Rule Enforcement Review of the Cantor Financial Futures Exchange

Division of Trading and Markets

March 9, 2001
# TABLE OF CONTENTS

I. INTRODUCTION: PURPOSE AND SCOPE .......................................................1

II. BACKGROUND .........................................................................................2
   A. Exchange Overview ...........................................................................2
   B. Market Participants .........................................................................3
   C. Order Placement .............................................................................4
   D. Trade-Matching Algorithm ..............................................................7
      1. Price And Time Priority ..............................................................7
      2. Concepts Underpinning Algorithm .............................................8

III. MARKET SURVEILLANCE ......................................................................10
   A. Market Surveillance Procedures .....................................................10
      1. Price Movements And Spreads ..................................................10
      2. Settlement Prices .......................................................................11
      3. Volume And Open Interest .........................................................12
      4. Exchange Of Futures For Physicals ............................................13
   B. Conclusions and Recommendations ..............................................13

IV. AUDIT TRAIL AND RECORDKEEPING ..............................................14
   A. Trade Data and Recordkeeping ......................................................14
   B. Conclusions and Recommendations ..............................................16

V. TRADE PRACTICE SURVEILLANCE .................................................16
   A. Surveillance ..................................................................................16
   B. Investigations ..............................................................................17
   C. Conclusions and Recommendations ............................................20

VI. DISCIPLINARY PROGRAM ...................................................................21
RULE ENFORCEMENT REVIEW
OF THE
CANTOR FINANCIAL FUTURES EXCHANGE

I.  INTRODUCTION:  PURPOSE AND SCOPE

The Division of Trading and Markets (“Division”) has completed a rule enforcement review of the market and trade practice surveillance, audit trail, and disciplinary programs of the Cantor Financial Futures Exchange (“CX” or “Exchange”) for compliance with Sections 5a(a)(8) and 5a(b) of the Commodity Exchange Act (“Act”) and Commission Regulation 1.51. CX operates via a screen-based trading system. This is the Division’s first review of CX since the Exchange was designated by the Commission as a contract market on September 4, 1998. The review covers the period of September 1, 1999, through August 31, 2000 (the “target period”).

In conducting its review, Division staff examined Exchange documents that included, among others, computer reports and other documentation used in conducting market and

---

1 On December 22, 2000, the President signed into law the Commodity Futures Modernization Act of 2000 (“CFMA”). The CFMA amends the Act and creates a new, flexible structure for regulation of futures trading. Among other things, the CFMA provides for a tiered regulatory structure that is tailored to the specific products and participants of a given market, taking into account the manipulability of the products and eligibility of the participants. Under this framework, the Division will review the regulatory compliance programs of contract markets for adherence to core principles rather than to prescriptive regulations. The core principles applicable to contract markets such as CX relate, among other things, to compliance with rules, monitoring of trading, position limitations or accountability, execution of transactions, recordkeeping, and protection of market participants. Since the target period for this rule enforcement review concluded prior to enactment of the CFMA, the Division has conducted this review based on the requirements of the Act and Commission regulations existing during the target period, rather than on the basis of the new legislation.

2 Rule enforcement reviews prepared by the Division are intended to present an analysis of an exchange’s compliance capabilities for the period under review. Such reviews focus only on programs directly addressed in the review and do not assess all programs. The Division’s analyses, conclusions, and recommendations are based, in large part, upon the Division’s evaluation of a sample of investigatory cases and other exchange documents. This evaluation process, in some instances, identifies specific deficiencies in particular exchange investigations or methods but is not designed to uncover all instances in which an exchange does not address effectively all exchange rule violations or other deficiencies. Neither is such a review intended to go beyond the quality of the exchange’s self-regulatory systems to include direct surveillance of the market, although some direct testing is performed as a measure of quality control.
trade practice surveillance; trade practice investigation files; minutes of CX Board of Directors meetings; the operating manual for CX’s electronic trading system; and CX’s rule book. In addition, Division staff interviewed the CX Managing Director, and officials of the Market Regulation Department of the Board of Trade of the City of New York (“NYBOT”), including the Vice President, Market Surveillance. NYBOT’s subsidiary, the New York Cotton Exchange (“NYCE”), is responsible for CX’s regulatory compliance operations on a contract basis.

The Division gave CX an opportunity to review and comment on a draft of this report on February 8, 2001. On March 1, 2001, Division staff conducted an exit conference with CX staff to discuss the report’s findings.

II. BACKGROUND

A. Exchange Overview

CX was the first entirely electronic exchange designated by the Commission as a contract market. The Commission approved CX as a contract market for the U.S. Treasury Bond, Ten-Year Note, Five-Year Note, and Two-Year Note futures contracts. During its first year of operation, from September 1998 through August 1999, CX traded a total volume of 288,090 contracts, for an average monthly volume of 24,008 contracts. From September 1999 through August 2000, the target period, CX traded a total volume of 410,632 contracts, for an average monthly volume of 34,219 contracts. Most of CX’s volume takes place in Ten-Year Note and Five-Year Note futures contracts.

CX is wholly-owned by the NYCE Division of NYBOT and its members through CFFE Regulatory Services, L.L.C., which acts as a holding company for the Exchange. NYCE holds a ten percent equity interest; its members collectively hold a ninety percent equity interest.

3 The transcript of the interview can be found in Appendix A.
4 NYCE holds a ten percent equity interest; its members collectively hold a ninety percent equity interest.
operated by eSpeed Inc. ("eSpeed"), an affiliate of Cantor Fitzgerald, L.P. ("Cantor Fitzgerald"). However, neither Cantor Fitzgerald nor any of its subsidiaries (collectively, the “Cantor Group”) have any equity interest in CX.

Under the terms of a contract between eSpeed and NYCE, all CX trades are cleared by NYBOT’s New York Clearing Corporation ("NYCC"). In addition, NYCE has contracted to provide all of CX’s regulatory services, including compliance, surveillance, arbitration, and disciplinary programs.

The “eSpeed System” is the automated trading system through which all CX trades are processed electronically. The eSpeed System is the same system used for interdealer-broker trading in U.S. Treasury securities by Cantor Fitzgerald Securities ("CFS"), a Cantor Fitzgerald subsidiary, which is the largest-volume interdealer-broker in the U.S. Treasury securities market. eSpeed monitors the functioning of all components of the eSpeed System network 24 hours per day, seven days per week, from its operations control center in its New York office. eSpeed maintains more than 400 servers world-wide, and has three main data centers located in New York, New Jersey, and London, plus a smaller data center in Tokyo.\(^5\) The network has triple redundancy, and if the primary computer system crashes, within six seconds the network can switch to a complete back-up computer system.

**B. Market Participants**

Trading on CX is limited to persons or entities qualified as Authorized Traders, including Associate Members, Clearing Members, Screen-Based Traders, foreign Screen-Based Traders,

---

\(^5\) As explained below in footnote 7, CX operates a terminal operator facility in London.
and their associated persons (collectively, “ATs”) under CX rules.\(^6\) CX requires all non-clearing member ATs to be guaranteed by a clearing member of NYCC. Approximately 1,500 ATs are approved to trade on CX. On average, approximately 15 ATs participate in trading during a typical CX trading day.

C. Order Placement

ATs can place orders, whether for their own or for their customers’ accounts, by two different methods: (1) by a telephone call to a CX terminal operator (“TO”), or (2) by direct electronic access. Both methods allow an AT to place orders of all common order types, including market, market-if-touched, limit, stop, and stop limit orders.

At CX’s inception, ATs could place orders only by telephoning a TO located at the CX facility in New York City.\(^7\) When a TO receives a telephone order from an AT, the TO promptly enters the trade information into the eSpeed System for matching. Under CX rules, TOs must act in a strictly ministerial capacity, and cannot exercise any discretion as to the handling of any order, maintain any kind of “order book” listing orders for later input on stated contingencies, or offer any trading advice to any AT.\(^8\) All TOs are employed by CFS and serve as agents of CX.\(^9\)

---

\(^6\) An AT must be a Commission registrant, a NYBOT seat holder, or an employee of a CX clearing member or affiliate, or, in lieu of inclusion in one of these categories, must be an Associate Member of CX. Each AT also must execute an agreement consenting to be subject to NYBOT regulatory jurisdiction.

\(^7\) On July 2, 1999, the Commission approved CX rule amendments allowing CX to operate a TO facility in London for processing orders transmitted by foreign members of the Exchange. TOs at this facility are subject to the same regulatory requirements as TOs at the Exchange’s U.S. facilities: (1) they must be both employees and agents of CX; (2) they must be registered with the Commission through the National Futures Association as floor brokers; and (3) they must sign the Exchange’s “TO Agreement” submitting themselves to NYBOT regulatory jurisdiction and the By-Laws and Rules of CX. London TOs also must agree to be bound by the Act and the Commission’s regulations; to make available to the Commission on request any information in their possession relating to futures trading on CX; to consent to personal jurisdiction in the U.S.; to designate the Exchange as their U.S. agent for service of process; and not to raise any objection to jurisdiction in any action brought by the Commission in a U.S. federal or state court. All orders entered through the London facility are matched on the eSpeed System hardware located at the Exchange’s New York facility, and are recorded in the single CX electronic trade register maintained there. Regulatory oversight of orders from the London facility is performed by NYBOT staff. To date, there has been very little trading through the London facility.

\(^8\) See CX Rule 712(a).
CX bars each TO from entering trades for any account in which he or she has an interest or over which he or she has any discretionary authority, and from having an interest in any account for which trades are executed at CX.

In March 1999, CX amended its rules to permit ATs to enter orders into the eSpeed System through direct electronic access terminals.\(^9\) CX refers to ATs who have electronic access as direct access traders (“DATs”). The distinction between a DAT and other ATs is that the DAT has direct electronic access. Notably, approximately 98 percent of CX orders are now entered into the eSpeed System by direct access, rather than through TOs.

DATs can access the eSpeed System through a proprietary front-end application or through any computer program capable of communicating with the eSpeed System through an Application Programming Interface. DATs can communicate with the eSpeed System over the CX network, which gives users 300 millisecond response time from anywhere in the world, or over the Internet.

To access the eSpeed System, a DAT must log in at a direct access terminal with his or her own user identification number and password.\(^11\) The system links each individual user identification number to a code known as a “page number,” which identifies the CX member with whom the DAT logging in is associated. The eSpeed System includes this page number in each entry of keystrokes made by the DAT who has logged in, and displays the page number on

---

\(^9\) Under CX Rule 301-A(b), TOs are considered agents of CX for purposes of Section 2(a)(1)(A)(iii) of the Act.

\(^10\) ATs eligible to trade by electronic access include: (1) CX clearing members and affiliates; (2) full NYBOT member firms; (3) market makers (ATs appointed by the Exchange to perform market making functions in return for exemption from Exchange transaction fees); and (4) Class B members of CFEE Regulatory Services (full members of NYCE or of the Coffee, Sugar & Cocoa Exchange, Inc. Division of NYBOT).

\(^11\) CX Rule 301-C requires each CX member firm to designate one or more ATs employed by it as users of each particular direct access terminal it owns. During the login procedure, the eSpeed System verifies, by means of the user identification number and password entered, that the individual user logging in is authorized to use that particular terminal.
the system’s Trade Server Application ("TSA") for surveillance purposes.12 This enables NYBOT staff to identify the CX member owning the terminal on which each entry is made. TSA does not display the identity of the individual making the entry, or the identity of the particular terminal being used. However, eSpeed System data available to eSpeed operations staff can identify both the particular terminal from which any entry was made and the individual user logged on to that terminal when the entry was made. Each CX member is responsible for all entries into the system made from any of its terminals and for policing access to its own terminals.13

The information displayed by the eSpeed System to DATs is identical to the information displayed on TO terminals, except that the direct access interface does not disclose to DATs the identity of other market participants. All DATs receive information of uniform nature and quantity, although each DAT can configure his or her own trading screen to display the available information in customized formats.

During the target period, and indeed since its inception, CX has had no retail customer business, as that term is commonly understood. The only AT which has placed an order for a non-proprietary account is Cantor Fitzgerald & Company ("CF&Co.")", an FCM which is a Cantor Group subsidiary. CF&Co. is the only entity in the Cantor Group which CX’s rules allow

---

12 TSA capabilities are discussed below in Section V.A.

13 CX Rule 301-C. Erroneous entries resulting in mistrades are handled under CX’s error trade policy. If an AT or clearing member notifies the CX Error Committee within ten minutes of a trade’s execution that the trade involves an error, any of the Committee’s three members can void the trade if it is priced more than five “ticks” off the current market price. CX maintains a telephone hot-line and paging system to enable immediate notification of the Error Committee in such circumstances. An Error Committee decision to void a trade must be made within 15 minutes of receipt of notice of an error. According to NYBOT staff, error trade issues arise at CX infrequently. As of the end of the target period, all such issues had been resolved by agreement of the trading parties involved, without need for Error Committee action. Voided trades are not erased from the eSpeed System keystroke log, but remain in the system as “challenged” trades although they are not cleared or included in the Exchange’s volume.
to execute non-proprietary orders on behalf of customers.\textsuperscript{14} Under the terms of the Commission’s designation of CX as a contract market, CF&Co., with the exception of its liquidity products division, is barred from executing any proprietary trades on CX, and only can trade on behalf of its customers.\textsuperscript{15} The only customers for whom CF&Co. has placed orders are ATs who have given CF&Co. authority to trade their proprietary accounts.\textsuperscript{16}

CX permits DATs who are clearing members to provide their customers with the ability to place orders electronically through the Internet or by some other automated means. When such an order comes to a DAT over its electronic order routing system, the order must pass through a screening process that applies credit and position limits set by the clearing member for the account involved prior to order transmittal through the DAT’s interface to the eSpeed System.

D. Trade-Matching Algorithm

1. Price And Time Priority

The eSpeed System’s trade matching algorithm matches eligible orders continuously throughout the 23-hour CX trading day, which extends from 6:30 p.m. to 5:30 p.m., New York time, Sunday through Friday.\textsuperscript{17} Like other automated trading systems previously approved by the Commission, the CX algorithm permits trading on a price and time priority basis. Unlike other approved systems, however, CX’s algorithm provides participants who are earliest in\footnotesize{\textsuperscript{14} CX Rule 712(b).\textsuperscript{15} Proprietary trading by eSpeed’s affiliates is conducted pursuant to the procedures and criteria governing proprietary trading set forth in CX Rule 712, which was reviewed and approved by the Commission as set forth in a letter to NYBOT from the Division dated March 2, 2000. Under this approval, a separate liquidity products division of CF&Co. conducts proprietary trading, but does not trade on behalf of customers.\textsuperscript{16} These ATs could trade for themselves, but gave CF&Co. authority to trade on their behalf so that they would not have to monitor CX trading on a full-time basis.}
posting a best market bid or offer with certain priority rights to respond to subsequent counter offers or bids for limited periods of time. These “exclusive time” trading periods, described in more detail below, are intended to create an incentive for participants to place orders at attractive prices and to provide liquidity.

An AT viewing the eSpeed System sees the best bid and best offer for each contract traded, plus the order queue and the AT’s own position, if any, in that queue. An AT entering orders by telephone contact with a TO receives from the TO the same information seen by DATs. Regardless of the method of access used, an AT does not know the identity of other market participants. When an AT enters a bid or an offer, whether by direct electronic access or by telephoning the bid or offer to a TO for entry, that bid or offer is seen simultaneously on the screens of all eSpeed System users. When another AT hits that bid or lifts that offer, whether by direct access or through a TO, the bid and offer are matched and all eSpeed System users see the match.

2. Concepts Underpinning Algorithm

Three basic concepts underpin CX’s regular trade matching algorithm. First, at any given time the eSpeed System makes eligible for trading only orders that are at the best bid or best offer price for a specified minimum number of contracts. When the eSpeed System has multiple

---

17 The one hour in 24 during which no trading occurs is required in order to refresh the computer system. For settlement purposes, the CX trading day begins with the commencement of trading at 3:00:01 p.m. and ends with the close of trading at 3:00:00 p.m. the following business day.

18 The eSpeed System will not accept an order for trading unless it is keypunched with complete information including the full terms of the order; the identification codes for the AT and, if applicable, the TO; and the account identifier for the customer involved. However, account identifiers for orders from other participants are not displayed on direct access terminals. TOs see account identifiers for the orders displayed on the TO terminals, but are prohibited by CX Rule 712(b) from disclosing to any AT the identity of any other market participants. Thus, all CX market participants remain anonymous to one another.

19 Within one to one-and-one-half seconds following the match, the eSpeed System also transmits the trade electronically through the Exchange’s Trade Server Application to the Trade Input Processing System (“TIPS”) at NYCC for clearing. Clearing members can download TIPS clearing information regarding cleared trades every five minutes during the trading day, and must accept or reject each trade within 30 minutes of its posting on TIPS.
resting orders at a particular best bid or offer price, the algorithm ranks them in the sequence in which they were entered, and gives first best bid or first best offer status to the first bid or offer entered at that price. Orders not at the current best bid or offer price are retained in the queue of resting orders.

Second, the eSpeed System does not automatically match bids and offers resting in the system at the same price. Instead, it executes resting orders only when a market participant assumes the active role of a buyer or seller by “hitting” a displayed bid or “lifting” a displayed offer. CX refers to buyers who assume these active roles as “aggressors.” Aggressors pay a CX transaction fee for executed trades, while counterparts whose resting bids or offers were hit or lifted do not.

Third, CX’s algorithm provides an “exclusive time” trading period during which two parties gain the right to trade exclusively with each other at the then prevailing best bid or best offer price. The algorithm gives this right to market participants who entered their best bids or best offers earliest, and aggressors who, by hitting or lifting a current best bid or offer, have shown a willingness to trade actively and to pay transaction fees. When an aggressor hits or lifts the entire stated quantity of the best resting bid or offer side of the market, the aggressor and the counterparty, who is the current first best bidder or first best offeror, receive an opportunity to sell or buy more contracts at the best bid or offer price, during a short exclusive time trading period. This period consists of six seconds or less during which the aggressor can offer to sell or buy more contracts, and six seconds or less during which the counterparty can accept this offer. If the offer is accepted, additional six-second periods are awarded, until one side declines further trades at the best bid or offer price involved.²⁰

²⁰ CX has varied the exact duration of the exclusive time period as its markets have developed. However, the exclusive time period has never exceeded six-second increments for each participant. While CX does not track
During the exclusive time trading period, no other market participants can trade in the contract involved. However, the eSpeed System will accept bids and offers during the period at the same price at which the two exclusive time counterparties are trading. At the conclusion of the exclusive time period, any such joining bids or offers that are resting in the system are immediately matched with each other according to their time priority, at the same price as the preceding exclusive time trade. Any joining bids or offers left unmatched after this procedure remain in the eSpeed System and become eligible for matching.

III. MARKET SURVEILLANCE

A. Market Surveillance Procedures

Market and trade practice surveillance of CX are conducted principally by two NYBOT Market Regulation Department staff members: the Vice President, Market Surveillance, and a Compliance Investigator. The Vice President, Market Surveillance, who supervises the Compliance Investigator, reports to NYBOT’s Senior Vice President, Market Regulation. 21

1. Price Movements And Spreads

In order to detect potential market congestion and price distortions, NYBOT staff monitor price movements and spread relationships daily, by conducting real-time observation of trading through TSA, and by reviewing print-outs of eSpeed System data and various price charts. 22 For all contracts traded on CX, NYBOT staff review daily and historical price changes dating back to the expiration of the preceding contract, as well as spread differentials between

---

21 The Vice President, Market Surveillance has more than 20 years of regulatory experience in compliance and market surveillance. The Compliance Investigator has more than two years of regulatory experience in compliance and market surveillance.

22 NYBOT staff’s ability to monitor CX trading in real time is discussed below in Section V.A.
the nearby month and each deferred month. NYBOT staff also track Chicago Board of Trade ("CBT") price movements for Five-Year and Ten-Year U.S. Treasury Bond futures, in order to note any price differences with CX products. Although most differences are quickly eliminated by arbitrage trading and cash basis trading between the two markets, under established procedures NYBOT staff would review all significant price differences, particularly with respect to the expiring month. NYBOT staff would then determine possible causes and assess potential impact on CX markets. According to NYBOT staff, no significant price discrepancies occurred during the target period.

2. Settlement Prices

NYBOT staff monitor settlement prices of all contracts traded on CX each day, observing CX trading near the close in real time through TSA. Settlement prices are based on trades occurring at the close or, in the absence of such trades, on the midpoint between bids and offers existing at the close. Because several CX contracts are traded in higher volume on CBT, NYBOT staff also monitor CBT’s settlement prices, which are set a short time after the CX close. Arbitrage and cash basis trading usually eliminate price differences with respect to the same contracts between CX and CBT. When they do not, the CX Contracts Committee, which includes NYBOT staff and CX officials, may adjust a CX settlement price if the CBT settlement price indicates that a particular CX trade, bid, or offer may have unduly skewed the CX settlement price.\(^{23}\) During the target period, the committee adjusted CX settlement prices in a few instances because they differed by more than one tick from CBT settlement prices and were supported by greater volume on CBT.

\(^{23}\) The Contracts Committee oversees CX settlement prices pursuant to CX Rule 314. None of the members of the committee are permitted to trade on CX.
3. Volume And Open Interest

NYBOT staff also review daily CX volume and open interest data reported in the Exchange’s Volume and Open Interest Report. This report details daily volume by clearing member for each contract, as well as the volume for exchange of futures for physicals (“EFP”) transactions. The report also indicates gross long and short positions for all clearing members in all months, as well as any open position changes greater than the clearing member’s daily volume. NYBOT staff analyze any significant changes in open interest to determine whether the change could have resulted from inaccurate reporting by one or more clearing members.

During the target period, NYBOT staff opened three investigations based on misreporting of open interest.24 These investigations disclosed isolated clerical errors in open interest reporting by three firms with no history of such violations. In each case, NYCC immediately sent a notice to the clearing member requesting an explanation. The clerical errors involved small numbers of contracts and were quickly corrected. No market harm or disruption resulted.

NYBOT staff also monitor relevant data in order to detect potential concentrations that could disrupt the market. Whenever surveillance reveals sizable or unusual trades, NYBOT staff immediately request information on whether positions involved have risen to reportable levels. NYBOT staff also review daily NYCC data on clearing members’ open positions in all contracts for each contract month. Whenever this information warrants further inquiry, NYBOT staff contact relevant clearing members to obtain the identity and positions of all traders represented in the clearing members’ data. During the target period, a few traders had reportable positions, but none had positions large enough to reach speculative position limits.

24 These investigations are discussed more fully below in Section V.B.
4. Exchange Of Futures For Physicals

During the target period, there were a total of 61 EFPs transacted on CX involving a total of 11,991 contracts. NYBOT staff routinely review each EFP. In this connection, NYBOT staff conduct on-screen, real-time review of the transaction information entered into the system when the transaction is made, which includes the identity of the account and clearing member. Staff also examine the futures order ticket, documentation of the cash transaction, and copies of the customers’ confirmation statements, which they receive a short time after the EFP is posted to the system. During this review, NYBOT staff verify that the transaction involves separate parties.

Further investigation would be triggered if staff noted an EFP in which both sides were for the same account number, an unusually large EFP, an EFP priced outside the daily trading range, or an EFP that involved more than two parties. According to NYBOT staff, there were no EFPs that warranted investigation following the initial review of documents.

B. Conclusions and Recommendations

The Division found that NYBOT, with respect to CX contracts, maintains an adequate market surveillance program. NYBOT staff monitor CX price changes, settlement prices, spreads, volume and open interest. NYBOT staff also conduct surveillance on a real-time, as well as post-trade, basis, which should provide for immediacy in recognizing market problems. The Division has no recommendations in this area at this time.

25 An EFP is a futures and cash commodity transaction involving a transfer of ownership of the cash commodity between the parties, where the seller of the futures position is the buyer of the cash position and the buyer of the futures position is the seller of the cash position. Most of the EFPs transacted at CX during the target period were “basis trades” in which commercials attempt to arbitrage the cash basis, i.e., the difference between the cash and futures prices, on CBT and CX contracts.
IV. Audit Trail And Recordkeeping

A. Trade Data and Recordkeeping

The eSpeed System automatically records both the time, to the nearest second, and the sequence of every keystroke entered into the system.\(^{26}\) This electronically-recorded data gives the Exchange a complete audit trail that includes all of the details of every trade. The time of each trade recorded by the eSpeed System is unalterable. No keystrokes can subsequently be erased from the eSpeed System’s keystroke record. Further, no alteration of any order or trade information input into the eSpeed System can be made without a complete keystroke record of the change, including the log-in identifier of the eSpeed System user making the alteration. CX maintains the entire keystroke record on read-only optical disks for a five-year period, and makes it available to NYBOT staff continuously on a real-time basis, as well as by review of the optical disks and print-outs of any requested portions.\(^{27}\)

CX also records all telephone conversations of its TOs, including the London TO. The telephone recording system automatically and continuously logs the exact time in one-second increments during the course of all calls. CX retains the tapes of these conversations for a minimum of 120 days. NYBOT staff have the ability to monitor TO telephone conversations in

---

\(^{26}\) The eSpeed System can distinguish fractions of a second. The keystroke log, discussed below, records keystrokes by hour, minute, and second, and lists all keystrokes occurring within the same second in their precise sequence of occurrence. The eSpeed System never records two keystrokes as simultaneous.

\(^{27}\) Keystroke information is maintained in a single electronic record. This record is viewable by NYBOT staff in real time through the eSpeed System’s Trade Server Application. It also can be viewed through two separate logs. The Data Entry Transaction Log lists the exact time to the nearest second of each keystroke entered into the system, and thus contains full information on every bid or offer entered into the system, including trade date, commodity, delivery month, action (bid, hit, offer, lift, or cancel), quantity, price, clearing member, account identifier, AT identification code, and TO identification code (where applicable). A copy of an excerpt from the Data Entry Transaction Log, containing all keystroke entries for a single trading day, can be found in Appendix B. The Changes to Executed Transactions Log contains the record of each change made to any aspect of a completed trade.
real time on a random basis and conduct physical observation of TOs in CX’s New York trading room. NYBOT staff also have full access to the recordings of TO telephone conversations.

In addition to maintaining the keystroke log as a complete record of all trades, CX requires ATs to prepare and timestamp an order ticket for every customer order promptly upon receipt. Because CF&Co. is the only AT which has placed a customer order at CX, and the CF&Co. customers involved in all such orders have been other ATs, no order ticket has involved an order by a traditional retail customer. NYBOT staff receive CF&Co. order tickets on a bi-weekly basis and review all of the order tickets as they are submitted. During the target period, NYBOT staff found a few order tickets which were not completely clear or which lacked some required terms. Most of these instances involved new CF&Co. personnel. NYBOT staff addressed these problems through contact with CF&Co. and the CF&Co. personnel involved. According to NYBOT staff, all such matters were resolved satisfactorily through such contact.

Because the eSpeed System originally was not designed for input of account identifiers, CX’s original rules also required TOs, then the only persons allowed to enter data into the eSpeed System, to record on a timestamped order sheet or “blotter” the account identifier for and the details of each order they entered into the eSpeed System. These blotters, which differ from order tickets, were reviewed by NYBOT staff. Because the eSpeed System now

28 Currently, only one TO has any telephone conversations, which involve a single AT who still prefers telephone contact with a TO over direct electronic access. NYBOT staff monitor most of these conversations as they occur. During the first few months of CX’s existence, when all transactions were entered into the eSpeed System through TOs, greater numbers of TO telephone conversations required monitoring. At that time, NYBOT staff listened regularly to conversations of TOs who were receiving the greatest number of telephone calls, as well as to conversations of TOs chosen at random.

29 When CX began operation, orders not immediately executable at the prevailing market price could not be entered into the eSpeed System. Consequently, CX rules originally provided that when a customer order not executable when received by an AT became executable, the AT was required to timestamp the order ticket again when transmitting the order to the eSpeed System. This provision was repealed as obsolete once the eSpeed System became capable of accepting entry of resting and contingent orders.
accepts account identifiers, CX no longer requires TOs to fill out order sheets. However, a few TOs and ATs continue to use blotters in practice, because such use is common practice in the cash markets.

**B. Conclusions and Recommendations**

The Division found that CX satisfies the audit trail and recordkeeping requirements of the Act and Commission regulations. In this connection, NYBOT has adequate procedures in place for reviewing and enforcing compliance with the applicable CX requirements. CX itself maintains a complete electronic record of all details of every trade, and records all TO telephone conversations. CX also requires ATs to prepare and timestamp an order ticket for every customer order promptly upon receipt, and NYBOT staff conducts regular reviews of these order tickets. The Division has no recommendations in this area at this time.

**V. Trade Practice Surveillance**

**A. Surveillance**

During the target period, both the NYBOT Vice President, Market Surveillance and the Compliance Investigator spent approximately 60 percent of their time on CX matters and 40 percent of their time on NYBOT compliance work. Both individuals spend additional time at CX if market conditions so warrant. Additional NYBOT staff also will assist with CX surveillance when necessary.

NYBOT staff conduct trade practice surveillance of CX from a monitoring room at CX’s New York facility, using TSA. As stated earlier, TSA enables NYBOT staff to conduct real-time observation of all CX trading activity. TSA in effect combines CX’s trade register, daily brokerage recap, and time and sales records. TSA also has the capacity to “scroll” backward in
time through up to one year of trading activity. Because NYBOT staff review virtually all trading activity at CX on a real-time basis, they do not maintain surveillance logs, nor do they conduct programmed reviews of exception reports. Further, because CX has no retail customers, NYBOT staff do not maintain specific trading ahead or other dual trading investigative programs.

B. Investigations

Whenever NYBOT staff note questionable activity that suggests a possible trading abuse, they initiate an informal review. An informal review involves verbal contact with the ATs and clearing members involved in the questionable activity for information and explanations. If an informal review discloses that rules may have been violated, a formal investigation is initiated. For each formal investigation, an investigation file is opened, witnesses are interviewed, documents are gathered and reviewed, and an investigation memorandum is prepared.

During the target period, NYBOT staff initiated a total of five formal investigations. All five investigations resulted from trade practice and market surveillance. CX received no customer complaints or Commission referrals during the target period. One investigation involved possible pre-arranged trading, one involved possible wash trading, and the remaining three investigations involved possible misreporting of open interest.

At the conclusion of the target period, one open interest misreporting investigation, which had been open for approximately two months, had been closed. In three of the four investigations which remained open, all substantive work had been completed and the only remaining action needed was administrative closure of the file. These included the wash trading

---

30 TSA can also review all CX trading data from the inception of the Exchange by searching the CD-ROM disks on which the required data is stored.

31 Investigation No. 4.
investigation, which had been open for approximately two months; the pre-arranged trading investigation, which had been open for approximately four months; and an open interest reporting investigation, which had been open for approximately 11 months. The third open interest reporting investigation, which had not yet been completed, had been open for approximately two months.

The pre-arranged trading investigation resulted from NYBOT staff observation of CF&Co. trading activity in the U.S. Treasury Ten-Year Note futures contract. In an instance when CF&Co.’s trading desk was entering equal but opposite orders on behalf of two CF&Co. customers, one CF&Co. broker had hit the other CF&Co. broker’s bid and sold contracts to the other broker without first posting the offer to the CX screen. Responding to a bid by hitting it is normal and proper on CX in most circumstances, since, as noted above, the eSpeed System executes trades only when one party becomes an aggressor by hitting a bid or lifting an offer. However, this particular trade was the first, and thus far the only, cross-trade at the Exchange, and the Exchange had no rules or guidelines in place addressing any required time lag between entering such transactions.

The investigation report concluded that in the context of a cross trade executed by a single trading desk, hitting a bid without first posting the offer could be viewed as making a prearranged trade, and thus as conduct detrimental to the Exchange. However, the investigation report noted that CX had no specific rule or guideline addressing cross-trades, and that hitting a

---

32 Investigations Nos. 5, 2, and 1, respectively.
33 Investigation No. 3.
34 The CF&Co. trading desk had received both (a) a customer order to buy 300 June 2000 Ten-Year Treasury Note Futures Contracts (the “Contracts”) on CX and sell 300 Contracts on CBT at even or better, and (b) a customer order to sell 250 Contracts on CX and buy 250 Contracts on CBT at even or better. After selling 250 Contracts and buying 250 Contracts on CBT at the same price, the CF&Co. trading desk entered a bid to buy 250 Contracts on CX at that price, and then hit this bid and sold 250 Contracts at the same price.
bid was normally a proper action for an AT. The report also concluded that in this particular
circumstance, no market harm or customer harm had resulted. NYBOT staff therefore
recommended that the CF&Co. brokers involved not be charged, and that the Exchange amend
its rules to address the crossing of offsetting orders handled by a single trading desk. NYBOT
staff also recommended that a letter be issued to CF&Co. advising it that both sides of a trade
should be posted on the eSpeed System prior to execution of a cross trade, to allow a proper
opportunity for participation by others. CX currently is in the process of preparing the
recommended new rule.

The wash trading investigation involved ten instances during a two-month period when
the CF&Co. trading desk held multiple orders from a single customer who was attempting an
arbitrage by buying and selling the same futures on CX and CBT, respectively, and then
liquidating the resulting position. The orders attracted NYBOT staff attention principally
because each order ticket recorded the terms as “net scratch,” i.e., at the same price, which by
itself could have indicated wash trades. However, the investigation concluded that the order
terms should have been recorded as “net scratch or better” pursuant to the customer’s actual
instructions, indicating the possibility of receiving different prices on the trades. In addition,
copies of the orders indicated that they were entered at different times, several seconds apart.
Finally, the investigation revealed that the customer had profited on some trades and lost on
others, although making an overall profit. NYBOT staff therefore recommended that the
investigation be closed.

As stated earlier, the three open interest reporting investigations involved small-quantity,
one-time open interest reporting errors by three different firms, none of which had a history of
such violations. Each firm responded to a notice generated by NYCC with a written explanation
stating that the misreporting had resulted from a clerical error. After reviewing these explanations, NYBOT staff recommended in each investigation that the Exchange issue a warning letter and close the investigation without disciplinary action. Based on the information in the investigative files involved, the Division believes these decisions were appropriate.

The Division notes, however, that one of these three investigations had been open for 11 months and remained open at the conclusion of the target period.\textsuperscript{35} The Division also notes that the NYBOT staff recommendation for closing this investigation with a warning letter came seven months after the firm involved provided its written explanation of the clerical error. It appears unnecessary for this investigation to have remained open for 11 months, or for it to have remained open for three months after the staff recommendation to close the matter. Given the low number of trade practice investigations opened during the target period, NYBOT staff should be able to review and close all investigations in a more timely manner.

\textbf{C. Conclusions and Recommendations}

The Division found that CX maintains an adequate trade practice surveillance program. The complete and precisely timed record of all keystrokes entered into the eSpeed System, coupled with NYBOT’s computer surveillance of all trading activity on a real-time basis, give NYBOT staff effective tools for detecting and deterring trading abuses. In general, NYBOT staff conducted thorough, well-documented investigations and made appropriate analyses. NYBOT staff completed most CX investigations in an acceptably timely manner, although it allowed one investigation to remain open for an apparently unnecessary length of time after all substantive work had been completed and only administrative closure of the file remained to be done. The Division has no formal recommendations in this area at this time, although it suggests

\textsuperscript{35} Investigation No. 1.
that NYBOT staff give attention to completing administrative review and closure of CX investigations in a timely manner once substantive work is completed.

VI. DISCIPLINARY PROGRAM

As part of the regulatory compliance services provided to CX by NYBOT under the contract for such services referred to above, CX disciplinary matters are handled by the NYBOT Business Conduct Committee, Supervisory Committee, and NYCE Division Board of Managers. During the target period, there were no CX investigations considered for disciplinary action by these bodies. Given that there were no matters considered, the Division is unable to evaluate the effectiveness of CX’s disciplinary program at this time.