17Ad-22(e)(15)(ii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for monitoring its business operations and reducing the likelihood of losses. Proposed Rule 17Ad-22(e)(15)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for maintaining a viable plan, approved by the board of directors and updated at least annually, for raising additional equity should its equity fall close to or below the amount required by the rule, as discussed above. The Commission is adopting Rule 17Ad-22(e)(15) as proposed.⁷⁸⁷

The purpose of this information collection is to mitigate the potential impairment of a covered clearing agency as a result of a decline in revenues or increase in expenses.

16. Rule 17Ad-22(e)(16)

As proposed, Rule 17Ad-22(e)(16) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to safeguard its own and its participants' assets and minimize the risk of loss and delay in access to these assets. Proposed Rule 17Ad-22(e)(16) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to invest such assets in instruments with minimal credit, market, and liquidity risks. The Commission is adopting Rule 17Ad-22(e)(16) as proposed.⁷⁸⁸

The purpose of this information collection is to improve the ability of a covered clearing agency to meet its settlement obligations.

17. Rule 17Ad-22(e)(17)

As proposed, Rule 17Ad-22(e)(17) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to manage the covered clearing agency's operational risk. Proposed Rule 17Ad-22(e)(17)(i) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Proposed Rule 17Ad-22(e)(17)(ii) would require a covered clearing agency to establish, implement, maintain, and enforce written policies and procedures reasonably designed to ensure that systems have a high degree of security, resiliency, operational reliability, and adequate, scalable capacity. Finally, proposed Rule 17Ad-22(e)(17)(iii) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for a business continuity plan that addresses events posing a significant risk of disrupting operations.

The Commission is adopting Rule 17Ad-22(e)(17) with one modification: Because the text in Rule 17Ad-22(e)(17)(ii) for "establishing and maintaining policies and procedures reasonably designed" is duplicative of the requirement under Rule 17Ad-22(e) to have policies and procedures reasonably designed to establish, maintain, implement, and enforce the requirements thereunder, the Commission is removing the duplicative text.⁷⁸⁹

The purpose of this information collection is to limit operational disruptions that may impede the proper functioning of a covered clearing agency.

18. Rule 17Ad-22(e)(18)

As proposed, Rule 17Ad-22(e)(18) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to establish objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access by direct and, where relevant, indirect participants and other FMUs. Proposed Rule 17Ad-22(e)(18) would also require that a covered clearing agency establish, implement, maintain and enforce

written policies and procedures reasonably designed to require participants to have sufficient financial resources and robust operational capacity to meet obligations arising from participation in the clearing agency and to monitor compliance with participation requirements on an ongoing basis. The Commission is adopting Rule 17Ad-22(e)(18) as proposed.⁷⁹⁰

The purpose of this information collection is to enable a covered clearing agency to ensure that only entities with sufficient financial and operational capacity are direct participants in the covered clearing agency, while still ensuring that all qualified persons can access a covered clearing agency's services. The purpose of this information collection is also to enable a covered clearing agency to monitor that participation requirements are met on an ongoing basis and to identify a participant experiencing financial difficulties before the participant fails to meet its settlement obligations.

19. Rule 17Ad-22(e)(19)

As proposed, Rule 17Ad-22(e)(19) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to identify, monitor, and manage the material risks to the covered clearing agency arising from arrangements in which firms that are indirect participants in the covered clearing agency rely on the services provided by direct participants in the covered clearing agency to access the covered clearing agency's payment, clearing, or settlement facilities (hereinafter "tiered participation arrangements"). In addition, proposed Rule 17Ad-22(e)(19) would also require that a covered clearing agency establish, implement, maintain and enforce written policies and procedures reasonably designed to regularly review the material risks to the covered clearing agency arising from such tiered participation arrangements. The Commission is adopting Rule 17Ad-22(e)(19) as proposed.⁷⁹¹

The purpose of this information collection is to enable a covered clearing agency to identify and manage risks posed by non-member entities, such as the customers of clearing members.

20. Rule 17Ad-22(e)(20)

As proposed, Rule 17Ad-22(e)(20) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures

⁷⁸⁷ See *supra* Part II.C.15.

⁷⁸⁸ See *supra* Part II.C.16.

⁷⁸⁹ See *supra* Part II.C.17.

⁷⁹⁰ See *supra* Part II.C.18.

⁷⁹¹ See *supra* Part II.C.19.

reasonably designed to identify, monitor, and manage risks related to any link with one or more other clearing agencies, FMUs, or trading markets.⁷⁹² The Commission is adopting Rule 17Ad-22(e)(20) as proposed.

The purpose of this information collection is to enable a covered clearing agency to identify and manage risks posed by linkages to other entities, such as other clearing agencies, FMUs, or trading markets.

21. Rule 17Ad-22(e)(21)

As proposed, Rule 17Ad-22(e)(21) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it is efficient and effective in meeting the requirements of its participants and the markets it serves. Proposed Rule 17Ad-22(e)(21) would also require a covered clearing agency's management to regularly review the efficiency and effectiveness of its (i) clearing and settlement arrangements; (ii) operating structure, including risk management policies, procedures, and systems; (iii) scope of products cleared, settled, or recorded; and (iv) use of technology and communication procedures.

The Commission is adopting Rule 17Ad-22(e)(21) with one modification: the Commission is removing reference to "recorded" products under Rule 17Ad-22(e)(21)(iii) because recording products is not a function of covered clearing agencies.⁷⁹³

The purpose of this information collection is to ensure that the services provided by a covered clearing agency do not become inefficient and to promote the sound operation of a covered clearing agency.

22. Rule 17Ad-22(e)(22)

As proposed, Rule 17Ad-22(e)(22) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure that it uses, or at a minimum accommodates, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, and settlement. The Commission is adopting Rule 17Ad-22(e)(22) as proposed.⁷⁹⁴

The purpose of this information collection is to ensure the prompt and accurate clearance and settlement of securities transactions by enabling participants to communicate with a

clearing agency in a timely, reliable, and accurate manner.

23. Rule 17Ad-22(e)(23)

As proposed, Rule 17Ad-22(e)(23) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain clear and comprehensive rules and procedures that provide for the specific disclosures enumerated in the rule, as discussed below. Proposed Rule 17Ad-22(e)(23) would require such policies and procedures to specifically require a covered clearing agency to (i) publicly disclose all relevant rules and material procedures, including key aspects of its default rules and procedures; (ii) provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency; and (iii) publicly disclose relevant basic data on transaction volume and values.

Rule 17Ad-22(e)(23)(iv) would require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain clear and comprehensive rules and procedures that provide for a comprehensive public disclosure of its material rules, policies, and procedures regarding governance arrangements and legal, financial, and operational risk management, accurate in all material respects at the time of publication, including (i) a general background of the covered clearing agency, including its function and the market it serves, basic data and performance statistics on its services and operations, such as basic volume and value statistics by product type, average aggregate intraday exposures to its participants, and statistics on the covered clearing agency's operational reliability, and a description of its general organization, legal and regulatory framework, and system design and operations; (ii) a standard-by-standard summary narrative for each applicable standard set forth in proposed Rules 17Ad-22(e)(1) through (22) with sufficient detail and context to enable the reader to understand its approach to controlling the risks and addressing the requirements in each standard; (iii) a summary of material changes since the last update of the disclosure; and (iv) an executive summary of the key points regarding each. Rule 17Ad-22(e)(23)(v) would also require a covered clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to ensure the comprehensive public

disclosure required under proposed Rule 17Ad-22(e)(23)(iv) is updated not less than every two years, or more frequently following changes to its system or the environment in which it operates to the extent necessary, to ensure statements previously provided remain accurate in all material respects.⁷⁹⁵

The Commission is adopting Rule 17Ad-22(e)(23) with three modifications, as previously discussed in Part II.C.23.c. First, the Commission is striking the language "maintain clear and comprehensive rules and procedures" under Rule 17Ad-22(e)(23) because Rule 17Ad-22(e) already requires that a covered clearing agency have written policies and procedures reasonably designed to establish, implement, maintain and enforce the requirements thereunder. Consistent with this change, the Commission is also striking "providing" from Rule 17Ad-22(e)(23)(iv). Second, the Commission is modifying Rule 17Ad-22(e)(23)(iv) so that the language more closely tracks the categories of requirements in Rule 17Ad-22(e). The purpose of this modification is to make clear that the comprehensive public disclosure is intended to describe the material rules, policies and procedures of the covered clearing agency related to compliance with Rule 17Ad-22(e), rather than require a complete disclosure of all rules, policies, and procedures. As adopted, Rule 17Ad-22(e)(23)(iv) will require policies and procedures providing for a comprehensive public disclosure that describes the covered clearing agency's material rules, policies, and procedures regarding its legal, governance, risk management, and operating framework, accurate in all material respects at the time of publication. Third, the Commission is also modifying paragraph (iv)(D) to correct technical errors in the proposed rule text so that it refers to the standards set forth in paragraphs (e)(1) through (23) (rather than (e)(1) through (22)). The Commission believes that providing a summary narrative for Rule 17Ad-22(e)(23) is appropriate because Rule 17Ad-22(e)(23) requires policies and procedures to (i) publicly disclose all relevant rules and material procedures, including key aspects of its default rules and procedures; (ii) provide sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency; and (iii) publicly disclose relevant basic data on transaction

⁷⁹² See *supra* Part II.C.20.

⁷⁹³ See *supra* Part II.C.21.

⁷⁹⁴ See *supra* Part II.C.22.

⁷⁹⁵ See *supra* Part II.C.23.

volume and values, in addition to requiring the standard-by-standard summary narrative required by Rule 17Ad-22(e)(23)(iv)(D).

The purpose of this information collection is to ensure that participants and prospective participants in a covered clearing agency are provided with a complete picture of the covered clearing agency's operations and risk management so that they can understand the risks and responsibilities of participation in the covered clearing agency.

24. Rule 17Ab2-2

Proposed Rule 17Ab2-2 would establish procedures for the Commission to make determinations affecting covered clearing agencies in three cases:

- Pursuant to proposed Rule 17Ab2-2(a), the Commission may, if it deems appropriate, upon application by any registered clearing agency or member thereof or on its own initiative, determine whether a registered clearing agency should be considered a covered clearing agency.
- Pursuant to proposed Rule 17Ab2-2(b), the Commission may, if it deems appropriate, upon application by any clearing agency or member thereof, or on its own initiative, determine whether a covered clearing agency meets the definition of "systemically important in multiple jurisdictions."
- Pursuant to proposed Rule 17Ab2-2(c), the Commission may, if it deems appropriate, determine whether any of the activities of a clearing agency providing central counterparty services, in addition to clearing agencies registered with the Commission for the purpose of clearing security-based swaps, have a more complex risk profile.

Under proposed Rule 17Ab2-2(e), in each of the above cases, the Commission would publish notice of its intention to consider such determinations, together with a brief statement of the grounds under consideration, and provide at least a 30-day public comment period prior to any determination. The Commission may also provide the clearing agency subject to the proposed determination opportunity for hearing regarding the proposed determination. Under proposed Rule 17Ab2-2(f), in each of the above cases, notice of determinations would be given by prompt publication thereof, together with a statement of written reasons supporting the determination.⁷⁹⁶

The Commission is adopting Rule 17Ab2-2 with modifications. First the

Commission has determined not to adopt proposed Rule 17Ab2-2(a). Second, with respect to proposed Rules 17Ab2-2(b) and (c),⁷⁹⁷ the Commission is removing the factors that reference such other characteristics or factors that the Commission deems appropriate in the circumstances. Third, the Commission is adopting a new paragraph to provide for a process to rescind any determination made pursuant to Rule 17Ab2-2. This new rule includes the same procedural elements as for determinations for application of covered clearing agency status, including publication with a 30-day comment period. Because the Commission is not adopting Rule 17Ab2-2(a), the Commission is also renumbering the remaining paragraphs accordingly.

The purpose of this information collection is to enable determinations by the Commission regarding the status of a registered clearing agency or a covered clearing agency, as applicable and as described above.

25. Rule 17Ad-22(c)(1)

Rule 17Ad-22(c)(1) requires that, each fiscal quarter (based on calculations made as of the last business day of the clearing agency's fiscal quarter), or at any time upon Commission request, a registered clearing agency that performs CCP services shall calculate and maintain a record, in accordance with Rule 17a-1 under the Exchange Act,⁷⁹⁸ of the financial resources necessary to meet the requirements of paragraph (b)(3) of Rule 17Ad-22, and sufficient documentation to explain the methodology it uses to compute such financial resource requirement.

In response to the comments received,⁷⁹⁹ the Commission is modifying Rule 17Ad-22(c)(1) to require a registered clearing agency that performs CCP services to calculate and maintain a record of financial and qualifying liquid resources necessary to also meet paragraphs (e)(4) and (e)(7), as applicable, in addition to paragraph (b)(3). Because calculations under Rule 17Ad-22(b)(3) and (e)(4) would refer to the same financial resources at a covered clearing agency, the Commission anticipates that the calculations for each would be the same and would involve adjustments needed to synthesize and format existing

information in a manner sufficient to explain the methodology the clearing agency uses to meet the requirements of the rule.

The purpose of this information collection is to require a CCP to calculate and document its financial and qualifying liquid resources necessary under Rules 17Ad-22.

B. Respondents

In the CCA Standards proposing release, the Commission estimated that the majority of the requirements in Rule 17Ad-22(e) would have then applied to five registered clearing agencies, each of which met the definition of "covered clearing agency."⁸⁰⁰ The Commission estimated that two additional entities might seek to register with the Commission and that, of those, one might be a security-based swap clearing agency. The Commission also noted that the number of covered clearing agencies subject to Rule 17Ad-22(e) could increase further if either (i) the FSOC were to designate additional clearing agencies as systemically important or (ii) Commission determinations under Rule 17Ab2-2 found additional clearing agencies to be covered clearing agencies. The Commission noted, however, that it could not predict whether the FSOC might exercise such authority or whether such determinations under Rule 17Ab2-2 would be appropriate, and therefore estimated, for PRA purposes, that a majority of the requirements under Rule 17Ad-22(e) would have seven respondents, of which (i) six would be CCPs and one would be a CSD and (ii) two would be security-based swap clearing agencies. The Commission then further clarified that Rule 17Ad-22(e)(6) would only have six respondents because it only applies to CCPs, Rule 17Ad-22(e)(11) would only have one respondent because it only applies to CSDs, and Rule 17Ad-22(e)(14) would only have two respondents because it only applies to security-based swap clearing agencies.

With regard to Rule 17Ab2-2, the Commission estimated, for PRA purposes, that two registered clearing agencies or their members on their behalf might apply for a Commission determination or be subject to a Commission-initiated determination

⁷⁹⁷ Because the Commission has determined not to adopt proposed Rule 17Ab2-2(a), the Commission is renumbering Rule 17Ab2-2 accordingly, and proposed Rules 17Ab2-2(b) and (c) will therefore appear in Rules 17Ab2-2(a) and (b) respectively. See *infra* Part VI.

⁷⁹⁸ See 17 CFR 240.17a-1.

⁷⁹⁹ See *supra* Part I.C.3.

⁸⁰⁰ See CCA Standards, *supra* note 5, at 29566. Specifically, under the definition, four registered clearing agencies would have been designated clearing agencies for which the Commission is the supervisory agency, and one registered clearing agency would have been a security-based swap clearing agency. Because of modifications to Rule 17Ad-22(a), the definition of "covered clearing agency" is being moved to Rule 17Ad-22(a)(5). See *infra* Part VI.

⁷⁹⁶ See *supra* Part II.D.

regarding whether the registered clearing agency is a covered clearing agency, whether the registered clearing agency is involved in activities with a more complex risk profile, or whether the registered clearing agency, as a covered clearing agency, is systemically important in multiple jurisdictions.⁸⁰¹

With respect to Rule 17Ad-22(c)(1), which the Commission is modifying in response to comments received,⁸⁰² the affected respondents would only be covered clearing agencies because the modifications to Rule 17Ad-22(c)(1) refer to requirements that only apply to covered clearing agencies subject to Rule 17Ad-22(e). Accordingly, the affected respondents are the same as under Rule 17Ad-22(e).

The Commission received no comment regarding the estimates for Rules 17Ad-22(e) and 17Ab2-2 and continues to believe that the above estimates are appropriate for the below discussion of total annual reporting and recordkeeping burdens.

C. Total Annual Reporting and Recordkeeping Burdens

As described in the CCA Standards proposing release, the Commission believes the information collected pursuant to Rule 17Ad-22(e) reflects, to a degree, existing policies and procedures at covered clearing agencies, but in some instances a covered clearing agency will be required to develop new policies and procedures. Thus, when a covered clearing agency reviews and updates its policies and procedures pursuant to Rule 17Ad-22(e), the Commission believes that the PRA burden may vary across the requirements under Rule 17Ad-22(e), depending on the complexity of the requirement in question and the extent to which a covered clearing agency already has policies and procedures consistent with the requirement. As a general matter, the portions of Rule 17Ad-22(e) for which the Commission expects a higher PRA burden are those provisions including requirements not comparable to any existing requirements under Rule 17Ad-22(d). Where the requirements do not reflect existing practices or the normal course of a covered clearing agency's activity, the PRA burden may entail, in addition to ongoing burdens, initial one-time burdens to develop new policies and procedures. The Commission received no comments regarding the accuracy of the estimated annual reporting and recordkeeping burdens for Rules 17Ad-22(e) or 17Ab2-2.

As described in the CCA Standards proposing release,⁸⁰³ the Commission continues to believe that Rules 17Ad-22(e)(1), (8) through (10), (12), (14), (16), and (22) contain requirements either substantially similar to those in Rule 17Ad-22(d) or reflect current practices at covered clearing agencies. The Commission believes that a covered clearing agency may need to make only limited changes to its policies and procedures pursuant to the requirements in these rules. For example, a covered clearing agency may need to conduct a comparison of its existing policies and procedures against each rule to confirm that its policies and procedures are consistent with the requirements therein.

The Commission also continues to believe that Rules 17Ad-22(e)(2), (3), (5), (11), (13), (17), (18), (20), and (21) contain provisions that are similar to those in Rule 17Ad-22(d) but would also impose additional requirements not found in Rule 17Ad-22(d). The Commission believes that a covered clearing agency may need to make changes to update its policies and procedures pursuant to the requirements in these rules. For example, a covered clearing agency may need to review and amend its existing rules, policies, and procedures but may not need to develop, design, or implement new operations or practices pursuant to these rules.

For Rules 17Ad-22(e)(4), (6), (7), (15), (19), and (23), for which no comparable pre-existing requirements under Rule 17Ad-22 have been identified, the Commission continues to believe that a covered clearing agency may need to make more extensive changes to its policies and procedures, may need to implement new policies and procedures, and may need to take other steps pursuant to the requirements in these rules. For example, a covered clearing agency may need to develop, design, and implement new operations and practices. In these cases, the PRA burden is greater since these requirements may not reflect established practices or the normal course of a covered clearing agency's activities. Further, the PRA burden for these rules may entail both initial one-time burdens, such as create new policies and procedures, as well as ongoing burdens, such as requirements to make certain disclosures or perform certain types of review, on a periodic basis.

1. Rule 17Ad-22(e)(1)

As described in Part IV.A.1, the Commission is adopting Rule 17Ad-22(e)(1) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁰⁴

Rule 17Ad-22(e)(1) contains substantially similar provisions to Rule 17Ad-22(d)(1).⁸⁰⁵ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad-22(d)(1),⁸⁰⁶ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 56 hours to review and revise existing policies and procedures.⁸⁰⁷

Rule 17Ad-22(e)(1) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad-22,⁸⁰⁸ the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(1) impose an aggregate annual burden on respondent clearing agencies of 21 hours.⁸⁰⁹

2. Rule 17Ad-22(e)(2)

As described in Part IV.A.2, the Commission is adopting Rule 17Ad-22(e)(2) with modifications. In consideration of these modifications, the burden estimates for the rule have been modified from the preliminary estimates in the CCA Standards proposing release, as described below.

Rule 17Ad-22(e)(2) contains similar provisions to Rule 17Ad-22(d)(8) but also adds additional requirements that

⁸⁰⁴ See CCA Standards proposing release, *supra* note 5, at 29567–68.

⁸⁰⁵ See 17 CFR 240.17Ad-22(d)(1); see also *supra* Part II.C.1.

⁸⁰⁶ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁰⁷ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours)) = 8 hours x 7 respondent clearing agencies = 56 hours.

⁸⁰⁸ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁰⁹ This figure was calculated as follows: (Compliance Attorney for 3 hours) x 7 respondent clearing agencies = 21 hours.

⁸⁰¹ See *id.* at 29567.

⁸⁰² See *supra* Part I.C.3.

⁸⁰³ See CCA Standards proposing release, *supra* note 5, at 29567 & nn.440–443.

do not appear in Rule 17Ad–22(d).⁸¹⁰ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and revising current policies and procedures and creating new policies and procedures, as necessary, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(8),⁸¹¹ the Commission preliminarily estimated that respondent clearing agencies would incur an aggregate one-time burden of approximately 154 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸¹² Because the modifications to Rule 17Ad–22(e)(2) noted above will require updating current policies and procedures or establishing new policies and procedures to ensure compliance, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 175 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸¹³

Rule 17Ad–22(e)(2) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–22,⁸¹⁴ the Commission preliminarily estimated that the ongoing activities required by Rule 17Ad–22(e)(2) would impose an aggregate annual burden on respondent clearing agencies of 28 hours.⁸¹⁵ Because the modifications to

Rule 17Ad–22(e)(2) noted above will require updating current policies and procedures or establishing new policies and procedures to ensure compliance, the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(2) will impose an aggregate annual burden on respondent clearing agencies of 35 hours.⁸¹⁶

3. Rule 17Ad–22(e)(3)

As described in Part IV.A.3, the Commission is adopting Rule 17Ad–22(e)(3) with one modification. Because this modification is only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. The burden estimates below are unchanged from the CCA Standards proposing release.⁸¹⁷

While Rule 17Ad–22(d) requires registered clearing agencies to have policies and procedures to manage certain risks,⁸¹⁸ Rule 17Ad–22(e)(3) requires a comprehensive framework for risk management, under which policies and procedures for risk management are designed holistically, are consistent with each other, and work effectively together. Accordingly, the PRA burden requires a respondent clearing agency to revise its written rules, policies, and procedures to include, among other things, periodic review and plans for the recovery and orderly wind-down of the covered clearing agency. As a result, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of 399 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸¹⁹

Rule 17Ad–22(e)(3) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures created in response to the rule and activities related to facilitating a periodic review of the risk management framework. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–

follows: (Compliance Attorney for 4 hours) × 7 respondent clearing agencies = 28 hours.

⁸¹⁶ This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

⁸¹⁷ See CCA Standards proposing release, *supra* note 5, at 29568.

⁸¹⁸ See 17 CFR 240.17Ad–22(d).

⁸¹⁹ This figure was calculated as follows: ((Assistant General Counsel for 25 hours) + (Compliance Attorney for 18 hours) + (Senior Risk Management Specialist for 7 hours) + (Computer Operations Manager for 7 hours)) = 57 hours × 7 respondent clearing agencies = 399 hours.

22,⁸²⁰ the Commission estimates that the ongoing activities required by Rule 17Ad(22)(e)(3) impose an aggregate annual burden on respondent clearing agencies of 343 hours.⁸²¹ Additionally, the Commission notes that the estimated ongoing burden for Rule 17Ad–22(e)(3) is similar to the initial one-time burden because the rule requires policies and procedures for review on a specified periodic basis and approval by the board of directors annually.

4. Rule 17Ad–22(e)(4)

As described in Part IV.A.4, the Commission is adopting Rule 17Ad–22(e)(4) with modifications. While some of these modifications are only technical or clarifying in nature, the burden estimates for the rule, as described below, have been modified from the preliminary estimates in the CCA Standards proposing release to reflect that Rules 17Ad–22(e)(13)(i) and (ii) are being adopted under Rule 17Ad–22(e)(4) as new Rules 17Ad–22(e)(4)(viii) and (ix).⁸²²

The Commission estimates that the PRA burdens for Rule 17Ad–22(e)(4) are more significant than in other cases under Rule 17Ad–22(e) and may require a respondent clearing agency to make substantial changes to its written rules, policies, and procedures pursuant to the rule.⁸²³ In addition, Rule 17Ad–22(e)(4) will require a respondent clearing agency to make one-time systems adjustments so that it has the capability to test the sufficiency of its financial resources and to perform an annual model validation. As a result, the Commission preliminarily estimated that respondent clearing agencies would incur an aggregate one-time burden of 1,400 hours.⁸²⁴ Because the modifications to Rule 17Ad–22(e)(4) noted above will require updating current policies and procedures or establishing new policies and

⁸²⁰ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸²¹ This figure was calculated as follows: ((Compliance Attorney for 8 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 5 hours) + (Risk Management Specialist for 33 hours)) = 49 hours × 7 respondent clearing agencies = 343 hours.

⁸²² The Commission notes that because the modifications to Rules 17Ad–22(e)(4) and (13) reflect only the moving of requirements from Rule 17Ad–22(e)(13) to Rule 17Ad–22(e)(4), the burden hours across the two rules remains unchanged.

⁸²³ See *supra* Part II.C.4.

⁸²⁴ See CCA Standards proposing release, *supra* note 5, at 29568. This figure was calculated as follows: ((Assistant General Counsel for 60 hours) + (Compliance Attorney for 40 hours) + (Senior Risk Management Specialist for 30 hours) + (Computer Operations Manager for 45 hours) + (Chief Compliance Officer for 15 hours) + (Senior Programmer for 10 hours)) = 200 hours × 7 respondent clearing agencies = 1,400 hours.

⁸¹⁰ See 17 CFR 204.17Ad–22(d)(8); see also *supra* Part II.C.2.

⁸¹¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸¹² See CCA Standards proposing release, *supra* note 5, at 29568. This figure was calculated as follows: ((Assistant General Counsel for 12 hours) + (Compliance Attorney for 10 hours)) = 22 hours × 7 respondent clearing agencies = 154 hours.

The Commission notes that the CCA Standards proposing release correctly identified the number of initial burden hours as 154 hours but incorrectly stated the burden estimate for Assistant General Counsel as 24 rather than 12 hours. See *id.*

⁸¹³ This figure was calculated as follows: ((Assistant General Counsel for 14 hours) + (Compliance Attorney for 11 hours)) = 25 hours × 7 respondent clearing agencies = 175 hours.

⁸¹⁴ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸¹⁵ See CCA Standards proposing release, *supra* note 5, at 29568. This figure was calculated as

procedures to ensure compliance, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 1,533 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸²⁵

Rule 17Ad-22(e)(4) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures developed in response to the rule and ongoing activities with respect to testing the sufficiency of its financial resources and performing the annual model validation. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad-22,⁸²⁶ the Commission preliminarily estimated that the ongoing activities required by proposed Rule 17Ad-22(e)(4) would impose an aggregate annual burden on respondent clearing agencies of 420 hours.⁸²⁷ Because the modifications to Rule 17Ad-22(e)(4) noted above will require updating current policies and procedures or establishing new policies and procedures to ensure compliance, the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(4) will impose an aggregate annual burden on respondent clearing agencies of 434 hours.⁸²⁸

5. Rule 17Ad-22(e)(5)

As described in Part IV.A.5, the Commission is adopting Rule 17Ad-22(e)(5) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸²⁹

⁸²⁵ This figure was calculated as follows: ((Assistant General Counsel for 74 hours) + (Compliance Attorney for 45 hours) + (Senior Risk Management Specialist for 30 hours) + (Computer Operations Manager for 45 hours) + (Chief Compliance Officer for 15 hours) + (Senior Programmer for 10 hours)) = 219 hours × 7 respondent clearing agencies = 1,533 hours.

⁸²⁶ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸²⁷ See CCA Standards proposing release, *supra* note 5, at 29569. This figure was calculated as follows: ((Compliance Attorney for 24 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 3 hours) + (Risk Management Specialist for 30 hours)) = 60 hours × 7 respondent clearing agencies = 420 hours.

⁸²⁸ This figure was calculated as follows: ((Compliance Attorney for 26 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 3 hours) + (Risk Management Specialist for 30 hours)) = 62 hours × 7 respondent clearing agencies = 434 hours.

⁸²⁹ See CCA Standards proposing release, *supra* note 5, at 29569.

Rule 17Ad-22(e)(5) contains similar provisions to Rule 17Ad-22(d)(3).⁸³⁰ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. For example, a respondent clearing agency may need to develop new policies and procedures for an annual review of the sufficiency of its collateral haircuts and concentration limits. Accordingly, based on the similar policies and procedures requirements in and the Commission's previous corresponding burden estimates for Rule 17Ad-22(d)(3),⁸³¹ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 294 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸³²

Rule 17Ad-22(e)(5) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to the written policies and procedures created in response to the rule and also requires an annual review of collateral haircuts and concentration limits. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad-22,⁸³³ the Commission estimates that the ongoing activities required by the rule imposes an aggregate annual burden on respondent clearing agencies of 252 hours.⁸³⁴ The Commission notes that the estimated ongoing burden for Rule 17Ad-22(e)(5) is similar to the initial one-time burden because the rule requires policies and procedures for a not-less-than-annual review of the sufficiency of a covered clearing agency's collateral haircuts and concentration limits.

⁸³⁰ See 17 CFR 240.17Ad-22(d)(3); see also *supra* Part II.C.5.

⁸³¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸³² This figure was calculated as follows: ((Assistant General Counsel for 16 hours) + (Compliance Attorney for 12 hours) + (Senior Risk Management Specialist for 7 hours) + (Computer Operations Manager for 7 hours)) = 42 hours × 7 respondent clearing agencies = 294 hours.

⁸³³ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸³⁴ This figure was calculated as follows: ((Compliance Attorney for 6 hours) + (Risk Management Specialist for 30 hours)) = 36 hours × 7 respondent clearing agencies = 252 hours.

6. Rule 17Ad-22(e)(6)

As described in Part IV.A.6, the Commission is adopting Rule 17Ad-22(e)(6) with modifications. Because these modifications are only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. Therefore, the burden estimates described below are unchanged from the CCA Standards proposing release.⁸³⁵

The Commission estimates that the PRA burdens for Rule 17Ad-22(e)(6) are more significant than in other cases under Rule 17Ad-22(e) and may require a respondent clearing agency to make substantial changes to its written rules, policies, and procedures pursuant to the rule.⁸³⁶ For example, Rule 17Ad-22(e)(6) requires one-time systems adjustments to perform daily backtesting and monthly (or more frequent) sensitivity analyses. As a result, the Commission preliminarily estimated that respondent clearing agencies would incur an aggregate one-time burden of 1,080 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸³⁷

Rule 17Ad-22(e)(6) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to the written policies and procedures created in response to the rule and activities associated with daily backtesting, monthly (or more frequent) sensitivity analyses, and annual model validation. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad-22,⁸³⁸ the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(6) impose an aggregate annual burden on respondent clearing agencies of 360 hours.⁸³⁹

⁸³⁵ See CCA Standards proposing release, *supra* note 5, at 29569.

⁸³⁶ See *id.* at 29569 & n.469; see also *supra* Part II.C.6.

⁸³⁷ This figure was calculated as follows: ((Assistant General Counsel for 50 hours) + (Compliance Attorney for 40 hours) + (Senior Risk Management Specialist for 25 hours) + (Computer Operations Manager for 40 hours) + (Chief Compliance Officer for 15 hours) + (Senior Programmer for 10 hours)) = 180 hours × 6 respondent clearing agencies = 1,080 hours.

⁸³⁸ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸³⁹ This figure was calculated as follows: ((Compliance Attorney for 24 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 3 hours) + (Risk Management Specialist for 30 hours)) = 60 hours × 6 respondent clearing agencies = 360 hours.

7. Rule 17Ad–22(e)(7)

As described in Part IV.A.7, the Commission is adopting Rule 17Ad–22(e)(7) with modifications. Because these modifications are only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. Therefore, the burden estimates described below are unchanged from the CCA Standards proposing release.⁸⁴⁰

The Commission estimates that the PRA burdens for Rule 17Ad–22(e)(7) are more significant than in other cases under Rule 17Ad–22(e) and may require a respondent clearing agency to make substantial changes to its written rules, policies, and procedures pursuant to the rule.⁸⁴¹ For example, Rule 17Ad–22(e)(7) requires one-time systems adjustments to test the sufficiency of its liquid resources, test its access to liquidity providers, and perform an annual model validation. As a result, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of 2,310 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸⁴²

Rule 17Ad–22(e)(7) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to policies and procedures created in response to the rule as well as activities related to testing the sufficiency of its liquidity resources, testing access to its liquidity providers, and performing an annual model validation. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁴³ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(7) impose an aggregate annual burden on respondent clearing agencies of 896 hours.⁸⁴⁴

⁸⁴⁰ See CCA Standards proposing release, *supra* note 5, at 29569–70.

⁸⁴¹ See *id.* at 29569 & n.473; see also *supra* Part II.C.7.

⁸⁴² This figure was calculated as follows: ((Assistant General Counsel for 95 hours) + (Compliance Attorney for 85 hours) + (Senior Risk Management Specialist for 45 hours) + (Computer Operations Manager for 60 hours) + (Chief Compliance Officer for 30 hours) + (Senior Programmer for 15 hours)) = 330 hours × 7 respondent clearing agencies = 2,310 hours.

⁸⁴³ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁴⁴ This figure was calculated as follows: ((Compliance Attorney for 48 hours) + (Administrative Assistant for 5 hours) + (Senior Business Analyst for 5 hours) + (Risk Management Specialist for 60 hours) + (Senior Risk Management

8. Rule 17Ad–22(e)(8)

As described in Part IV.A.8, the Commission is adopting Rule 17Ad–22(e)(8) with one modification. Because these modifications are only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. Therefore, the burden estimates described below are unchanged from the CCA Standards proposing release.⁸⁴⁵

Rule 17Ad–22(e)(8) contains substantially similar provisions to Rule 17Ad–22(d)(12).⁸⁴⁶ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(12),⁸⁴⁷ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 84 hours to review and revise existing policies and procedures.⁸⁴⁸

Rule 17Ad–22(e)(8) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁴⁹ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(8) impose an aggregate annual burden on respondent clearing agencies of approximately 35 hours.⁸⁵⁰

9. Rule 17Ad–22(e)(9)

As described in Part IV.A.9, the Commission is adopting Rule 17Ad–

Specialist for 10 hours)) = 128 hours × 7 respondent clearing agencies = 896 hours.

⁸⁴⁵ See CCA Standards proposing release, *supra* note 5, at 29570.

⁸⁴⁶ See 17 CFR 240.17Ad–22(d)(12); see also *supra* Part II.C.8.

⁸⁴⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁴⁸ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours) + (Senior Business Analyst for 2 hours) + (Computer Operations Manager for 2 hours)) = 12 hours × 7 respondent clearing agencies = 84 hours.

⁸⁴⁹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁵⁰ This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

22(e)(9) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁵¹

Rule 17Ad–22(e)(9) contains substantially similar provisions to Rule 17Ad–22(d)(5).⁸⁵² The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(5),⁸⁵³ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 84 hours to review and revise existing policies and procedures.⁸⁵⁴

Rule 17Ad–22(e)(9) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁵⁵ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(9) impose an aggregate annual burden on respondent clearing agencies of approximately 35 hours.⁸⁵⁶

10. Rule 17Ad–22(e)(10)

As described in Part IV.A.10, the Commission is adopting Rule 17Ad–22(e)(10) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁵⁷

Rule 17Ad–22(e)(10) contains substantially similar provisions to Rule 17Ad–22(d)(15).⁸⁵⁸ The Commission

⁸⁵¹ See CCA Standards proposing release, *supra* note 5, at 29570.

⁸⁵² See 17 CFR 240.17Ad–22(d)(5); see also *supra* Part II.C.9.

⁸⁵³ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁵⁴ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours) + (Senior Business Analyst for 2 hours) + (Computer Operations Manager for 2 hours)) = 12 hours × 7 respondent clearing agencies = 84 hours.

⁸⁵⁵ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁵⁶ This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

⁸⁵⁷ See CCA Standards proposing release, *supra* note 5, at 29570.

⁸⁵⁸ See 17 CFR 240.17Ad–22(d)(15); see also *supra* Part II.C.10.

therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad-22(d)(15),⁸⁵⁹ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 84 hours to review and revise existing policies and procedures.⁸⁶⁰

Rule 17Ad-22(e)(10) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad-22,⁸⁶¹ the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(10) impose an aggregate annual burden on respondent clearing agencies of approximately 35 hours.⁸⁶²

11. Rule 17Ad-22(e)(11)

As described in Part IV.A.11, the Commission is adopting Rule 17Ad-22(e)(11) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁶³

With respect to Rule 17Ad-22(e)(11), a respondent clearing agency is a registered clearing agencies that provides CSD services. Because Rule 17Ad-22(e)(11) contains similar provisions to Rule 17Ad-22(d)(10),⁸⁶⁴ the Commission expects that such clearing agencies generally have written rules, policies, and procedures similar to the requirements imposed under the rule. Rule 17Ad-22(e)(11) also imposes additional requirements that do not appear in Rule 17Ad-22, and

accordingly a covered clearing agency providing CSD services may need to review and revise its policies and procedures or create new policies and procedures, as necessary, as necessary, pursuant to the rule. Based on the similar policies and procedures requirements and the corresponding burden estimates made by the Commission for Rule 17Ad-22(d)(10),⁸⁶⁵ the Commission estimates that the respondent clearing agency will incur a one-time burden of approximately 55 hours to review and revise existing policies and procedures and create new policies and procedures, as necessary.⁸⁶⁶

Rule 17Ad-22(e)(11) also imposes ongoing burdens on the respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad-22,⁸⁶⁷ the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(11) impose a total annual burden on the respondent clearing agency of approximately 8 hours.⁸⁶⁸

12. Rule 17Ad-22(e)(12)

As described in Part IV.A.12, the Commission is adopting Rule 17Ad-22(e)(12) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁶⁹

Rule 17Ad-22(e)(12) contains substantially similar provisions to Rule 17Ad-22(d)(13).⁸⁷⁰ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the

corresponding burden estimates previously made by the Commission for Rule 17Ad-22(d)(13),⁸⁷¹ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 84 hours to review and revise existing policies and procedures.⁸⁷²

Rule 17Ad-22(e)(12) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad-22,⁸⁷³ the Commission estimates that the ongoing activities required by Rule 17Ad-22(e)(12) impose an aggregate annual burden on respondent clearing agencies of approximately 35 hours.⁸⁷⁴

13. Rule 17Ad-22(e)(13)

As described in Part IV.A.13, the Commission is adopting Rule 17Ad-22(e)(13) with modifications. The burden estimates for the rule, as described below, have been modified from the preliminary estimates in the CCA Standards proposing release to reflect that Rules 17Ad-22(e)(13)(i) and (ii) are being adopted under Rule 17Ad-22(e)(4) as new Rules 17Ad-22(e)(4)(viii) and (ix).⁸⁷⁵

Rule 17Ad-22(e)(13) requires a respondent clearing agency to have written policies and procedures reasonably designed to address participant default and ensure that the clearing agency can contain losses and liquidity demands and continue to meet its obligations. Rule 17Ad-22(e)(13) contains similar provisions to Rule 17Ad-22(d)(11) but also imposes additional requirements that do not appear in Rule 17Ad-22.⁸⁷⁶ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to some requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and

⁸⁵⁹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁶⁰ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours) + (Senior Business Analyst for 2 hours) + (Computer Operations Manager for 2 hours)) = 12 hours × 7 respondent clearing agencies = 84 hours.

⁸⁶¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁶² This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

⁸⁶³ See CCA Standards proposing release, *supra* note 5, at 29570–71.

⁸⁶⁴ See 17 CFR 240.17Ad-22(d)(10); see also *supra* Part II.B.11.

⁸⁶⁵ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁶⁶ This figure was calculated as follows: ((Assistant General Counsel for 20 hours) + (Compliance Attorney for 10 hours) + (Intermediate Accountant for 15 hours) + (Senior Business Analyst for 5 hours) + (Computer Operations Manager for 5 hours)) = 55 hours × 1 respondent clearing agency = 55 hours.

⁸⁶⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁶⁸ This figure was calculated as follows: (Compliance Attorney for 8 hours) × 1 respondent clearing agency = 8 hours.

⁸⁶⁹ See CCA Standards proposing release, *supra* note 5, at 29571.

⁸⁷⁰ See 17 CFR 240.17Ad-22(d)(13); see also *supra* Part II.C.12.

⁸⁷¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁷² This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours) + (Senior Business Analyst for 2 hours) + (Computer Operations Manager for 2 hours)) = 12 hours × 7 respondent clearing agencies = 84 hours.

⁸⁷³ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁷⁴ This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

⁸⁷⁵ See *supra* note 822.

⁸⁷⁶ See 17 CFR 240.17Ad-22(d)(11); see also *supra* Part II.C.13.

revising existing policies and procedures pursuant to Rule 17Ad–22(e)(13) and creating new policies and procedures, as necessary. Accordingly, based on the similar policies and procedures requirements and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(11),⁸⁷⁷ the Commission preliminarily estimated that respondent clearing agencies would incur an aggregate one-time burden of approximately 420 hours to review and update existing policies and procedures and to create new policies and procedures, as necessary.⁸⁷⁸ Because the modifications to Rule 17Ad–22(e)(13) noted above will require updating current policies and procedures or establishing new policies and procedures to ensure compliance, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 287 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸⁷⁹

Rule 17Ad–22(e)(13) also imposes ongoing burdens on a respondent clearing agency. The rule requires policies and procedures for the annual review and testing of a clearing agency's default policies and procedures. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–22,⁸⁸⁰ the Commission preliminarily estimated that the ongoing activities required by Rule 17Ad–22(e)(13) would impose an aggregate annual burden on respondent clearing agencies of approximately 63 hours.⁸⁸¹ Because the modifications to Rule 17Ad–22(e)(13) noted above will require updating current policies and procedures or establishing new policies and procedures to ensure compliance, the Commission estimates that the ongoing activities required by Rule 17Ad–

22(e)(13) will impose an aggregate annual burden on respondent clearing agencies of 49 hours.⁸⁸²

14. Rule 17Ad–22(e)(14)

As described in Part IV.A.14, the Commission is adopting Rule 17Ad–22(e)(14) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁸³

With respect to Rule 17Ad–22(e)(14), a respondent clearing agency is a registered clearing agency that provides CCP services for security-based swaps. Such clearing agencies generally have written policies and procedures regarding the segregation and portability of customer positions and collateral as a result of applicable rules and regulations notwithstanding Rule 17Ad–22.⁸⁸⁴ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, the Commission estimates that Rule 17Ad–22(e)(14) imposes on respondent clearing agencies an aggregate one-time burden of 72 hours to review and revise existing policies and procedures.⁸⁸⁵

Rule 17Ad–22(e)(14) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁸⁶ the Commission believes that the ongoing activities required by Rule 17Ad–22(e)(14) impose an aggregate annual burden on respondent

clearing agencies of approximately 12 hours.⁸⁸⁷

15. Rule 17Ad–22(e)(15)

As described in Part IV.A.15, the Commission is adopting Rule 17Ad–22(e)(15) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁸⁸

Because Rule 17Ad–22(d) does not include requirements related to general business risk, the Commission estimates that the PRA burdens for Rule 17Ad–22(e)(15) are more significant than in other cases under Rule 17Ad–22(e) and may require a respondent clearing agency to make substantial changes to its written rules, policies, and procedures pursuant to the rule.⁸⁸⁹ The Commission estimates that Rule 17Ad–22(e)(15) will impose an aggregate one-time burden on respondent covered clearing agencies of 1,470 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁸⁹⁰

Rule 17Ad–22(e)(15) also imposes ongoing burdens on a respondent clearing agency. Rule 17Ad–22(e)(15) requires a respondent clearing agency to establish, implement, maintain and enforce written policies and procedures reasonably designed to maintain a viable plan, approved by its board of directors and updated at least annually, for raising additional equity in the event that the covered clearing agency's liquid net assets fall below the level required by the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁹¹ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(15) impose an aggregate annual burden on respondent clearing agencies of 336 hours.⁸⁹²

⁸⁷⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁷⁸ See CCA Standards proposing release, *supra* note 5, at 29571. This figure was calculated as follows: ((Assistant General Counsel for 20 hours) + (Compliance Attorney for 16 hours) + (Senior Business Analyst for 12 hours) + (Computer Operations Manager for 12 hours)) = 60 hours × 7 respondent clearing agencies = 420 hours.

⁸⁷⁹ This figure was calculated as follows: ((Assistant General Counsel for 6 hours) + (Compliance Attorney for 11 hours) + (Senior Business Analyst for 12 hours) + (Computer Operations Manager for 12 hours)) = 41 hours × 7 respondent clearing agencies = 287 hours.

⁸⁸⁰ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁸¹ See CCA Standards proposing release, *supra* note 5, at 29571. This figure was calculated as follows: ((Compliance Attorney for 9 hours) × 7 respondent clearing agencies = 63 hours.

⁸⁸² This figure was calculated as follows: (Compliance Attorney for 7 hours) × 7 respondent clearing agencies = 49 hours.

⁸⁸³ See CCA Standards proposing release, *supra* note 5, at 29571–72.

⁸⁸⁴ See, e.g., 77 FR 6336 (Feb. 7, 2012) (CFTC adopting rules imposing LSOC on DCOs for cleared swaps); see also *supra* Part II.C.14. Because the respondent clearing agencies are subject to the CFTC's segregation and portability requirements for cleared swaps, the Commission expects that the burden imposed by Rule 17Ad–22(e)(14) will be limited.

⁸⁸⁵ This figure was calculated as follows: ((Assistant General Counsel for 12 hours) + (Compliance Attorney for 10 hours) + (Computer Operations Manager for 7 hours) + (Senior Business Analyst for 7 hours)) = 36 hours × 2 respondent clearing agency that provide, or would potentially provide, CCP services with respect to security-based swaps = 72 hours.

⁸⁸⁶ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁸⁷ This figure was calculated as follows: (Compliance Attorney for 6 hours) × 2 respondent clearing agencies = 12 hours

⁸⁸⁸ See CCA Standards proposing release, *supra* note 5, at 29571.

⁸⁸⁹ See 17 CFR 240.17Ad–22(d); see also *supra* Part II.C.15.

⁸⁹⁰ This figure was calculated as follows: ((Assistant General Counsel for 40 hours) + (Compliance Attorney for 30 hours) + (Computer Operations Manager for 10 hours) + (Senior Business Analyst for 10 hours) + (Financial Analyst for 70 hours) + (Chief Financial Officer for 50 hours)) = 210 hours × 7 respondent clearing agencies = 1,470 hours.

⁸⁹¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁹² This figure was calculated as follows: ((Compliance Attorney for 42 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 3 hours)) = 48 hours × 7 respondents clearing agencies = 336 hours.

16. Rule 17Ad–22(e)(16)

As described in Part IV.A.16, the Commission is adopting Rule 17Ad–22(e)(16) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁸⁹³

Rule 17Ad–22(e)(16) contains substantially similar provisions to Rule 17Ad–22(d)(3).⁸⁹⁴ The Commission therefore expects that a respondent clearing agency has written rules, policies, and procedures substantially similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing current policies and procedures and revising them, where appropriate, pursuant to the rule. Accordingly, based on the similar provisions and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(3),⁸⁹⁵ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 140 hours to review and revise existing policies and procedures.⁸⁹⁶

Rule 17Ad–22(e)(16) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁸⁹⁷ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(16) impose an aggregate annual burden on respondent clearing agencies of 42 hours.⁸⁹⁸

17. Rule 17Ad–22(e)(17)

As described in Part IV.A.17, the Commission is adopting Rule 17Ad–22(e)(17) with one modification. Because this modification is only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. The burden estimates for the rule are

unchanged from the CCA Standards proposing release.⁸⁹⁹

Rule 17Ad–22(e)(17) contains similar provisions to Rule 17Ad–22(d)(4) but also imposes additional requirements that do not appear in Rule 17Ad–22.⁹⁰⁰ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and revising current policies and procedures and creating new policies and procedures, as necessary, pursuant to the rule. Accordingly, based on the similar policies and procedures requirements and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(4),⁹⁰¹ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of 196 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁹⁰²

Rule 17Ad–22(e)(17) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–22,⁹⁰³ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(17) impose an aggregate annual burden on respondent clearing agencies of 112 hours.⁹⁰⁴

18. Rule 17Ad–22(e)(18)

As described in Part IV.A.18, the Commission is adopting Rule 17Ad–22(e)(18) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁹⁰⁵

Rule 17Ad–22(e)(18) contains similar provisions to Rules 17Ad–22(b)(5)

through (7) and (d)(2).⁹⁰⁶ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and revising current policies and procedures and creating new policies and procedures, as necessary, pursuant to the rule. Accordingly, based on the similar policies and procedures requirements and the corresponding burden estimates previously made by the Commission for Rules 17Ad–22(b)(5) through (7) and (d)(2),⁹⁰⁷ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of 308 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁹⁰⁸

Rule 17Ad–22(e)(18) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁹⁰⁹ the Commission estimates that the ongoing activities required by the rule impose an aggregate annual burden on respondent clearing agencies of 49 hours.⁹¹⁰

19. Rule 17Ad–22(e)(19)

As described in Part IV.A.19, the Commission is adopting Rule 17Ad–22(e)(19) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁹¹¹

Tiered participation arrangements are not addressed by Rule 17Ad–22(d). The Commission therefore expects that a respondent clearing agency may need to create policies and procedures pursuant to Rule 17Ad–22(e)(19).⁹¹² The

⁸⁹³ See 17 CFR 240.17Ad–22(b)(5)–(7), (d)(2); see also *supra* Part II.C.18.

⁹⁰⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹⁰⁸ This figure was calculated as follows: ((Assistant General Counsel for 10 hours) + (Compliance Attorney for 7 hours) + Computer Operations Manager for 15 hours) + (Senior Business Analyst for 5 hours) + (Chief Compliance Officer for 5 hours) + (Senior Programmer for 2 hours)) = 44 hours × 7 respondent clearing agencies = 308 hours.

⁹⁰⁹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹¹⁰ This figure was calculated as follows: (Compliance Attorney for 7 hours) × 7 respondent clearing agencies = 49 hours.

⁹¹¹ See CCA Standards proposing release, *supra* note 5, at 29573.

⁹¹² See 17 CFR 240.17Ad–22(d); see also *supra* Part II.C.19.

⁸⁹³ See CCA Standards proposing release, *supra* note 5, at 29572.

⁸⁹⁴ See 17 CFR 240.17Ad–22(d)(3); see also *supra* Part II.C.16.

⁸⁹⁵ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁸⁹⁶ This figure was calculated as follows: ((Assistant General Counsel for 4 hours) + (Compliance Attorney for 8 hours) + (Senior Business Analyst for 4 hours) + (Computer Operations Manager for 4 hours)) = 20 hours × 7 respondent clearing agencies = 140 hours.

⁸⁹⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁸⁹⁸ This figure was calculated as follows: (Compliance Attorney for 6 hours) × 7 respondent clearing agencies = 42 hours.

⁸⁹⁹ See CCA Standards proposing release, *supra* note 5, at 29572–73.

⁹⁰⁰ See 17 CFR 240.17Ad–22(d)(4); see also *supra* Part II.C.17.

⁹⁰¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹⁰² This figure was calculated as follows: ((Assistant General Counsel for 4 hours) + (Compliance Attorney for 8 hours) + (Computer Operations Manager for 6 hours) + (Senior Business Analyst for 4 hours) + (Chief Compliance Officer for 4 hours) + (Senior Programmer for 2 hours)) = 28 hours × 7 respondent clearing agency = 196 hours.

⁹⁰³ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹⁰⁴ This figure was calculated as follows: (Compliance Attorney for 6 hours) × 7 respondent clearing agencies = 42 hours.

⁹⁰⁵ See CCA Standards proposing release, *supra* note 5, at 29573.

Commission estimates that Rule 17Ad–22(e)(19) imposes an aggregate one-time burden on respondent clearing agencies of 308 hours to review and revise existing policies and procedures and to create new policies and procedures, as necessary.⁹¹³

Rule 17Ad–22(e)(19) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–22,⁹¹⁴ the Commission estimates that the ongoing activities required by the rule impose an annual aggregate burden on respondent clearing agencies of 49 hours.⁹¹⁵

20. Rule 17Ad–22(e)(20)

As described in Part IV.A.13, the Commission is adopting Rule 17Ad–22(e)(20) with one modification. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁹¹⁶

Rule 17Ad–22(e)(20) contains similar provisions to Rule 17Ad–22(d)(7) but also adds additional requirements that do not appear in Rule 17Ad–22(d).⁹¹⁷ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and revising current policies and procedures and creating new policies and procedures, as necessary, pursuant to the rule. Accordingly, based on the similar policies and procedures requirements and compliance burdens associated with Rule 17Ad–22(d)(7),⁹¹⁸ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 308 hours to review and update existing policies and

procedures.⁹¹⁹ Rule 17Ad–22(e)(20) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–22,⁹²⁰ the Commission estimates that the ongoing activities required by the rule impose an aggregate annual burden on respondent clearing agencies of 49 hours.⁹²¹

21. Rule 17Ad–22(e)(21)

As described in Part IV.A.21, the Commission is adopting Rule 17Ad–22(e)(21) with one modification. Because this modification is only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁹²²

Rule 17Ad–22(e)(21) contains similar provisions to Rule 17Ad–22(d)(6) but also adds additional requirements that do not appear in Rule 17Ad–22(d).⁹²³ The Commission therefore expects that a respondent clearing agency may have written rules, policies, and procedures similar to the requirements in the rule and that the PRA burden includes the incremental burdens of reviewing and revising current policies and procedures and creating new policies and procedures, as necessary, pursuant to the rule. Accordingly, based on the similar policies and procedures requirements and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(6),⁹²⁴ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 224 hours to review and

revise existing policies and procedures.⁹²⁵

Rule 17Ad–22(e)(21) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁹²⁶ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(21) impose an aggregate annual burden on respondent clearing agencies of 77 hours.⁹²⁷

22. Rule 17Ad–22(e)(22)

As described in Part IV.A.22, the Commission is adopting Rule 17Ad–22(e)(22) as proposed. The burden estimates for the rule are unchanged from the CCA Standards proposing release.⁹²⁸

Although Rule 17Ad–22(d) does not include any requirements with provisions similar to Rule 17Ad–22(e)(22), the Commission understands that covered clearing agencies currently use the relevant internationally accepted communication procedures and standards and therefore expects that a respondent clearing agency may need to make only limited changes to its policies and procedures under the rule.⁹²⁹ Accordingly, the Commission estimates that the rule imposes an aggregate one-time burden on respondent clearing agencies of 168 hours to review and revise existing policies and procedures.⁹³⁰

Rule 17Ad–22(e)(22) also imposes ongoing burdens on a respondent clearing agency. It requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for

⁹¹³ This figure was calculated as follows: ((Assistant General Counsel for 10 hours) + (Compliance Attorney for 7 hours) + (Computer Operations Manager for 15 hours) + (Senior Business Analyst for 5 hours) + (Chief Compliance Officer for 5 hours) + (Senior Programmer for 2 hours)) = 44 hours × 7 respondent clearing agencies = 308 hours.

⁹¹⁴ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁹¹⁵ This figure was calculated as follows: (Compliance Attorney for 7 hours) × 7 respondent clearing agencies = 49 hours.

⁹¹⁶ See Clearing Agency Standards adopting release, *supra* note 5, at 29573–74.

⁹¹⁷ See 17 CFR 240.17Ad–22(d)(7); see also *supra* Part II.C.20.

⁹¹⁸ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹¹⁹ See CCA Standards proposing release, *supra* note 5, at 29573. This figure was calculated as follows: ((Assistant General Counsel for 10 hours) + (Compliance Attorney for 7 hours) + (Senior Business Analyst for 5 hours) + (Computer Operations Manager for 15 hours) + (Chief Compliance Officer for 5 hours) + (Senior Programmer for 2 hours)) = 44 hours × 7 respondent clearing agencies = 308 hours.

⁹²⁰ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹²¹ This figure was calculated as follows: (Compliance Attorney for 7 hours) × 7 respondent clearing agencies = 49 hours.

⁹²² See CCA Standards proposing release, *supra* note 5, at 29574.

⁹²³ See 17 CFR 240.17Ad–22(d)(6); see also *supra* Part II.C.21.

⁹²⁴ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹²⁵ This figure was calculated as follows: ((Assistant General Counsel for 10 hours) + (Compliance Attorney for 7 hours) + (Senior Business Analyst for 5 hours) + (Computer Operations Manager for 10 hours)) = 32 hours × 7 respondent clearing agencies = 224 hours.

⁹²⁶ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹²⁷ This figure was calculated as follows: ((Compliance Attorney for 5 hours) + (Administrative Assistant for 3 hours) + (Senior Business Analyst for 3 hours) = 11 hours × 7 respondent clearing agencies = 77 hours.

⁹²⁸ See CCA Standards proposing release, *supra* note 5, at 29574.

⁹²⁹ See 17 CFR 240.17Ad–22(d); see also *supra* Part II.C.22.

⁹³⁰ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Compliance Attorney for 6 hours) + (Computer Operations Manager for 7 hours) + (Senior Business Analyst for 2 hours) + (Chief Compliance Officer for 5 hours) + (Senior Programmer for 2 hours)) = 24 hours × 7 respondent clearing agencies = 168 hours.

ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁹³¹ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(22) impose an aggregate annual burden on respondent clearing agencies of 35 hours.⁹³²

23. Rule 17Ad–22(e)(23)

As described in Part IV.A.23, the Commission is adopting Rule 17Ad–22(e)(23) with modifications. Because these modifications are only technical or clarifying in nature, the Commission does not believe they will alter the PRA burdens described in the CCA Standards proposing release. Therefore, the burden estimates described below are unchanged from the CCA Standards proposing release.⁹³³

Rule 17Ad–22(e)(23) contains similar requirements to Rule 17Ad–22(d)(9) but also imposes substantial new requirements.⁹³⁴ The Commission therefore expects that, although a respondent clearing agency may have written rules, policies and procedures similar to those required by some provisions under the rule, a respondent clearing agency will need to create new policies and procedures to address the other provisions. Accordingly, based on the similar policies and procedures requirements and the corresponding burden estimates previously made by the Commission for Rule 17Ad–22(d)(9),⁹³⁵ the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of 966 hours to review and revise existing policies and procedures and to create policies and procedures, as necessary.⁹³⁶

Rule 17Ad–22(e)(23) also imposes ongoing burdens on a respondent clearing agency. The rule requires ongoing monitoring and compliance activities with respect to its policies and procedures under the rule. Based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to Rule 17Ad–

22,⁹³⁷ the Commission estimates that the ongoing activities required by Rule 17Ad–22(e)(23) impose an aggregate annual burden on respondent clearing agencies of 238 hours.⁹³⁸

24. Total Burden for Rule 17Ad–22(e)

The Commission preliminarily estimated that respondent clearing agencies would incur an aggregate initial burden under Rule 17Ad–22(e) of 10,664 hours and an aggregate ongoing burden of 3,460 hours.⁹³⁹ In light of the modifications made by the Commission in adopting Rule 17Ad–22(e) described above that will require updating current policies and procedures or establishing new policies and procedures to ensure compliance with the rule, the Commission estimates that respondent clearing agencies will incur an aggregate initial burden of 10,776 hours under Rule 17Ad–22(e) and an aggregate ongoing burden of 3,537 hours.

25. Total Burden for Rule 17Ab2–2

As discussed in Part IV.A.24, Rule 17Ab2–2 establishes procedures for the Commission to make determinations affecting covered clearing agencies in certain circumstances.⁹⁴⁰ Because such determinations may be made upon request of a clearing agency or its members, the respondents would have the burdens of preparing such requests for submission to the Commission. To the extent such determinations are carried out by the Commission on its own initiative under Rule 17Ab2–2, the Commission expects that the PRA burdens on a respondent clearing agency would be limited. Accordingly, based on the Commission's previous estimates for ongoing monitoring and compliance burdens with respect to existing Rule 17Ad–22,⁹⁴¹ the Commission preliminarily estimated that respondent clearing agencies would incur an aggregate one-time burden of approximately 24 hours to draft and review a determination request to the Commission.⁹⁴² In consideration of the modifications made by the Commission in adopting Rule 17Ab2–2 as described

above, the Commission estimates that respondent clearing agencies will incur an aggregate one-time burden of approximately 20 hours to draft and review a determination request to the Commission.⁹⁴³

26. Total Burden for Rule 17Ad–22(c)(1)

As discussed in Part IV.A.25, the modifications to Rule 17Ad–22(c)(1) impose a recordkeeping requirement on registered clearing agencies that are covered clearing agencies. With respect to Rule 17Ad–22(c)(1), a respondent clearing agency is a registered clearing agency that provides CCP services. In the Clearing Agency Standards release, the Commission estimated that respondent clearing agencies would incur both initial and ongoing burdens under Rule 17Ad–22(c)(1). Specifically, the Commission estimated that Rule 17Ad–22(c)(1) would impose on a respondent clearing agency a one-time burden of 100 hours.⁹⁴⁴ In light of the modifications to Rule 17Ad–22(c)(1) that affect covered clearing agencies, the Commission believes that respondent clearing agencies would incur an aggregate one-time burden of 660 hours to perform adjustments needed to synthesize and format existing information in a manner sufficient to explain the methodology used to meet the requirements of Rule 17Ad–22(c)(1).⁹⁴⁵

In addition, the Commission estimated that Rule 17Ad–22(c)(1) would impose ongoing burdens on a respondent clearing agency of three hours per respondent clearing agency per quarter, amounting to an aggregate annual burden of 12 hours.⁹⁴⁶ In light of the modifications to Rule 17Ad–22(c)(1) that affect covered clearing agencies, the Commission believes that the ongoing activities required by Rule 17Ad–22(c)(1) will impose an aggregate annual burden on respondent clearing agencies of 120 hours to perform adjustments

⁹³¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁹³² This figure was calculated as follows: (Compliance Attorney for 5 hours) × 7 respondent clearing agencies = 35 hours.

⁹³³ See CCA Standards proposing release, *supra* note 5, at 29574.

⁹³⁴ See 17 CFR 240.17Ad–22(d)(9); *see also supra* Part II.C.23.

⁹³⁵ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹³⁶ This figure was calculated as follows: ((Assistant General Counsel for 38 hours) + (Compliance Attorney for 24 hours) + (Computer Operations Manager for 32 hours) + (Senior Business Analyst for 18 hours) + (Chief Compliance Officer for 18 hours) + (Senior Programmer for 8 hours)) = 138 hours × 7 respondent clearing agencies = 966 hours.

⁹³⁷ See Clearing Agency Standards adopting release, *supra* note 5, at 66260–63.

⁹³⁸ This figure was calculated as follows: (Compliance Attorney for 34 hours) × 7 respondent clearing agencies = 238 hours.

⁹³⁹ See CCA Standards proposing release, *supra* note 5, at 29574.

⁹⁴⁰ See *supra* Part II.D.

⁹⁴¹ See Clearing Agency Standards adopting release, *supra* note 5, at 66260.

⁹⁴² See CCA Standards proposing release, *supra* note 5, at 29575. This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Staff Attorney for 4 hours) + (Outside Counsel for 6 hours)) = 12 hours × 2 respondent clearing agencies = 24 hours.

⁹⁴³ This figure was calculated as follows: ((Assistant General Counsel for 2 hours) + (Staff Attorney for 3 hours) + (Outside Counsel for 5 hours)) = 10 hours × 2 respondent clearing agencies = 20 hours.

⁹⁴⁴ See Clearing Agency Standards adopting release, *supra* note 5, 66261–62. This figure was calculated as follows: ((Chief Compliance Officer at 40 hours) + (Computer Operations Department Manager at 40 hours) + (Senior Programmer at 20 hours)) = 100 hours.

⁹⁴⁵ This figure was calculated as follows: ((Chief Compliance Officer at 44 hours) + (Computer Operations Department Manager at 44 hours) + (Senior Programmer at 22 hours)) = 110 hours × 6 respondent clearing agencies = 660 hours.

⁹⁴⁶ See Clearing Agency Standards adopting release, *supra* note 5, 66262. This figure was calculated as follows: ((Compliance Attorney at 1 hour) + (Computer Operations Department Manager at 2 hours)) = 3 hours per quarter × 4 quarters per year = 12 hours.

needed to synthesize and format existing information in a manner sufficient to explain the methodology used to meet the requirements of the rule.⁹⁴⁷

D. Collection of Information Is Mandatory

The collection of information requirement for Rule 17Ad-22(e) is mandatory. The collection of information requirement for Rule 17Ab2-2 is voluntary.

E. Confidentiality

The Commission expects that the policies and procedures developed pursuant to Rule 17Ad-22(e) would be communicated to the participants, as applicable, of each respondent clearing agency and, as applicable, the public. A respondent clearing agency would be required to preserve such policies and procedures in accordance with, and for the periods specified in, Rules 17a-1 and 17a-4(e)(7) under the Exchange Act.⁹⁴⁸ To the extent that the Commission receives confidential information pursuant to this collection of information, such information would be kept confidential subject to the provisions of applicable law.⁹⁴⁹

To the extent that the Commission receives confidential information pursuant to the collection of information under Rule 17Ab2-2, the Commission also expects such information would be kept confidential subject to the provisions of applicable law.⁹⁵⁰

V. Regulatory Flexibility Act

The Regulatory Flexibility Act ("RFA") requires the Commission, in promulgating rules, to consider the impact of those rules on small entities.⁹⁵¹ Section 603(a) of the Administrative Procedure Act,⁹⁵² as amended by the RFA, generally requires the Commission to undertake a regulatory flexibility analysis of all

proposed rules to determine the impact of such rulemaking on "small entities."⁹⁵³ The Commission certified in the CCA Standards proposing release, pursuant to Section 605(b) of the RFA,⁹⁵⁴ that the proposed rules would not, if adopted, have a significant impact on a substantial number of small entities. The Commission received no comments on this certification.

A. Registered Clearing Agencies

The amendments to Rule 17Ad-22 and Rule 17Ab2-2 apply to covered clearing agencies, which would include registered clearing agencies that are designated clearing agencies, complex risk profile clearing agencies, or clearing agencies that otherwise have been determined to be covered clearing agencies by the Commission. For the purposes of Commission rulemaking and as applicable to the amendments to Rule 17Ad-22 and new Rule 17Ab2-2, a small entity includes, when used with reference to a clearing agency, a clearing agency that (i) compared, cleared, and settled less than \$500 million in securities transactions during the preceding fiscal year, (ii) had less than \$200 million of funds and securities in its custody or control at all times during the preceding fiscal year (or at any time that it has been in business, if shorter), and (iii) is not affiliated with any person (other than a natural person) that is not a small business or small organization.⁹⁵⁵

Based on the Commission's existing information about the clearing agencies currently registered with the Commission,⁹⁵⁶ the Commission believes that such registered clearing agencies exceed the thresholds defining

"small entities" set out above. While other clearing agencies may seek to register as clearing agencies with the Commission, the Commission does not believe that any such entities would be "small entities" as defined in Exchange Act Rule 0-10.⁹⁵⁷ Further, registered clearing agencies are only subject to the requirements of Rule 17Ad-22(e) if they meet the definition of a covered clearing agency, as described in Part II.A. Accordingly, the Commission believes that any such registered clearing agencies will exceed the thresholds for "small entities" set forth in Exchange Act Rule 0-10.

B. Certification

For the reasons described above, the Commission certifies that the amendments to Rule 17Ad-22 and new Rule 17Ab2-2 will not have a significant economic impact on a substantial number of small entities.

VI. Statutory Authority

Pursuant to the Exchange Act, particularly Section 17A thereof, 15 U.S.C. 78q-1, and Section 805 of the Clearing Supervision Act, 12 U.S.C. 5464, the Commission is adopting amendments to Rule 17Ad-22 and new Rule 17Ab2-2.

List of Subjects in 17 CFR Part 240

Reporting and recordkeeping requirements, Securities.

Text of Amendment

In accordance with the foregoing, title 17, chapter II of the Code of Federal Regulations is amended as follows:

PART 240—GENERAL RULES AND REGULATIONS, SECURITIES EXCHANGE

■ 1. The general authority citation for part 240 continues to read, and the sectional authority for § 240.17Ad-22 is revised to read, as follows:

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

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⁹⁵⁷ See 17 CFR 240.0-10(d). The Commission based this determination on its review of public sources of financial information about registered clearing agencies.

⁹⁴⁷ This figure was calculated as follows: ((Compliance Attorney at 2 hours) + (Computer Operations Department Manager at 3 hours)) = 5 hours per quarter × 4 quarters per year = 20 hours × 6 respondent clearing agencies = 120 hours.

⁹⁴⁸ 17 CFR 240.17a-1 and 17a-4(e)(7).

⁹⁴⁹ See, e.g., 5 U.S.C. 552, Exemption 4 of the Freedom of Information Act provides an exemption for trade secrets and commercial or financial information obtained from a person and privileged or confidential. See 5 U.S.C. 552(b)(4). Exemption 8 of the Freedom of Information Act provides an exemption for matters that are contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions. See 5 U.S.C. 552(b)(8).

⁹⁵⁰ See *id.*

⁹⁵¹ See 5 U.S.C. 601 *et seq.*

⁹⁵² See 5 U.S.C. 603(a).

⁹⁵³ Section 601(b) of the RFA permits agencies to formulate their own definitions of "small entities." See 5 U.S.C. 601(b). The Commission has adopted definitions for the term "small entity" for the purposes of rulemaking in accordance with the RFA. These definitions are set forth in Rule 0-10, 17 CFR 240.0-10.

⁹⁵⁴ See 5 U.S.C. 605(b).

⁹⁵⁵ See 17 CFR 240.0-10(d).

⁹⁵⁶ In 2015, DTCC processed \$1.508 quadrillion in financial transactions. Within DTCC, DTC settled \$112.3 trillion of securities and held securities valued at \$45.4 trillion. NSCC processed an average daily value of \$976.6 billion in equity securities, and FICC cleared \$917.1 trillion of transactions in government securities and \$48.2 trillion of transactions in agency mortgage-backed securities. See DTCC, 2015 Annual Report, available at <http://www.dtcc.com/annuals/2015/index.php>. OCC cleared more than 4.1 billion contracts and held margin of \$98.3 billion at the end of 2015. See OCC, 2015 Annual Report, available at <http://www.theocc.com/components/docs/about/annual-reports/occ-2015-annual-report.pdf>. In addition, Intercontinental Exchange ("ICE") averaged daily trade volume of 9.3 million and revenues of \$3.3 billion in 2015. See ICE at a glance, available at https://www.theice.com/publicdocs/ICE_at_a_glance.pdf.

Section 240.17Ad–22 is also issued under 12 U.S.C. 5461 *et seq.*

* * * * *

■ 2. Section 240.17Ab2–2 is added to read as follows:

§ 240.17Ab2–2 Determinations affecting covered clearing agencies.

(a) The Commission may, if it deems appropriate, upon application by any clearing agency or member of a clearing agency, or on its own initiative, determine whether a covered clearing agency is systemically important in multiple jurisdictions. In determining whether a covered clearing agency is systemically important in multiple jurisdictions, the Commission may consider:

(1) Whether the covered clearing agency is a designated clearing agency; and

(2) Whether the clearing agency has been determined to be systemically important by one or more jurisdictions other than the United States through a process that includes consideration of whether the foreseeable effects of a failure or disruption of the designated clearing agency could threaten the stability of each relevant jurisdiction's financial system.

(b) The Commission may, if it deems appropriate, determine whether any of the activities of a clearing agency providing central counterparty services, in addition to clearing agencies registered with the Commission for the purpose of clearing security-based swaps, have a more complex risk profile. In determining whether a clearing agency's activity has a more complex risk profile, the Commission may consider whether the clearing agency clears financial instruments that are characterized by discrete jump-to-default price changes or that are highly correlated with potential participant defaults.

(c) The Commission may, if it deems appropriate, upon application by any clearing agency or member of a clearing agency, or on its own initiative, determine whether to rescind any determination made pursuant to paragraph (a) or (b) of this section. In determining whether to rescind any such determination, the Commission may consider a change in circumstances such that the covered clearing agency no longer meets the criteria supporting the determination in effect.

(d) The Commission shall publish notice of its intention to consider making a determination under paragraph (a), (b), or (c) of this section, together with a brief statement of the grounds under consideration therefor, and provide at least a 30-day public

comment period prior to any such determination, giving all interested persons an opportunity to submit written data, views, and arguments concerning such proposed determination. The Commission may provide the clearing agency subject to the proposed determination opportunity for hearing regarding the proposed determination.

(e) Notice of determinations under paragraph (a), (b), or (c) of this section shall be given by prompt publication thereof, together with a statement of written reasons therefor.

(f) For purposes of this rule, the terms *covered clearing agency*, *designated clearing agency*, and *systemically important in multiple jurisdictions* shall have the meanings set forth in § 240.17Ad–22(a).

■ 3. Amend § 240.17Ad–22 by revising paragraphs (a) and (c)(1), and (d) introductory text and adding paragraphs (e) and (f) to read as follows:

§ 240.17Ad–22 Standards for clearing agencies.

(a) *Definitions.* For purposes of this section:

(1) *Backtesting* means an ex-post comparison of actual outcomes with expected outcomes derived from the use of margin models.

(2) *Central counterparty* means a clearing agency that interposes itself between the counterparties to securities transactions, acting functionally as the buyer to every seller and the seller to every buyer.

(3) *Central securities depository services* means services of a clearing agency that is a securities depository as described in Section 3(a)(23)(A) of the Act (15 U.S.C. 78c(a)(23)(A)).

(4) *Clearing agency involved in activities with a more complex risk profile* means a clearing agency registered with the Commission under Section 17A of the Act (15 U.S.C. 78q–1) that:

(i) Provides central counterparty services for security-based swaps;

(ii) Has been determined by the Commission to be involved in activities with a more complex risk profile at the time of its initial registration; or

(iii) Is subsequently determined by the Commission to be involved in activities with a more complex risk profile pursuant to § 240.17Ab2–2(b).

(5) *Covered clearing agency* means a designated clearing agency or a clearing agency involved in activities with a more complex risk profile for which the Commodity Futures Trading Commission is not the Supervisory Agency as defined in Section 803(8) of the Payment, Clearing, and Settlement

Supervision Act of 2010 (12 U.S.C. 5461 *et seq.*).

(6) *Designated clearing agency* means a clearing agency registered with the Commission under Section 17A of the Exchange Act (15 U.S.C. 78q–1) that is designated systemically important by the Financial Stability Oversight Council pursuant to the Payment, Clearing, and Settlement Supervision Act of 2010 (12 U.S.C. 5461 *et seq.*) and for which the Commission is the supervisory agency as defined in Section 803(8) of the Payment, Clearing, and Settlement Supervision Act of 2010 (12 U.S.C. 5461 *et seq.*).

(7) *Financial market utility* has the same meaning as defined in Section 803(6) of the Payment, Clearing, and Settlement Supervision Act of 2010 (12 U.S.C. 5462(6)).

(8) *Link* means, for purposes of paragraph (e)(20) of this section, a set of contractual and operational arrangements between two or more clearing agencies, financial market utilities, or trading markets that connect them directly or indirectly for the purposes of participating in settlement, cross margining, expanding their services to additional instruments or participants, or for any other purposes material to their business.

(9) *Model validation* means an evaluation of the performance of each material risk management model used by a covered clearing agency (and the related parameters and assumptions associated with such models), including initial margin models, liquidity risk models, and models used to generate clearing or guaranty fund requirements, performed by a qualified person who is free from influence from the persons responsible for the development or operation of the models or policies being validated.

(10) *Net capital* as used in paragraph (b)(7) of this section means net capital as defined in § 240.15c3–1 for broker-dealers or any similar risk adjusted capital calculation for all other prospective clearing members.

(11) *Normal market conditions* as used in paragraphs (b)(1) and (2) of this section means conditions in which the expected movement of the price of cleared securities would produce changes in a clearing agency's exposures to its participants that would be expected to breach margin requirements or other risk control mechanisms only one percent of the time.

(12) *Participant family* means that if a participant directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, another participant then the affiliated

participants shall be collectively deemed to be a single participant family for purposes of paragraphs (b)(3), (d)(14), (e)(4), and (e)(7) of this section.

(13) *Potential future exposure* means the maximum exposure estimated to occur at a future point in time with an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure.

(14) *Qualifying liquid resources* means, for any covered clearing agency, the following, in each relevant currency:

(i) Cash held either at the central bank of issue or at creditworthy commercial banks;

(ii) Assets that are readily available and convertible into cash through prearranged funding arrangements, such as:

(A) Committed arrangements without material adverse change provisions, including:

- (1) Lines of credit;
- (2) Foreign exchange swaps; and
- (3) Repurchase agreements; or

(B) Other prearranged funding arrangements determined to be highly reliable even in extreme but plausible market conditions by the board of directors of the covered clearing agency following a review conducted for this purpose not less than annually; and

(iii) Other assets that are readily available and eligible for pledging to (or conducting other appropriate forms of transactions with) a relevant central bank, if the covered clearing agency has access to routine credit at such central bank in a jurisdiction that permits said pledges or other transactions by the covered clearing agency.

(15) *Security-based swap* means a security-based swap as defined in Section 3(a)(68) of the Act (15 U.S.C. 78c(a)(68)).

(16) *Sensitivity analysis* means an analysis that involves analyzing the sensitivity of a model to its assumptions, parameters, and inputs that:

(i) Considers the impact on the model of both moderate and extreme changes in a wide range of inputs, parameters, and assumptions, including correlations of price movements or returns if relevant, which reflect a variety of historical and hypothetical market conditions. Sensitivity analysis must use actual portfolios and, where applicable, hypothetical portfolios that reflect the characteristics of proprietary positions and customer positions;

(ii) When performed by or on behalf of a covered clearing agency involved in activities with a more complex risk profile, considers the most volatile relevant periods, where practical, that

have been experienced by the markets served by the clearing agency; and

(iii) Tests the sensitivity of the model to stressed market conditions, including the market conditions that may ensue after the default of a member and other extreme but plausible conditions as defined in a covered clearing agency's risk policies.

(17) *Stress testing* means the estimation of credit or liquidity exposures that would result from the realization of potential stress scenarios, such as extreme price changes, multiple defaults, or changes in other valuation inputs and assumptions.

(18) *Systemically important in multiple jurisdictions* means, with respect to a covered clearing agency, a covered clearing agency that has been determined by the Commission to be systemically important in more than one jurisdiction pursuant to § 240.17Ab2-2.

(19) *Transparent* means, for the purposes of paragraphs (e)(1), (2), and (10) of this section, to the extent consistent with other statutory and Commission requirements on confidentiality and disclosure, that documentation required under paragraphs (e)(1), (2), and (10) is disclosed to the Commission and, as appropriate, to other relevant authorities, to clearing members and to customers of clearing members, to the owners of the covered clearing agency, and to the public.

* * * * *

(c) *Record of financial resources and annual audited financial statements.* (1) Each fiscal quarter (based on calculations made as of the last business day of the clearing agency's fiscal quarter), or at any time upon Commission request, a registered clearing agency that performs central counterparty services shall calculate and maintain a record, in accordance with § 240.17a-1 of this chapter, of the financial and qualifying liquid resources necessary to meet the requirements, as applicable, of paragraphs (b)(3), (e)(4), and (e)(7) of this section, and sufficient documentation to explain the methodology it uses to compute such financial resources or qualifying liquid resources requirement.

* * * * *

(d) Each registered clearing agency that is not a covered clearing agency shall establish, implement, maintain and enforce written policies and procedures reasonably designed to, as applicable:

* * * * *

(e) Each covered clearing agency shall establish, implement, maintain and

enforce written policies and procedures reasonably designed to, as applicable:

(1) Provide for a well-founded, clear, transparent, and enforceable legal basis for each aspect of its activities in all relevant jurisdictions.

(2) Provide for governance arrangements that:

(i) Are clear and transparent;

(ii) Clearly prioritize the safety and efficiency of the covered clearing agency;

(iii) Support the public interest requirements in Section 17A of the Act (15 U.S.C. 78q-1) applicable to clearing agencies, and the objectives of owners and participants;

(iv) Establish that the board of directors and senior management have appropriate experience and skills to discharge their duties and responsibilities;

(v) Specify clear and direct lines of responsibility; and

(vi) Consider the interests of participants' customers, securities issuers and holders, and other relevant stakeholders of the covered clearing agency.

(3) Maintain a sound risk management framework for comprehensively managing legal, credit, liquidity, operational, general business, investment, custody, and other risks that arise in or are borne by the covered clearing agency, which:

(i) Includes risk management policies, procedures, and systems designed to identify, measure, monitor, and manage the range of risks that arise in or are borne by the covered clearing agency, that are subject to review on a specified periodic basis and approved by the board of directors annually;

(ii) Includes plans for the recovery and orderly wind-down of the covered clearing agency necessitated by credit losses, liquidity shortfalls, losses from general business risk, or any other losses;

(iii) Provides risk management and internal audit personnel with sufficient authority, resources, independence from management, and access to the board of directors;

(iv) Provides risk management and internal audit personnel with a direct reporting line to, and oversight by, a risk management committee and an independent audit committee of the board of directors, respectively; and

(v) Provides for an independent audit committee.

(4) Effectively identify, measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes, including by:

(i) Maintaining sufficient financial resources to cover its credit exposure to

each participant fully with a high degree of confidence;

(ii) To the extent not already maintained pursuant to paragraph (e)(4)(i) of this section, for a covered clearing agency providing central counterparty services that is either systemically important in multiple jurisdictions or a clearing agency involved in activities with a more complex risk profile, maintaining additional financial resources at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the two participant families that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions;

(iii) To the extent not already maintained pursuant to paragraph (e)(4)(i) of this section, for a covered clearing agency not subject to paragraph (e)(4)(ii) of this section, maintaining additional financial resources at the minimum to enable it to cover a wide range of foreseeable stress scenarios that include, but are not limited to, the default of the participant family that would potentially cause the largest aggregate credit exposure for the covered clearing agency in extreme but plausible market conditions;

(iv) Including prefunded financial resources, exclusive of assessments for additional guaranty fund contributions or other resources that are not prefunded, when calculating the financial resources available to meet the standards under paragraphs (e)(4)(i) through (iii) of this section, as applicable;

(v) Maintaining the financial resources required under paragraphs (e)(4)(ii) and (iii) of this section, as applicable, in combined or separately maintained clearing or guaranty funds;

(vi) Testing the sufficiency of its total financial resources available to meet the minimum financial resource requirements under paragraphs (e)(4)(i) through (iii) of this section, as applicable, by:

(A) Conducting stress testing of its total financial resources once each day using standard predetermined parameters and assumptions;

(B) Conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions, and considering modifications to ensure they are appropriate for determining the covered clearing agency's required level of default protection in light of current and evolving market conditions;

(C) Conducting a comprehensive analysis of stress testing scenarios, models, and underlying parameters and assumptions more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's participants increases significantly; and

(D) Reporting the results of its analyses under paragraphs (e)(4)(vi)(B) and (C) of this section to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its margin methodology, model parameters, models used to generate clearing or guaranty fund requirements, and any other relevant aspects of its credit risk management framework, in supporting compliance with the minimum financial resources requirements set forth in paragraphs (e)(4)(i) through (iii) of this section;

(vii) Performing a model validation for its credit risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management framework established pursuant to paragraph (e)(3) of this section;

(viii) Addressing allocation of credit losses the covered clearing agency may face if its collateral and other resources are insufficient to fully cover its credit exposures, including the repayment of any funds the covered clearing agency may borrow from liquidity providers; and

(ix) Describing the covered clearing agency's process to replenish any financial resources it may use following a default or other event in which use of such resources is contemplated.

(5) Limit the assets it accepts as collateral to those with low credit, liquidity, and market risks, and set and enforce appropriately conservative haircuts and concentration limits if the covered clearing agency requires collateral to manage its or its participants' credit exposure; and require a review of the sufficiency of its collateral haircuts and concentration limits to be performed not less than annually.

(6) Cover, if the covered clearing agency provides central counterparty services, its credit exposures to its participants by establishing a risk-based margin system that, at a minimum:

(i) Considers, and produces margin levels commensurate with, the risks and particular attributes of each relevant product, portfolio, and market;

(ii) Marks participant positions to market and collects margin, including variation margin or equivalent charges if relevant, at least daily and includes the authority and operational capacity to make intraday margin calls in defined circumstances;

(iii) Calculates margin sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default;

(iv) Uses reliable sources of timely price data and uses procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable;

(v) Uses an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products;

(vi) Is monitored by management on an ongoing basis and is regularly reviewed, tested, and verified by:

(A) Conducting backtests of its margin model at least once each day using standard predetermined parameters and assumptions;

(B) Conducting a sensitivity analysis of its margin model and a review of its parameters and assumptions for backtesting on at least a monthly basis, and considering modifications to ensure the backtesting practices are appropriate for determining the adequacy of the covered clearing agency's margin resources;

(C) Conducting a sensitivity analysis of its margin model and a review of its parameters and assumptions for backtesting more frequently than monthly during periods of time when the products cleared or markets served display high volatility or become less liquid, or when the size or concentration of positions held by the covered clearing agency's participants increases or decreases significantly; and

(D) Reporting the results of its analyses under paragraphs (e)(6)(vi)(B) and (C) of this section to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its margin methodology, model parameters, and any other relevant aspects of its credit risk management framework; and

(vii) Requires a model validation for the covered clearing agency's margin system and related models to be performed not less than annually, or more frequently as may be contemplated by the covered clearing agency's risk management framework established pursuant to paragraph (e)(3) of this section.

(7) Effectively measure, monitor, and manage the liquidity risk that arises in or is borne by the covered clearing agency, including measuring, monitoring, and managing its settlement and funding flows on an ongoing and timely basis, and its use of intraday liquidity by, at a minimum, doing the following:

(i) Maintaining sufficient liquid resources at the minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default of the participant family that would generate the largest aggregate payment obligation for the covered clearing agency in extreme but plausible market conditions;

(ii) Holding qualifying liquid resources sufficient to meet the minimum liquidity resource requirement under paragraph (e)(7)(i) of this section in each relevant currency for which the covered clearing agency has payment obligations owed to clearing members;

(iii) Using the access to accounts and services at a Federal Reserve Bank, pursuant to Section 806(a) of the Payment, Clearing, and Settlement Supervision Act of 2010 (12 U.S.C. 5465(a)), or other relevant central bank, when available and where determined to be practical by the board of directors of the covered clearing agency, to enhance its management of liquidity risk;

(iv) Undertaking due diligence to confirm that it has a reasonable basis to believe each of its liquidity providers, whether or not such liquidity provider is a clearing member, has:

(A) Sufficient information to understand and manage the liquidity provider's liquidity risks; and

(B) The capacity to perform as required under its commitments to provide liquidity to the covered clearing agency;

(v) Maintaining and testing with each liquidity provider, to the extent practicable, the covered clearing agency's procedures and operational capacity for accessing each type of relevant liquidity resource under paragraph (e)(7)(i) of this section at least annually;

(vi) Determining the amount and regularly testing the sufficiency of the liquid resources held for purposes of meeting the minimum liquid resource requirement under paragraph (e)(7)(i) of this section by, at a minimum:

(A) Conducting stress testing of its liquidity resources at least once each day using standard and predetermined parameters and assumptions;

(B) Conducting a comprehensive analysis on at least a monthly basis of the existing stress testing scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources, and considering modifications to ensure they are appropriate for determining the clearing agency's identified liquidity needs and resources in light of current and evolving market conditions;

(C) Conducting a comprehensive analysis of the scenarios, models, and underlying parameters and assumptions used in evaluating liquidity needs and resources more frequently than monthly when the products cleared or markets served display high volatility or become less liquid, when the size or concentration of positions held by the clearing agency's participants increases significantly, or in other appropriate circumstances described in such policies and procedures; and

(D) Reporting the results of its analyses under paragraphs (e)(7)(vi)(B) and (C) of this section to appropriate decision makers at the covered clearing agency, including but not limited to, its risk management committee or board of directors, and using these results to evaluate the adequacy of and adjust its liquidity risk management methodology, model parameters, and any other relevant aspects of its liquidity risk management framework;

(vii) Performing a model validation of its liquidity risk models not less than annually or more frequently as may be contemplated by the covered clearing agency's risk management framework established pursuant to paragraph (e)(3) of this section;

(viii) Addressing foreseeable liquidity shortfalls that would not be covered by the covered clearing agency's liquid resources and seek to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations;

(ix) Describing the covered clearing agency's process to replenish any liquid resources that the clearing agency may employ during a stress event; and

(x) Undertaking an analysis at least once a year that evaluates the feasibility of maintaining sufficient liquid resources at a minimum in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of foreseeable stress scenarios that includes, but is not limited to, the default of the two participant families

that would potentially cause the largest aggregate payment obligation for the covered clearing agency in extreme but plausible market conditions if the covered clearing agency provides central counterparty services and is either systemically important in multiple jurisdictions or a clearing agency involved in activities with a more complex risk profile.

(8) Define the point at which settlement is final to be no later than the end of the day on which the payment or obligation is due and, where necessary or appropriate, intraday or in real time.

(9) Conduct its money settlements in central bank money, where available and determined to be practical by the board of directors of the covered clearing agency, and minimize and manage credit and liquidity risk arising from conducting its money settlements in commercial bank money if central bank money is not used by the covered clearing agency.

(10) Establish and maintain transparent written standards that state its obligations with respect to the delivery of physical instruments, and establish and maintain operational practices that identify, monitor, and manage the risks associated with such physical deliveries.

(11) When the covered clearing agency provides central securities depository services:

(i) Maintain securities in an immobilized or dematerialized form for their transfer by book entry, ensure the integrity of securities issues, and minimize and manage the risks associated with the safekeeping and transfer of securities;

(ii) Implement internal auditing and other controls to safeguard the rights of securities issuers and holders and prevent the unauthorized creation or deletion of securities, and conduct periodic and at least daily reconciliation of securities issues it maintains; and

(iii) Protect assets against custody risk through appropriate rules and procedures consistent with relevant laws, rules, and regulations in jurisdictions where it operates.

(12) Eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other, regardless of whether the covered clearing agency settles on a gross or net basis and when finality occurs if the covered clearing agency settles transactions that involve the settlement of two linked obligations.

(13) Ensure the covered clearing agency has the authority and operational capacity to take timely action to contain losses and liquidity

demands and continue to meet its obligations by, at a minimum, requiring the covered clearing agency's participants and, when practicable, other stakeholders to participate in the testing and review of its default procedures, including any close-out procedures, at least annually and following material changes thereto.

(14) Enable, when the covered clearing agency provides central counterparty services for security-based swaps or engages in activities that the Commission has determined to have a more complex risk profile, the segregation and portability of positions of a participant's customers and the collateral provided to the covered clearing agency with respect to those positions and effectively protect such positions and related collateral from the default or insolvency of that participant.

(15) Identify, monitor, and manage the covered clearing agency's general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that the covered clearing agency can continue operations and services as a going concern if those losses materialize, including by:

(i) Determining the amount of liquid net assets funded by equity based upon its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken;

(ii) Holding liquid net assets funded by equity equal to the greater of either (x) six months of the covered clearing agency's current operating expenses, or (y) the amount determined by the board of directors to be sufficient to ensure a recovery or orderly wind-down of critical operations and services of the covered clearing agency, as contemplated by the plans established under paragraph (e)(3)(ii) of this section, and which:

(A) Shall be in addition to resources held to cover participant defaults or other risks covered under the credit risk standard in paragraph (b)(3) or paragraphs (e)(4)(i) through (iii) of this section, as applicable, and the liquidity risk standard in paragraphs (e)(7)(i) and (ii) of this section; and

(B) Shall be of high quality and sufficiently liquid to allow the covered clearing agency to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions; and

(iii) Maintaining a viable plan, approved by the board of directors and updated at least annually, for raising additional equity should its equity fall close to or below the amount required

under paragraph (e)(15)(ii) of this section.

(16) Safeguard the covered clearing agency's own and its participants' assets, minimize the risk of loss and delay in access to these assets, and invest such assets in instruments with minimal credit, market, and liquidity risks.

(17) Manage the covered clearing agency's operational risks by:

(i) Identifying the plausible sources of operational risk, both internal and external, and mitigating their impact through the use of appropriate systems, policies, procedures, and controls;

(ii) Ensuring that systems have a high degree of security, resiliency, operational reliability, and adequate, scalable capacity; and

(iii) Establishing and maintaining a business continuity plan that addresses events posing a significant risk of disrupting operations.

(18) Establish objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access by direct and, where relevant, indirect participants and other financial market utilities, require participants to have sufficient financial resources and robust operational capacity to meet obligations arising from participation in the clearing agency, and monitor compliance with such participation requirements on an ongoing basis.

(19) Identify, monitor, and manage the material risks to the covered clearing agency arising from arrangements in which firms that are indirect participants in the covered clearing agency rely on the services provided by direct participants to access the covered clearing agency's payment, clearing, or settlement facilities.

(20) Identify, monitor, and manage risks related to any link the covered clearing agency establishes with one or more other clearing agencies, financial market utilities, or trading markets.

(21) Be efficient and effective in meeting the requirements of its participants and the markets it serves, and have the covered clearing agency's management regularly review the efficiency and effectiveness of its:

(i) Clearing and settlement arrangements;

(ii) Operating structure, including risk management policies, procedures, and systems;

(iii) Scope of products cleared or settled; and

(iv) Use of technology and communication procedures.

(22) Use, or at a minimum accommodate, relevant internationally accepted communication procedures

and standards in order to facilitate efficient payment, clearing, and settlement.

(23) Provide for the following:

(i) Publicly disclosing all relevant rules and material procedures, including key aspects of its default rules and procedures;

(ii) Providing sufficient information to enable participants to identify and evaluate the risks, fees, and other material costs they incur by participating in the covered clearing agency;

(iii) Publicly disclosing relevant basic data on transaction volume and values;

(iv) A comprehensive public disclosure that describes its material rules, policies, and procedures regarding its legal, governance, risk management, and operating framework, accurate in all material respects at the time of publication, that includes:

(A) *Executive summary.* An executive summary of the key points from paragraphs (e)(23)(iv)(B), (C), and (D) of this section;

(B) *Summary of material changes since the last update of the disclosure.*

A summary of the material changes since the last update of paragraph (e)(23)(iv)(C) or (D) of this section;

(C) *General background on the covered clearing agency.* A description of:

(1) The covered clearing agency's function and the markets it serves;

(2) Basic data and performance statistics on the covered clearing agency's services and operations, such as basic volume and value statistics by product type, average aggregate intraday exposures to its participants, and statistics on the covered clearing agency's operational reliability; and

(3) The covered clearing agency's general organization, legal and regulatory framework, and system design and operations; and

(D) *Standard-by-standard summary narrative.* A comprehensive narrative disclosure for each applicable standard set forth in paragraphs (e)(1) through (23) of this section with sufficient detail and context to enable a reader to understand the covered clearing agency's approach to controlling the risks and addressing the requirements in each standard; and

(v) Updating the public disclosure under paragraph (e)(23)(iv) of this section every two years, or more frequently following changes to its system or the environment in which it operates to the extent necessary to ensure statements previously provided under paragraph (e)(23)(iv) of this section remain accurate in all material respects.

(f) For purposes of enforcing the Payment, Clearing, and Settlement Supervision Act of 2010 (12 U.S.C. 5461 *et seq.*), a designated clearing agency for which the Commission acts as supervisory agency shall be subject to, and the Commission shall have the authority under, the provisions of

paragraphs (b) through (n) of Section 8 of the Federal Deposit Insurance Act (12 U.S.C. 1818) in the same manner and to the same extent as if such designated clearing agency were an insured depository institution and the Commission were the appropriate

Federal banking agency for such insured depository institution.

By the Commission.

Dated: September 28, 2016.

Robert W. Errett,

Deputy Secretary.

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