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MEMORANDUM

OFFICE OF THE

September 1, 1998

TO: The Commission

FROM: Division of Trading and Markets *tel*

RE: Application of the Cantor Financial Futures Exchanges for Designation as a Contract Market in the US Treasury Bond Futures Contract, the US Treasury Ten-year Note Futures Contract, the US Treasury Five-year Note Futures Contract, and the US Treasury Two-year Note Futures Contract

RECOMMENDATION: That the Commission designate the Cantor Financial Futures Exchange as a contract market in the US Treasury bond futures contract, the US Treasury ten-year note futures contract, the US Treasury five-year note futures contract, and the US Treasury two-year note futures contract, and approve the Cantor Financial Futures Exchange's proposed By-Law Scope Section; proposed By-Law Sections 1-5, 7-27, and 29-40; and proposed Rules 1-24, 26-37, 100-103, 200-202, 300-312, 314-316, 401, 403, 500, 501, 600, 710-714, 716-725, and 820-846; proposed amendments to Commodity Clearing Corporation By-Law Sections 9-B and 20-A and Rules 3, 11 and 12; and proposed amendments to New York Cotton Exchange Consolidated Rules 6.00, 6.04, 6.05, 6.06, 6.09, 8.00, 8.01, 8.04, and 10.01 and Chapter 10 Scope Section, pursuant to Section 5a(a)(12)(A) of the Commodity Exchange Act.

CONSULTED: Division of Economic Analysis *SM*  
Division of Enforcement *W*  
Office of the Executive Director *Attendant*  
Office of the General Counsel *APW*

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## CONTENTS

- I. Introduction
- II. Procedural Background
- III. Overview
- IV. Commodity Exchange Act and Commission Regulations
- V. Governance
  - A. Structure and Ownership of CFFE
  - B. Board of Directors
  - C. Officers
  - D. Executive Committee
  - E. CFFE Standing Committees
  - F. NYCE Committees with Responsibility for CFFE Matters
  - G. Emergency Procedures
- VI. Access to the Cantor System
  - A. Overview
  - B. CFFE Traders
    - 1. CFFE Members
      - a. CFFE Full Members
      - b. CFFE Associate Members
      - c. CFFE Clearing Members
    - 2. Screen Based Traders
    - 3. Authorized Traders
  - C. Terminal Operators
    - 1. Responsibilities
    - 2. Restrictions
    - 3. Liability for Abuses
    - 4. Public Comments Regarding Terminal Operators
- VII. Trade Execution
  - A. Overview
  - B. Regular Trade-Matching Algorithm
    - 1. Principles of Trade-Matching
    - 2. Minimum Bid and Offer Size
    - 3. Operation of the Algorithm
      - a. Simple Posting of Bids and Offers
      - b. Bettering First Best Bids and Offers
      - c. Minimum Order Size and the First Best Bid or Offer
      - d. Resting v. Aggressive Orders

- e. Aggressive Order Lifting a Portion of a Resting Offer
- f. Aggressive Order Lifting a Portion of Multiple Resting Orders
- g. Initiation of Exclusive Time Trading Period
- h. Bids and Offers Joining During Exclusive Time Trading Period
- 4. Look-Back Feature
- C. Market-Crossing Session Trade-Matching Algorithm
  - 1. Overview
  - 2. Minimum Bid and Offer Size
  - 3. Operation of the Algorithm
- D. Open and Competitive Nature of the Cantor System
- E. Exchange of Futures for Physicals

## VIII. Clearing and Settlement

## IX. Compliance Program

- A. Overview
- B. Trade Practice Surveillance
  - 1. Audit Trail
  - 2. Review and Utilization of Timing Information
  - 3. Trade Surveillance
    - a. Automated Surveillance
    - b. Physical Surveillance
- C. Investigations
- D. Disciplinary Procedures
- E. Division Rule Enforcement Reviews of NYCE

## X. System Security, Vulnerability, and Capacity

- A. Review of the Cantor System by Office of Information Resources Management
- B. System Overview
- C. System Security and Data Integrity
- D. System Reliability and Disaster Recovery
- E. System Capacity
- F. System Testing
- G. Technical Conclusion

## XI. Disclosure and Liability

## XII. Summary of Comments

- A. Overview
- B. Favorable Comments
- C. Unfavorable Comments
  - 1. Comments Generally
  - 2. AMEX and CBT Comments
    - a. AMEX
    - b. CBT
      - i. Regulation 1.63 and the Cantor Group

- ii. Open and Competitive Execution of Trades
- iii. The Role of Terminal Operators
- iv. Terminal Operator Registration
- v. CFFE's Compliance Program
- vi. The Commission's Review Process

XIII. Conclusion and Recommendations

Appendix A Regulations Applicable to Contract Markets and Clearing Organizations

Appendix B CFFE Relevant Entities

## I. Introduction

By letters dated January 6, 1998, through August 27, 1998, the Cantor Financial Futures Exchange, Inc. ("CFFE" or "Exchange") applied to the Commodity Futures Trading Commission ("Commission" or "CFTC") for designation as a contract market for the computer-based trading of US Treasury bond, ten-year note, five-year note and two-year note futures contracts pursuant to Section 6 of the Commodity Exchange Act ("Act"), and for approval of various proposed CFFE rules pursuant to Section 5a(a)(12)(A) of the Act. In conjunction with CFFE's designation application, the Commodity Clearing Corporation ("CCC") submitted various proposed rule amendments for Commission approval pursuant to Section 5a(a)(12)(A) of the Act to enable CCC to clear and settle the CFFE's proposed futures contracts. In addition, the New York Cotton Exchange ("NYCE") submitted various proposed NYCE Consolidated Rule revisions for Commission approval pursuant to Section 5a(a)(12)(A) of the Act to enable NYCE to carry out various regulatory responsibilities with respect to CFFE.

The Commission has not previously approved the CFFE as a contract market in any commodity futures contract or option. Accordingly, in addition to the terms and conditions of the proposed futures contracts, the Exchange has submitted to the Commission a proposed trade-matching algorithm; proposed rules pertaining to CFFE governance, disciplinary and arbitration procedures, trading standards, and recordkeeping requirements; and various other materials to meet the requirements for a board of trade seeking initial designation as a contract market.

## II. Procedural Background

The Commission published a Federal Register notice on February 3, 1998, requesting comment on CFFE's proposed application by April 6, 1998 (63 Fed. Reg. 5505). On April 10, 1998, the Commission extended the comment period for CFFE's proposal until April 27, 1998

(63 Fed. Reg. 17823 ( April 10, 1998)). In response, the Commission received twenty-three letters from twenty-two commenters.<sup>1</sup> A summary of those comments is presented in Section XII. below, and certain particular comments are addressed in appropriate sections of this memorandum.

By letter dated May 6, 1998, the Division of Trading and Markets (“Division” or “T&M”) presented various questions to the CFFE with respect to regulatory and operational issues raised by the proposal.<sup>2</sup> The Exchange responded to these questions by letter dated May 21, 1998.<sup>3</sup> By letter dated June 11, 1998, the Division presented additional questions to the

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<sup>1</sup> The twenty-three comment letters were submitted by five floor brokers (David J. Fisher, Daniel R. Glynn, James J. Kramer, Jack Rhoades, and Lee B. Stern); four academics (Charles R. Plott, Professor of Economics and Political Science at the California Institute of Technology; Lawrence E. Harris, Professor of Finance and Business Economics at the University of Southern California; O.A. Cleveland, Institute Professor of Agribusiness at Mississippi State University; and Myron Uretsky and Bruce W. Weber, Information Systems Professors at New York University’s Stern School of Business (Uretsky and Weber jointly submitted a comment letter)); three commodity pool operators (“CPO”) (Diversified Investment Management (Peter Karpen); High View Capital, and Trendstat Capital Management, Inc.); two futures exchanges (the Chicago Board of Trade (“CBT”) and the Minneapolis Grain Exchange); two securities exchanges (the American Stock Exchange (“AMEX”) and the Chicago Board Options Exchange); one government securities clearing organization (the Government Securities Clearing Corporation); one futures clearing organization (the Board of Trade Clearing Corporation (“BOTCC”)), one floor clerk (Sean Bolger); and three persons who did not declare any affiliation (Kellee J. Fisher, Sandra L. Kramer and Robert K. Sembrat). The CBT actually submitted two comment letters to the Commission dated April 3, 1998, and April 27, 1998. The April 3, 1998, letter, in addition to making substantive comments on CFFE’s proposal, also requested that the Commission extend the original comment period beyond April 6, 1998, in order to afford CBT additional time to review and to comment on the proposal.

<sup>2</sup> By that same letter, the Division also stayed the Commission’s one-year review period for considering contract market designation applications under Section 6(a) of the Act.

<sup>3</sup> In response to CFFE’s May 21, 1998, letter, the Division informed CFFE by letter dated May 26, 1998, that the Commission was lifting its stay of the one-year review period for CFFE’s designation application.

CFFE in order to clarify issues raised by CFFE's May 21, 1998, letter. The Exchange responded to these questions by letter dated June 18, 1998.

Based upon these additional submissions and the various changes CFFE had made to its proposal, the Commission published a Federal Register notice on July 1, 1998, requesting comment on CFFE's revised application by July 16, 1998 (63 Fed. Reg. 35912).<sup>4</sup> In response, the Commission received seven letters from six commenters.<sup>5</sup> In addition to the Federal

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<sup>4</sup> Both CBT and AMEX approached the Commission with requests to submit additional comments on CFFE's proposal after the original eighty-four-day comment period had closed. The Division specifically informed both CBT and AMEX that the Commission would accept their respective comments if they were submitted to the Commission within approximately two weeks. See June 5, 1998, letter from David P. Van Wagner, Special Counsel, T&M, to Thomas R. Donovan, President and Chief Executive Officer, CBT, and June 11, 1998, letter from David P. Van Wagner, Special Counsel, T&M, to William Floyd-Jones, Assistant General Counsel, AMEX.

<sup>5</sup> The seven comment letters were submitted by three futures exchange (CBT, the Kansas City Board of Trade and the New York Mercantile Exchange ("NYMEX")); one securities exchange (AMEX); one trade association (the National Grain and Feed Association); and one floor trader (R. Conrad Leslie). CBT actually submitted two comment letters to the Commission dated June 30, 1998, and July 16, 1998. While not submitted pursuant to the comment period for CFFE's proposal, the Commission also received seventeen letters from various Senators and Congressional Representatives regarding the status of the Commission's review of the proposal. Those letters consisted of a May 11, 1998, letter from Representative Nancy Pelosi to Brooksley Born, Chairperson, CFTC; a May 22, 1998, letter from Representative Leonard Boswell to Born; a May 22, 1998, letter from twenty-one members of the Illinois Congressional Delegation, excluding Henry J. Hyde, to Born; a May 25, 1998, letter from Representatives Robert Smith and Thomas Ewing to Born; a May 28, 1998, letter from Senators Tom Harkin, Patrick Leahy, Tim Johnson and Tom Daschle to Born; a June 4, 1998, letter from Representative Earl Pomeroy to Born and Jean Webb, Secretary, CFTC; a June 8, 1998, letter from Representatives Charles Stenholm and Gary Condit to Born; a June 10, 1998, letter from Senators Jack Reed and Kent Conrad to Born; a June 10, 1998, letter from Representative Mike Parker to Born; a June 17, 1998, letter from Senator Pat Roberts to Born; a June 24, 1998, letter from thirty members of the New York Congressional Delegation to Born; a June 29, 1998, letter from Senators Richard J. Durbin and Carol Moseley-Braun to Born; a July 1, 1998, letter from Representative Calvin Dooley to Born; a July 10, 1998 letter from Senator Paul Coverdell to Born; a July 13, 1998, letter, from Representative Marion Berry to Born; a July 16, 1998, letter from

Register comment periods, on August 11, 1998, the Commission held a public meeting at which interested members of the public appeared before the Commission to provide their views on CFFE's proposal.<sup>6</sup> At that meeting, representatives of CFFE, CBT (opposed to proposal), and AMEX (opposed); Peter Karpen (in favor of proposal); Bruce W. Weber (in favor); and Haim Mendelson<sup>7</sup> (opposed) made oral statements and responded to questions from the Commission.<sup>8</sup> In addition, Sean Bolger (opposed), the Chicago Board Brokerage, LLC (opposed), and NYMEX (opposed), provided written statements to the Commission. The CFFE continued to supplement its submission by various letters dated through August 27, 1998.<sup>9</sup>

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Representative Boswell to Born; a July 17, 1998, letter from Senators Durbin and Moseley-Braun to Born; a July 22, 1998, letter from Senator Roberts to Born; and a July 24, 1998, letter from Representative Smith to Born. The Commission also received an August 4, 1998, letter from Representatives Smith and Ewing requesting that the Commission postpone its announced August 11, 1998, public meeting regarding the CFFE proposal until the week of September 7, 1998.

<sup>6</sup> The notice of the public meeting was issued on July 30, 1998 (63 Fed. Reg. 41233 (August 3, 1998)).

<sup>7</sup> Haim Mendelson is a Professor at the Stanford University Graduate School of Business. With the exception of Professor Mendelson and CFFE, each of the other participants at the August 11, 1998, meeting also submitted comment letters to the Commission during the CFFE proposal's two public comment periods. See footnotes 1 and 5 above.

<sup>8</sup> CBT also submitted materials to the Commission in connection with its appearance by letter dated August 14, 1998.

<sup>9</sup> Consistent with Section 2(a)(8)(B)(ii) of the Act, T&M and the Division of Economic Analysis ("EA") have promptly provided each of CFFE's application submissions to the Department of the Treasury. In addition, staff from T&M and EA met with staff from the Department of the Treasury on June 26, 1998, and August 14, 1998, to brief them on the CFFE's application. The Department of the Treasury has not submitted any written comments to the Commission on this proposal.

### III. Overview

CFFE has been formed pursuant to an agreement between the NYCE<sup>10</sup> and CFFE, LLC, a subsidiary of Cantor Fitzgerald, LP.<sup>11</sup> Under the agreement, CFFE trades would be matched by the same automated trading system (the "Cantor System" or "System")<sup>12</sup> that another Cantor Group subsidiary, Cantor Fitzgerald Securities, LLC ("CFS"), currently operates as an interdealer-broker in the US Treasury securities market.<sup>13</sup> CFS has traded US Treasury securities

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<sup>10</sup> On December 22, 1997, the respective memberships of the NYCE and Coffee Sugar & Cocoa Exchange ("CSCE") approved a merger of the two exchanges. The merger will be effected in two stages. During the first stage, which took effect on June 10, 1998, NYCE and CSCE reorganized as separate corporate entities under the control of the New York Board of Trade ("NYBT"), which currently operates as a holding company. NYCE and CSCE full members relinquished their respective equity interests and governance rights in NYCE and CSCE in exchange for full memberships in NYBT, cash, and installment notes payable over a six-year period. The second stage of the merger, which will take effect upon the final payment of the installment notes, involves NYCE and CSCE merging into the NYBT, with NYBT being the surviving corporate entity. The second stage of the merger is expected to be completed by June 30, 2004. Currently, NYCE and CSCE have combined their two staffs to form a single NYBT staff, while their governing boards and committees remain separate. A number of functions related to the operation of CFFE will involve NYCE's Board of Managers and committees, while NYBT staff will perform compliance and surveillance functions. In order to avoid confusion between the two entities, this memorandum will refer to both as "NYCE."

<sup>11</sup> CFFE, LLC is a limited liability company whose equity interest is held by Cantor Fitzgerald (ninety-nine percent) and CFFE Holdings, LLC (one percent). In addition to CFFE, LLC and CFFE Holdings, LLC, Cantor Fitzgerald has a number of other subsidiaries and affiliates that will be involved in the operation of the CFFE. For the purpose of this memorandum Cantor Fitzgerald and its various subsidiaries will be collectively referred to as the "Cantor Group."

<sup>12</sup> The Cantor System's trademarked name is the Interactive Matching System.

<sup>13</sup> The US Treasury securities market is the largest and most liquid securities market in the world. Daily trading in US Treasury securities among members of Government Securities Clearing Corporation averaged approximately \$157 billion for 1997. Joint Study of the Regulatory System for Government Securities, Department of the Treasury, Securities and Exchange Commission ("SEC"), Board of Governors of the Federal Reserve System at 2 (March 1998). US Treasury securities are traded predominantly in an over-the-counter market comprised of a network of primary dealers (i.e., firms with

on the Cantor System since January 1996. NYCE would be responsible for providing all of CFFE's regulatory services including its compliance, surveillance, arbitration, and disciplinary programs.<sup>14</sup> CFFE trades would be cleared and settled by the CCC, which currently clears and settles trades for both NYCE and the New York Futures Exchange ("NYFE").<sup>15</sup>

CFFE would operate as a New York not-for-profit corporation and would be wholly owned by CFFE Regulatory Services, LLC. Equity interest in CFFE Regulatory Services, LLC would be held entirely by NYCE (ten percent equity interest) and NYCE's members (ninety percent equity interest).<sup>16</sup> The Cantor Group would not have any equity interest in either CFFE or CFFE Regulatory Services, LLC.

Generally, the CFFE's operation would produce several revenue streams that would be shared by the Cantor Group and NYCE. The Cantor Group would collect a CFFE transaction fee for each CFFE trade executed on the Cantor System in return for the provision of the System and

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which the Federal Reserve conducts its open market operations), institutional investors (e.g., banks, pension funds, insurance companies, mutual funds, and state and local governments) and interdealer brokers. Participants execute trades in the US Treasury securities market by placing their orders with interdealer brokers. Interdealer brokers compile the best bid and offer prices submitted by market participants, make them available on computer screens, and receive a commission for arranging trades. The identities of market participants who submit orders to interdealer brokers are kept confidential from other market participants with the understanding that anonymity protects the confidentiality of the participants' trading strategies. Joint Report on the Government Securities Markets, Department of the Treasury, SEC, Board of Governors of the Federal Reserve System at ix-x (January 1992). CFS is currently the largest-volume interdealer broker in the US Treasury securities market.

<sup>14</sup> In this regard, CFFE's proposed rules would incorporate by reference certain NYCE rules, such as its rules governing arbitration and disciplinary procedures.

<sup>15</sup> CCC and NYFE are both wholly owned by NYCE.

<sup>16</sup> NYCE would have the sole voting interest in CFFE Regulatory Services, LLC.

attendant services.<sup>17</sup> The Cantor Group also would derive revenues from the placement and maintenance of CFFE terminals for CFFE members and trading privilege holders. The NYCE would receive a "Cotton fee" for each contract executed on CFFE for providing regulatory service to the Exchange. Because the CCC is a wholly-owned subsidiary of NYCE, NYCE also would receive clearing fees for every CFFE trade. The Cantor Group and NYCE would share fees derived from the dissemination of CFFE trade data.

CFFE proposes to trade each of its four proposed futures contracts -- a US Treasury bond contract, a US Treasury ten-year note contract, a US Treasury five-year note contract, and a US Treasury two-year note contract -- from 7:30 a.m. to 5:30 p.m., New York time, on each business day.<sup>18</sup> Under the proposal, all CFFE trading would be conducted through CFFE Class B Members, CFFE Associate Members, CFFE Clearing Members, or Commission registrants holding CFFE trading privileges (collectively referred to as Screen Based Traders ("SBTs") under CFFE's rules). These various entities or their associated persons, referred to as Authorized Traders ("ATs") under CFFE's rules (hereinafter, collectively referred to as "CFFE Traders" or "Traders"), would place orders, whether for their own or for their customers' accounts, by phoning CFFE terminal operators ("TOs")<sup>19</sup> located at a CFS facility in New York City. The

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<sup>17</sup> The CFFE transaction fee would be similar to the transaction fee that CFS currently charges for executing trades as an interdealer broker in the government securities market.

<sup>18</sup> EA discusses the terms and conditions and economic justifications of CFFE's proposed contracts in a separate memorandum to the Commission.

<sup>19</sup> All TOs would be employed by CFS and, in addition to that employer-employee relationship, serve as agents of CFFE. All TO telephone conversations would be recorded and the tapes retained for 120 days (or for such longer period as they would be needed for arbitration and disciplinary matters).

CFFE TO would promptly enter this information via a terminal keyboard into the Cantor System<sup>20</sup> for matching.<sup>21</sup>

All CFFE transactions would be executed by the Cantor System in accordance with one of two trade-matching algorithms -- a "regular trade-matching algorithm" that would match eligible orders continuously throughout the trading day and a "market-crossing trade-matching algorithm" that would match eligible orders four times a day at scheduled times.<sup>22</sup> CFFE believes that the majority of CFFE trading would be conducted pursuant to the regular trade-matching algorithm. The CFFE's regular trade-matching algorithm would be similar to the algorithm that CFS currently uses to match orders as an interdealer broker in the government securities market. Like automated trading systems of other contract markets that previously have been approved by the Commission, CFFE's regular trade-matching algorithm would match orders on a price and time priority basis. Unlike those other trading systems, however, CFFE's regular trade-matching algorithm would provide participants who were earliest in posting a best market bid or offer with certain priority rights to respond to subsequent counter offers or bids for limited periods of time. CFFE has incorporated these priority periods into its regular trade-matching algorithm in order to create an incentive for participants to place orders at attractive prices and to provide liquidity.

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<sup>20</sup> TOs could not maintain any sort of order book or deck, nor could they exercise any discretion over CFFE orders.

<sup>21</sup> Since the Cantor System would maintain a timed record of every keystroke entered into the System, the System would generate a precise and fully accurate audit trail which would be used in implementing the Exchange's trade practice and other surveillance programs.

<sup>22</sup> CFFE has represented that the market-crossing trade-matching algorithm would not be utilized immediately upon the start of trading at CFFE, but would be implemented shortly thereafter.

Upon the execution of a CFFE transaction, regardless of the trade-matching algorithm involved, the TO would provide a telephone confirmation of the trade to the submitting CFFE Trader. Upon execution of a trade, the Cantor System also would electronically transmit matched-trade data to the CCC for clearing and settlement purposes. For each trade, CCC would transmit transaction information to the appropriate clearing members via the Trade Input Processing System ("TIPS"). CFFE Clearing Members would be required to accept or reject each trade within thirty minutes of its posting on TIPS. CFFE also would transmit relevant trade data to NYCE each day for compliance and surveillance purposes.

In discussing CFFE's proposed rules and procedures, this memorandum will address whether CFFE would operate in a manner consistent with the Act and the Commission's regulations and whether the Exchange would otherwise meet all of the requirements necessary to be designated as a first-time contract market. While CFFE would be a new contract market formed as the result of a unique alliance between NYCE, an established futures exchange, and the Cantor Group, a prominent interdealer broker in the US Treasury securities markets, the Exchange's operations would make use of a number of already established rules and procedures. For instance, NYCE personnel would be responsible for providing regulatory services for CFFE and many of CFFE's rules in this regard either are modeled after current NYCE rules or incorporate NYCE rules by reference. All CFFE transactions would be cleared by CCC clearing members in accordance with CCC's current rules and procedures. Likewise, CFFE trades would be handled and matched in accordance with a trade-matching algorithm that would be similar to the trade-matching algorithm that CFS, a Cantor Group subsidiary, currently uses to execute US Treasury securities transactions.

#### IV. Commodity Exchange Act and Commission Regulations

As a contract market, CFFE would be subject to the same Commission regulatory provisions as any other futures exchange that has been designated as a contract market by the Commission. The Division has concluded that CFFE's proposed rule provisions would address each Commission regulation that requires a contract market to adopt and enforce certain rules. For those provisions of the regulations requiring CFFE to take certain actions, the Exchange has submitted to the Commission affirmative representations in each instance.

The chart appended to this memorandum as Appendix A (the "Chart") lists separate provisions of the Commission's regulations requiring a contract market to: (1) adopt and enforce a specific rule or rules or (2) to take certain actions. The left column lists the specific regulatory provisions, the middle column summarizes the provisions, and the right column sets forth how CFFE would address each requirement. In some instances, certain regulatory provisions would not be applicable to CFFE. In those instances, the right column of the Chart explains why the regulatory provision would not apply, and what CFFE would do in the alternative, if applicable.<sup>23</sup> Future references in this memorandum to the Chart will be made where appropriate.

#### V. Governance

##### A. Structure and Ownership of CFFE

As indicated above, CFFE would operate as a New York not-for-profit corporation that would be wholly owned by CFFE Regulatory Services. Equity interest in CFFE Regulatory Services would be held entirely by NYCE (ten percent equity interest) and NYCE's members

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<sup>23</sup> For example, due to the electronic nature of the CFFE trading system and its attendant lack of a physical trading floor, a number of the provisions of the regulations that would otherwise apply to contract markets would not apply to CFFE.

(ninety percent equity interest). CFFE members and holders of CFFE trading privileges would have no equity interest in the Exchange. A number of commenters criticized CFFE as a non-member, proprietary exchange that would operate with the objective of making a profit for the Cantor Group. Although CFFE's structure would differ in a number of ways from the structures of other contract markets, the Exchange would, like all other current contract markets, operate as a not-for-profit organization.<sup>24</sup> In addition, the Cantor Group would have no equity interest in CFFE. Cantor Group's financial benefit from CFFE would be based on: (1) CFFE trade data dissemination fees that the Cantor Group would share with NYCE, (2) fees for the installation and maintenance of CFFE view-only terminals for CFFE members and trading privilege holders, and (3) transaction fees for each CFFE transaction executed on the Cantor system.<sup>25</sup>

While certain commenters have questioned the propriety of designating a contract market that is not a membership organization, the Division stresses that neither the Act nor the Commission's regulations require that contract markets be membership organizations. In fact, there is precedent for such an arrangement in the futures industry. For instance, the current members of both the MidAmerica Commodity Exchange (which is wholly owned by CBT) and NYFE (which is wholly owned by NYCE) have only trading privileges, and neither governance authority nor equity interests, at their respective exchanges.

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<sup>24</sup> The Division notes that at this time it also is considering contract market designation applications from FutureCom, LTD, a Texas limited partnership that would be for profit and largely controlled by a single individual. The Division further notes that it has recently been reported that the Chicago Mercantile Exchange ("CME") is considering becoming a for-profit corporation. Terzah Ewing, Chicago Merc Could Convert to 'For Profit', Wall St. J., August 21, 1998, at C1.

<sup>25</sup> As indicated above, CFFE would not, as an entity, derive any direct financial benefit from its operations. However, its equity owners, NYCE and NYCE's members would

B. Board of Directors

CFFE would be governed by a thirteen-person Board of Directors. Meetings of the CFFE's Board of Directors would be presided over by a Board Chairman or, in his or her absence, a Board Vice Chairman, both of whom would be appointed by the Board.

CFFE's Board of Directors generally would be responsible for managing the "property and business of CFFE,"<sup>26</sup> including such actions as setting compensation for employees,<sup>27</sup> setting transaction fees,<sup>28</sup> and determining telephone access to TOs.<sup>29</sup> In addition, CFFE's Board would be particularly responsible for approving any revisions to the Exchange's By-Laws and Rules. However, all CFFE By-Law and Rule revisions involving "regulatory procedures" also would have to be approved by the NYCE's Board of Managers.<sup>30</sup> For these purposes, CFFE has indicated that a CFFE provision involving regulatory procedures would mean any By-Law or Rule that related to a requirement imposed by the Act or the Commission's regulations. CFFE represents that this role for NYCE's Board of Managers is consistent with the fact that NYCE would perform all of CFFE's regulatory responsibilities.<sup>31</sup>

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receive a Cotton fee for each CFFE transaction and a share of CFFE trade data dissemination fees.

<sup>26</sup> CFFE proposed By-Law Section 2.

<sup>27</sup> CFFE proposed By-Law Section 2.

<sup>28</sup> CFFE proposed By-Law Section 32.

<sup>29</sup> CFFE proposed By-Law Section 35-C.

<sup>30</sup> CFFE proposed By-Law Sections 29 and 30.

<sup>31</sup> As indicated above, CFFE has been formed as a joint venture between CFFE, LLC, a Cantor Group subsidiary, and NYCE. The responsibilities of the Cantor Group and NYCE are set forth in a September 8, 1997, agreement between CFFE, LLC and NYCE. That agreement does not permit CFFE's Board of Directors to alter the terms of that agreement by revising the respective responsibilities of the Cantor Group or NYCE in any way.

CFFE's thirteen-person Board of Directors would be appointed jointly by CFFE, LLC, a Cantor Group subsidiary, and NYCE.<sup>32</sup> CFFE, LLC and NYCE each would appoint five "non-public" directors to CFFE's Board, while CFFE, LLC would appoint the Board's three "public" directors. For these purposes, CFFE's three public directors could not be: (1) a CFFE member or a holder of CFFE trading privileges, (2) a CFFE employee, (3) a member or employee of NYCE, CSCE, or NYBT, or (4) an officer, principal, or employee of any Cantor Group subsidiary.<sup>33</sup>

The Commission's regulations include two provisions pertaining to service on, and the composition of, contract market governing boards. Commission Regulation 1.63 generally requires contract markets to adopt rules which, among other things, prohibit persons from serving on governing boards if they were found, within the prior three years, to have committed a disciplinary offense.<sup>34</sup> Commission Regulation 1.64 requires contract markets to adopt rules establishing composition standards for governing boards which generally ensure that boards represent a diversity of membership interests at the contract market. As indicated in the Chart, the Division believes that CFFE proposed Rules 501 and 35 fully comply with the respective requirements of Commission Regulations 1.63 and 1.64. Several commenters, however, have raised questions regarding the application of these two regulatory provisions to CFFE's Board of Directors.

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<sup>32</sup> CFFE directors would have one-year terms (CFFE proposed By-Law Section 5).

<sup>33</sup> CFFE proposed By-Law Section 1 and Rule 35.

<sup>34</sup> For these purposes, Commission Regulation 1.63(a)(6) generally defines "disciplinary offense" to mean a serious violation of a self-regulatory organization ("SRO") rule or a violation of the Act or the Commission's regulations. Persons may even be ineligible to serve on a contract market governing board for a longer period if they remain subject to a continuing disciplinary sanction, such as a registration revocation or suspension.

Several commenters generally contended that the Cantor Group had a disciplinary history which, under Commission Regulation 1.63, prohibits persons affiliated with the Cantor Group or any of its subsidiaries from serving on the CFFE Board of Directors. In January 1997, Cantor Fitzgerald & Co., the Cantor Group's futures commission merchant ("FCM") subsidiary, entered into a settlement agreement with the Commission whereby Cantor Fitzgerald & Co. was found to have aided and abetted fraud and registration violations of Sections 4m(1) and 4o(1)(B) of the Act.<sup>35</sup> As part of the settlement's sanctions, Cantor Fitzgerald & Co. was directed to cease and desist from further violations and to pay a \$500,000 civil monetary penalty. Among other commenters addressing this point, CBT contended that this settlement agreement "plainly involved a 'disciplinary offense' which would render the Cantor Group ineligible to serve on [CFFE's] governing board" and that, accordingly, the Commission "must advise [CFFE] that its application is contrary to Commission rules and [cannot] be approved until January 2000."<sup>36</sup>

The Division, however, does not believe that the Commission's 1997 settlement agreement with Cantor Fitzgerald & Co. triggers Commission Regulation 1.63's bar on governing board service for the Cantor Group or any of its employees. When the Commission adopted Commission Regulation 1.63, it stated that the provision "should only disqualify from SRO committee<sup>37</sup> service natural persons who themselves commit disciplinary offenses."<sup>38</sup> In

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<sup>35</sup> CFTC News Release 3987-97 (January 28, 1997).

<sup>36</sup> June 30, 1998, letter from Thomas R. Donovan, President and Chief Executive Officer, CBT, to Jean A. Webb, Secretariat, CFTC.

<sup>37</sup> For the purposes of the Federal Register release accompanying final Commission Regulation 1.63, the Commission collectively referred to "SRO disciplinary committees, arbitration panels and governing boards as 'SRO committees.'" 55 Fed. Reg. 7884, 7885 n.1 (March 6, 1990).

<sup>38</sup> 55 Fed. Reg. 7884, 7889.

fact, when the Commission originally proposed Regulation 1.63 it specifically invited comment on “whether there [were] any circumstances under which sanctions imposed on a firm should bar individuals associated with that firm from serving on a board or committee.”<sup>39</sup> Each of the commenters who addressed this point, including CBT, commented that only persons who are sanctioned directly should be disqualified from SRO committee service.<sup>40</sup>

CBT now mistakenly contends that while Commission Regulation 1.63 is directed at “persons” who commit disciplinary offenses, that term is not defined in the Regulation and, therefore, the definition of “person” in Commission Regulation 1.3(u), which includes “individuals, associations, partnerships, corporations, and trusts,” should apply. CBT further contends that, as a result, the Cantor Group qualifies as a “person” under Regulation 1.63 and that individual persons affiliated with the Cantor Group should be prohibited from serving as CFFE directors. Regulation 1.3 states that its prescribed definitions do not apply where “the context otherwise requires.” Here, the Commission’s statement in the Federal Register release that accompanied Regulation 1.63 when it was originally adopted makes plain that the Regulation’s reference to persons is intended to include only individual persons. The result is further buttressed by the fact that interpreting Regulation 1.63 to apply when entities commit disciplinary offenses would have arbitrary and unfair results.

The Commission stated both when it proposed and when it adopted Regulation 1.63 that a person found to have violated SRO rules or to have acted dishonestly may lack the honesty, integrity, or ability to establish or enforce an SRO’s rules in a fully principled manner. The

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<sup>39</sup> 54 Fed. Reg. 37001, 37002n.4 (September 6, 1989).

<sup>40</sup> 55 Fed. Reg. 7884, 7889.

Commission, therefore, determined to prohibit disciplined persons from serving on certain SRO committees for an appropriate length of time after they are disciplined. In contrast, CBT would presume that all persons affiliated with a disciplined entity are personally lacking, regardless of whether they had any culpability for the entity's underlying conduct.

The application of Regulation 1.63 argued for by CBT would create substantial uncertainty as to which individuals would be covered.<sup>41</sup> This situation would be further exacerbated when the entity is a subsidiary in a larger corporate structure where ownership is more complex.<sup>42</sup> Temporal application issues also would arise with regard to individuals who depart from or arrive at an entity after relevant events.<sup>43</sup>

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<sup>41</sup> For example, assuming that an entity could commit a Regulation 1.63 disciplinary offense, it would be unclear exactly who would be prohibited from committee service as a consequence of such a disciplinary offense. Prohibiting the disciplined entity itself from committee service would serve no practical purpose given that all of the contract markets now permit only individual persons to serve on committees, not entities and/or their designated representatives. If Regulation 1.63 was interpreted to prohibit persons affiliated with a disciplined entity from serving on a committee, it is also unclear whether the prohibition would be limited to the entity's principals and officers or whether it would be extended to any and all persons who were employed by the entity.

<sup>42</sup> For example, in the instant case, the Cantor Group's FCM subsidiary, Cantor Fitzgerald & Co., was the subject of a settlement agreement with the Commission. Assuming that Cantor Fitzgerald & Co. could be considered to have committed a Regulation 1.63 disciplinary offense, the Division does not believe that there would be any principled way of determining whether any persons affiliated with any other entity in the Cantor Group structure should be ineligible to serve on a contract market committee.

<sup>43</sup> In its comment letter, CBT states that Regulation 1.63 prohibits CFFE board service by any person associated with the Cantor Group, not just persons associated with Cantor Fitzgerald & Co., the Cantor Group subsidiary that entered the settlement agreement with the Commission, and not just persons employed by the Cantor Group on January 28, 1997, the date of the subject settlement agreement. Presumably, then, CBT is urging the widest possible scope to the term person, under Regulation 1.63, for the purpose of determining what individual persons should be barred from committee service.

The Division believes that Regulation 1.63 establishes a fair basis for concluding that a person is not appropriate for SRO committee service. Specifically, the Regulation does so by requiring a determination whether a person was a named respondent found to have committed a disciplinary offense.<sup>44</sup> The Division believes that Regulation 1.63 was intended to establish objective fitness standards for SRO committee service and to avoid the substantial ambiguity that would result from the approach now argued for by CBT.

For all of the above-stated reasons, the Division believes that Commission Regulation 1.63 prohibits committee service only by individual persons who particularly have been found to have committed a disciplinary offense, and does not apply to disciplined entities or persons affiliated with them.

In addition to contending that Regulation 1.63 prohibits persons affiliated with the Cantor Group from serving on CFFE's Board of Directors, CBT contends that Regulation 1.63 prohibits the Cantor Group from appointing any CFFE directors. Although Regulation 1.63 prohibits board service by persons with disciplinary histories, it does not establish any restrictions on the types of persons, or entities, that may participate in the selection of governing board members.

As indicated in the Chart, CFFE proposed Rule 35 would comply with the requirements of Commission Regulation 1.64 with respect to the composition of governing boards and major disciplinary committees. The Division notes that CFFE proposed Rule 35's definition of a "public" Board member would exclude not only CFFE members, CFFE trading privilege

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<sup>44</sup> The Division agrees in principle with the National Futures Association's ("NFA") comment on proposed Regulation 1.63 that more culpable individuals would be more likely to be named individually as respondents by the disciplining SRO. (November 3, 1989, letter from Daniel J. Roth, General Counsel, NFA, to Jean A. Webb, Secretariat, CFTC (quoted in 54 Fed. Reg. 7884, 7889)).

holders, CFFE employees and persons primarily performing services for CFFE, as required by Regulation 1.64, the definition also would exclude persons with equivalent status at NYCE, CSCE, NYBT, and the Cantor Group. In further compliance with Regulation 1.64, CFFE proposed Rule 35 has a similar definition of CFFE “non-member” for the purpose of ensuring that NYCE’s major disciplinary committees include a CFFE non-member when they hear certain types of CFFE disciplinary matters. The Division believes that these definitions are appropriate given the role of NYCE and the Cantor Group in CFFE’s operations.

A number of commenters indicated that the Cantor Group’s ability to name eight of the thirteen CFFE directors would enable the Cantor Group to “control” the CFFE Board of Directors. The Division notes that CFFE’s Board, like all contract market governing boards, regardless of how and by whom it is selected must comply with Regulation 1.64(b)’s requirement that it fairly represent the diversity of membership interests at the contract market. The Commission also would be able to monitor compliance with this requirement closely as, under Regulation 1.64(d), CFFE would be required to submit to the Commission, within thirty days after each election of the CFFE Board, a listing of the Board’s members, the membership interests they represent and an explanation of how they comply with Regulation 1.64’s composition requirements.

The Division further notes that NYCE and its subsidiary exchanges have historically accorded a high level of governing board representation to commercial interest representatives. For instance, ten of the twenty-one members of the current Citrus Associates of NYCE (“CANYCE”) Board of Directors could be considered citrus industry representatives. CFFE, as a subsidiary of the NYCE, contends that the high level of Cantor Group-designated directors on CFFE’s Board would generally be consistent with this traditional policy.

Neither the Act nor the Commission's regulations would prohibit a single person or entity, such as the Cantor Group, from controlling a contract market governing board. Similarly, the activity of such an entity in a related cash market would not, in and of itself, prevent that entity from controlling an exchange board. In fact, such involvement in the cash market might promote business and market synergies that could contribute to greater futures market liquidity. Instead, all governing boards, and thus members, are subject to a number of statutory and regulatory requirements intended to ensure the integrity of their decision-making processes, including restrictions on board members misusing material non-public information (Regulation 1.59), and serving if they have disciplinary histories (Regulation 1.63). The Division believes that the CFFE's proposal would satisfy these objective standards.

C. Officers

CFFE also would have a President, Treasurer, and Secretary whose duties would be prescribed in CFFE's By-Laws and Rules. Under CFFE proposed By-Law Section 12, NYCE's President of Financial Products would serve as CFFE's President and function as the CFFE's chief executive officer. The CFFE President could not serve as a CFFE director. CFFE's Treasurer would be appointed by CFFE's Board of Directors, while CFFE's Secretary would be appointed by CFFE, LLC, the same Cantor Group subsidiary that would make appointments to CFFE's Board. CFFE's proposed By-Laws would provide for the indemnification of persons who become parties to legal proceedings as a result of their being an officer, director, employee, or agent of CFFE. Neither CFFE, NYCE, nor any Cantor Group subsidiary would be permitted to indemnify such persons for civil monetary penalties imposed by the Commission under

Section 6b of the Act. This complies with the Commission's January 18, 1977, policy statement regarding indemnification of officers, directors and other officials of contract markets.<sup>45</sup>

D. Executive Committee

CFFE proposed By-Law Sections 14 and 15 would establish an Executive Committee consisting of CFFE's President, the Chairman and the Vice-Chairman of CFFE's Board, and one other CFFE director selected by the Exchange Board of Directors. Under proposed CFFE By-Law Section 15, the Executive Committee would have general supervision over the property, business, and affairs of CFFE, subject to the Board of Directors' oversight.

E. CFFE Standing Committees

In addition to the Executive Committee, proposed CFFE By-Law Section 14 would provide for the appointment of three other standing committees by CFFE's Board of Directors – the Finance Committee, the Committee on US Treasury Securities and the Futures Committee. These committees would make recommendations to the CFFE Board with respect to policies and action in their respective areas of responsibility.

The Finance Committee would consist of CFFE's Treasurer, serving as the chairman, and two other members of the Board. The committee would generally supervise the CFFE's financial affairs. The Committee on US Treasury Securities would consist of eight persons, at least five of whom would be full NYCE members and at least one of whom would also be a CFFE director. The US Treasury Securities Committee would be chaired by any one of its members that is a CFFE director. The Committee would generally be involved in decisions such as whether to trade new CFFE contracts or amend the terms of currently-traded contracts.

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<sup>45</sup> 42 Fed. Reg. 4282 (January 24, 1977).

CFFE's Futures Committee would consist of between three and ten people and would be appointed by CFFE's Board of Directors. The Futures Committee would meet on a daily basis at the close of trading to determine each contract's settlement price and closing quotations in accordance with proposed CFFE Rule 314's procedures.

F. NYCE Committees With Responsibility for CFFE Matters

CFFE's proposed By-Law Section 14 would confer authority on nine existing NYCE committees to perform various committee functions for CFFE. Each of these committees is appointed entirely by NYCE's Board of Managers. The nine NYCE committees that would handle committee functions for CFFE would consist of: (1) NYCE's Supervisory Committee, (2) NYCE's Committee on By-Laws and Rules, (3) NYCE's Committee on Membership, (4) NYCE's Committee on Information and Statistics, (5) NYCE's Arbitration Committee, (6) NYCE's Control Committee, (7) NYCE's Business Conduct Committee ("BCC"), (8) NYCE's Committee on Margins, and (9) NYCE's Floor Committee. When handling CFFE matters, each of these committees would have the same responsibilities and would be required to follow the same procedural mandates that they are currently subject to when handling NYCE matters.<sup>46</sup>

In this regard, the Division believes that the roles of certain of these committees merit particular explanation. CFFE proposed Rule 500 provides that CFFE disciplinary matters shall be handled pursuant to the disciplinary procedures of NYCE Rules 10.01 through 10.20,

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<sup>46</sup> Of course, all of the NYCE rules governing the conduct of these committees have been either previously approved by the Commission or permitted into effect by the Commission without approval pursuant to Commission Regulation 1.41.

consistent with the procedural requirements of the Commission's Part 8 Regulations.<sup>47</sup> Under those provisions, NYCE's BCC would determine whether a CFFE Trader should be prosecuted for a CFFE rule violation based upon the investigative report of the NYCE Compliance staff. Upon a BCC determination to institute a disciplinary action, the NYCE Supervisory Committee, or a Supervisory Panel thereof, would conduct hearings, determine liability, and fix penalties for any rule violations. NYCE's rules do not provide for the right of appeal of any Supervisory Committee or Supervisory Panel decision. Accordingly, disciplinary decisions involving CFFE Traders could not be appealed either to NYCE's Board of Managers or to CFFE's Board of Directors.<sup>48</sup>

CFFE's proposed Rule 600 provides that controversies involving persons under CFFE's jurisdiction shall be handled pursuant to the arbitration procedures of NYCE Rules 8.00 through 8.08, consistent with the procedural requirements of the Commission's Part 180 Regulations. All such controversies would be heard by a "mixed" NYCE arbitration panel (i.e., majority non-member panel). For these purposes, CFFE has represented that "non-member" would be defined to exclude CFFE Traders, NYCE members and employees of any Cantor Group subsidiary.

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<sup>47</sup> See the Chart's entries for the Commission's Part 8 Regulations.

<sup>48</sup> NYCE Rules 10.15 and 10.16 do provide for a limited role for NYCE's Board in the handling of settlement agreements. Under NYCE Rule 10.16, the BCC and Supervisory Committee, and their respective sub-committee panels, may accept settlement agreements from respondents. However, Rule 10.16(f)(2) provides that NYCE's Board of Managers may review the terms of a settlement agreement if any Board member requests that the Board review the agreement within ten days of the date of the agreement. The Board would subsequently determine whether to accept or reject the agreement by majority vote. NYCE's Board of Managers would retain this prerogative with respect to settlement agreements in CFFE disciplinary matters. However, CFFE's Board of Directors would have no right of review for such settlement agreements in CFFE disciplinary matters.

Finally, the Division notes that NYCE's Committee on Margins, which consists of five NYCE members, would set the customer speculative margin levels for all of CFFE's contracts.<sup>49</sup>

G. Emergency Procedures

CFFE proposed Rule 36 authorizes the CFFE Board of Directors and, in certain circumstances, the CFFE Executive Committee<sup>50</sup> to place into immediate effect temporary rules in response to emergencies.<sup>51</sup> Among the actions that may be taken under proposed Rule 36 are the suspension of trading, the ordering of liquidation-only trading, the modification of delivery terms and conditions, and the changing of trading hours. CFFE emergency actions must be approved by at least a two-thirds majority of the Board or committee members physically present<sup>52</sup> and voting.<sup>53</sup> The CFFE's procedures for taking emergency actions would be substantially identical to NYFE's current Rule 60 and would comply with the emergency action requirements of Commission Regulation 1.41(f).

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<sup>49</sup> The CCC's Board of Directors would establish margin levels for CFFE contracts held by CCC clearing members.

<sup>50</sup> The Executive Committee may take emergency action when it is impracticable, in the opinion of the Chairman, Vice-Chairman and any two members of CFFE's Board of Directors, for the Board to call a meeting to address an emergency.

<sup>51</sup> Rule 36 also would permit certain CFFE and NYCE committees to take emergency actions to the extent that the CFFE By-Laws or Rules specifically conferred such authority. As presently proposed, no CFFE proposed By-Law or Rule would confer emergency action authority on a CFFE or NYCE committee for any particular type of emergency situation.

<sup>52</sup> For these purposes, CFFE proposed Rule 36(c)(2) would define "physically present" persons to include persons participating by means of a conference telephone or similar communications equipment.

<sup>53</sup> In the case of emergency actions by committees, there must be a quorum of at least a majority of the Committee.

CFFE proposed Rule 18 would define an emergency to mean any occurrence or circumstance that “requires immediate action and threatens or may threaten such things as the fair and orderly trading in, or the liquidation of or delivery pursuant to, any Contract.” Such matters could include manipulative activity; corners, squeezes, congestion, or undue concentration of positions; or any action by federal, foreign, state, or local governments that have a direct impact on CFFE trading. CFFE proposed Rule 17 also would include physical emergencies in its listing of possible types of emergencies at CFFE. CFFE proposed Rule 24 would separately define physical emergency to mean “any circumstance which may have a severe, adverse effect upon the physical functions of CFFE” and would include as examples fire, bomb threats, substantial inclement weather, power failures, communication breakdowns, and computer or software malfunctions. CFFE proposed Rules 17 and 24 would be substantially identical, respectively, to NYFE’s current Rules 15 and 28. CFFE emergency actions, whether by CFFE’s Board or Executive Committee, would not need to be ratified or endorsed by NYCE’s Board of Managers. The Division believes that the CFFE’s emergency action procedures are appropriate, however, given the fact that emergencies typically must be addressed by expedient Board action. In addition, the CFFE Board and Executive Committee, with their likely contingent of US Treasury market representatives, would be particularly better suited than NYCE’s Board to recognize and address non-physical emergencies such as manipulative activity, corners, squeezes, congestion and undue concentration of positions in CFFE’s Treasury securities futures contracts.

VI. Access to the Cantor System

A. Overview

Access to the Cantor System would be limited to holders of CFFE trading privileges. Proposed CFFE By-Law Section 36 provides that trading privileges could be obtained by entities falling into one of four categories: (1) full members of NYBT, who would automatically be considered Class B Members of CFFE, (2) clearing member firms of CFFE, (3) Commission registrants and their registered employees, and (4) Associate Members of CFFE.<sup>54</sup> “Trading privileges” would be defined by proposed CFFE Rule 32 as “the right to access a [TO] on the Cantor System” for the purpose of transmitting order instructions to the TO for input to the Cantor System. Only holders of CFFE trading privileges (previously identified collectively as “CFFE Traders” or “Traders”) could accept orders from another person, and only CFFE Traders would be responsible for the execution of such orders by any contingency in its terms.<sup>55</sup>

A CFFE TO would be an employee of CFS who, under proposed CFFE Rule 301-A, also would act as an agent of CFFE. TOs would receive instructions regarding executable orders from CFFE Traders, or from the authorized employees of certain CFFE Traders,<sup>56</sup> and input

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<sup>54</sup> These entities would collectively be referred to as Screen Based Traders (previously identified as “SBTs”) in CFFE’s proposed rules. See Appendix B describing the various entities who would be involved in the CFFE’s order flow.

<sup>55</sup> For instance, if a CFFE Trader accepted an order for a trade at a “stop” or “limit” price which was away from the market, the Trader would hold that order and monitor the market until it became executable, and at that time would contact a TO and instruct him or her to enter a buy or sell command at the price specified by the customer. As described below, the Trader’s responsibility would be similar to that of a traditional floor broker on an open outcry exchange. This allocation of responsibility is specified in the CFFE’s “Customer Information and Risk Disclosure Statement,” which each CFFE customer would have to sign before any CFFE Trader could accept the customer’s orders.

<sup>56</sup> These employees are discussed below in Section VI.B.3.

those instructions to the Cantor System for trade matching. When receiving and entering a Trader's instructions, a TO would act in a strictly ministerial capacity. He or she could not input instructions regarding any order which did not indicate a specific price, or which specified a price that was not the prevailing best bid or offer. A TO could not exercise any discretion as to the handling of any order.

B. CFFE Traders

All CFFE Traders would be responsible for the diligent execution of their customers' orders in the same manner as would a floor broker on an open-outcry exchange.<sup>57</sup> Proposed CFFE Rule 316(b) would require that a CFFE Trader prepare, for each customer order he or she received, an order ticket in accordance with the provisions of Commission Regulation 1.35, in the same manner as would a traditional floor broker. A CFFE Trader who accepted orders with various contingencies would be solely responsible to execute such an order upon the election of its terms by immediately transmitting the necessary instructions to a TO for input to the Cantor System. All CFFE Traders and their employees would be bound by the requirements of CFFE Rule 311 which, in accordance with Sections 4b and 4c of the Act, and Commission Regulations 155.2 and 155.3, would prohibit various trading abuses associated with dual trading<sup>58</sup> including: (1) prearranging trades, (2) withholding orders from the market, (3) trading ahead of customer

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<sup>57</sup> Of course, only those CFFE Traders who were appropriately registered with the Commission could execute customer orders on CFFE. The Exchange has represented that it would provide NFA with a list of all Commission registrants who had been granted CFFE trading privileges. See CFFE submission dated August 27, 1998.

<sup>58</sup> It is not yet known whether CFFE trading volume would reach the average 8000 contracts per day threshold which could trigger a prohibition on dual trading in accordance with Section 4j(a) of the Act and Commission Regulation 155.5.

orders, (4) disclosing customer orders, (5) taking the other side of one's own customers' orders, and (6) allocating trades preferentially among accounts.

1. CFFE Members

Membership in the Exchange would be divided into three categories: (1) Class A Membership, (2) Class B Membership, and (3) Associate Membership. Under proposed CFFE By-Law Section 35(a), only Class A Membership and Class B Membership ("Full Membership") would confer any equity interest in the CFFE, and only Class A Membership would confer any voting rights in the Exchange.<sup>59</sup> Only Class B and Associate Members would have any trading privileges on CFFE.

a. CFFE Full Members

Proposed CFFE By-Law Section 35(a)(1) would designate the NYCE as the sole Class A Member of CFFE, and as such, NYCE would have: (1) a ten percent equity interest in CFFE and (2) the sole voting interest in CFFE. Class A Membership would not confer any CFFE trading privileges on NYCE. Proposed CFFE By-Law Section 35(a)(2), would confer Class B Membership upon each full member of either NYCE or CSCE, upon each NYCE or CSCE member's payment of a one-time \$100 fee. The CFFE's Class B Members would hold: (1)

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<sup>59</sup> Class A and Class B Membership actually represents membership in CFFE Regulatory, LLC, the holding company that is the one-hundred percent equity owner of, and the sole voting interest in, CFFE. This arrangement reflects the relationship between NYCE and CFFE. The Class A and Class B Members' respective voting rights and equity interest would be in the holding company rather than in CFFE itself, while the trading rights held by Class B Members and Associate Members would be relative to the Exchange. The distinction between CFFE, Inc. and CFFE Regulatory Services, LLC, while significant with respect to the ownership and governance of the Exchange, does not affect the roles of the respective membership categories regarding their access to the Cantor System. Therefore, for the purposes of this section that distinction will not be made, and the two entities will collectively be referred to as "CFFE."

CFFE trading privileges and (2) a collective ninety percent equity interest in CFFE. Class B Members would not have any voting rights in the management of CFFE.

b. CFFE Associate Members

Proposed CFFE By-Law Section 35(b) would provide for the allotment of 1000 CFFE Associate Memberships to qualified natural persons who had been approved by CFFE's Board of Directors. Associate Members of CFFE would have trading privileges on the CFFE, but would hold no equity or voting interest in the Exchange. Proposed CFFE By-Law Sections 35-A, 35-B, and 35-C would prescribe the terms and conditions of CFFE Associate Membership and its attendant trading privileges. Associate Membership would be available to any natural person who: (1) obtained the endorsement of at least one Class B Member, (2) submitted an application for Associate Membership for review by NYCE's Committee on Membership,<sup>60</sup> (3) procured a full financial guaranty from a CFFE Clearing Member, (4) was approved by CFFE's Board of Directors, (5) paid a one-time fee of \$1000, and (6) agreed in writing to abide by the By-Laws and Rules of CFFE.<sup>61</sup>

CFFE's Board could approve an Associate Member applicant by the favorable vote of a simple majority of the entire Board if the applicant had been approved by NYCE's Committee on Membership. The favorable vote of at least two-thirds of the entire Board would be required to approve an applicant who had been disapproved by NYCE's Committee on Membership. The Committee on Membership would base its recommendation regarding an applicant on its

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<sup>60</sup> Proposed CFFE By-Law Section 19 provides that the functions of CFFE's Committee on Membership would be carried out by NYCE's Committee on Membership.

<sup>61</sup> Applicants for CFFE Associate Membership would submit an application form which included an agreement to "observe and be bound by the By-Laws and Rules of the [CFFE] and the [NYCE]" if accepted as an Associate Member.

evaluation of the applicant's character, financial standing, and trading background. An Associate Member would only be required to be a Commission registrant if he or she executed trades for the accounts of customers.<sup>62</sup>

c. CFFE Clearing Members

Any firm which was qualified to be a clearing member firm of CCC ("CM") would have CFFE trading privileges. This set of qualifications is stated in CCC By-Law Section 10.

2. Screen Based Traders

Proposed CFFE Rule 29 defines an SBT as any registered US FCM, introducing broker ("IB"), commodity trading advisor ("CTA"), CPO, floor broker, or floor trader who has obtained a full financial guarantee from a CFFE Clearing Member. An SBT could obtain CFFE trading privileges under proposed CFFE By-Law Section 36. As a trading privilege holder, an SBT would, as stated in the preamble to the Exchange's proposed By-Laws and Rules, comply with, and be subject to all applicable By-Laws, Rules, policies, procedures, orders, directives, and decisions of; and be subject to the jurisdiction of; CFFE, NYCE, and NYBT.<sup>63</sup>

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<sup>62</sup> When the Commission adopted Regulation 1.3(x) and its definition of "floor trader," it specifically stated its intention not to include presumptively in that definition individuals who traded only for proprietary accounts on electronic trading systems. The Commission chose to defer the issue of such persons' registration for later consideration because at the time the immediate impetus for creating the floor trader registration category was specifically to safeguard against the types of abuses made possible by the trading floor environment and because the scope of the registration requirement may be affected by differences between electronic and trading floor environments. See 58 Fed. Reg. 19575, 19576 (April 15, 1993). The Division believes that the Commission's bases for making that determination would continue to apply in the case of CFFE Traders trading only for their proprietary accounts at CFFE. The Division will continue to monitor trading on CFFE and on other automated trading systems in order to determine whether conditions warrant recommending changing this policy.

<sup>63</sup> Proposed CFFE By-Law Section 40 provides that holders of CFFE trading privileges whose trading privileges have terminated would continue to be subject to the jurisdiction

3. Authorized Traders

The trading privileges of a CM or certain SBTs (an FCM, IB, or CTA only) could be exercised by the CM's or the SBT's authorized employees, known as Authorized Traders (previously referred to as "ATs"). An AT generally would be required to register with the Commission as an Associated Person ("AP") of his or her employer only if such AT handled customer orders other than in a strictly clerical capacity.

C. Terminal Operators

1. Responsibilities

Proposed CFFE Rule 31 provides that TOs would be employees of CFS who were authorized to accept instructions concerning a CFFE Trader's execution of an order and to input such instructions to the Cantor System. The TOs would be the same employees who conduct CFS' cash market activities as Government Securities Representatives registered with the National Association of Securities Dealers ("NASD"). Although they act as brokers in that capacity, with respect to CFFE's proposed futures trading operations, TOs would act in a strictly clerical capacity and would have no discretion over the manner in which orders transmitted to them could be executed, or over the choice of a counterparty to any trade.<sup>64</sup> Proposed CFFE Rule 712-A governs the conduct of TOs and specifies that they could not enter instructions relating to an order without obtaining a complete set of instructions from the CFFE Trader which included a

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of CFFE, NYCE, CSCE, and NYBT, as applicable, for all matters arising out of their exercise of CFFE trading privileges for 180 days after the date of termination of their trading privileges.

<sup>64</sup> CFFE has represented that the TOs would be compensated entirely by CFS. They are currently and would continue to be salaried employees, and could receive a discretionary bonus each year based on departmental, rather than individual, performance. The size of

specific contract, price, and quantity. Further, a TO could not enter instructions without first obtaining from the Trader, and noting on a timestamped order sheet, the customer account (if applicable) for which the trade was to be done.<sup>65</sup>

Upon receiving all required information from a CFFE Trader, a TO would input to the Cantor System a bid, offer, buy, or sell command, the CFFE Trader's identifier, the contract, the quantity, and the price of the desired transaction. If a Trader's bid or offer were deleted by a bettering bid or offer, the TO would be required to notify the Trader immediately of this event. If a bid or offer were matched, the TO would likewise notify the Trader and, if applicable, immediately enter the account identifier previously noted on the order sheet.<sup>66</sup>

While a CFFE Trader could accept orders of any contingency from a customer, he or she could only relay instructions regarding that order to a TO for input when the order became executable at either the prevailing bid or offer. A TO could not maintain any kind of order

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these bonuses generally would be based on volume levels in both the cash and futures operations of CFS and CFFE, respectively.

<sup>65</sup> Orders for customer accounts, as opposed to proprietary orders, could only be handled by TOs assigned to handle customer orders exclusively. The account notations on the order sheets would be input to the System immediately following order execution to the extent that the TO was not occupied entering additional instructions from other CFFE Traders. The CFFE has represented that notwithstanding this exception, account number entry into the Cantor System must occur no later than thirty minutes following trade execution. The order sheets would be serially prenumbered and would be collected daily and retained for five years by NYCE, and kept readily accessible for the first two of those years in accordance with Commission Regulation 1.31(a). As discussed below in Section IX.B.1., this method of recording account identifiers would only be in effect during CFFE's first year of operation, after which time, CFFE has represented, the Cantor System would be modified to accept the input of account identifiers simultaneously with the input of order instructions.

<sup>66</sup> In the case of a CFFE Trader's proprietary trading, a TO would not need to enter an account identifier, as this information automatically would be associated with the CFFE Trader's identification number, which would be entered into the Cantor System with every order prior to matching.

“book” which listed orders for later input on stated contingencies. If a Trader’s previously posted bid or offer for a customer subsequently was removed from the Cantor System by the entry of a “bettering” bid or offer, the Trader would be responsible for re-submitting the order to a TO for input; the TO could not re-input the order absent this new instruction, or based on any prior instructions left with him or her by the Trader. A TO could only accept instructions from a CFFE Trader and could only refuse to input a Trader’s order to the Cantor System if it were not immediately executable at the price specified by the Trader. A TO’s refusal to enter an order under these circumstances would not be a meaningful exercise of discretion because in the event that a TO did input an order which was not then executable, the Cantor System would automatically reject such an entry.

## 2. Restrictions

A TO could not trade for any account in which he or she had an interest, or over which he or she had any discretion, nor could a TO maintain or have an interest in any account for which trades in CFFE or related contracts were executed.<sup>67</sup>

Each TO would be required to complete a training seminar conducted by CFFE and NYCE staff during which TOs would be informed of their responsibilities regarding the confidentiality of customer information and the prohibition on disclosure of certain market information. TOs also would be required to sign an agreement to abide by the By-Laws and

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<sup>67</sup> Proposed CFFE Rule 712(b) generally would prohibit an employee of CFFE, the Cantor Group, or NYCE from trading, directly or indirectly, in any contract traded on or cleared by CFFE or CCC, or in any related commodity interest, or in any contract of a linked exchange, where that employee had access to material non-public information. The only exceptions to the prohibition would be that Cantor Fitzgerald & Co., the Cantor Group FCM subsidiary, would be able to execute non-proprietary orders at CFFE and CF Account Manager, another Cantor Group subsidiary, could trade CFFE contracts in order to correct TO errors.

Rules of CFFE and NYCE. By this agreement (“TO Agreement”), TOs would acknowledge that they could be removed at any time for any reason by NYCE’s Compliance staff.<sup>68</sup> Provisions of proposed CFFE Rule 712-A would proscribe certain conduct for TOs including: (1) offering advice with respect to CFFE trading,<sup>69</sup> (2) prearranging trades, (3) withholding orders from the market, and (4) entering orders into the Cantor System without obtaining complete instructions from a CFFE Trader including contract, quantity, price, and account identifier. Other provisions of proposed CFFE Rule 712-A would prescribe various responsibilities that a designated “Customer Order TO” would have with respect to the use of the order sheets on which the TO would record the account identifier associated with each customer order that a CFFE Trader executed.<sup>70</sup>

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<sup>68</sup> CFFE had originally proposed that CFS employees called “TO Supervisors” would have some role in the supervision of TOs. CFFE has removed all reference to these individuals in its application. The Division does not believe that TO Supervisors would have had any value as safeguards against abuses by TOs, and so is not concerned by their elimination.

<sup>69</sup> TOs could, however, solicit general participation in CFFE. This would be limited to two situations. First, in their course of dealing with cash market-only customers of CFS, TOs could encourage those customers to either become Associate Members of CFFE, or to do their futures hedging through a CFFE Trader rather than do business on a competing exchange. (The Division believes this activity would be analogous to the efforts of marketing staff employees of other exchanges, and would not be any type of brokering activity.) Second, TOs could initiate contact with existing CFFE Traders to alert them to significant market events. The information TOs could relate to Traders would, in all cases be limited to that information of which the Traders would have been aware had they been observing their view-only screens. See CFFE proposed Rule 712-A and May 21, 1998, letter from Michael R. Koblenz to David P. Van Wagner, Special Counsel, T&M, Answer 47.

<sup>70</sup> As described below in Section IX.B.1., CFFE Traders could only call TOs who were specifically designated as “Proprietary TOs” to enter orders for the Trader’s proprietary accounts. Likewise, Traders executing customer orders could only do so through Customer Order TOs.

3. Liability for Abuses

Although TOs would not have control over the execution of orders, they necessarily would know the terms of customer orders immediately prior to inputting them for execution. It is not unusual for employees of a contract market to have access to material nonpublic information, and in such cases, the contract market would be liable for employees' disclosures of that information under Section 2(a)(1)(A)(iii) of the Act.<sup>71</sup> Despite their critical role in CFFE trading, TOs would be employed solely by CFS rather than by the CFFE. In order to create the same level of ultimate accountability that an exchange normally has for similarly situated persons, CFFE Rule 301-A would provide that "[w]hen performing their respective functions with respect to CFFE, each of the [TOs] . . . shall be considered 'agents' of CFFE for purposes of Section 2(a)(1)(A)(iii) of the Act."

In its comment letters, AMEX expressed concern that CFFE's assumption of responsibility for the acts of TOs under proposed Rule 301-A's agency provision, would in some way limit CFS' liability for the TOs as their employer. It is the opinion of the Division that neither this provision, nor any other provision of CFFE's proposed By-Laws and Rules, in any way diminishes CFS' vicarious liability for the actions of its TO employees, or for the acts of any other CFS employees who under CFFE's proposed rules would act as agents of the CFFE. For the purposes of Section 2(a)(1)(A)(iii) of the Act, or for the purposes of any other theory of

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<sup>71</sup> Section 2(a)(1)(A)(iii) provides that "[t]he act, omission, or failure of any official, agent, or other person acting for any individual, association, partnership, corporation, or trust within the scope of his employment or office shall be deemed the act, omission, or failure of such individual, association, partnership, corporation, or trust, as well as of such official, agent, or other person." This effectively renders the CFFE liable under the Act for any abuse by a TO through the use of nonpublic information or otherwise.

vicarious liability, the acts of these employees as agents of the CFFE would properly be considered to be activities within the scope of their employment by CFS.

Notwithstanding the agency relationship between the TOs and CFFE, and CFS' continuing respondeat superior liability for the actions of the TOs, each TO would be required, as a condition to their TO Agreement, to register as floor brokers with the Commission through NFA. Although the Division did not request that CFFE take the step of registering Exchange agents, the Division believes that it would be appropriate to do so given the nature of the information to which TOs would have access, and the need to ensure their personal liability for any violations of the Act.

In the course of their normal duties, TOs would have a high degree of access to material nonpublic information. TOs would be aware not only of customer orders prior to their entry to the Cantor System, but also of particular customers' intraday trading patterns.<sup>72</sup> Registration of the TOs as floor brokers would ensure that they were directly subject to the jurisdiction of the Commission. This would provide additional safeguards against TOs' abuse of their positions, and ensure that adequate recourse against offenders would be available both to the Commission and to any injured parties in the form of enforcement actions, and arbitration or reparations proceedings, respectively.

Comments received by the Commission have questioned the propriety of CFFE's registration of its TOs as floor brokers on a technical level. Commission Regulation 3.11(a)(2)

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<sup>72</sup> Although exchange employees such as market surveillance staff in the course of their duties routinely have access to material nonpublic information concerning specific customer accounts, they generally obtain this information after the close of the day's trading or on the next day. CFFE TOs, by contrast, would have this sensitive information during the course of the trading day, when another Trader to whom it was disclosed could benefit greatly by acting upon it.

requires that an applicant for floor broker registration be granted trading privileges on a contract market. As noted in proposed CFFE Rule 31, NYCE has granted the CFFE's TOs nominal trading privileges solely for the purpose of obtaining floor broker registration. TOs would not fit the role normally associated with floor broker registration and would not perform any of the duties that otherwise would trigger a requirement for registration under the Act.<sup>73</sup> However, TOs would have access to significant nonpublic information and registration of TOs would provide a valuable deterrent to abuse while affording these individuals no privileges above and beyond those which they otherwise would have. The Division therefore considers registration of TOs to be a prudent measure, and one which is consistent with the prophylactic purpose of registration generally. Since no category of registration would be any more appropriate for these entities than that of floor broker, the Division is recommending that the Commission interpret Regulation 3.11(a)(2) to permit the registration of TOs as floor brokers.

#### 4. Public Comments Regarding Terminal Operators

Many of the concerns expressed in the comments received by the Commission have focused on the adequacy of CFFE's proposed provisions regarding ultimate accountability for the acts of TOs. In the event of any abuse of material nonpublic information by a TO, there would be three separate avenues of recourse available to the Commission or to private parties. Specifically, the Commission and any aggrieved parties would be able to pursue: (1) CFFE via the agency relationship between the TOs and CFFE, (2) CFS via the employment relationship

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<sup>73</sup> A floor broker's duties would normally include solicitation and acceptance of customer orders from members of the public, recommendation of specific trades or trading strategies, and execution of orders. TOs, by contrast, would only follow the instructions of CFFE Traders who would either be executing public customers' orders or trading for their proprietary accounts.

between the TOs and CFS, and (3) TOs themselves by virtue of their status as registered floor brokers.<sup>74</sup> These provisions would be augmented by NYCE's surveillance of TOs discussed in Section IX. and appear to constitute an effective framework for deterring any TO wrongdoing.

In its comment on CFFE's application, CBT made various criticisms flowing from its opinion of the proposed role of the TOs in CFFE's order flow and trade execution process. Among other things, CBT contended that Commission approval of the proposal would be tantamount to granting the Cantor Group a monopoly on the provision of floor brokerage services in violation of Section 15 of the Act,<sup>75</sup> and, accordingly, that the transaction fee charged by CFFE would constitute price fixing of brokerage commission fees.<sup>76</sup> CBT also contended that CFFE trades would not be executed by or through members of a contract market, as required by Section 4(a) of the Act, by virtue of the TOs' status as non-members of CFFE. These as well as other CBT assertions are all premised on CBT's perception that the TO role would be analogous to that of the floor broker on an open-outcry exchange.

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<sup>74</sup> Of course, whether TOs were registered or not, the Commission would have jurisdiction over them as it would over any other persons under Section 4b of the Act for any acts of fraud they committed in connection with futures trading activities.

<sup>75</sup> CBT has taken the view that the TOs' function of inputting orders to the Cantor System upon the instructions of CFFE Traders would be analogous to the function of floor brokers. Accordingly, CBT claimed that since CFS would be the sole employer of all of CFFE's TOs, CFS in effect, would have a monopoly on floor brokerage services. CBT further asserted that this would violate Section 15 of the Act, which in significant part requires the Commission "to take the least anticompetitive means of achieving the objectives of th[e] Act, in . . . approving any bylaw, rule, or regulation of a contract market . . ."

<sup>76</sup> CBT claimed that CFFE's transaction fee would be inconsistent with the terms of a 1974 consent decree between CBT and the Department of Justice that was designed to eliminate inhibition of competitive pricing. By this agreement, CBT agreed to phase out policies which set fixed rates to be charged by its members for trade executions on the trading floor. See United States v. Board of Trade of the City of Chicago, Civ. Action No. 71 C 2875 (June 28, 1974).

The novel nature of CFFE's trading system prevents the various parties involved in the trade execution and order flow from conforming precisely with the roles traditionally occupied by customers, floor brokers, clerks, and other entities involved in the operation of floor trading on a contract market. However, after analyzing the responsibilities of the entities involved in the functioning of CFFE, the Division believes that the CFFE Traders described above would be the entities whose role would be most comparable to that of the floor brokers on an open-outcry exchange.<sup>77</sup>

CFFE Traders would be subject to the jurisdiction of the Exchange and its By-Laws and Rules, and would have to meet various requirements of, and be scrutinized by, NYCE's Committee on Membership, as well as by CFFE's Board of Directors. They would communicate with, and solicit and accept orders from, customers. They would be solely responsible for the execution of all contingent orders by their terms, and could charge brokerage commissions for those executions. In contrast to CFFE Traders, TOs would be salaried clerical workers who would exercise no discretion whatsoever in carrying out the instructions of the CFFE Traders, and would not solicit or accept futures orders from anyone other than CFFE Traders.

The Division believes, therefore, that CFFE TOs are most closely the functional equivalent of clerical exchange staff.<sup>78</sup> Accordingly, the Division believes CBT erroneously

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<sup>77</sup> Notably, the fact that all CFFE transactions would be executed by or through CFFE Traders would satisfy the requirement that all futures contracts be executed by or through a contract market member (Section 4(a) of the Act). CFFE Traders all would be either CFFE members or CFFE trading privilege holders. Section 1a(15) of the Act and Commission Regulation 1.3(g) define contract market member to mean an individual or entity with contract market membership or contract market trading privileges.

<sup>78</sup> The Division has previously adopted this view with respect to the order entry clerks who would have been employed by the AMEX Commodities Corporation's ("ACC") Board Broker program. (ACC is the futures exchange subsidiary of AMEX.) The role of those

contends that CFS, by this proposal, would gain a floor brokerage monopoly, and by implication, engage in improper fixing of brokerage commission fees, as it would be only the various independent CFFE Traders who would engage in any sort of brokering activity on CFFE. Further, the brokering activity of the CFFE Traders would satisfy the requirement of Section 4(a) of the Act that trading take place through a member of a contract market, as it is only based on the activity of CFFE Traders that TOs could input any futures trading instructions to the Cantor System.

## VII. Trade Execution

### A. Overview

All CFFE transactions would be executed by the Cantor System in accordance with one of two trade-matching algorithms. The first, CFFE's regular trade-matching algorithm, would match eligible orders continuously throughout the CFFE trading day and would be identical to the trade-matching algorithm currently used by CFS' cash market trading system. The second, CFFE's market-crossing trade-matching algorithm, would match eligible orders four times a day at scheduled market-crossing sessions. The market-crossing algorithm would be unique to CFFE and is not currently used in CFS' cash market operations. When CFFE Traders instruct TOs to enter orders into the Cantor System, they would inform the TO by which trade-matching algorithm the order should be executed. Regardless of which trade-matching algorithm was

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clerks would have been functionally identical to the role of the TOs proposed by CFFE. ACC's Board Broker clerks would have had no contact with public customers, could not have exercised any discretion in accepting orders and entering them into ACC's Electronic Limit Order System ("ELOS"), and would merely have typed pre-existing orders into ELOS which it would have matched only in accordance with its algorithm. See T&M's September 19, 1989, memorandum recommending that the Commission designate ACC as a contract market in US Treasury ten-year note futures contracts.

applicable, all CFFE orders would be automatically executed by the Cantor System and not by CFFE TOs. Both of these proposed trade-matching algorithms are described in detail below.

B. Regular Trade-Matching Algorithm

1. Principles of Trade-Matching Logic

The CFFE's regular trade-matching algorithm would be similar to the algorithm that matches trades for CFS' current cash market trading system. Like the algorithms of other Commission-approved automated trading systems, CFFE's regular algorithm would process orders anonymously in accordance with strict price and time priority rules. Unlike those algorithms, though, the CFFE's algorithm would provide certain special trading privileges to parties that were aggressive in making a market in a contract and to parties that were active buyers or sellers. The CFFE has incorporated these features into its regular trade-matching algorithm in order to create an incentive for market participants to place orders at attractive prices and to provide liquidity.

Because the CFFE's regular trade-matching algorithm would be unique and quite complex, this memorandum will explain the algorithm with a progressive series of examples that illustrate particular aspects of the algorithm's operation. There are four basic concepts, however, that underpin the CFFE's regular trade-matching algorithm. First, at any one time the Cantor System would only accept and make eligible for matching orders that were at the best bid or best offer price, respectively known as the "Best Bids" or the "Best Offers," for a specified minimum number of contracts. Orders that were entered into the Cantor System when there was a resting bid or offer at a superior price would be rejected by the System. Best Bids or Best Offers that were resting in the Cantor System when a superior bid or offer of sufficient quantity was entered would be deleted from the System, would no longer be eligible for matching, and would be

replaced by that new Best Bid or Best Offer. When the Cantor System had multiple resting orders at a particular bid or offer price that were eligible for matching, the algorithm would match those orders in the sequence that they were entered into the System. In addition, the Cantor System would always recognize, among any multiple resting orders, the order that was first-in-time at the Best Bid price (the “First Best Bid”) or at the Best Offer price (the “First Best Offer”). In addition, as illustrated below, the CFFE potentially would provide certain special trading privileges to parties that initiated First Best Bids or First Best Offers in the System at any particular time.<sup>79</sup>

Second, unlike the trade-matching algorithms of automated trading systems previously approved by the Commission, CFFE’s regular trade-matching algorithm would not provide for the automatic matching of bids and offers that are resting in the Cantor System at the same price. Instead, execution of a CFFE transaction would only occur upon a party assuming the active role of a buyer or a seller and “hitting” a displayed bid or “lifting” a displayed offer. Accordingly, the counterparties for all trades at CFFE would include on one side bidders or offerors who had best bids or best offers resting in the Cantor System, and, on the other side, market participants who elected to sell or buy against those resting bid or offers. At CFFE, market participants who hit displayed bids or lift displayed offers would be characterized as “aggressors.” For CFFE trades executed pursuant to the regular trade-matching algorithm, aggressors would pay the CFFE a transaction fee. Counterparties to aggressors would not pay a CFFE transaction fee. As will be explained further below, aggressors, like First Best Bidders and First Best Offerors, could potentially receive special trading privileges under CFFE’s regular algorithm.

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<sup>79</sup> This memorandum will refer to parties that initiate First Best Bids or First Best Offers as “First Best Bidders” or “First Best Offerors,” respectively.

The third concept basic to understanding CFFE's regular trade-matching algorithm is that the algorithm essentially provides for a series of discrete single-price auctions that would be conducted throughout the day at the current price of the Best Bid or Best Offer. In some instances, the single-price auction could consist of a single aggressive party executing a trade with only the First Best Bidder or First Best Offeror and the auction could begin and end virtually instantaneously. In other instances, the single-price auction could involve multiple parties on both sides of the transaction and could last for a longer length of time. Regardless of the number of parties participating or the length of time, upon the conclusion of each single-price auction, the Cantor System would automatically prioritize the bids and/or offers that remained eligible for matching in their appropriate time and price order.

The fourth important feature of CFFE's regular trade-matching algorithm is its provision of an Exclusive Time trading period during which two parties would gain the right to trade exclusively with each other at the then prevailing Best Bid or Best Offer price. The right to engage in Exclusive Time trading would be limited to market participants who entered their Best Bids or Best Offers earliest (i.e., the First Best Bidder or the First Best Offer) into the System and to aggressors who, by their actions, have shown a willingness to trade actively and to pay transaction fees. CFFE's Exclusive Time trading privilege would only be made available to these counterparties in the limited circumstances described below. The Exchange has structured the Exclusive Time trading procedure to create an incentive for market participants to place orders at attractive prices and to provide market liquidity. A similar trading mechanism also is used by CFS for its government securities trading operations.

2. Minimum Bid and Offer Size

Under the CFFE's proposal, each First Best Bid or First Best Offer at a new prevailing bid or offer price must consist of a minimum of ten contracts. After the establishment of such a new First Best Bid or First Best Offer, there would be no contract minimum for bids or offers to join the First Best Bid or First Best Offer at the then prevailing price.

3. Operation of the Algorithm<sup>80</sup>

The following examples explain various aspects of the operation of CFFE's regular trade-matching algorithm. The examples assume different market circumstances and explain, given those circumstances, what, if any, CFFE orders would be matched, the price and quantity of resultant transactions, and the status of various orders after the completion of the algorithm's operation. For purposes of these examples, the status of orders is sometimes illustrated with a rendition of how those orders would appear on TO terminal screens and view-only screens.

a. Simple Posting of Bids and Offers

As indicated above, only orders that were at the Best Bid or Best Offer price would be eligible for matching pursuant to the CFFE's regular trade-matching algorithm. The following example is illustrative of this point.

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<sup>80</sup> Each of the following examples, except for Example 3 which explains minimum bid and offer size, assume circumstances in which market participants are bidding or offering for more than the ten-contract minimum bid and offer size.

Example 1

Assume that public customer Q wants to submit a bid of 100.01 for ten CFFE Treasury bond contracts at the opening<sup>81</sup> and that no one else has submitted a previous bid for that contract.

- Q would contact his or her CFFE Trader with an order to enter a bid for ten contracts at 100.01
- The CFFE Trader would phone a CFFE TO to relay information regarding Q's order<sup>82</sup>
- The TO would immediately input into the Cantor System via his or her keyboard:
  - (1) the order's contract,
  - (2) the order's quantity,
  - (3) the order's price, and
  - (4) an identifier for the CFFE Trader handling Q's order ("Trader ID")<sup>83</sup>

Upon the TO entering this information into the System, all of the TO terminal screens would display the following information for the Treasury bond contract:<sup>84</sup>

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<sup>81</sup> CFFE would not have any special market opening procedures for any of its contracts. Instead, upon the 7:30 a.m. opening of trading, the Exchange would begin trading immediately in accordance with its regular trade-matching algorithm procedures.

<sup>82</sup> Non-proprietary trading at CFFE would require a public customer to contact a properly-registered CFFE Trader, and the CFFE Trader would relay the customer's order to a CFFE TO to be input into the Cantor System. With proprietary trading, of course, CFFE Traders would contact TOs directly. While CFFE anticipates that ninety percent of CFFE's trading volume would be proprietary trades, these examples all presume non-proprietary trades in order to describe fully the type of information that would be transferred among customers, CFFE Traders and CFFE TOs during order placement, execution and trade confirmation.

<sup>83</sup> TOs would enter a Trader ID into the Cantor System for all orders, regardless of whether it was a proprietary or non-proprietary order. If a CFFE Trader was placing a non-proprietary order, he or she would additionally provide the CFFE TO with a customer account identifier. The TO would record the customer account identifier on an individual serially-prenumbered and timestamped order sheet. This procedure is fully described below in Section IX.B.1.

<sup>84</sup> This memorandum's rendition of CFFE TO terminal screens and view-only screens are not intended to duplicate how information would be displayed on such screens. In fact, in

BIDS	OFFERS
Q/Trader ID <sup>85</sup> : 10 @ 100.01* <sup>86</sup>	

Because Q's order is of sufficient size (ten contracts) and is the best prevailing bid price, it qualifies as the current First Best Bid in the Treasury bond contract.<sup>87</sup> The TO terminal screen attaches an asterisk next to Q's bid to indicate its status as the First Best Bid.

At the same time, all of the CFFE view-only screens (i.e., the screens that CFFE Traders would access) would display the following information about the Treasury bond contract:

BIDS	OFFERS
10 @ 100.01	

The CFFE view-only screen would not display the CFFE Trader ID for the party(ies) bidding at the Best Bid price. At any one time, the view-only screen would display only the respective prices of the outstanding Best Bid and Best Offer and the respective total quantities at

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the case of TO terminal screens TOs would be able to configure their screens to their individual preference. Rather, these renditions are intended to convey the same information that would be displayed on such screens with respect to trading in individual CFFE contracts.

<sup>85</sup> CFFE TO terminal screens would display a CFFE Trader ID for each resting bid and offer representing the CFFE Trader that generated the bid or offer, regardless of whether it was proprietary or non-proprietary. In order to follow the course of customer orders in these examples, this memorandum's renditions of TO terminal screens will show next to "Trader ID" the identity of the initiating customer. No customer identifier would be revealed on actual CFFE TO terminal screens.

<sup>86</sup> The asterisk next to Q's bid indicates that it is the market's First Best Bid and that Q is the First Best Bidde.

<sup>87</sup> If Q's order was instead for less than ten contracts, the Cantor System would not have accepted the order at this time, even though it was at the best prevailing bid price, because it would not meet the ten-contract minimum for bids or offers initiating a new First Best Bid or First Best Offer.

the Best Bid and Best Offer prices.<sup>88</sup> In this example, since Q had the First Best Bid and there were no other bidders at the Best Bid price, Q's bid quantity and the total Best Bid quantity would be equal.

To illustrate the difference between information displayed on TO terminal screens versus view-only screens, continue the above example and assume that a subsequent bidder R immediately followed Q's bid with a bid of 100.01 for twenty Treasury bond contracts. All of the CFFE TO terminal screens would display the following information for the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
Q/Trader ID: 10 @ 100.01*	
R/Trader ID: 20 @ 100.01	

In addition, all of the CFFE view-only screens would display the following information for the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
30 @ 100.01	

The view-only screens would display the total quantity bid at 100.01. The screens would not show any CFFE Trader IDs for any order nor would it have an asterisk indicating a First Best Bid.

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<sup>88</sup> Under proposed CFFE Rule 712, TOs could not disclose to CFFE Traders any material nonpublic information. Accordingly, a TO would not be permitted to give a Trader any information about other orders resting in the Cantor System that were not visible on the view-only screens that the Traders would have.

b. Bettering First Best Bids and Offers

As indicated above, the Cantor System would accept and make eligible for matching only those orders that were at the Best Bid or Best Offer price. Best Bids or Best Offers that were displayed by the Cantor System when a better-priced bid or offer of sufficient quantity was entered into the System would be deleted and would no longer be eligible for matching.

Example 2

To illustrate this point, continue Example 1 and assume that Z has followed with an offer for forty Treasury bond contracts at 100.03. All of the TO terminal screens would display the following information for the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
Q/Trader ID: 10 @ 100.01*	Z/Trader ID: 40 @ 100.03*
R/Trader ID: 20 @ 100.01	

Next, assume that B wants to post a bid of 100.02 for thirty Treasury bond contracts.

- B would instruct his or her CFFE Trader to enter a bid of 100.02 for thirty Treasury bond contracts
- The CFFE Trader would phone a CFFE TO to relay information regarding B's order
- The TO would immediately input the necessary order information into the Cantor System

Upon the TO entering this information, all of the TO terminal screens would display the following information for the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
B/Trader ID: 30 @ 100.02*	Z/Trader ID: 40 @ 100.03*

Because B's bid of 100.02 "bettered" the respective 100.01 bids of Q and R, B's bid would become the new First Best Bid and would be immediately eligible for matching at the new

Best Bid price of 100.02. In addition, Q's and R's bids would be deleted from the Cantor System and would no longer be eligible for matching. In order for Q or R to execute a trade, they would have to contact a CFFE Trader and initiate a new order. Of course, if at that time B's Best Bid was still displayed, they would only be able to post bids at prices that either equaled or bettered B's Best Bid price. In order for their CFFE Traders to execute trades on their behalf, the Traders would affirmatively have to instruct a TO to enter their orders into the Cantor System again. This situation makes clear how important it would be for CFFE Traders to be vigilant in monitoring the status of their orders and remaining in close contact with TOs. In fact, it is anticipated that most CFFE Traders who actively trade at CFFE would remain in close contact with their TOs upon the placement of orders, probably even remaining on the phone line with them until their resting orders were either filled or deleted from the System by better-priced orders.

c. Minimum Order Size and the First Best Bid or Offer

Orders of less than the ten-contract minimum could not better a prevailing First Best Bid or First Best Offer, even if they were at a superior price. Bids or offers of less than the ten-contract minimum could always be entered at the same price as a prevailing First Best Bid or First Best Offer.

Example 3

To illustrate this point, assume the Treasury bond contract market conditions displayed on the following TO terminal screen:

BIDS	OFFERS
J/Trader ID: 10 @ 100.01*	

If K wanted to post a bid for less than ten Treasury bond contracts, he or she would not be able to do so at any price other than the prevailing bid price of 100.01.

Assume that K decided to post such a bid for five Treasury bond contracts.

- K would instruct his or her CFFE Trader to enter a bid of 100.01 for five Treasury bond contracts
- The CFFE Trader would phone a CFFE TO to relay information regarding K's order
- The TO would immediately input the necessary order information into the Cantor System

Upon the TO entering this information, all of the TO terminal screens would display the following information for the Treasury bond contract:

BIDS	OFFERS
J/Trader ID: 10 @ 100.01*	
K/Trader ID: 5 @ 100.01	

K would be second in priority for matching to J, the First Best Bidder, at the bid price of 100.01. In this situation, K could only attain the status of First Best Bidder if: (1) J cancelled his or her bid, or (2) J's bid was entirely matched but K's bid was not (i.e., an aggressive counterparty hit the bid side for between ten and fourteen contracts).

d. Resting v. Aggressive Orders

As indicated above, the CFFE's regular trade-matching algorithm would not provide for the automatic matching of bids and offers that were resting in the Cantor System at the same price. Instead, trade execution only would occur when a party aggressively hit a resting bid or lifted a resting offer. The aggressive party to each trade would pay the CFFE a transaction fee,

while the party whose resting bid or offer was hit or lifted would not pay such a fee. Each of the above examples involve resting orders for CFFE contracts.

Example 4

To illustrate the distinction between resting and aggressive orders, assume the following market conditions in the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
B/Trader ID: 20 @ 100.02	Z/Trader ID: 40 @ 100.03

Next, assume that P wants to bid 100.03 for forty Treasury bond contracts, but does not want to pay the CFFE transaction fee that would be charged if P aggressively lifted Z's offer (i.e., bought the contracts Z offered to sell). Accordingly, P's bid would be a resting bid of 100.03 for forty contracts.

Upon the entry of P's order into the Cantor System, the TO terminal screens would display the following information for the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>
P/Trader ID: 40 @ 100.03*	Z/Trader ID: 40 @ 100.03*

P's bid of 100.03 bettered B's First Best Bid of 100.02 and would become the Treasury bond contract's new First Best Bid. P's order would immediately become eligible for matching, while B's bid would be removed from the System and would no longer be eligible for matching. Note, however, that although P's bid and Z's offer are both at the same price and for the same quantity, the Cantor System does not match P and Z because neither of their orders are

aggressive. Consequently, there would be a flat market in the Treasury bond contract at 100.03 and a bid-ask spread of zero.<sup>89</sup>

e. Aggressive Order Lifting a Portion of a Resting Offer<sup>90</sup>

As discussed above, the counterparties to all CFFE trades would include on one side bidders or offerors who had the Best Bids or Best Offers resting in the Cantor System and on the other side market participants who aggressively hit those resting bids or lifted those resting offers.

Example 5

To illustrate how CFFE matching would occur, assume the market in the Treasury bond contract consisted solely of the following bid and offer:

BIDS	OFFERS
B/Trader ID: 20 @ 100.02*	Z/Trader ID: 40 @ 100.03*

Further assume that C wants to aggressively buy thirty contracts for 100.03.

- C would instruct his or her CFFE Trader to “buy” or “lift” thirty contracts for 100.03<sup>91</sup>
- C’s CFFE Trader would phone a CFFE TO to relay information regarding C’s order

<sup>89</sup> If, in this example, P had attempted to better B’s bid with a bid of 100.04, instead of 100.03, the Cantor System would have not accepted the bid as it would be the equivalent of bidding through an offer (in this case, Z’s outstanding offer of 100.03).

<sup>90</sup> While this example addresses how CFFE’s regular trade-matching algorithm would process an aggressive order lifting a resting offer, the algorithm would process an aggressive order hitting a resting bid in a similar manner.

<sup>91</sup> In this situation, C’s CFFE Trader should know, based upon the information displayed on the Trader’s view-only screen, that there was a resting offer or offers in the Cantor System at 100.03 with a total quantity of forty contracts.

- The TO would immediately input the necessary order information into the Cantor System

Upon entry of C's order, the System automatically would execute a C-Z trade for thirty contracts at 100.03 and adjust Z's resting offer. The Cantor System would prioritize the remaining resting bids and offers and all of the TO terminal screens would display the following information about the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>	<b>MATCHED</b>
B/Trader ID: 20 @ 100.02*	Z/Trader ID: 10 @ 100.03*	C/Trader ID-Z/Trader ID LIFT 30 @ 100.03

At that same time, the CFFE's view-only screens would display the following information about the Treasury bond contract:

<b>BIDS</b>	<b>OFFERS</b>	<b>MATCHED</b>
20 @ 100.02*	10 @ 100.03*	LIFT 30 @ 100.03

Note that upon the C-Z trade, both the TO terminal screens and view-only screens would briefly announce that a trade had been executed for thirty contracts at a price of 100.03. In addition, both sets of screens would indicate that the trade was a result of an aggressor "lifting" a resting offer. Accordingly, CFFE Traders would know that there was buy-side pressure in the contract at 100.03.<sup>92</sup> Only the TO terminal screens would identify the CFFE Traders that were parties to the trade, thus enabling the TOs who handled C's and Z's respective orders to report back to the appropriate CFFE Traders by telephone that a trade had been executed. Both screens

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<sup>92</sup> In the case of a trade that was the result of an aggressive sale, the word "HIT" would appear in place of the word "LIFT" on the view-only screens to indicate sell-side pressure in the contract.

would reduce the quantity of resting offers appropriately. Z's offer would remain eligible for matching and would retain its status as the First Best Offer.

Upon trade execution, the Cantor System would automatically route the C-Z trade to the CCC for clearing. The TOs handling C's and Z's respective orders would report the transaction to the appropriate CFFE Traders by telephone. In this case, C, as the aggressor, would be responsible for paying the entire transaction fee for the trade, while Z, the party with the resting order, would not pay a transaction fee.

f. Aggressive Order Lifting a Portion of Multiple Resting Orders

Example 6

To illustrate further how the CFFE regular trade-matching algorithm would match aggressive orders with multiple resting orders, assume that the market in the Treasury bond contract consisted of the following bid and offers:

BIDS	OFFERS
B/Trader ID: 20 @ 100.02*	Z/Trader ID: 30 @ 100.03*
	Y/Trader ID: 20 @100.03

Further assume that C wants to aggressively buy forty contracts for 100.03.

- C would instruct his or her CFFE Trader to “buy” or “lift” forty contracts for 100.03
- C's CFFE Trader would phone a CFFE TO to relay information regarding C's order
- The TO would then immediately input the necessary information into the Cantor System

Upon the entry of C's order, the System automatically would execute the following trades:

1. a C-Z trade for thirty contracts at 100.03
2. a C-Y trade for ten contracts at 100.03

Upon these trades, the Cantor System would prioritize the remaining resting bids and offers and all of the TO terminal screens would display the following information about the Treasury bond contract:

BIDS	OFFERS	MATCHED
B/Trader ID: 20 @ 100.02*	Y/Trader ID: 10 @ 100.03*	C/Trader ID-Z/Trader ID LIFT 30 @ 100.03
		C/Trader ID-Z/Trader ID LIFT 10 @ 100.03

Note that Z's offer was completely lifted and has been removed from the System, while Y's offer was only partially lifted. The portion of Y's offer that was not lifted would remain eligible for matching as the new First Best Offer in the Treasury bond contract.

g. Initiation of Exclusive Time Trading Period

Examples 5 and 6 illustrate how CFFE's regular trade-matching algorithm would match aggressive orders with resting orders. In both examples, however, after the aggressor's desired order quantity was filled by resting orders, there were still some remaining quantity of resting orders on the opposite side of the market. Specifically, in Example 5, aggressor C only lifted thirty of Z's resting offer of forty contracts, and in Example 6, C only lifted forty of the offer side's total resting offer quantity of fifty contract (all of Z's thirty contracts and ten of Y's twenty contracts).

In those instances when an aggressor both hits (lifts) the entire stated quantity of the resting bid (offer) side of the market and desires to trade an additional quantity, the CFFE regular trade-matching algorithm would provide the aggressor with an opportunity to sell (buy) more contracts at the Best Bid (Offer) price. The regular trade-matching algorithm would provide this

opportunity by means of an Exclusive Time trading period between the aggressor and the First Best Bidder (Offeror).

Example 7

To illustrate how the CFFE's regular trade-matching algorithm would operate during Exclusive Time trading, assume the market in the Treasury bond contract consisted solely of the following offer:

BIDS	OFFERS
	Z/Trader ID: 30 @ 100.03*

Further assume that C wants to aggressively buy thirty contracts (and possibly more) for 100.03.

- C would instruct his or her CFFE Trader to "buy" or "lift" thirty contracts for 100.03
- C's CFFE Trader would phone a CFFE TO to relay information regarding C's order
- The TO would immediately input the necessary order information into the Cantor System

Upon entry, the System automatically would execute a C-Z trade for thirty contracts at 100.03. Since C has "bought" or "lifted" all of the resting orders on the offer side, the Cantor System automatically would trigger an Exclusive Time trading period for trading between C and Z. During the Exclusive Time trading period, C, as the aggressor, would be provided with an opportunity to execute with Z, as the First Best Offeror, more contracts at the market's prevailing offer price of 100.03. The Exclusive Time trading period would begin immediately upon C's lifting the entire quantity of resting offers.

At that point in time, the CFFE view-only screens would display the following information about the Treasury bond contract:

BIDS	OFFERS	MATCHED
		LIFT 30 @ 100.03

The view-only screen would display the price and a flashing quantity for the C-Z trade (with no CFFE Trader identifiers). The flashing quantity would be an indication that an Exclusive Time trading session had begun at 100.03.<sup>93</sup> The TOs handling C's and Z's respective orders would likewise become aware, via their terminal screens, that C and Z were eligible to trade with each other exclusively for an additional quantity of contracts at 100.03. During the Exclusive Time trading period, C and Z would have alternating six-second opportunities to "work up" their trade to a mutually-agreed upon quantity.

At the commencement of an Exclusive Time trading session, the Cantor System would provide the TO handling C's order with six seconds to input into the System any additional quantity of contracts that C, as the aggressor, wanted to buy.<sup>94</sup> That TO could only enter such additional quantity upon receiving telephoned instructions from C's CFFE Trader. If the TO did not enter any additional quantity or the TO hit a special "out" key on his or her terminal, the Exclusive Time trading period would end with no trades executed between C and Z.

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<sup>93</sup> Except for the flashing quantity, this information would be indistinguishable from the type of "matched" information that would be displayed on view-only screens after any trade. For an Exclusive Time trading period, however, the "matched" information would remain on the screen for the duration of the trading period and the flashing quantity indicator would be continuously changing to indicate the number of contracts on which the two Exclusive Time parties had concurred. See footnote 92 and related text.

<sup>94</sup> The Cantor System would automatically recognize the TO terminal that originated C's order and would only accept an entry for additional quantity from that terminal.

If, however, the TO handling C's order entered an additional quantity, the Cantor System would automatically provide a six-second opportunity to the TO handling Z's order to respond to the quantity "put" to Z by C.<sup>95</sup> Z could end the session with no additional contracts agreed to or put some quantity of contracts to C. In these circumstances, Z would have six seconds to respond by either:

- (1) accepting the quantity put by C, thereby ending the Exclusive Time trading session with a C-Z trade of the agreed quantity;
- (2) rejecting<sup>96</sup> the quantity put by C, thereby ending the Exclusive Time trading session with a C-Z trade for the maximum number of contracts on which C and Z had concurred;<sup>97</sup> or
- (3) putting a greater quantity to C, in which case C would have six seconds to respond.

The CFFE would not limit the total length of Exclusive Time trading periods.

Theoretically, an Exclusive Time trading period could go on until the end of CFFE's trading day.

The CFFE estimates, however, that Exclusive Time trading periods would rarely be more than

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<sup>95</sup> Like the TO handling C's order, the TO handling Z's order could only act upon the direct instruction of the CFFE Trader who phoned in Z's order. Again, this illustrates the premium that CFFE trading would place on CFFE Traders being vigilant in monitoring their orders and remaining in close, if not constant, contact with their designated TO. This example also makes clear that customers trading on the Exchange either would have to give their CFFE Traders a large degree of authority to trade on their behalves or would have to maintain constant contact with their CFFE Traders during the pendency of their orders. Of course, public customers who wanted to trade a high level of CFFE contracts might find it easier to obtain a CFFE Associate Membership for \$1000 and a clearing member authorization in order to trade directly through a CFFE TO.

<sup>96</sup> Rejection could occur either by Z's TO hitting the terminal's "out" key or by a failure to respond within six seconds.

<sup>97</sup> To illustrate, if, in this example, C put ten contracts to Z to sell and Z responded by putting fifteen contracts to C, then C and Z would have essentially "agreed" to trade at least ten contracts. If C responded with a quantity, it must be for ten or more contracts. If C did not respond in time, the Cantor System would execute a C-Z trade of ten contracts.

one minute long. Based upon Division staff's observation, the majority of Exclusive Time trading periods in CFS' Treasury securities trading operation last no more than twenty to thirty seconds.<sup>98</sup>

Although CFFE's Exclusive Time trading procedures would essentially provide two parties with the opportunity to trade for a greater quantity than they originally committed, this process is not unlike the floor trading practice of permitting a party to make a market at a bid or offer price without stating a quantity. In that case, when a counterparty declares an intent to sell or buy against that bid or offer, the two parties can subsequently establish their trade's quantity. Of course, on the floor, the counterparties establish their trade quantity immediately, while with Exclusive Time trading there would not be a set time limit to establish quantity.

The Division further notes that the CME's original Globex trade-matching algorithm had a similar feature whereby market participants could post a bid or offer for a primary quantity and a supplementary quantity.<sup>99</sup> An order's primary quantity was displayed on the Globex system for matching by counterparties, while its supplementary quantity was not displayed, but could be activated and matched upon the filling of the primary quantity. Accordingly, as with the CFFE proposal, market participants trading on Globex could trade for a greater quantity than they originally displayed on the trading system.

During an Exclusive Time trading period in a CFFE contract, no other market participant would be able to trade in that contract. This restriction would even apply to market participants

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<sup>98</sup> A significant number of CFS Exclusive Time trading sessions end in six to twelve seconds because the parties do not wish to trade any more quantity than they committed to with their original bids or offers or their original aggressive hit or lift orders.

<sup>99</sup> See the Division's February 2, 1989, memorandum to the Commission recommending approval of the CME's Globex trading system, at 32.

who were willing to submit bids or offers that were superior to the price at which the Exclusive Time trading parties were trading. Although this aspect of CFFE's regular trade-matching algorithm would be unlike that of any other algorithm previously approved by the Commission, it would be analogous to the current floor trading practice of prohibiting bidding through offers (or offering through bids). In the case of Exclusive Time trading, a contract's bid and offer prices would both equal the price at which the Exclusive Time counterparties were trading. Thus, if the Cantor System were to accept superior bids (offers) during Exclusive Time trading, it would be analogous to allowing bids (offers) at a price which was higher (lower) than the market's current offer (bid) price.

Most importantly, however, allowing the Exclusive Time trading period to be disrupted by other bids and offers would diminish the advantage of participating in Exclusive Time trading and, thus, reduce the System's incentive for parties to trade actively at attractive prices and to provide market liquidity.

h. Bids and Offers Joining During Exclusive Time Trading Period

While parties would not be able to intervene in an Exclusive Time trading session with superior bids or offers, the Cantor System would accept bids and offers during a session if they were at the same price as the currently prevailing price (i.e., the price at which the two Exclusive Time counterparties were trading). Such joining bids and offers would be accepted by the Cantor System immediately upon the start of an Exclusive Time trading session and would be retained in time priority order until either they were cancelled or the trading session ended.<sup>100</sup> Upon the conclusion of an Exclusive Time trading session, any joining bids and offers that were resting in

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<sup>100</sup> There would be no minimum contract size for joining bids and offers. Joining bids and offers could be cancelled and removed from the System at any time prior to execution.

the System would be immediately matched with one another according to their time priority.<sup>101</sup> Any resultant transactions would be at the same price as the preceding Exclusive Time trade. Any bids or offers which were left unmatched after the procedure would remain in the System and become eligible for matching.

The following example illustrates how joining bids and offers would be matched by the Cantor System upon the conclusion of an Exclusive Time trading session.

Example 8

Continuing the previous example, assume that C and Z are engaged in an Exclusive Time trading session and are “working up” their Treasury bond contract trade at a price of 100.03. Further assume that the following bids and offers have been entered into the Cantor System during the course of C-Z’s Exclusive Time session (listed earliest in time first):

<u>BIDS</u>	<u>OFFERS</u>
D: 20 contracts	Y: 5 contracts
E: 30 contracts	X: 35 contracts
	W: 15 contracts
	V: 10 contracts

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<sup>101</sup> As with all regular CFFE trading, each trade between a joining bidder and a joining offeror, would be considered to have an “aggressive” party and a “resting” party. For these types of trades, the aggressive party would be the party who joined on the same side of the market as the aggressive side of the two Exclusive Time trading parties. Joining parties would learn what the “aggressive” side was from the view-only screen’s indication that an Exclusive Time trading period was triggered by buy- or sell-side pressure. Parties joining on the aggressive side of the market would be responsible for any transaction fee if they were matched by the Cantor System.

Upon the conclusion of C-Z's Exclusive Time trading session, the Cantor System would automatically execute the following transactions (all for 100.03):

D-Y trade: 5 contracts  
D-X trade: 15 contracts  
E-X trade: 20 contracts  
E-W trade: 10 contracts

After the matching process, W would have an unmatched quantity of five contracts (ten of W's fifteen contracts were matched) and V would have an unmatched quantity of ten contracts (none of V's ten contracts were matched). At this point, W's and V's offers would become the Best Offers at 100.03 with W's offer as the First Best Offer.<sup>102</sup>

#### 4. Look-Back Feature

The Cantor System would employ an error-correcting mechanism called the "Look-Back" feature. By this mechanism an executed trade could, for a limited time, be undone or cancelled. This feature could only be used during Execution Time trading<sup>103</sup> and only during the ten seconds immediately following the execution of the trade that was to be corrected. The intended use of the feature would be to address those situations where a TO made an erroneous keystroke that resulted in a trade that was inconsistent with the instructions relayed to him or her by a CFFE Trader. For example, if a TO had inadvertently struck the "buy" key rather than the "sell" key, this mistake would be immediately apparent upon checkout and could be addressed through the use of either an "Error" key or an "Undo" key on a TO's terminal.

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<sup>102</sup> This would be another example of how an offer for less than the ten-contract minimum could become the First Best Offer.

<sup>103</sup> Execution Time would consist of the time period during which Exclusive Time trades and joining bid and offer trades were executed. See Sections VII.B.3.g. and h. above.

The Error key would be used in a situation where only one party on each side of the market had been matched with each other as the result of a TO's incorrect entry. Use of this key would cancel the trade and reorient the System so that the priorities of all orders would be preserved as they were prior to the trade. The Undo key would be used in those situations where a TO's mistaken keystroke resulted in a match and was followed by a rapid series of trades which involved numerous orders that were confirmed as filled to the CFFE Traders who executed them. Use of the Undo key would "back the parties out" of the specific initial trade that resulted from the TO's error and would realign the orders matched in all of the subsequent trades so as to simulate the trades that would have occurred absent the error.

In some cases, orders which had been checked out as executed in trades that followed the execution of an erroneous initial trade could be left unmatched after the realignment of orders that resulted from the TO's use of the Undo key. This would occur in those situations where the removal of one or both of the parties to the initial erroneous trade resulted in unequal quantities of total remaining contracts that had been bought and sold in the subsequent trades. In such cases, the "orphaned" orders would be matched at the price at which they had been confirmed as filled in a trade opposite the account managed by CF Account Managers, LLC, a CFS subsidiary solely devoted to covering the errors of CFFE TOs. CF Account Managers could only execute trades opposite orders which had been matched in trades that were cancelled by the correction of a TO's error through the use of the Undo key and trades executed to offset positions established by correcting TO errors. Accordingly, no customers who had relied on fills that had been confirmed to them could ever be harmed by the subsequent use of the Look-Back feature.

The CF Account Managers account would be closely monitored on a daily basis by NYCE Compliance staff. Staff would review all activity in this account each day to confirm that

each trade was executed for the legitimate purpose of error correction. Any TO's use of the Error or Undo keys would register in the "Changes to Executed Transactions Log" (described below in Section IX.B.1.). Each day, Compliance staff would examine the entries in this log to determine whether cancelled or undone trades were followed by the execution of trades by the same CFFE Traders that substantiated the occurrence of a bona fide TO error. Compliance staff also would compare entries on this log with trades executed for the CF Account Managers account to determine whether each trade executed for it either had been matched with an order that was "orphaned" during an Undo procedure or had been done to offset such a trade. The log also could be sorted by Compliance staff to reveal patterns of usage of the Look-Back feature that suggested abuse of the feature by a particular TO or for the benefit of a particular account.

C. Marketing-Crossing Session Trade-Matching Algorithm

1. Overview

As indicated above, CFFE's regular trade-matching algorithm would operate continuously throughout the CFFE trading day. In addition, however, the Cantor System would match appropriately-designated orders at market-crossing sessions held each day at 8:15 a.m., 10:30 a.m., 2:55 p.m. and 5:15 p.m. The Cantor System would execute market-crossing session trades by matching eligible bids and offers according to their time priority and assigning them a trade price based upon a randomly-selected trade from contemporaneous regular CFFE trading.<sup>104</sup>

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<sup>104</sup> As indicated above in Section III., CFFE does not plan to implement market-crossing trading immediately upon the start of CFFE trading. Instead, the market-crossing feature would start operation shortly after the beginning of CFFE trading.

2. Minimum Bid and Offer Size

There would be no minimum size requirements for market-crossing session orders. Although the market-crossing session would be intended to provide an alternative execution mechanism for orders that did not meet the minimum size requirement for regular CFFE trading,<sup>105</sup> orders of any size could be executed at market-crossing sessions.<sup>106</sup>

3. Operation of the Algorithm

Like orders for regular CFFE trading, CFFE Traders would instruct TOs to enter market-crossing orders into the Cantor System to be executed at the next market-crossing session. CFFE TOs would input market-crossing bids and offers into the Cantor System with a designated contract and an order size, but without any price reference. The System would maintain resting market-crossing bids and offers according to their time of entry. Market-crossing bids and offers would not be displayed in any way on the Cantor System's view-only screens. TOs, however, would be able to delete market-crossing orders from the System upon instructions by the originating CFFE Trader.

At the designated market-crossing session time, all the market-crossing bids and offers resting in the Cantor System would be matched according to their time priority.<sup>107</sup> After this matching process, the Cantor System would assign each trade the same price derived from a

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<sup>105</sup> See Section VII.B.2. above for a description of the minimum order size requirements for regular CFFE trading.

<sup>106</sup> Rather than serving as an outlet for the matching of small orders, the Division believes that if anyone uses the CFFE's market-crossing session, it likely would be market participants who were unable to do the close order monitoring that would be required for regular CFFE trading.

<sup>107</sup> Any unmatched market-crossing bids or offers would be deleted from the System and would have to be re-entered if the order originator wanted to be matched at the next market-crossing session.

trade randomly-selected from the next three minutes of regular CFFE trading in the pertinent contract.<sup>108</sup> For instance, market-crossing trades executed at the 8:15 a.m. session would be assigned a price derived from a regular CFFE trade executed between 8:15 and 8:18 a.m. If there were no trades during the three-minute period, no crossing price would be assigned, and the market-crossing session orders would be deleted from the System.

D. Open and Competitive Nature of the Cantor System

The Division believes that the CFFE's regular and market-crossing session trading algorithm would not be inconsistent with the Act or the Commission's regulations. Neither the Act nor the Commission's regulations mandate a particular method for the execution of futures transactions. For example, although Section 4b of the Act refers to trading by open outcry "across the ring," Section 12 of the Act (as amended by Section 220 of the Futures Trading Practices Act of 1992<sup>109</sup>) directs the Commission to "facilitate the development and operation of computerized trading as an adjunct to the open outcry auction system." Commission Regulation 1.38 requires open and competitive execution but recognizes that there is more than one way to accomplish this:

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<sup>108</sup> This random selection process would consist of the Cantor System first randomly selecting one of the six thirty-second intervals comprising the three-minute period and then randomly selecting a trade within that thirty-second interval. If there were no trades during the first randomly-selected thirty-second interval, the System would randomly-select other thirty-second intervals until a trade was found.

<sup>109</sup> Futures Trading Practices Act of 1992, Pub. L. No. 102-546, 106 Stat. 3590 (1992).

[a]ll purchases and sales of any commodity for future delivery, and of any commodity option, on or subject to the rules of a contract market shall be executed openly and competitively by open outcry or posting of bids and offers or by other equally open and competitive methods, in the trading pit or ring or similar place provided by the contract market, during the regular hours prescribed by the contract market . . . .

(emphasis added.)

The Commission has permitted trading by a number of methods other than traditional open outcry on the floor of an exchange. For example, certain exchanges have conducted blackboard trading in low volume contracts over the years, and both ACC and the Philadelphia Board of Trade have conducted trading through a Board Broker system. More significantly for this discussion, on February 2, 1989, the Commission approved the Chicago Mercantile Exchange's ("CME") proposal to conduct trading on Globex, an after-hours automated trade-matching system.<sup>110</sup> More recently, the Commission approved ACC's proposal to employ an electronic limit order-matching system called ELOS, the CBT's proposal to join the Globex system, CBT's Project A system, and NYMEX ACCESS.<sup>111</sup>

The Division believes that trading through CFFE would be open and competitive within the meaning of Commission Regulation 1.38. CFFE would be an open trading system, in that access to the market would be available through CFFE members and trading privilege holders, as it is for the trading floor. The CFFE's view-only screens would display to CFFE Traders

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<sup>110</sup> An extended discussion of the statutory and regulatory history of open outcry and alternative trading methods is contained in the Division's February 2, 1989, memorandum to the Commission recommending approval of the CME's Globex trading system, at 49-61.

<sup>111</sup> See the Division's September 9, 1989, June 2, 1992, September 29, 1992, and December 7, 1992, memoranda to the Commission recommending approval of, respectively, the ACC ELOS proposal, the CBT Globex proposal, the CBT Project A proposal, and the NYMEX ACCESS proposal.

information about each contract's best eligible bids and offers, including price and quantity, and each contract's executed trades, including price, quantity and buy- or sell-side pressure. In addition, information vendors could disseminate similar market data through their distribution systems.

The Division also believes that CFFE would provide for competitive trading within the meaning of Regulation 1.38. The CFFE's Cantor System, not CFFE Traders or TOs, would execute all orders entered into the Cantor System. Trading would be conducted through a competitive auction process pursuant to an algorithm that would apply non-discretionary rules of priority, under which only orders at the best price at any point in time could be executed. New orders could obtain priority simply by bettering the current best bid or offer with sufficient minimum quantity. Further, each CFFE Trader would have an equal opportunity for obtaining order execution. In contrast, order execution in floor trading can be determined in significant part by extraneous factors such as a broker's location on the floor.

CFFE's regular trade-matching algorithm would provide aggressive parties and First Best Bidders and First Best Offerors (i.e., parties that are earliest in time in posting a Best Bid or Best Offer) with the opportunity to exercise certain special trading privileges through Exclusive Time trading. Generally, aggressive parties would be awarded these opportunities in return for paying the entire transaction fee for each trade and for being active buyers and sellers of CFFE contracts. In addition to these predicates, however, aggressive parties also would have to be willing to buy and sell for large quantities as they would only be able to engage in Exclusive Time trading after they had executed against all the bids or offers that were resting in the Cantor System at a particular time. First Best Offerors and First Best Bidders likewise would be awarded such opportunities in return for making sizable markets for contracts at attractive prices.

Exclusive Time trading would allow two parties to trade with one another and to exclude other market participants from their transaction. The Division believes that Exclusive Time trading procedures would be sufficiently circumscribed so that they have the potential to encourage, rather than to discourage, competitive trading. While Exclusive Time trading parties would be able to trade with each other exclusively, they could only do so at a trade price that had been determined through regular CFFE trading (i.e., non-Exclusive Time trading). In addition, while other parties would not be able to intervene between two Exclusive Time trading parties, they could submit joining bids or offers during the Exclusive Time trading period and potentially be matched at the same trade price as the Exclusive Time trading parties.

In sum, the Division believes that the proposal would incorporate the benefits of an electronically-executed trading system with a clear and objective algorithm. Insofar as that algorithm varies from those previously approved by the Commission, it appears to be reasonably intended to encourage participants who are prepared to trade minimum quantities to create liquidity and price improvement.<sup>112</sup>

E. Exchanges of Futures for Physicals

CFFE's proposal would permit transactions involving the exchange of futures for physicals ("EFP"). Commission Regulation 1.38 requires that all purchases and sales of any commodity for future delivery which are executed in a noncompetitive manner be conducted in accordance with rules of a contract market which specifically provide for such executions. The

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<sup>112</sup> Because the Division's recommendation that the Commission approve the proposal is based in significant part on the nature of the algorithm, the Division further recommends that in any approval letter to CFFE the Commission advise the Exchange that any changes that would alter materially the way in which CFFE trades would be executed must be submitted to the Commission pursuant to Section 5a(a)(12) of the Act.

Regulation further requires persons involved in permissible noncompetitive transactions to identify them as such on all records pertaining thereto. Accordingly, proposed CFFE Rule 305 would circumscribe the conditions under which EFPs could be executed on the Exchange and the methods by which they would be documented.

Proposed Rule 305(a) provides that a bona-fide EFP of any size may be entered into at a price mutually agreed upon by the two transacting parties. The elements of a bona-fide EFP previously have been identified by the Division as: (1) a futures transaction and a cash transaction which are integrally related; (2) an "exchange" of futures contracts for cash commodity, where the cash commodity contract provides for the transfer of ownership of the cash commodity to the cash buyer upon performance of the terms of the contract, with delivery to take place within a reasonable time thereafter in accordance with prevailing cash market practice; and (3) separate parties to the EFP, where the accounts involved have different beneficial ownership or are under separate control.<sup>113</sup> Proposed CFFE Rule 305(a)(i), (ii), and (iii), respectively, would implement each of these provisions as required elements of EFPs executed on CFFE. Further, proposed CFFE Rules 305(a)(iv) and (v) would provide that one party to an EFP must be the buyer of cash commodity and the seller of futures and the other party must be the cash seller and the futures buyer and that the amount of cash commodity involved in an EFP must be equivalent to the amount of cash commodity represented by the futures portion of the transaction. Proposed CFFE Rule 305(b) would further provide that EFP transactions

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<sup>113</sup> See Concept Release regarding "Regulation of Noncompetitive Transactions Executed on or Subject to the Rules of a Contract Market," citing the October, 1987, "Report of the Division of Trading and Markets: Exchanges of Futures for Physicals." 63 Fed. Reg. 3708, 3711 (January 26, 1998).

must be cleared through CCC in the regular manner and, consistent with Commission Regulation 1.38(b), must be designated as a noncompetitive transaction in relevant records.

Commission Regulation 1.35(a-2)(3) requires that each contract market adopt rules which require its members to provide documentation of cash transactions underlying EFPs upon request. In compliance with this provision, proposed CFFE Rule 305(c) would require that, upon request, CFFE clearing members to an EFP transaction obtain and produce documentation of the underlying cash component.

The CFFE's proposed rules satisfy the requirements of the Commission's regulations with respect to the execution and documentation of EFP transactions, and exceed those requirements inasmuch as CFFE Rule 305 establishes the elements of a bona-fide EFP on CFFE in accordance with the previously expressed views of the Division regarding these transactions.

#### VIII. Clearing and Settlement

All CFFE trades would be cleared by CCC clearing members through the CCC, a wholly-owned subsidiary of NYCE. CFFE trades would be cleared in accordance with the same CCC procedures and requirements that apply to NYCE, NYFE, and CANYCE trades currently cleared by CCC. CCC's guaranty fund contribution requirements are volume-based, and accordingly, any increase in CCC clearing volume attendant to CFFE contracts would result in a proportionate increase of guaranty fund contributions.

CFFE's hours of trading for each of its contracts would be from 7:30 a.m. until 5:30 p.m. New York time ("NYT"). For clearing and settlement purposes, however, the trading day would begin at 3:00:01 p.m. NYT each business day and would end the next business day at 3:00:00 p.m. NYT. This definition of the trading day would be similar to the treatment of NYCE contracts currently traded in New York and Dublin. Those contracts each have a trading day

that: (1) begins with a New York evening trading session of 7:00 p.m. to 10:00 p.m. NYT; (2) is followed by a Dublin trading session of 3:00 a.m. to 8:19 a.m. NYT (8:00 a.m. to 1:19 p.m. Dublin time) of the next business day; and (3) ends with a New York daytime session of 8:20 a.m. to 3:00 p.m. NYT.

The Cantor System would not cease trading at 3:00:00 p.m. and then re-open at the 3:00:01 p.m. Instead, the 3:00:00 p.m. market closing would be invisible to market participants and would merely serve to establish a settlement price and closing price for each contract. All trades executed prior to the 3:00:00 p.m. close would be processed that same day. The CFFE would transmit matched trade data to CCC upon the execution of each CFFE trade. Trade data for each trade would be made immediately available to the pertinent CCC clearing member for review on its TIPS terminal. A clearing member would be required either to accept or to challenge a trade within thirty minutes of receipt from CFFE. If the clearing member did not respond, the system would automatically accept the trade. If the clearing member challenged the trade, the relevant CFFE TO would be notified by CFFE personnel monitoring the acceptance of trades. Any clearing member challenges to a CFFE trade would be resolved by either the CFFE Trader accepting the trade or the CFFE allocating the trade to the correct CFFE Trader.

By approximately 8:00 p.m. of each business day, CCC's clearing system would produce clearing member reports for that trading day's activity and make them available to clearing members via computer. The clearing system would generate variation margin and original margin requirements and, based upon them, would transmit margin instructions to the appropriate approved depositories at 7:30 a.m. of the next business day. The approved depositories would confirm to CCC their acceptance of the obligation to complete the funds transfers specified in the margin instructions by 9:30 a.m.

The Division believes that the proposal to have the CCC clear and settle CFFE contracts in accordance with its current procedures and requirements would be consistent with the Act and the Commission's regulations.

IX. Compliance Program

A. Overview

Commission Regulation 1.51 requires each contract market to use due diligence in maintaining a continuing affirmative action program to secure compliance with the provisions of various sections of the Act,<sup>114</sup> the Commission's regulations implementing Section 4c(c) of the Act, and the contract market's own rules which it is required by the Act to enforce. Regulation 1.51 further requires that the compliance program include market surveillance, trade practice surveillance, examination of trading records, investigation of customers' complaints and other alleged violations, effective disciplinary procedures, and the maintenance of complete disciplinary records. CFFE has represented that all of its regulatory responsibilities would be assumed by NYCE. CFFE Rule 500 subjects all persons under CFFE jurisdiction<sup>115</sup> to the Consolidated Disciplinary Rules of NYCE (NYCE Rules 9.01-9.05, 9.07-9.13, 10.01-10.20, and 10.22-10.24), which provide, among other things, for the prohibition of various trade practices, the composition and responsibilities of NYCE Compliance staff, and the disciplinary procedures to be followed. NYCE has represented that it would regulate CFFE in the same manner that it regulates itself and its other subsidiaries. In this regard, NYCE would take full advantage of the

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<sup>114</sup> These include Sections 5, 5a(a), 5b, 6(b), 6b, 8a(7), 8a(9), and 8c of the Act.

<sup>115</sup> CFFE's proposed By-Laws would provide that all holders of CFFE trading privileges would be "subject to the jurisdiction of CFFE and the [NYCE] for purposes of arbitration, disciplinary, compliance and surveillance procedures." See Scope Section of CFFE proposed By-Laws.

superior audit trail data that the Cantor System would provide by integrating that data into NYCE's own computerized trade surveillance programs. Further, NYCE's proposed program for physical observation of CFFE trading would allow its Compliance staff covertly to surveil order executions by CFFE Traders with a high level of scrutiny. Compliance staff could observe a particular TO's entries on the Cantor System, real time, while listening to that TO's telephone lines, from a remote location. In this way, Compliance staff could focus on a particular order execution and observe first-hand the assignment of timing data to each significant event in the process and determine whether any parties intentionally or unintentionally attempted to undermine the process and abuse customer orders.

B. Trade Practice Surveillance

1. Audit Trail

Section 5a(b)(1) of the Act and Commission Regulation 1.35 require that a contract market maintain and utilize a system to monitor trading and detect violations of the contract market's trading rules. The system must include audit trail and recordkeeping systems able to capture data on the terms, participants, and precise time and sequence of transactions. Times recorded for each transaction must either be derived from or be verifiable by a source independent of records created by the parties to a transaction.

CFFE would maintain an audit trail that exceeds the precision and accuracy standards set by the Commission for the timing of each trade.<sup>116</sup> Upon receipt of a CFFE order from a

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<sup>116</sup> Commission Regulation 1.35(g) requires that execution times captured by a contract market shall be in increments of no more than one minute in length. All timed events, such as order matching, captured by CFFE would be in increments of one second, precisely sequenced within each second. As discussed below, CFFE's trade times presumptively would be accurate due to the fact that they would automatically be assigned by an electronic order matching system and they would be unalterable.

customer, regardless of whether it was presently executable at the prevailing market price, each CFFE Trader would be required to prepare and timestamp an order ticket in accordance with the requirements of proposed CFFE Rule 316(b).<sup>117</sup> When an order became executable by its terms, the Trader would telephone a CFFE TO who was designated only to accept customer, rather than proprietary, order instructions and instruct him or her to enter a bid, offer, buy, or sell command as appropriate for a specific quantity of contracts at a specific price. Upon transmitting the instructions to the TO, the Trader would timestamp the order ticket again. The Trader-TO phone conversation automatically would be recorded by CFFE's telephone recording system. That system automatically and continuously would log the exact time in one-second increments during the course of the call.<sup>118</sup>

Upon the receipt of a Trader's instructions, a TO would keypunch them into CFFE's automated order-matching system and write the CFFE Trader's identification number, the customer account identifier, and the Trader's instructions on an "order sheet."<sup>119</sup> These order sheets would be a pad of serially pre-numbered sheets which could each accommodate one set of

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<sup>117</sup> Proposed CFFE Rule 316(b) implements the provisions of Commission Regulations 1.35(a-1)(1) and (2)(i) which require that an FCM, IB, or member of a contract market who receives a customer order immediately prepare a written record of the order (an order ticket) which includes the account identification, order number, and a time stamp indicating the time, to the nearest minute, that the order was received.

<sup>118</sup> Twice daily, the clock which times these phone line recordings would be synchronized with the Cantor System's keystroke and transaction timing clock, described below.

<sup>119</sup> In the CFFE's earliest submissions, CFFE's counsel indicated that TOs would, if applicable, enter customer identifiers into the Cantor System at the same time that orders were entered into the System for matching. In a July 30, 1998, telephone conference, CFS's counsel informed Division staff that, due to the Cantor System's design, an order's customer identifier could not be entered into the Cantor System until after the order was executed in accordance with the procedures described here in the text. See CFFE submissions dated August 4, 1998, and August 18, 1998.

order instructions. TOs would be required to use the pre-numbered sheets sequentially to record instructions in the order in which they were received, without skipping sheets, in non-erasable ink. Upon recording a set of Trader's instructions, a TO would timestamp each order sheet. At the end of each day, NYCE Compliance staff would collect all used sheets from the TOs, and NYCE would retain them for five years and keep them readily accessible for the first two of those years in accordance with Commission Regulation 1.31.<sup>120</sup>

Upon execution of a CFFE trade, the TOs who handled the component orders would "checkout" the trade with the originating CFFE Traders. As part of the checkout procedure, the TO would enter into the Cantor System the customer account number for the order indicated on the TO's corresponding order sheet. The trade would then be transmitted to CCC for clearing. If any of the information, including the account identifier, that the CFFE Trader confirmed during checkout was different from the information the Trader originally provided to the TO, the original information as noted by the TO on the order sheet nonetheless would be input into the System. The erroneous information would be corrected by the appropriate Clearing Member during the clearing process and would, thus, leave an electronic record of those changes. Checkout for all types of matched orders, aggressive and resting, should occur immediately upon execution. In the case of an aggressive order, however, checkout should be more immediate as

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<sup>120</sup> CFFE has represented that within one year of designation as a contract market the Cantor System's technology would be upgraded to allow the entry of an account identifier with each order that is input into the System for matching. This representation would be codified in proposed-CFFE Rule 301-A. See CFFE submissions dated August 21 and 27, 1998.

the Trader generally would remain on the telephone with the TO to await the order's fill.<sup>121</sup> In the case of orders that were deleted from the System by bettering bids or offers, the TO immediately would notify the originating CFFE Trader of the deletion. If the terms of the customer order either permitted or required the Trader to re-enter the order either at the new prevailing or at a "bettering" bid or offer, the CFFE Trader would issue appropriate instructions to the TO and would be required to place another time stamp on the order ticket.

The Cantor System would assign and record, to the nearest second, the time of each keystroke the TOs made while inputting orders and would similarly assign and record the exact execution time of each trade.<sup>122</sup> The Cantor System would not accept an order for matching unless it was keypunched with complete information including the full terms of the order and the identification codes for the CFFE Trader and the TO. No order or trade information input into the Cantor System could subsequently be altered without leaving a permanent record of the original data, the TO who made the change, and the exact time of the change.<sup>123</sup> During periods of high trading volume it is likely that multiple entries would be made on the Cantor System within each second. Although the System would not record events in increments of less than one second, it would record the events within each second in their precise sequence of occurrence. It therefore would always be possible for NYCE Compliance staff to determine whether entries

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<sup>121</sup> If a TO was occupied at the time of an order's execution, the TO would contact the appropriate Trader at his or her first opportunity. In all cases, however, TOs must checkout orders within thirty minutes of their execution.

<sup>122</sup> The Cantor System's internal clock would be synchronized each day with the National Institute of Standards and Technology's atomic clock.

<sup>123</sup> This is a function of the Cantor System's ability to record and time each keystroke made by a TO. Use of an Undo or Error key, as described above in Section VII.B.4., would register as a new keystroke, while leaving intact the record of the keystrokes associated with the original data.

were made in the appropriate sequence regardless of whether they were timed within the same second.

The electronically-recorded data would be maintained in a single record by CFFE as required by Commission Regulation 1.35(e)<sup>124</sup> and would be viewable in the form of three logs. The "Data Entry Transaction Log" would list the exact time to the nearest second of each keystroke made by a TO representing such information as trade date, commodity, delivery month, action (bid/hit/offer/lift/cancel), quantity, price, clearing member, account identifier, TO identity, CFFE Trader identification code, and for executed trades, account identifier. This record would contain data regarding the entry of every bid or offer into the System regardless of whether it resulted in a trade. The "Transaction Log" would contain information similar to that in the Data Entry Transaction Log, but would contain only the information specifically pertaining to each executed transaction on the Cantor System. The "Changes to Executed Transactions Log" would contain the record of each change made to any aspect of a completed trade, except for unalterable match-critical data such as price, time, commodity, and month. CFFE would maintain these three logs on read-only optical disks for a period of five years and would provide them to NYCE Compliance staff daily. CFFE would maintain tapes of the TO phone lines for a period of 120 days. During that time, the tapes would at all times be available to NYCE Compliance staff.<sup>125</sup> CFFE would store these tapes in a locked room at CFS' offices.<sup>126</sup>

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<sup>124</sup> See the Chart's entry for Regulation 1.35(e).

<sup>125</sup> The CFFE has represented that it would tape record all phone lines to which TOs would have access including lines maintained for receipt of orders as well as any personal phone lines.

<sup>126</sup> Access to this storage facility would be restricted to NYCE Compliance staff and CFS Technical and Supervisory staff. These persons would only have access upon prior approval by either the Director of Compliance or the Director of Market Surveillance of

Of course, the Commission would have access upon request to those tapes and would receive Regulation 1.35(e) data in a manner consistent with the procedures now followed by other contract markets.

By capturing the actual time of each transaction to the nearest second and the sequence of occurrence of trades within each second, CFFE's System would satisfy both the general audit trail requirements of Section 5a(b)(2) of the Act and the enhanced audit trail requirements of Section 5a(b)(3) of the Act<sup>127</sup> as well as Commission Regulation 1.35(g) that exchanges reliably record accurate one-minute execution times of trades and sequence trades for each broker and trader.<sup>128</sup> This, added to CFFE's requirement that Traders prepare an order ticket with time stamps indicating the time of receipt of each customer's order and the time of transmittal of the corresponding execution instructions to a TO, and CFFE's requirement that TOs create an order sheet with a timestamp indicating the time of receipt of a CFFE Trader's instructions, would create a virtually seamless audit trail. The Division believes that factors including the inability of the Cantor System to clear trades without complete customer and broker information, its ability to record any and all changes to previously input information, and CFFE's retention for 120 days of timed recordings of all TO phone conversations would provide additional audit trail supplements that would further reduce the potential for customer abuse.

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NYCE. Under CFFE Rule 301-A, all CFS staff having such access would be considered agents of CFFE in their conduct as it relates to CFFE materials.

<sup>127</sup> Section 5a(b)(3) of the Act requires in relevant part that a contract market's audit trail system be able to record for each trade its terms and participants, a precise and reliable execution time which is either generated or verifiable by an independent source, and the sequence in which it was executed with respect to the executing brokers' or traders' other trades. This information must be recorded in a form which is unalterable and provided to the contract market in a continuous manner.

<sup>128</sup> See the Chart's entry for Regulation 1.35(g).

2. Review and Utilization of Timing Information

Commission Regulation 1.35(i) requires each contract market to use the information contained in the record it maintains pursuant to Commission Regulation 1.35(e) in its continuing affirmative action program to reconstruct trades rapidly and accurately and to report on the accuracy of that information and its use in the contract market's affirmative action program as periodically required by the Commission.

NYCE Compliance staff would conduct audit trail and recordkeeping reviews of CFFE trading on a monthly basis. These reviews would be structured such that each CFFE Trader and TO would be subject to a review at least once yearly.<sup>129</sup> During the course of these reviews, NYCE Compliance staff would select a group of TOs and focus on their entries recorded in CFFE's Data Entry Transaction Log during a one half-hour period. NYCE Compliance staff would then examine the corresponding automatically recorded data, timed telephone line recordings of instructions transmitted to TOs by CFFE Traders, order tickets prepared by Traders, order sheets prepared by TOs, and, for executed transactions, the corresponding customer account statements. For each selected entry representing the posting of an order that went unfilled, the times recorded on the order ticket would be compared to the times automatically registered in the Data Entry Transaction Log. NYCE Compliance staff would reconcile any discrepancies they noted between these timing data by comparing them with the time registered on the appropriate portion of the TO phone line tape. For each selected entry representing an executed trade, the times recorded on the filled order tickets would be compared

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<sup>129</sup> As described below, selection of subject Traders would be based on the selection of subject TOs. Certain Traders may not be selected during the course of a given year if they did not trade through a selected TO during the time period selected for review.

to the times automatically assigned to the corresponding entries in the Transaction Log, and the parties' account statements would be referenced to ascertain whether the appropriate trades cleared to the accounts indicated in the Transaction Log.

The trade times which constituted the original record of each transaction would be assigned automatically to each entry and event by the Cantor System rather than manually transcribed or derived from documents prepared by the parties to each trade. Since these times would be unalterable, they would be presumptively accurate. CFFE would not need to review trade-timing information to verify its accuracy, but instead would confirm the level of compliance of individual Traders with the Exchange's and the Commission's requirements that they properly document each order. This method of review would permit NYCE Compliance staff to use the automatically-recorded information to determine whether orders had been executed properly and in the appropriate sequence by comparing each order's terms and its receipt and transmittal times with the trade-matching instruction entry times, execution times, and price change register times generated by the Cantor System. Any discrepancies between the instruction transmittal time indicated by the time stamp on an order ticket and the instruction entry time generated by the System for each keystroke could be resolved by reviewing the time references embedded in the tape recording of the TO's phone line over which the execution instructions corresponding to the order were transmitted.

CFFE's proposed method of review of the timing information maintained in its Commission Regulation 1.35(e) record of transactions would satisfy the requirements of Regulation 1.35(i). The uninterrupted stream of timing information that CFFE would collect regarding the various events which occurred as the result of every order entry and trade would enable CFFE to reconstruct accurately an entire day's trading activity. This reconstruction would

include not just executed transactions but all events, including the entry of each bid and offer, in the sequence of their occurrence, timed to the nearest second. This would provide NYCE Compliance staff with information that could be used in investigations of possible trading abuse that would constitute more reliable and conclusive evidence than that which would otherwise be available from a non-electronic trade-timing system. Trade times assigned by an electronic system presumptively are one hundred percent accurate. Nevertheless, the Cantor System's accuracy would, as noted above, be confirmed twice daily by CFFE staff and could be reconfirmed at any time by NYCE Compliance personnel through the live view-only CFFE TO terminal that would be installed in NYCE's Compliance office.

### 3. Trade Surveillance

NYCE Compliance staff would employ a number of additional methods of monitoring CFFE trading other than routine audit trail review. These methods would include an equivalent of trading floor surveillance which would involve physical observation of TOs in CFFE's trading room, as well as examination of computerized exception reports generated by NYCE using the raw data provided by CFFE in the form of the logs described above.

The Division believes that the Cantor System would limit the potential for market participants to commit certain trade practice abuses. Some abuses would be difficult to commit because of the nature of the System, and some abuses would be easily detected because of the enhanced audit trail. Because matching of orders would ultimately be carried out by the Cantor System's computer in accordance with strict rules of priority, those types of violative trading that require the parties to know who would be on the opposite side of a transaction generally would

be more difficult to commit through the Cantor System than they would be on the trading floor of an open-outcry exchange.<sup>130</sup>

a. Automated Surveillance

NYCE Compliance staff would conduct automated trade surveillance on CFFE each day. As noted above, CFFE would provide NYCE with three logs which contained complete information regarding entries in the Cantor System including each order, each trade, and each change to an executed transaction. Compliance staff also would review daily and weekly exception reports that would sort the data contained in these logs, according to preset formats, to detect trading abuses such as trading ahead of customer orders and prearranged, preferential, or noncompetitive trading. These reports would be similar to those the Compliance staff currently uses to detect trading abuses on NYCE. However, where the NYCE reports focus primarily on the activities of floor brokers and traders, standardized CFFE reports would focus on the activity of CFFE Traders. Other CFFE reports would be customized by individual NYCE Compliance analysts to focus on the activities of certain accounts or TOs as necessary. CFFE reports also could be customized to highlight orders which were placed or executed at a specified price or time, or executed opposite a specific customer account, Trader, or TO.

NYCE's Trading Ahead exception report program would focus on accounts traded by a particular party which received fills superior to those received by others. Since the Cantor System would perfectly sequence all entries and trades, the sequence of transactions, rather than

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<sup>130</sup> For example, there could be no assurance that an attempt to prearrange a trade through the Cantor System would be successful. Each party attempting such a trade would have to enter his or her order at either the prevailing, or a bettering, bid or offer price, and each would be subject to matching with whatever order on the opposite side of the market was highest in priority, regardless of that order's source.

their times (which would not enable compliance staff to distinguish between events occurring within the same second), would be the measure of whether orders could have been mishandled. The Trading Ahead program would select each trade in which a certain account, Trader, or TO received a superior price to that of any accounts involved in the following three transactions executed in the same commodity and delivery month. The resulting reports would alert staff to trading patterns which suggest that a party could have traded ahead of his or her customers' orders or that a party could have benefited from the disclosure of orders by another Trader or by a TO. Based on the number and the seriousness of highlighted instances, senior NYCE Compliance staff would determine whether to open investigations into the trading activity of relevant parties.

NYCE's Concentration of Trading program would capture for each account, CFFE Trader, and TO the number and percentage of trades that were executed opposite every other account, Trader, and TO. This information would be compiled daily into databases which could be compiled into weekly summary reports as well. The daily and weekly databases could be sorted by NYCE Compliance staff to highlight trades in a certain commodity and delivery month or be queried to display certain information about activity between specific accounts. Compliance staff would review this report each day for trading patterns that suggested possible abuses such as prearranged or noncompetitive trading and disclosure or withholding of customer orders. Should NYCE Compliance staff detect such patterns, senior Compliance staff would open an investigation into the trading activity of the involved parties.

NYCE Compliance staff also would employ programs that would calculate the daily profit and loss in each account, as well as programs that would extract all error-correcting transactions executed for each account. The results of these processes would be stored as

databases which could be queried as needed to produce reports sorted by various criteria (such as a particular party, time, contract, etc.). Error-correcting transactions would be designated as such when input to the Cantor System, and NYCE Compliance staff would review the activity in each CFFE Trader's error account. NYCE staff would particularly scrutinize the activity in the account managed by CF Account Managers for the correction of TO errors. They would also scrutinize the error account of Cantor Fitzgerald & Co., the FCM subsidiary of Cantor Fitzgerald that would execute only customer trades on CFFE. Additionally, NYCE staff could produce a variety of Market Reconstruction Reports, which would sort the raw order entry and execution data, by querying their computer surveillance system with specific criteria that isolated as much or as little of the data as the individual analyst desired. For instance, Compliance staff would isolate and review the trades occurring during the first three minutes after each market-crossing session to determine if any of the accounts involved in the session had traded in such a way as to influence the price automatically assigned by the Cantor System to trades executed during the market-crossing session.<sup>131</sup>

b. Physical Surveillance

CFFE TO terminals all would be located at CFS's trading room in New York City. NYCE Compliance staff would be present at the trading room each day for one hour starting at the market opening, one half-hour immediately prior to each of the two closings and market settlement periods, and one hour at a random time to observe TOs as they receive instructions from CFFE Traders, prepare order sheets, and enter instructions into the Cantor System. Further,

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<sup>131</sup> As described above, the Cantor System would assign to all trades executed during a market-crossing session the price of one trade that occurred during the three minutes immediately following the crossing.

Compliance staff randomly would listen to individual TO phone lines as calls are taken while simultaneously observing corresponding TOs' entries on a separate terminal. NYCE staff also would periodically obtain and review tapes of these phone lines at random. Compliance staff also would have access to a live terminal in NYCE's Four World Trade Center office so that they could observe CFFE market activity at various other times.

C. Investigations

CFFE has represented that NYCE's Compliance staff would initiate investigations based on the same types of information which currently prompt investigations of trading on NYCE or on its other subsidiaries. These include customer and member complaints, referrals from Commission staff, and indicia of possible abuse detected during routine physical observation and trade practice surveillance. As outlined in NYCE Rule 10.04, the Compliance staff's investigation of CFFE trading would involve review of all relevant records, such as CFFE Trader order tickets, tapes of TO phone lines, TO order sheets, trade and keystroke registers, customers' account statements, and interviews of all parties who could have information relevant to an investigation.

D. Disciplinary Procedures

As indicated in Section V.F. above, CFFE disciplinary matters would be handled by the Business Conduct and Supervisory Committees of NYCE, in accordance with the same disciplinary procedures that these committees currently follow in their handling of NYCE disciplinary matters.

TOs would not be CFFE Members or holders of trading privileges in the same sense as CFFE Traders. Under proposed CFFE Rule 31, TOs only would be deemed to have trading privileges granted to them by NYBT for the purpose of securing Commission registration as

floor brokers and therefore would not be subject to the same disciplinary process as CFFE Traders. TOs, as agents of CFFE under proposed CFFE Rule 301-A, could be summarily removed from trading-related positions at the discretion of NYCE Compliance staff with or without cause. TOs could also be summarily dismissed by CFS at any time. Further, as Commission registrants, TOs would be subject to further disciplinary action by the Commission if their removal was due to some violation of the Act or the Commission's regulations.

E. Division Rule Enforcement Reviews of NYCE

The Division's most recent rule enforcement reviews of NYCE's market surveillance and trade practice surveillance programs<sup>132</sup> both revealed that NYCE maintained staffing levels that were insufficient for adequate monitoring of NYCE's markets and for performance of NYCE's other self-regulatory functions. NYCE has represented that, in anticipation of the merger with CSCE, there had been a moratorium on hiring at NYCE which resulted in its current unusually low staffing level. In this regard, NYCE has stated that the high level of automation of CFFE's audit trail would reduce the need for additional staffing specifically for CFFE oversight. Further, NYCE's merger with CSCE to form NYBT has resulted in the combination of both exchanges' Compliance and Market Surveillance staffs and to the extent that the duplicated activities of both staffs could be eliminated additional staff resources would be made available for monitoring CFFE trading. Notwithstanding these factors, CFFE had represented that ten percent of CFFE's gross revenues would be allocated for additional staffing specifically for CFFE oversight. It has

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<sup>132</sup> See the Division's memoranda to the Commission regarding its rule enforcement reviews of NYCE's market surveillance and trade practice surveillance programs dated February 24, 1998, and July 28, 1998, respectively.

further represented, in fact, that NYBT is currently hiring at least five additional Compliance staff members to correct the deficiency.

X. System Security, Vulnerability, and Capacity

A. Review of the Cantor System by Office of Information Resources Management

The Office of Information Resources Management ("OIRM") began its review of the CFFE's Cantor System in September 1997, at which time a senior member of OIRM's staff accompanied T&M staff in an onsite review of CFS' facility. Subsequent to that visit, OIRM requested that CFS respond to a set of questions regarding the Cantor System. Those questions were based upon the International Organization of Securities Commissions' ("IOSCO") ten Principles for the Oversight of Screen-Based Trading Systems for Derivative Products.<sup>133</sup> CFS responded to those questions by letter dated June 25, 1998. OIRM reviewed CFS' responses and conducted several follow-up phone interviews during July and August 1998 with senior members of the CFS staff. The purpose of these conversations was to clarify and augment the information provided in CFS' written response. CFS staff has fully answered all of OIRM's questions regarding the Cantor System. As a result, OIRM has a thorough understanding of the operational characteristics of the Cantor System.

As a final validation step in conducting its review, an OIRM staff member conducted a follow-up onsite review of the CFS facility on August 18, 1998. During that visit OIRM verified the Cantor System's physical and logical security features, observed a mock trading session, and verified the equipment configuration. The following summarizes the findings of the technical review of the Cantor System.

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<sup>133</sup> IOSCO Technical Committee, Report on Trading Systems for Derivative Products (June 1990).

B. System Overview

CFS currently uses the Cantor System in its capacity as an interdealer broker in the US Treasury securities market. CFFE would use a slightly modified version of the Cantor System for the trading of Treasury securities futures contracts. The same hardware, software and communication facilities that have been used successfully to conduct a high volume of electronic trading in the cash market since 1996 would be utilized by CFFE. The Cantor System, which is highly modularized and fully redundant, provides a trading environment that is extremely resistant to failure. It provides redundancy in all of its system components, which includes hundreds of trade-entry and administrative terminals, multiple trade-matching servers, several data distribution servers, dual trade database servers, multiple customer servers and off-site disaster recovery equipment.

The trade-entry and administrative terminals are high-performance personal computers running Windows NT. The CFFE's TOs would use trade-entry terminals to enter, review and post orders. The administrative operators would use administrative terminals to enter offset orders to correct erroneous or challenged orders as necessary.

The trade-matching host is a cluster of five DEC Alpha servers supporting CFS' four securities trading markets. These servers, one server per market and one standby server, accept and match trades and pass trading data to the database servers and the data distribution servers. These high-performance servers provide the necessary transaction processing speed to support the high volume of trading that occurs in CFS' current cash market operations. These servers, without any change to their configuration, have sufficient capacity to accommodate a one hundred percent increase in trading volume. The scalability of these servers would provide the growth potential to accommodate even higher levels of trading volume. The clustered

architecture of these servers would provide the flexibility needed to recover rapidly from component or application failures without impacting the trading environment.

The database servers would receive all CFFE transaction data from the trade-matching servers as trades were executed. They would first archive the trading data for use during the validation process and then would pass it along to the CCC for clearing purposes and to the NYCE for price reporting and compliance purposes. Like the DEC Alpha servers that would support the trading processes, these SUN servers are known for their high performance characteristics. Also like the DEC Alpha servers, they would be configured in such a way that, if one of them failed, the other one could immediately provide full support for the database functions.

The administrative operators would access this database as necessary to enter offsetting orders to correct errors or challenges identified during the clearing process.<sup>134</sup> This function would enhance the integrity of the database. Data distribution servers would send CFFE trading data directly to CFFE Traders and quote vendors. There are three of these VAX servers, and they are configured so as to provide increased reliability and disaster recovery capabilities in the event that one of them fails. Without any modification, these servers have sufficient excess capacity to perform this CFFE function.

The existing redundant customer servers, UNIX-based SUN servers, would provide CFFE confirmation and other reporting output to member firms. The network and communications path through which the customer data would be transmitted to these servers is

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<sup>134</sup> Trades executed in error due to the errors of CFFE TOs and corresponding offsetting and correcting trades would be allocated by the administrative operators to the account managed by CF Account Managers. Activity in this account would be routinely reviewed each day by NYCE Compliance staff.

fully redundant. In the event of the failure of any component in this path, the alternate path automatically would be activated, thereby providing for the uninterrupted transmission of market and customer information. CFS' data center also contains support systems such as monitoring and management facilities for the Operations Control Center ("OCC") and the Network Control Center ("NCC").

All of this equipment, except for the customer servers and the off-site disaster recovery equipment, are located in CFS' New York City trading facility. An isolated private network interconnects that equipment and provides an environment that is secure from external intrusion.

C. System Security and Data Integrity

The CFFE would provide a number of security features to insure the integrity of the trading environment. These features, currently in use on CFS' cash trading operation, would provide for both physical and logical security. With regard to terminals, at the physical level the only terminals that would have access to the system would be either in the CFS' trading rooms or in CFS' data center. All of these terminals are currently connected to an isolated local area network whose boundaries are within the CFS facility. At the logical level, terminals in the trading rooms are under program control so that TOs and administrative operators are limited to use of the trading software only. Access to the operating system level of those terminals is restricted to designated support personnel with appropriate user-ids and passwords. However, even those support personnel are not enabled, from these trading floor terminals, to perform functions that could change the trading system programs or otherwise tamper with the trading environment. Only authorized support personnel from terminals located within the data center are able to perform such system maintenance operations. Access to the data center is controlled by security card access.

Physical security for all of the centralized servers is provided by the use of security card access control to the data center in which they are located. A second level of physical protection for those computers is provided by the fact that they are housed in locked cabinets to which only a small number of authorized support personnel have access. Access to the trade-matching host for anything other than trading and any access to the other centralized servers is restricted to password-controlled terminals in the data center.

Three levels of control provide logical security for the trade-matching host. A TO must first provide a valid user-id and password to log-on to the network. To activate the trading software the TO must then enter another valid user-id and password. As a final security control check, the TO must provide a valid user-id so that the trading application can determine the specific functionality that should be granted to the TO.

The storage and transmission of all passwords is protected by the use of encryption. Only after these several logical verification checks have been performed can a trade be submitted to the host for execution. To minimize the chance of inadvertent access, the trade-matching software is shut down at the close of business.

Two levels of control provide the logical security for all of the other centralized servers. Support staff must first provide a valid user-id and password to log-on to the network. That user-id/password pair grants them specific privileges appropriate to their support responsibilities. Privileged access for altering the trading software is further protected by an additional level of user-id and password. That privileged access is granted only to the staff of an independent systems administration group. Furthermore, such trading software changes can only be performed after complete independent review by quality control personnel.

The overall architecture of the Cantor System provides for data integrity in several ways. Initially, all TO keystrokes are recorded by the host's logging facility so that trading activity can be reconstructed for verification. The TO reviews the details of the trade for approval prior to posting it to the trade-matching host. Approved transactions are then written to a store-and-forward queuing system on the trade-matching host. That queuing system insures that trades are executed in a fair manner. After the staged transactions are committed, they are transmitted outside of the trade-matching system. That staging process ensures a high level of performance and data integrity.

The trade information is then transmitted to two destinations, one for further internal processing related to clearing and the other for distribution to both internal and external trade and price reporting systems. The first destination, as part of the clearing process, is to a Sybase database server process. This database server process, running on a SUN server and its mirrored backup, maintains the database of all trades. At various points during the clearing process, special administrative operators in the CFS trading rooms, as identified through the entry of privileged user-ids and passwords, enter appropriate transactions to correct any errors or challenges that may have been identified during the clearing process. This administrative facility provides for the final data integrity check of the trading and clearing processes. The second destination of the data transmitted by the trade-matching host is to a group of three VAX servers that act as data distribution servers. These servers distribute data to both customers and quote vendors.

At these two points where transactions are passed out of the Cantor System, a protective firewall provides security for the System from the outside world. The firewall is provided by communications hardware that strictly enforces the one-way outbound flow of information. Data

security is provided during that transmission process by virtue of the point-to-point circuits that connect CFS, and would connect the CFFE, to each of the recipients. The error detection and correction features of the communication protocols that are employed would insure data integrity during that transmission. Once delivered to the receiving external systems, whether the CCC or any of the multiple CFFE Traders and quote vendors, those external systems would provide for the security and integrity of the data from those points forward.

D. System Reliability and Disaster Recovery

The CFFE would employ an architecture that is designed to provide an extremely reliable trading environment and comprehensive disaster-recovery capabilities for all system components. Each CFS trading room has multiple terminals from which TOs can enter, review and post trades. The TO trading terminals are configured so that, if a terminal fails, the TO is able to continue working at another terminal. Each TO's unique configuration information (e.g., screen layout) is stored on the CFFE local area network. In the event of a failure of a terminal, a TO is able to continue work by logging onto another terminal. Since the centralized servers maintain all trading data, such an occurrence does not result in the loss of any data. Additionally, during the time that an alternate terminal is being located, another TO on that floor or one of the administrators for that TO's market, through their own terminals, can enter, review and post that TO's orders. There are two Windows NT network servers that provide the connectivity between the terminals and the centralized servers. Those two servers are configured so that each acts as a backup for the other. In the event of a failure of either one, all TOs and support staff continue to have access to the centralized servers through the remaining network server.

The five servers that comprise the clustered trading host share the processing of trades. Four of the servers process trades for each one of the four cash Treasury securities markets traded

by CFS – US Treasury bonds, US Treasury ten-year notes, US Treasury five-year notes and US Treasury two-year notes.<sup>135</sup> The fifth server acts in a standby role. In the event of the failure of one of the four market servers, the OCC staff is automatically notified and activates the standby server to take over the trade-matching function for that market. This cutover process takes only a matter of seconds.

The two SUN database servers are configured so that one acts as a backup for the other. They each contain an identical copy of the trade database. In the event that the primary database server fails, the backup database server immediately takes over the archiving function. The three VAX data distribution servers are configured so that two of them are active at all times, one for each of the two market data networks that would be maintained by CFFE. The third VAX server is maintained in a standby mode and can be activated by the OCC to take over for either of the active servers in the event that one of them fails. The two market data networks that provide data feeds to customers are fully redundant with respect to computers, communication equipment and telecommunication carriers. This data distribution network is completely fault-tolerant.

With regard to reliability for power requirements, equipment in both the data center and on the trading floors is insulated from power outages by a centralized Uninterruptible Power Supply (“UPS”). This UPS and its diesel fuel storage tanks are located on the roof of the building. These storage tanks can be refilled during use so that the UPS can remain operational for extended periods of time. There are two power lines, running down separate risers, that connect the UPS to the CFFE equipment.

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<sup>135</sup> These markets correspond with the four futures contracts proposed by CFFE.

As mentioned previously, there is an off-site disaster recovery facility to which data are replicated for use in the event of the loss of the primary data center. This off-site facility is currently equipped to support the wind-down stages of the trading process so that the market can be shut down in an orderly manner in the event of the loss of the primary data center. CFS has scheduled for completion by the end of September 1998 the addition of the equipment necessary to support the front-end of the trading process so that the entire trading process could continue. This off-site facility is connected to the primary data center by multiple high-speed communication lines. CFS conducts functional tests of this facility every six months.

In addition to these system components, system reliability is also provided by the activities of the CFS Help Desk, the OCC and the NCC. The CFS Help Desk provides end-user support during trading hours (7:30 a.m. to 5:30 p.m. NYT, Monday through Friday). The Help Desk routes troublecalls to the appropriate internal group and tracks the status of those troublecalls. The OCC and NCC monitor the status of applications and equipment twenty-four hours a day, six days a week (Sunday noon through Saturday noon). During non-trading hours, the OCC and NCC also provide support by responding to all troublecalls from both internal and external sources. In the event of a hardware or network problem, the OCC and NCC follow documented procedures for problem identification, reporting and recovery. System start-up, shutdown, and restarts are handled by the OCC. The OCC also has written procedures for switching to the appropriate backup systems in the event of a local failure or a site-wide disaster. As preventive maintenance related to system reliability, internal system resource data are collected on a continuous basis and archived daily. Those data are analyzed periodically to insure that system capacity is adequate for actual trading activity. These procedures would continue to be followed after the commencement of CFFE futures trading.

E. System Capacity

The architecture of the Cantor System accommodates a high volume of trading in the cash market for US Treasury securities. The trade-entry and trade-matching functions of the System are the most time-critical phases in the entire process. Those functions are supported by the use of high-performance scalable servers that can be configured with multiple Central Processing Units ("CPUs") and varying amounts of memory. Those two server components most significantly determine the number of TOs and volume of trading activity that the System could support.

The factor that most significantly impacts the use of those system resources, beyond a certain low level of usage, is the number of TOs rather than their level of activity. The system resources required to support the terminal sessions of the TOs are far greater than the resources required to process the transactions that they generate. For example, on August 8, 1998, CFS conducted the most recent of a series of tests of CFFE trading on the Cantor System. That test consisted of three phases. The table below shows the results of those tests.

# of TOs	Total Avg. Trades/second	Total Avg. Transactions/second	% of CPU Utilization	% of Memory Utilization
8	6	21	3.8%	18%
16	12	39	8.3%	18%
35	25	102	9.8%	18%

As can be seen from the percentage of utilization of memory, that resource was not affected by the increase in either the number of TOs or their volume of activity. With regard to the percentage of utilization of the CPU, the impact of the second increase in the number of TOs and their volume of trading was significantly less than the impact of the first increase in those numbers. As described in detail below, the amount of system resources used currently to support

the cash market leaves a more than adequate reserve capacity to support the anticipated trading activity in the futures market.

In order to maintain sufficient capacity of their computer systems, computer facility managers must monitor usage levels and begin acquisition and installation plans well in advance of reaching capacity. A commonly adopted standard within the computer industry for triggering that acquisition process is a sixty percent utilization level. CFS has adopted that standard usage level for determining when additional hardware is required. Such a level also provides sufficient excess capacity to handle peak load conditions. CFS' staff conduct periodic system resource usage reviews to compare operational measurements against that standard. When that sixty percent average level of usage occurred earlier this year, sufficient hardware was added to those servers to increase their capacity by fifty percent. That increase provided sufficient capacity to support 150 TOs per Treasury instrument market. There is currently an average of seventy-five TOs per cash market. With that number of TOs the servers are operating at only forty-five percent of capacity. Those same TOs would be entering trades for CFFE futures contracts. With regard to transactions per second ("TPS"), original benchmark tests for the System demonstrated a capacity of 100 TPS. The peak TPS recorded during live trading in the cash market has been four TPS. There is obviously a great deal of excess capacity with regard to both the number of TOs and their respective levels of activity.

Like the trading servers, the CFS' other computers and network components are monitored for usage levels and could similarly be modified or upgraded if necessary. All of this other equipment is currently operating well within capacity and performance requirements and would be minimally impacted by the small relative increase in volume that would be caused by the addition of CFFE's proposed futures contracts. All of those components were included in the

August 8, 1998, test mentioned earlier and were found to be operating at usage levels well below that required for expected performance standards.

F. System Testing

CFS has been conducting unit and system tests throughout the period during which they have made modifications to the Cantor System to enable it to support futures trading. Those tests have provided valuable feedback for CFS' development effort. In keeping with standard computer industry practices, earlier tests were narrowly focused on specific system components (i.e., unit tests) and later tests have been more broadly defined to include gradually broader groups of components. On August 8, 1998, CFS conducted a full system test that included participation by TOs, administrative operators, support staff from the OCC and NCC, CFS staff acting on behalf of clearing firms and customers, the CCC, the NYCE and quote vendors. This test was conducted between the hours of 8:00 a.m. and 4:00 p.m. The morning portion of the test was conducted from scripts that had been prepared in advance by CFS so as to insure that the test included the full range of trading activities. The afternoon portion of the test was conducted with the participation of brokers so as to introduce the randomness of real life.

The test was intended to measure four areas – capacity, trade-entry functionality, middle-office and trade-flow functionality, and network interfaces. System capacity and performance were sufficient to accommodate all tested levels of trading. All possible trading functions were tested and shown to produce expected results. Middle-office functions such as error identification and resolution, clearing firm challenges and resolution, and end-of-day closing procedures were tested successfully. The trading room staff who would actually perform these functions for CFFE participated in this test. The trade-flow through the various computer processes and network components was tested and shown to produce expected results. All

network interfaces were shown to have sufficient capacity and performance at all tested levels of trading.

G. Technical Conclusion

Based on its review of the above-described information, OIRM believes that the Cantor System would provide a highly reliable and secure trading environment for CFFE.

XI. Disclosure and Liability

Pursuant to proposed CFFE Rule 306, no CFFE Clearing Member or other CFFE Trader could accept an order from, or on behalf of, any customer for entry into the Cantor System, unless the customer had been provided with a CFFE Customer Information and Risk Disclosure Statement in a form approved by CFFE's Board of Directors. The disclosure statement would describe, among other things: (1) the difference between CFFE trading and floor trading; (2) the risks inherent in trading through CFFE; (3) the Cantor System's order execution algorithms, including an explanation of the regular trade-matching algorithm, the market-crossing trade-matching algorithm, and each algorithm's minimum bid and offer size restrictions; (4) the allocation of responsibility for transaction fees; and (5) arbitration rules. The disclosure statement would also include the full text of the proposed CFFE rules framing the limitations on liability adopted by the Exchange. CFFE's limitations on liability, described below, would be substantially similar to those that have been adopted by NYMEX, CBT, and CME in connection with their respective automated trading systems.

Proposed CFFE Rule 723 would broadly disclaim liability of the Exchange, its affiliates or subsidiaries, or its clearing members or their respective officers, directors, or employees, for any failures or malfunctions of the Cantor System. Under this proposed rule, the disclaimer would not apply in the case of "willful or wanton misconduct" on the part of any of the

aforementioned parties, nor would it limit the liability of any CFFE Clearing Member or CFFE Trader, or their respective officers, directors, or employees, for any act, incidence, or occurrence within their control. Proposed CFFE Rule 724 would provide that CFFE would be liable if the TOs employed by CFS, in their entry of CFFE Traders' orders into the Cantor System, negligently: (1) canceled or failed to cancel orders resting in the System, (2) failed to enter an order into the System, (3) entered an incorrect price or quantity for any order into the System, or (4) issued passwords to unauthorized persons in violation of instructions by a CFFE Clearing Member or Trader. CFFE would not be liable, however, in those instances where the above errors were remedied within fifteen seconds of their occurrence, and in all cases, CFFE's liability for such conduct would be limited to \$10,000 for any single claim and \$100,000 for all claims against CFFE TOs on any single business day.

The Division believes that the disclosures that would be made by CFFE to market participants and the proposed limitation of liability provisions would be comparable to those previously approved by the Commission for electronic trading and are consistent with the Act and regulations.

## XII. Summary of Comments

### A. Overview

CFFE's proposed application for designation was subject to two public comment periods: first, an eighty-four-day comment period running from February 3, 1998, until April 27, 1998; and second, a fifteen-day comment period running from July 1, 1998, until July 16, 1998. As a result, a total of thirty comment letters were received from twenty-six commenters.<sup>136</sup> Generally,

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<sup>136</sup> See footnotes 1 and 5 and related text for the relevant Federal Register citations and a listing of the commenters. Two commenters submitted multiple comment letters. CBT

eleven commenters supported the CFFE's proposal, and fifteen commenters were critical of the proposal. The majority of the eleven favorable commenters were academics and CPOs. Favorable letters also were submitted by the Government Securities Clearing Corporation and a registered floor broker. The unfavorable commenters included existing futures exchanges, a futures clearing organization, futures exchange floor traders, a securities exchange, a securities option exchange, and a futures trade association, the National Grain and Feed Association.

B. Favorable Comments

In general, the commenters who favored CFFE's proposal stressed that competition among futures exchanges would result in more liquid markets and that CFFE would provide market participants with a wider variety of trading strategies by solving problems of implementation and expense attendant to strategies involving cash and futures products. Additionally, these letters stressed that automated trading systems such as the CFFE's were beneficial to the overall marketplace for many reasons. These included an enhanced regulatory environment, more competitive products, an accurate and verifiable audit trail, diminished opportunity for trade abuses and fraud, lower transaction costs, instantaneous price information, increased anonymity of traders, fewer trade errors, and increased speed of executions. One academic commenter noted that when market quotes are made visible on a computer terminal, it forces market participants to compete by posting more aggressive bid and offer quotes, thus narrowing the bid-ask spread.

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submitted four comment letters and AMEX submitted two comment letters. Additional written statements were submitted to the Commission in connection with the August 11, 1998, public meeting.

Favorable comments also were received regarding the CFFE's trade-matching process. One academic commenter noted that the proposed trade-matching algorithm would encourage participants to place quotes at attractive prices and thereby supply liquidity and would ensure that market participants were given equal treatment in the execution of their orders. Finally, two commenters believed that the CFFE would benefit from the use of the NYCE's regulatory expertise and would avoid the cost of duplicating these activities.

C. Unfavorable Comments

The lengthiest negative comment letters were submitted by AMEX and CBT. This memorandum will first address comments submitted to the Commission by multiple commenters, including those two exchanges. The comments of AMEX and CBT then will be discussed in greater depth.

1. Comments Generally

All of the issues raised by commenters other than AMEX and CBT also were raised by AMEX and/or CBT. Therefore, while the non-AMEX and CBT comments will be explained in this section, the Division's evaluation of these comments will be discussed only in the AMEX and CBT comment section. The most predominant negative comment on CFFE's proposal concerned conflict of interest issues regarding the Cantor Group's participation in the Exchange's markets, control over the proposed Exchange, and provision of trading personnel.

One commenter also discussed the potential for CFFE TOs to face conflicts of interest in their interaction with CFFE Traders because Traders might solicit TOs for material non-public information that they would have access to via the Cantor System. Another comment concerned the Cantor Group's qualifications, under Commission Regulation 1.63, to appoint CFFE Board members given Cantor Fitzgerald & Co.'s 1997 settlement agreement with the Commission.

Some commenters contended that CFFE's proposed trade execution methodology would allow noncompetitive trades to occur regularly which would violate Commission Regulation 1.38's requirement of open and competitive trading. One commenter believed that the CFFE's algorithm would be biased towards institutional participants that would trade large size orders and that smaller traders may not be able to execute certain trades due to the small size of their orders, even though they may have a better price.

Three commenters discussed the absence of adequate exchange rules. They believed that the CFFE's proposed rules would not prohibit various entities from disclosing customer orders, inequitably allocating customer orders, and engaging in accommodation trades.

A few critical commenters questioned whether NYCE would be properly staffed to handle the additional burden of providing regulatory and compliance oversight for CFFE's contracts given the small size of the NYCE's Compliance staff. Commenters also referenced T&M's recent report finding that the NYCE Compliance Department was understaffed.<sup>137</sup>

BOTCC stated that the Commission should review any proposed clearing organization to ensure that it has the fundamental risk management policies and procedures and operational safeguards to perform the necessary clearing role.<sup>138</sup>

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<sup>137</sup> See Rule Enforcement Review of NYCE (July 28, 1998).

<sup>138</sup> At the time of BOTCC's comment, CFFE was proposing to have its products cleared by a new clearing organization – the New York Board of Clearing (“NYBOC”). Subsequently, CFFE withdrew its proposal to establish NYBOC and instead proposed to have its products cleared by CCC, which currently clears for NYCE, NYFE, and CANYCE. Given CCC's experience, the Division believes that it would be an acceptable clearing organization for CFFE.

2. AMEX and CBT Comments

a. AMEX

AMEX's predominant concern was that the CFFE application was deficient in several critical respects including that the Cantor Group would be beyond the regulatory reach of the Act, CFFE and NYCE. In addition, AMEX noted that the Cantor Group would lack even IB registration although the Cantor Group's employees, the TOs, would be the sole persons "accepting orders" for input into the Cantor System. AMEX contended that the Cantor Group would not be subject to liability under the Act for failure to supervise TOs. AMEX further contended that this would eliminate one of the Commission's most important tools for ensuring the protection of the public interest.

AMEX contrasted the treatment of CFS in connection with the CFFE proposal with the treatment which CFS currently receives in the cash market for Treasury securities. In the cash market, CFS is registered as a government securities broker and is a member of the NASD, and its TOs are registered as government securities representatives. AMEX believed that the Commission should explain its reasons why similar registration is unnecessary for CFS and TOs in connection with CFFE trading.

AMEX also commented that CFFE and NYCE would lack adequate rules and resources to monitor TOs closely. AMEX believed that CFFE should have a clearly drafted set of rules describing in detail what the Cantor Group, its affiliates, and its TOs may and may not do and the different trading standards applicable to futures and cash Treasury securities trading.

CFFE's proposal is similar to the Board Broker proposal of ACC, an AMEX subsidiary, that the Commission approved in 1989. The Division believes that CFFE's proposed method of establishing an adequate chain of liability for the abuses committed by TOs would be as effective

as the regime the Commission approved for ACC. On ACC the Board Broker would be a member firm of ACC and would, like CFS, be a registered broker-dealer with NASD, but would not be a Commission registrant, as AMEX suggests would be appropriate for CFS as the employer of CFFE's TOs.<sup>139</sup> As discussed above in Section VI.C.3., unlike ACC's Board Broker clerks, CFFE TOs would be registered as floor brokers and would be adequately supervised by two entities that would be liable under the Act for TOs' behavior: (1) CFFE under the agency provision of proposed CFFE Rule 301-A and (2) CFS under Section 2(a)(1)(A)(iii) of the Act as the employer of the TOs. The Division also believes that CFFE has proposed rules that would adequately proscribe all the forms of misconduct of which the TOs and CFFE Traders would be capable. The Division additionally believes that CFFE's proposed rules would adequately prescribe the responsibilities of these parties. Finally, the Division believes that CFFE's submissions describe a proposed self-regulatory program that would ensure that CFFE would adequately enforce those rules.

b. CBT

CBT has made the general comment that it opposes unfair competition gained by discriminatory regulatory treatment, stating that the CFFE contracts would be "copycat contracts" and that CFFE was "seeking a competitive edge over the [CBT] by circumventing regulatory requirements in [its] drive to siphon order flow from [CBT's] Treasury complex." CBT specifically has criticized a number of aspects of CFFE's proposal. These criticisms generally can be grouped into the following four categories: (1) the propriety of permitting the

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<sup>139</sup> Under ACC's Board Broker proposal, the Board Broker, while not a Commission registrant, would have been affiliated with three registered floor brokers. It would also have employed numerous clerks who would not have been registrants and would have had similar duties to those proposed for CFFE's registered TOs.

Cantor Group to select a majority of CFFE's Board of Directors, (2) the alleged non-competitiveness of CFFE's trade execution methodology and resultant market fragmentation considerations, (3) the role of TOs in CFFE's order flow and trade execution processes, and (4) the effectiveness of CFFE's proposed self-regulatory program. CBT also has criticized the Commission's processes during the course of its review of CFFE's application.

i. Regulation 1.63 and the Cantor Group

CBT has contended that Cantor Fitzgerald & Co.'s January 1997 settlement of registration related fraud charges with the Commission triggers Regulation 1.63 and, thus, bars any Cantor Group affiliate from selecting members of CFFE's Board of Directors. As discussed above in Section V.B., the Division does not agree with CBT's interpretation of Regulation 1.63 as barring natural persons affiliated with a disciplined entity from SRO governing board service. As indicated above, the Division believes that Regulation 1.63's bar applies only to natural persons who were themselves individually named as respondents in a disciplinary action.

ii. Open and Competitive Execution of Trades

CBT has stated that it is concerned that CFFE would harm the proven hedging and price discovery functions of its Treasury futures contracts through market fragmentation. It believed that diversion of order flow to CFFE would undermine CBT's ability to provide reliable price discovery and efficient hedging. In this regard, CBT has asserted that CFFE's proposed regular trade-matching algorithm and CFFE's lack of proposed rules prohibiting transitory EFPs effectively would permit or even encourage block trading. This, CBT claimed, would lead to market fragmentation because: (1) CFFE's algorithm would cause delays in price dissemination while trades were worked up during Exclusive Time trading and (2) prices reflected by block trades would not reflect the best prices at which smaller-sized market participants would be

willing to trade. CBT believes that these aspects of CFFE's application raise questions that would be covered by the Commission's current review of noncompetitive transactions executed on or subject to the rules of a contract market<sup>140</sup> and that it would be appropriate for the Commission to suspend its review of the CFFE proposal pending the completion of this separate review.

Since CBT does not articulate the manner in which it is using the term "block trading," the precise import of its comment in this regard is unclear. As discussed in Section VII.D. of this memorandum, the Division believes that the CFFE's trading execution procedures comply with Regulation 1.38's requirement that futures contracts be executed in an open and competitive manner. Similarly, the Division also has indicated that it believes that CFFE's proposed minimum order size requirements and Exclusive Time trading procedures are reasonably intended to encourage liquidity in CFFE trading.

If CBT's comment is intended to raise the issue of the propriety of competing exchanges trading closely-related or duplicative contracts, the Commission has examined this practice on several occasions in the past and has always concluded that such contracts are not inconsistent with the Act or the Commission's regulations. For example, in 1978, the Commission stated that different exchanges' trading the same contract promotes "competition in the development of viable contract terms and conditions."<sup>141</sup> In 1980, the Commission found that "the opportunity for exchanges to list duplicative and related contracts provides the competition which helps keep

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<sup>140</sup> See the Commission's Concept Release on Regulation of Noncompetitive Transactions Executed on or Subject to the Rules of a Contract Market. 63 Fed. Reg. 3708 (January 26, 1998).

<sup>141</sup> See CFTC's "Responses to the Report by the Comptroller General" (July 14, 1978) chapter 3, question 6.

the terms and conditions of existing contracts aligned with commercial practices and effectively serviced by their designated futures exchange. The contract reproduction process is thus the principal mechanism through which competition would be expected to increase the efficiency of financial futures markets.”<sup>142</sup> The Division believes that the Commission’s previous conclusions regarding the designation of competing duplicative or related contracts remain valid.

The Division also does not believe that the fact that CBT’s Treasury futures contracts would be trading at the same time as the CFFE’s contracts raises any issue not already addressed by the Commission in situations where electronic markets and open-outcry markets in the same instrument trade side-by-side, with and without quantity minimums. For instance, the Commission previously has permitted the CME to initiate trading of all-or-none minimum quantity orders in the same contract in which regular trading took place at the same time.<sup>143</sup> Similarly, the Division, acting pursuant to authority delegated by Commission Regulation 1.41a(a)(3), permitted CME to trade its E-Mini S&P 500 futures contract simultaneously by both automated trading and open outcry, depending on the size of the order.<sup>144</sup>

The Division further notes that CBT recently submitted to the Commission, pursuant to Commission Regulation 1.41(c), a proposal to commence daytime trading of certain financial futures products, including the US Treasury bond, ten-year note, five-year note, and two-year note contracts, on the Project A automated trading system concurrent with open outcry trading of

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<sup>142</sup> See “Report to Congress in Response to Section 21 of the Commodity Exchange Act,” Pub L No. 96-276, 96th Congress, 2nd Sess. Section 7, 94 Stat. 542 (June 1, 1980), pp. 77-87.

<sup>143</sup> See April 24, 1996, memorandum from France Maca to the File for a description of CME’s all-or-none procedures.

<sup>144</sup> See August 26, 1997, memorandum from Thomas Smith to the File for a description of the trading of CME’s E-Mini S&P 500 contract.

the same contracts.<sup>145</sup> The Division's review of that proposal has been stayed pending the submission of additional supporting materials by CBT.

iii. The Role of Terminal Operators

CBT commented that CFFE's TOs would engage in activities analogous to those of floor brokers on an open outcry exchange, inasmuch as they would be the only persons permitted to execute orders on CFFE. Based upon this premise, CBT has made the following criticisms of the CFFE proposal: (1) CFS, as the employer of all CFFE TOs, would have a monopoly on floor brokerage services on the Exchange, (2) CFFE's transaction fee would constitute an improper fixed floor brokerage commission fee, (3) CFFE orders would not be executed by or through members of a contract market, (4) TOs should be, yet would not be, subject to the rules and the disciplinary authority of the Exchange, (5) CFS and the TOs should be, yet would not be, required to comply with the Commission's Part 156 Regulations regarding floor broker associations, and (6) TOs should be, yet would not be, required to comply with various recordkeeping requirements of Commission Regulation 1.35.

As stated above in Section VI.C., the Division believes the TOs' duties would be more analogous to those of exchange clerical employees than of floor brokers. TOs would not solicit or accept orders from public customers, nor could their entry of CFFE Traders' instructions properly be construed as floor brokerage. Section 1a(8) of the Act and Commission Regulation 1.3(n) define floor broker as "any person who in [any] place provided by a contract market . . . shall purchase or sell for any other person any commodity for future delivery on or subject to the rules of any contract market." TOs would neither buy nor sell futures contracts for another

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<sup>145</sup> See August 19, 1998, letter from Paul J. Draths, Vice President and Secretary, CBT, to Jean A. Webb, Secretariat, CFTC.

person. On CFFE, like on other electronic systems, orders to buy and sell would be matched by the computer according to the rules of the System's algorithm. The only activities that would characterize brokering that would be carried out by natural persons on CFFE would be performed by CFFE Traders. These persons would decide, based on observation of the market, whether, when, and how an order, by its terms, should be exposed to the market, and it is these persons who would bear sole responsibility to exercise due diligence in making those decisions. By contrast, TOs would have no ability to act in such a manner and would not functionally be floor brokers.

The Division therefore believes that it would be the CFFE Traders, rather than the CFFE TOs, who should properly be considered most analogous to floor brokers. Accordingly, the Division believes that the CBT's above-listed criticisms, each of which is premised on TOs conducting traditional floor brokerage activities, are without merit. So, for instance, the contention that CFS would have a monopoly on CFFE floor brokerage services is inappropriate because TOs, CFS' employees, would not be conducting floor brokerage. Similarly, the CFFE transaction fee would not be an improper floor brokerage commission fee because, in fact, it would not be charged in connection with floor brokerage services. Instead, the transaction fee would be paid to CFS for providing a trading forum (i.e., the Cantor System) and would be most analogous to the transaction fees that all futures exchanges charge for transactions executed on their floors.<sup>146</sup>

The CBT's argument that CFFE orders would not be executed by or through a contract market member, because TOs execute CFFE orders and they are non-members of CFFE, is

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<sup>146</sup> Notably, floor brokerage commission fees at CFFE would be charged and collected independently by CFFE Traders for executing orders at CFFE.

likewise not appropriate to the operation of CFFE. In fact, all CFFE transactions would be executed by or through contract market members because they would be executed by or through CFFE Traders, all of whom would be either CFFE members or CFFE trading privilege holders.<sup>147</sup>

The CBT's argument that TOs should be, but are not, subject to the CFFE's disciplinary authority is similarly inapplicable. During the course of its review, the Division analyzed CFFE's proposed rules and compliance program in the context of CBT's various areas of regulatory concern as they would pertain to CFFE Traders as floor brokers and as they would pertain to TOs as agents of the Exchange. In this regard, the Division believes that CFFE's proposed compliance program and rules providing for CFFE's jurisdiction over CFFE Traders would adequately address the types of misconduct of which CFFE Traders, acting as floor brokers, would be capable. While not acting as floor brokers, TOs would, like many other employees or agents of contract markets, have access to material nonpublic customer information that could be abused. In this regard, the Division has determined that CFFE has provided adequate rules governing the conduct of TOs<sup>148</sup> and that there would be an appropriate chain of

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<sup>147</sup> Section 1a(15) of the Act and Commission Regulation 1.3(q) both define contract market member to include persons or entities with contract market membership or contract market trading privileges.

<sup>148</sup> Proposed CFFE Rules 301-A and 712-A would codify the responsibilities and standards of conduct to which TOs would be held. Under the terms of the TO Agreement that each TO must sign (discussed above in Section VI.C.2.), CFFE or NYCE Compliance staff could summarily deny a TO access to the Cantor System, with or without notice or cause. CBT's comment that TOs would not be subject to disciplinary procedures is, in a sense, accurate, but only to the extent that they would have no right to a hearing under Part 8 of the Commission's Regulations, as would a member of a contract market. The Part 8 procedures exist to protect the due process rights of individuals who have a property interest in their trading rights as members of an exchange. This would clearly not be the case if the CFFE were to terminate the employment of a TO, who only had nominal trading privileges for the sole purpose of becoming subject to the Commission's jurisdiction as a registrant and whose duties would be analogous to those of an exchange

liability in place to safeguard the interests of those who could be injured by the acts, omissions, or failures, intentional or otherwise, that the TOs could commit. CFFE would be liable via its principal-agent relationship with the TOs, and CFS would be liable as the employer of the TOs, for all acts, omissions, or failures the TOs committed within the scope of their employment.

Likewise, CBT's contentions that CFFE TOs need to comply with Regulation 1.35 and the Part 156 Regulations are both premised on TOs fulfilling the role and responsibilities of floor brokers. Again, the Division does not view CFFE TOs as acting as floor brokers but believes that their duties would be most closely analogous to contract market employees. Accordingly, the Division believes that the provisions of Regulation 1.35 and Part 156 that are applicable to floor broker activity are not applicable to CFFE TOs.<sup>149</sup>

iv. Terminal Operator Registration

CBT also has criticized the propriety of the TOs' registration as floor brokers as they would not have "real" trading privileges on a contract market as is required by Commission Regulation 3.11(a)(2).<sup>150</sup> Further, CBT has indicated that CFFE's voluntary registration of the TOs indicates the true nature of the role TOs would have in CFFE trading. As discussed in Section VI. above, the Division believes that TOs do not precisely fit the role for which the floor broker registration category was contemplated by virtue of the fact that they would not be

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clerical employee. Application of these procedures in cases of TO misconduct would afford TOs rights that would limit the ability of CFFE effectively to prevent the abuses of its agents.

<sup>149</sup> Of course, TOs would have recordkeeping responsibilities attendant to the CFFE, as a contract market, fulfilling its responsibilities under Regulation 1.35. See Section IX.B.1. above.

<sup>150</sup> As noted above in Section VI.C.3., under CFFE's proposed rules, TOs would be deemed to have been granted trading privileges by NYBT solely for the purpose of obtaining registration as floor brokers.

engaged in typical “brokering” activities. However, the Division believes that some registration status would be appropriate given the high degree of access TOs would have to material nonpublic information. Registration would provide an additional layer of oversight and jurisdiction over these persons in the form of personal liability under the Act. As there currently is no category of registration more appropriate for an exchange agent, the Division believes the Commission should interpret Regulation 3.11(a)(2) broadly, as is generally appropriate when applying a prophylactic regulation, to permit the registration of the TOs as floor brokers based on the nominal trading privileges they would be granted by NYBT.

CBT has claimed that floor broker registration would not effectively render TOs liable under the Act for certain types of misconduct because several of the Commission’s Regulations are worded such that they would apply only to “member[s] of a contract market acting as . . . floor broker[s].” Section 1a(15) of the Act defines contract market members as “individual[s] . . . holding membership in . . . a contract market or given members’ trading privileges thereon.” The Division believes that the same broad interpretation that should be given to Regulation 3.11(a)(2) to permit CFFE TOs to register as floor brokers should similarly be given to any regulations that pertain to the conduct of contract market members acting as floor brokers so as to include the conduct of TOs registered as floor brokers.

v. CFFE’s Compliance Program

CBT has criticized CFFE’s proposed self-regulatory program in areas including: (1) audit trail, (2) staffing levels, (3) monitoring of the error accounts of Cantor affiliates that would be member firms, (4) physical observation of the CFFE trading rooms, and (5) jurisdiction over Cantor affiliates that would not be member firms.

CBT has claimed that CFFE would have an incomplete audit trail under Section 5a(b) of the Act because the Exchange's single record of transaction data would not include the time a TO received an order from a CFFE Trader or the time the CFFE Trader transmitted instructions to a TO. This, CBT claimed, was because the record of those times only would be contained in the tapes of the TO phone lines and on the order tickets prepared by the Traders. CFFE submissions received by the Commission subsequent to CBT's comments in this regard have addressed this point. As described in Section VI. above, Customer Order TOs would be required to prepare an order sheet bearing a timestamp indicating each time a CFFE Trader transmitted order instructions to them. The Division believes this information would be useful in reconstructing trades as it would confirm whether a TO had received an account identifier for each order before it was entered into the Cantor System for matching. However, the Division does not believe this timing information would amount to data required to be kept as part of the Exchange's single record of each transaction under Regulation 1.35(e), nor would it be necessary to have these data for the purpose of capturing the actual time of each transaction as required by Regulation 1.35(g).<sup>151</sup> This piece of timing information would only represent the time the CFFE Trader began to attempt to fill an order. The Division believes that requiring CFFE to create and retain

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<sup>151</sup> Presumably, CBT's claim that this information is required data stems from their characterization of the TOs as floor brokers and that accordingly their receipt of order instructions from a CFFE Trader would constitute receipt of an order which would necessitate the preparation of an order ticket including the time of the order's receipt. The Division notes, however, that even if this were actually the case, the Commission has previously imposed a duty to prepare an order ticket on a person entering orders into an electronic trading system only upon receipt of an order that could not immediately be entered into the system. While TOs could only receive orders that could be immediately input into the Cantor System, to the extent that account identifiers could not be input until after an order was filled, the Division believes that CFFE's proposed provisions regarding TO order sheet preparation would nonetheless satisfy that requirement.

a record of these data would be analogous to requiring each floor broker on an open outcry exchange to record the time of each announcement of a bid or offer he or she made in a trading pit, whether or not it resulted in the consummation of a trade. These data would not reflect either the time of receipt of an order by a Trader or the execution of a trade, and a requirement that CFFE integrate these data into the Exchange's single record of each trade would amount to a burden that the Commission has not previously imposed on any other contract market.

The Division believes that CBT's various other criticisms of CFFE's proposed compliance program are either without merit or have been addressed by submissions CFFE has made subsequent to the CBT's comments. As discussed above in Section IX., NYCE's level of Compliance staffing has increased pursuant to their merger with CSCE to form NYBT, and at the time of the writing of this memorandum, NYBT is advertising to fill five additional positions in its Compliance department. Also, CFFE has submitted a proposed schedule of physical observation of the trading rooms<sup>152</sup> which the Division believes would be at least as extensive as that conducted on the trading floors of other exchanges. Division staff has examined samples of the TO phone line tapes and believes that they contain sufficiently detailed timing information and are sufficiently audible to be of use in reconstructing trades. The Division also believes that CFFE's proposal to retain these tapes for 120 days is sufficient to ensure their availability for use in any investigation initiated by NYCE Compliance staff into CFFE trading activity. As also discussed in Section IX., the Division has reviewed CFFE's submissions describing NYCE's proposed procedures for monitoring the accounts maintained by Cantor Fitzgerald & Co. and CF

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<sup>152</sup> CFFE has withdrawn from its proposal all reference to the "TO Supervisors" that would have been employed by CFS and instead has represented that NYCE staff would be primarily responsible for all regulatory oversight of the TOs, notwithstanding CFS' continuing joint liability with the Exchange for any TO misconduct.

Account Managers, LLC. for the purpose of error resolution and believes that those procedures would be adequate to detect any abuse of those accounts.

vi. The Commission's Review Process

CBT has criticized various aspects of the Commission's handling of CFFE's application.<sup>153</sup> These criticisms include: (1) the Commission's "rush to approve" CFFE's proposal, (2) insufficient duration of the comment periods to analyze the numerous changes to CFFE's proposal, (3) Division staff's failure to provide a legal analysis of CFFE's proposal for public comment, and (4) the disparate level of scrutiny the Commission has applied to the Cantor System and CBT's Project A. The record of this proposal, as detailed in Section II. above, demonstrates that the CBT's procedural arguments are wholly unfounded. In fact, that record manifests an exceptional opportunity for public comment. Further, the record, including over 330 written questions (with subparts), and this document, which is approximately 130 pages in length, compellingly demonstrate the comprehensive and careful consideration given this proposal.

XIII. Conclusion and Recommendations

Based upon the foregoing, the Division believes that the proposed application of CFFE meets all of the requirements of the Act and the Commission's regulations. Accordingly, the Division recommends that the Commission: (1) approve proposed CFFE By-Law Scope; proposed CFFE By-Law Sections 1-5, 6-27, and 29-40; proposed CFFE Rules 1-24, 26-37, 100-103, 200-202, 300-312, 314-316, 401, 403, 500, 501, 600, 710-714, 716-725, and 820-846;

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<sup>153</sup> Most recently, in a letter dated August 28, 1998, CBT and AMEX, as well as the Chicago Board Options Exchange, the Minneapolis Grain Exchange, and the Kansas City Board of Trade petitioned, among other things, for an opportunity to comment further on CFFE's proposal.

proposed amendments to CCC By-Law Sections 9-B and 20-A and Rules 3, 11 and 12; and proposed amendments to NYCE Consolidated Rules 6.00, 6.04, 6.05, 6.06, 6.09, 8.00, 8.01, 8.04, and 10.01 and Chapter 10 Scope Section pursuant to Section 5a(a)(12)(A) of the Act and (2) issue the attached orders designating the CFFE as a contract market in the US Treasury bond futures contract, the US Treasury ten-year note futures contract, the US Treasury five-year note futures contract, and the US Treasury two-year note futures contract. In making this recommendation, the Division has taken into consideration the Commission's obligations under Section 15 of the Act.

The Division further recommends that the Commission inform the CFFE that its approval of the CFFE's proposal and accompanying rules, rule amendments and other material is based upon the Exchange's explanation of its regular and market-crossing trade-matching algorithms and that any material alterations to those algorithms, including the establishment of Clearing Time trading, must be submitted to the Commission for its review pursuant to Section 5a(a)(12) of the Act.

The Division further recommends that the Commission inform the CFFE that its approval also is based upon other written submissions and explanations provided by the Exchange describing the manner in which the Cantor System will operate. Any material modifications to the operation of the Cantor System (e.g., changes to order entry procedures, clearing procedures, security systems, etc.) must be submitted for Commission review.

The Division also recommends that the Commission inform the CFFE that, based upon the employer-employee relationship between CFS and CFFE's TOs, the Commission believes that the acts, omissions, or failures of CFFE's TOs are required to be deemed the acts, omissions, or failures of CFS, under Section 2(a)(1)(A)(iii) of the Act and that the Exchange's principal-

agent relationship with CFFE's TOs does not in any way diminish the application of that provision to CFS.