

GAO

Report to the Chairman, Committee on
Agriculture, Nutrition and Forestry, U.S.
Senate

March 1989

CHICAGO FUTURES MARKET

Initial Observations on Trade Practice Abuses



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United States
General Accounting Office
Washington, D.C. 20548

General Government Division

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March 13, 1989

The Honorable Patrick J. Leahy
Chairman, Committee on Agriculture,
Nutrition and Forestry
United States Senate

Dear Mr. Chairman:

This report expands on the issues presented in our February 23, 1989, testimony before your Committee. As you requested, we will continue to monitor actions the Commodity Futures Trading Commission (CFTC) and exchanges are taking to detect and punish trade practice abuses, and we will assess further actions that they may need to take.

CFTC and exchange officials reviewed a draft of this report and provided technical clarifications that are incorporated in the final report. Due to limited time we could not independently validate the data they provided.

As arranged with the Committee, we are sending copies of this report to CFTC and other interested parties. Major report contributors are listed in the appendix.

Sincerely yours,

A handwritten signature in cursive script that reads 'Craig A. Simmons'.

Craig A. Simmons
Director, Financial Institutions
and Markets Issues

Executive Summary

Purpose

In response to a request from the Senate Committee on Agriculture, Nutrition and Forestry, GAO is providing initial observations on how the Commodity Futures Trading Commission (CFTC), Chicago Board of Trade (CBT), and Chicago Mercantile Exchange (CME) oversee futures market trading practices.

This report expands on testimony presented to the Committee on February 23, 1989, and identifies questions that the Committee may wish to pursue to further evaluate exchange and CFTC oversight efforts. It also explains the changes in trading rules and procedures that the exchanges, industry, and others are discussing to address alleged abuses.

Background

CME and CBT trade futures contracts through a competitive system called open-outcry where floor participants verbally make bids and offers to each other at centralized locations in the exchange. Several kinds of trade practice abuses can occur in this type of trading system. CFTC and the exchanges monitor trading in an attempt to detect these abuses, most of which are similar to those recent media reports allege have been detected in Federal Bureau of Investigation undercover operations. (See pp. 9 to 12.)

CFTC regulations give the exchanges authority to identify, pursue, and prosecute trade practice abusers. CFTC, in turn, is responsible for ensuring the exchanges use their authority to effectively monitor the markets. Consequently, the success of the oversight programs depends to a great extent upon the commitment of CFTC and the exchanges.

GAO has identified three indicators to measure the intensity of CFTC and exchange efforts to detect and punish trade practice abusers: the adequacy of CFTC and the exchanges' framework of controls, the number and nature of disciplinary actions taken, and the effectiveness with which oversight results are used. This knowledge should help determine what changes, if any, are needed in the trading system and oversight programs. (See p. 13 and 14.)

Results in Brief

The overriding issue to be addressed is the adequacy of the framework of controls CFTC and the exchanges have established. GAO found that CFTC and exchange oversight programs are being strengthened through improved computerized audit trail and evaluation systems. Key questions are whether CFTC and the exchanges have adequately assessed

trading system vulnerabilities and established appropriate controls, how these oversight systems compare with those of other markets and regulators, and whether the revised standard for recording trade times is adequate. (See p. 31.)

The exchanges provided GAO with the number and nature of disciplinary actions they took against market participants. While the volume of transactions at CME and CBT increased about 80 and 90 percent, respectively, between 1984 and 1988, the number of disciplinary actions at CME increased over 700 percent while the number at CBT remained relatively constant over this period. (See pp. 34 and 35.) Key questions to address are whether reliable data are available to determine the universe of abuses, how disciplinary actions taken in the futures market compare to those taken in other markets, and whether penalties for abuses need to be applied more consistently or made more severe. (See p. 37.)

GAO has just begun work on how CFTC and the exchanges use information developed through their oversight activities. Key questions that should be addressed regarding more effective use of oversight information are whether CFTC and the exchanges have the information they need, and whether they organize and use the information available to improve their control systems, target patterns of abuse, and allocate scarce resources. (See p. 38.)

GAO's Analysis

How Adequate Is the Framework of Oversight Controls?

CME and CBT identify and investigate trade practice abuses through similar programs, including reviewing trade information assembled into an audit trail. CFTC also has an oversight program that includes reviewing data from exchange audit trails, investigating potential trading abuses, and conducting rule enforcement reviews. (See pp. 16, 23, and 24.)

In 1986, CFTC amended its audit trail regulations to require that the exchanges determine trade execution times within 1 minute. The advent of CFTC's 1-minute trade timing standard and the subsequent enhancement of computerized audit trail and evaluation systems substantially improved CFTC and the exchanges' ability to detect and investigate trade practice abuses. Because of the large numbers of trades that can occur

in 1 minute at different prices, a question exists as to whether the 1-minute standard may need to be reduced. (See p. 17.)

CFTC's rule enforcement reviews are designed to enable CFTC to evaluate how effectively the exchanges detect and prosecute trade practice abusers. In its fiscal year 1987 and 1988 CME rule enforcement reviews, CFTC concluded that the exchange had an effective audit trail system and trade practice surveillance program. However, CFTC did recommend improvements. CFTC was more critical of CBT's programs than it was of CME's. CFTC recommended in its February 1989 rule enforcement review report that CBT take several actions to improve the usefulness of audit trail data in detecting and prosecuting trading abuses and take other actions to improve its surveillance program. On March 2, 1989, CBT approved actions to improve the usefulness of audit trail data by more precisely timing trades. (See pp. 23 to 28.)

How Many and What Kinds of Disciplinary Actions Have Been Taken?

When potential abuses are investigated and the abusers are identified, the exchanges and CFTC can discipline them. Also, if CFTC finds that an exchange has failed to enforce exchange rules, it can take action against the exchange. According to unaudited exchange data, the following actions have been taken against trade practice abusers:

- The number of floor participants penalized for trading violations increased at CME from 13 in 1984 to 105 in 1988. In contrast, CBT actions fluctuated from a low of 8 in 1985 to a high of 32 in 1986. In 1988, CBT penalized 13 floor participants. (See p. 35.)
- Between 1984 and 1988, total CME fines ranged from about \$155,000 to a little over \$1.7 million. Fines for all 5 years combined totaled about \$3.6 million. For the same period, comparable CBT fines ranged from about \$65,000 to about \$225,000. Fines for all 5 years combined were about \$812,000. (See p. 35.)
- Between 1984 and 1988, the number of members expelled on both exchanges averaged about 2 per year. Suspensions at CME ranged from a low of 238 business and calendar days combined in 1986 to a high of 12,392 in 1987. At CBT, business-day suspensions were a low of 55 in 1984 and a high of 5,587 in 1986. (See p. 35.)

For fiscal years 1986 through 1988, CFTC initiated enforcement actions against trade practice abusers resulting in over \$900,000 in civil penalties, 35 cease and desist orders, 43 trading suspensions or revocations, and 31 registration suspensions or revocations. (See p. 37.)

GAO noted that it is difficult to assess the adequacy of oversight results based on numbers alone. Low numbers of disciplinary actions can either mean the system is an effective deterrent, or that it is not detecting abuses or punishing offenders severely enough.

**What Market Reforms
Have Been Implemented or
Are Being Considered?**

CME and CBT have both formed committees to study how trade practice abuses can be reduced. Both are studying potential reforms to exchange rules and trading procedures. CFTC and market experts also have many issues under discussion, ranging from incremental adjustments in the way orders are handled and executed to major changes in the way futures are traded. Exchange officials said that while some proposed changes could reduce trade practice abuses, they might also substantially increase the cost of trading, reduce liquidity, and undermine market efficiency. (See pp. 39 to 42.)

Recommendations

GAO is making no recommendations.

Agency Comments

CFTC and exchange officials reviewed a draft of this report and provided technical clarifications, which GAO incorporated in the final report.

Contents

Executive Summary		2
Chapter 1		8
Introduction	The Open-Outcry Trading System Can Be Abused	8
	Objectives, Scope, and Methodology	13
Chapter 2		16
How Adequate Is the Framework of Oversight Controls?	CME and CBT Have Oversight Programs	16
	CFTC Oversees Exchange Programs	23
	Observations	31
Chapter 3		33
How Many and What Kinds of Disciplinary Actions Have Been Taken?	The Exchanges Can Penalize Abusers	33
	CEA Violations Can Result in Action Against Abusers	35
	Observations	37
Chapter 4		38
Is Oversight Information Used Effectively?	Observations	38
Chapter 5		39
What Kinds of Market Reforms Have Been Implemented or Are Being Considered?	CME Took Action to Reform Stock Index Futures Trading	39
	CME and CBT Have Formed Study Committees	40
	A Variety of Potential Reforms Are Under Discussion	40
Appendix		44
	Major Contributors to This Report	
Tables		
	Table 2.1: Number of Professional Investigative Staff	16
	Table 2.2: CME and CBT External Sources of Trade Practice Inquiries, 1986 Through 1988	20

Table 2.3: Disposition of CME and CBT Trade Practice Cases, 1986 Through 1988	22
Table 2.4: Disposition of CFTC Division of Trading and Markets' TPIs at CME and CBT, Fiscal Years 1986 Through 1988	30
Table 2.5: CFTC Division of Enforcement TPIs, Fiscal Years 1986 Through 1988: All Exchanges	31
Table 3.1: Volume of Contracts Traded, Fiscal Years 1984 Through 1988 (Millions)	34
Table 3.2: CME and CBT Trade Practice Disciplinary Actions, 1984 Through 1988	35
Table 3.3: CFTC Enforcement Actions Involving Trade Practice Violations, Fiscal Years 1986 Through 1988: All Exchanges	36
Table 3.4: CFTC Administrative Penalties Imposed in Trade Practice Actions, Fiscal Years 1986 Through 2/13/89: All Exchanges	37

Abbreviations

CATSS	Compliance Automated Trade Surveillance System
CFTC	Commodity Futures Trading Commission
CBT	Chicago Board of Trade
CME	Chicago Mercantile Exchange
CEA	Commodity Exchange Act
CTR	Computerized Trade Reconstruction
EDS	Exchange Database System
FBI	Federal Bureau of Investigation
FCM	Futures Commission Merchant
OIA	Office of Investigations and Audits
TPI	Trade Practice Investigation

Introduction

This report responds to a request from the Senate Committee on Agriculture, Nutrition and Forestry. It provides our initial observations on how the Commodity Futures Trading Commission (CFTC), Chicago Board of Trade (CBT), and Chicago Mercantile Exchange (CME) oversee futures market trading practices. Trading at CME and CBT has been the subject of recent Federal Bureau of Investigation (FBI) undercover operations, the results of which are not yet public, but which have received much media attention alleging widespread trading abuses.

The Open-Outcry Trading System Can Be Abused

The CME and CBT generally trade futures contracts through a competitive system called open-outcry, where floor participants verbally make bids and offers to each other at centralized locations in the exchange called trading pits. Several types of trade practice abuses can occur in this trading system. CFTC and exchanges monitor trading in an attempt to detect these abuses. Abuses they try to detect are similar to those that media reports allege have been detected in the FBI operation.

Futures Contracts Are to Be Traded Openly and Competitively

CFTC regulations falling under the Commodity Exchange Act (CEA) require that, with a few exceptions, futures contracts be traded openly and competitively. Generally, trading takes place on the floor of an exchange, where futures transactions occur by open-outcry. Open-outcry is a method of public auction where bids and offers are verbally and openly offered to all floor participants. The futures exchanges house centralized auction markets where standardized contracts, based on quantity and quality, are bought and sold for future delivery. Trading activity for each contract occurs in designated areas of the exchange floor called trading pits. Whether by open-outcry in the trading pit, or by other methods, the CEA requirement that futures contracts be traded openly and competitively is designed to assure that the price discovery and risk-shifting functions of the futures markets can function properly. Customer orders executed in such a market and according to its rules would be executed at the best available prices.

Role of Trading Floor Participants

Two basic types of traders are found in the futures pits—floor traders and floor brokers. Floor traders deal exclusively for their personal accounts and do not handle customer orders. Although they supply market liquidity, they are not obligated to make markets by taking the other side of trades when others are unwilling to do so, or to stabilize prices.

In contrast, floor brokers may trade for themselves and others. They may receive fees for acting as agents for futures commission merchants (FCMs) or other members in the execution of futures transactions.¹ They may also incur profits and losses from trading for their personal accounts. When floor brokers receive orders they must be filled in accordance with CFTC regulations, exchange rules, and customer instructions.

When floor brokers trade both for their own accounts and others' accounts they are called dual traders. Dual trading is traditionally defended as providing additional liquidity, particularly in thinly traded markets. It is also recognized, however, that dual traders have a conflict of interest. Therefore, CFTC regulations require exchanges to restrict the ability of dual traders to take the opposite side of their customer orders and prohibit them from trading for their own accounts before filling executable customer orders.

Certain Procedures for Handling Customer Orders Are Standard

Despite some differences among the CFTC-regulated exchanges, certain standard types of customer orders exist as well as relatively uniform procedures for handling them.

Futures customers can choose between several types of orders. A common type is the market order, which is a request to buy or sell a specified number of contracts at the prevailing market price. A variety of contingency orders are also available that impose certain limitations on order execution, including price and time. Contingency orders include orders to buy or sell at the open or close of trading and limit orders that specify a price above or below which the order is to be executed.

In an open-outcry trading system, customers typically place orders with an FCM. When an FCM receives an order, CFTC regulations require that an office order ticket be prepared and time-stamped. The order is then transferred to a trading booth on the exchange trading floor by telephone, teletype, or an electronic order routing system. There, a floor order ticket is prepared, containing the same information as the office order ticket, and time-stamped "in." The floor order ticket is then either handed to a clerk—called a runner—or flashed by hand signals to the broker's assistant for delivery to the floor broker for execution.

¹The FCMs are generally equivalent to securities broker dealer firms.

The floor broker executes the customer order by offering it to other pit participants verbally and through hand signals. If the order is accepted, the broker and the opposite party confirm the trade and the broker records the trade on the floor order ticket. The floor order ticket is returned to the trading booth, where it is time-stamped "out." The floor booth reports the trade execution to the FCM, who records the trade price on the office order ticket and time-stamps it. The customer must be provided a written confirmation but may also receive a telephone confirmation.

Each floor participant has a clearing firm that collects trade cards and order tickets and transmits the trade data to the exchange clearinghouse. The FCMs use the data transmitted to the clearinghouse to generate a written customer confirmation and update customer records. The clearinghouse matches the buyer and seller report of each trade and reports any discrepancies, such as differences in the number or price of contracts traded. These discrepancies are known as out-trades and clearing firms are required to reconcile them. The clearinghouse calculates each clearing firm's gains or losses, and the clearing firms settle with the clearinghouse daily. The FCMs reconcile the final record of cleared trades with their customer records.

Market Characteristics May Allow Trade Practice Abuses

Several characteristics of open-outcry trading may allow floor participants to take advantage of customers:

- Futures prices can be volatile. As a result, if a trade is executed within the price range occurring around the actual execution time of the trade, it will be more difficult to determine the execution price that the customer should have received.
- The large number of participants in a pit—in the hundreds for active futures contracts—makes floor surveillance for trade practice abuses more difficult.
- The exchanges rely to some degree on market participants to properly report their trading activity. Dishonest participants, particularly those acting in collusion, can falsify trading records in an attempt to conceal abuses.

A Variety of Trade Practice Abuses Can Occur

Trade practice abuses include various techniques to avoid competitive order execution. By avoiding competition, floor participants may secure a better transaction price at the expense of other market participants, including customers and other traders. Listed below are the major

abuses that CFTC and exchange officials try to detect. Some of the definitions partially overlap.

- Prearranged trading: agreeing to some aspect of a transaction before it is openly executed on the exchange floor.
- Accommodation trading: entering transactions to assist another floor participant in accomplishing improper trading objectives.
- Trading ahead of customer orders: trading for one's personal account or an account in which one has an interest, while having in hand any executable customer order in that contract.
- Bucketing: failure to introduce an order to the marketplace, traditionally occurring when a broker noncompetitively takes the other side of a customer order to the detriment of the customer or other members.
- Wash trading: entering or purporting to enter into transactions to provide the appearance of trading activity without resulting in a change in market position.
- Curb trading: trading after the official close of trading.
- Cuffing: delaying the filling of customer orders to benefit another member.
- Cross-trading: matching customer orders without offering them competitively.²

Exchange rules also preclude disclosing customer orders except to the exchange or CFTC and allocating the best trades to one's own account or to that of preferred customers.

In some cases, trade practice abuses are a convenient means of correcting out-trades, and no direct harm may result to customers. However, unscrupulous traders also combine these and other abuses in complex schemes designed to cheat customers by circumventing the open-outcry system. CFTC and exchange officials consider the most serious abuses to be those that give customers less advantageous prices than orders competitively executed.

²Crossing the orders of two customers is generally permitted, provided the broker first offers the orders competitively and meets certain other regulatory requirements. CBT, with the exception of a stock index product, has chosen not to allow crossing orders because the exchange views it as incompatible with the open-outcry system. CME told us that it allows this practice because under its rules the customer order is executed at a price better than it would otherwise have received.

Case Studies: Trade Practice Abuses Can Be Detected and Punished

To illustrate how trade practice abuses can occur, we describe two past cases, one each from CBT and CME.

Case 1: CBT

In April 1985, CBT disciplined three exchange members—A, B, and C—for systematically cheating on customer spread orders. They executed trades among themselves at prices better than those available to other market participants. Spread trading is a strategy that involves, in this case, simultaneously purchasing one delivery month of one commodity and selling that same delivery month of a different commodity. The expectation underlying the strategy is that the price relationship between the two commodities will subsequently change and yield a profit. Consequently, it is to the customer's advantage for the trades to be simultaneously executed at the cheapest buying price and highest selling price.

In this case, member A received a customer spread order to buy 160,000 bushels of July wheat and sell 160,000 bushels of July corn at the prevailing market prices. One of many subsequent rule violations occurred when member A disclosed this order to member C and, as an accommodation to her, for her personal account, prearranged to sell the July corn segment of the customer spread at a price lower than that at which July corn was trading at the time. Member C benefitted because she bought below the market price and presumably sold at the market price, realizing a gain. The customer lost the exact amount she gained. This and other trades executed among members A, B, and C elicited member complaints, and CBT launched an investigation.

The investigation, which reconstructed the members' trading activities, found that the three members were systematically prearranging trades on customer spread orders. In addition, they failed to report the trades as spreads as required by CBT rules, and they traded corn in the wheat pit. The CBT fined the members \$50,000 each and expelled them from exchange membership and from employment or association with any exchange member firm. The CBT concluded that the members had violated numerous exchange rules, including prearranged trading, failure to competitively offer the orders by open-outcry, failure to designate the orders as spreads, accommodation trading, taking the other side of a customer order, trading outside of the designated commodity pit, and compromising the integrity of the exchange.

Case 2: CME

In January 1989, CME disciplined four members for engaging in a scheme to defraud customers whose accounts were managed by one of the members. The account manager traded Standard & Poor's 500 stock index futures contracts in the pit for customer accounts. Periodically, after acquiring positions for customers that proved to be profitable, the account manager would surreptitiously prearrange a trade with another member in the pit, transferring all or part of the customers' profitable positions at a price equal to or slightly more than the actual cost of these contracts. The acquiring member, who was also the account manager's wife, would then immediately liquidate the positions at the prevailing market price, thereby producing a personal profit.

On occasion, the account manager prearranged the transfer of customers' profitable positions to one of two other members, who would in turn prearrange a trade with the account manager's wife. As in the first instance, she would immediately liquidate the positions for a personal profit. Presumably, the third party conduits were employed to make detection of the scheme more difficult.

CME's internal surveillance system identified the suspicious trading pattern that led to the disciplinary actions. The exchange permanently expelled the account manager and his wife from the exchange and fined them \$750,000. Of the two members who acted as third-party conduits for the illicit trades, one was suspended for 6 months and fined \$50,000. The other member, who accommodated one prearranged trade, but who also cooperated with CME's investigation, was fined \$3,000.

Objectives, Scope, and Methodology

Our objective is to provide the Senate Committee on Agriculture, Nutrition and Forestry our initial observations on how the CFTC, CME, and CBT oversee futures market trading practices. The report suggests an issue that the Committee may wish to pursue to further evaluate exchange and CFTC oversight efforts. It also discusses the results of our preliminary work as it relates to that issue. The issue is the level, or intensity, of CFTC and exchange efforts to detect and penalize trading abuses. This knowledge, accompanied by an understanding of the ways the trading system can be abused, should help the Committee decide what changes, if any, are needed in the trading system and oversight programs.

It is not easy to quantify the intensity of oversight efforts. We have, however, identified three indicators that will provide useful qualitative measures. They are the

- adequacy of the framework of controls CFTC and the exchanges have established;
- number and nature of disciplinary actions taken on identified abuses; and
- use of oversight results to improve the control system, target trends of abuse, and allocate scarce resources.

Individually, these indicators provide a perspective on key aspects of the oversight system. Collectively, they provide a basis for judging how serious CFTC and the exchanges are about detecting and punishing trading practice abusers. In addition to addressing these topics to the extent that our initial work allows, this report covers the changes in trading rules and procedures that the exchanges, industry, and others are considering as a means of dealing with alleged abuses.

This report is limited to CFTC, CME, and CBT trade practice oversight operations from 1984 to 1988. While some of the information was derived from prior and ongoing GAO assignments, most of the audit work was done between January 27 and March 4, 1989. Work at CFTC was done at the Division of Trading and Markets, including the Chicago Compliance Branch, and at the Division of Enforcement, with an emphasis on CFTC oversight of CME and CBT. To examine CFTC's oversight program, we reviewed CFTC documents, including training manuals, reports, studies, and regulations and interviewed agency officials. To review CME and CBT trade practice programs, we interviewed exchange administrators and investigations staff and reviewed procedures, investigative case files, and performance statistics.

CFTC, CBT, and CME officials reviewed a draft of this report and provided technical clarifications, which are incorporated in the final report. CFTC officials told us that they could not comment on the extent of the agency's involvement in identifying or investigating the abuses alleged in reports of the FBI undercover operation until after any indictments are issued. Therefore, we are not in a position now to comment on the effectiveness of CFTC oversight as it relates to these allegations. Also, due to the limited time available, we could not independently validate the data CFTC and the exchanges provided.

Our discussion is limited to trade practice abuses that occur when orders are not openly offered to all market participants on the exchange floor. These abuses, at times, result in customers receiving poorer prices on their transactions. Although we discuss the majority of the types of alleged abuses covered in recent media reports on the Chicago futures

Chapter 1
Introduction

exchanges, we have not addressed price manipulation, fraudulent sales practices, money laundering, or falsification of accounts and records generated outside the exchange.

How Adequate Is the Framework of Oversight Controls?

CFTC regulations give the exchanges authority to identify, pursue, and prosecute trade practice abusers. CFTC is responsible for ensuring the exchanges use their authority to effectively monitor the markets. It attempts to do so while encouraging the efficiency of market operations.

CME and CBT Have Oversight Programs

CME and CBT identify and investigate trade practice abuses through similar programs. Abuses are detected through internal sources, which include reviewing trade information assembled in an audit trail and observing trading floor activity. Both CME and CBT have developed computer systems that analyze audit trail data to detect possible abuses. Abuses are also identified from external sources of information, including exchange member complaints, customer complaints, and CFTC referrals. Customer complaints are the most common source of inquiries at CME, while referrals from other members are most common at CBT.

Investigative Staffing Has Grown

The CME Department of Compliance and the CBT Office of Investigations and Audits (OIA) are responsible for detecting and investigating trade practice violations. Each works in conjunction with its member disciplinary committee. As shown in table 2.1, the number of professional investigative staff positions at CME increased by 40 percent between 1986 and 1989, while the number of staff at CBT increased by almost one-third over the same period.

Table 2.1: Number of Professional Investigative Staff

	1986	1987	1988	1989
CME	20	28	28	28
CBT	15	15	15	19

Source: CME and CBT.

Audit Trails Provide Data Used to Identify Trading Abuses

An important source of evidence that the exchanges use in supporting cases of trade practice abuse is their audit trail system. An audit trail system reconstructs trading activity by time of trade. Putting the trades in the order that they occur can help the exchanges isolate questionable trades and detect and prove trade practice abuses. All CFTC regulated exchanges are required to have an audit trail system that is integrated into their trade practice oversight programs.

**CME and CBT Developed Audit
Trail Systems**

In 1986, CFTC amended its audit trail regulations to require that the exchanges determine trade execution times within 1 minute instead of within a 30-minute bracket. CME and CBT initially worked together to develop a Computerized Trade Reconstruction (CTR) system that assigns times to each trade to meet this requirement.

Until January 14, 1986, CFTC required that exchanges record the 30-minute period within which each trade was executed. CFTC determined, however, that the 30-minute data was too imprecise to be useful in detecting many trading abuses. Therefore, to enhance trade practice surveillance, CFTC amended its regulations to require that the exchanges determine trade execution times to the minute. It gave each exchange leeway in constructing the type of audit trail system, manual or automated, that would meet this requirement.

CME and CBT developed CTR systems in response to the CFTC 1-minute timing requirement. Both systems impute the time of each trade through complex computer programs. The programs use timing and other information that is recorded on trading cards and order tickets, including the entry time stamps, manually recorded time of execution, 30-minute bracket designations, and card sequence numbers. Although the programs use similar data sources, the detailed logic used to impute times differs between the two exchanges.

At both exchanges trade reconstruction may be imperfect because all times are imputed on the basis of several data sources, and floor participants may intentionally or unintentionally make errors in recording and reporting such data. Further, while CFTC requires that CTR-imputed times be precise to the nearest minute, according to a CFTC official, a single minute during certain trading periods in active markets may include hundreds of trades, several of which could be made by a single floor participant at different prices.

Also, CTR is most effective in assigning times to customer orders where the required timing data is based on a time stamp on the order ticket. It is least effective in assigning times to trades where members trading for their own accounts are on both sides of the transaction. The data for these trades is not as precise because it is based on 30-minute intervals, sequentially numbered trading cards, and the times of other trades each trader executed.

CME and CBT Computer Systems
Analyze Audit Trail Data

Each exchange also has developed computer systems to analyze audit trail data to detect or corroborate potential trade practice abuses. CME and CBT started to use these systems in conjunction with CTR data in 1986 and 1987, respectively. The CME system, called Compliance Automated Trade Surveillance System (CATSS), and the CBT system, called CTR Plus, use the same general approach. The exchanges have planned enhancements to CATSS and CTR Plus to improve surveillance capabilities.

Using data currently provided by the CTR systems, CATSS and CTR Plus have the ability to generate numerous reports that assist the exchanges in trade practice surveillance on such activities as trading ahead, crossing orders, taking the other side of a customer order, prearranged trading, and wash trading. Exchange staff review system reports to identify suspicious trading activity. According to CFTC, the computer systems have enhanced surveillance activities by identifying certain trades for further investigation and by providing exchange staff with improved access to pertinent trade data.

The CME compliance department employs three full-time data monitors to review the CATSS daily surveillance reports. Data monitors target members for investigations on the basis of these daily reports and on monthly reports that summarize the frequency a member appears in the daily reports. If data monitors identify patterns of potential abuse, they generate detailed reconstructions of trading activity. Leads that may warrant more extensive review are presented to senior compliance staff. If further investigation is necessary, they assign the case to an investigator, who gathers and reviews source documents and interviews floor participants.

In addition to the reports designed to detect specific trade practice abuses, CME compliance staff examine a report showing profit/loss information for individual member accounts. Because most members have a particular style of trading concerning market position, number of trades executed daily, and risk limits, deviations from normal patterns that led to high profits can indicate violative conduct.

The CBT Office of Investigations and Audits (OIA) staff use CTR Plus reports in a manner similar to how CME compliance staff use CATSS. Although CTR Plus identifies a number of potential violations, OIA staff emphasized that CTR Plus is primarily a means to identify patterns. According to CBT officials, staff check for emerging patterns of trading activity by a trader or between two or more traders, as well as individual potential violations. No firm rules exist for recognizing a pattern of

possible trading violations. The investigators decide when and how to expand the investigation, considering such factors as the liquidity and volatility of the pit and the size of the trades. If investigators believe they have detected a suspicious trading pattern, they query the computer to reconstruct an expanded period of trading. If the pattern continues, the investigator will gather and review source documents and interview the floor participants.

CME has reported that since January 1988 CME used CATSS to initiate disciplinary action in six cases of trading ahead and trading against customer orders. One CBT investigation based upon a violation flagged by CTR Plus has been reviewed by the disciplinary committee; however, it was closed. A second case is pending.

Direct Trading Floor Observation Generates Few Leads

CFTC has encouraged CME and CBT to employ periodic floor surveillance. The CBT OIA Assistant Administrator stressed that direct observation of pit activity by exchange employees is important but is not a major source of investigations, because traders are aware of who the exchange observers are. However, according to exchange officials, floor observation is important because by maintaining contact with the floor, observers are able to take trade practice abuse referrals and listen for related rumors.

The CBT OIA routinely assigns four investigators to observe the floor during the open and close of trading, as well as one investigator to observe the floor at other times during the trading day. One observer also surveys the open and close of the entire floor for the evening trading session. Observers watch for such things as do those people in the pit belong there, are openings and closings orderly, and are prices offered to buyers and sellers in their appropriate relationship.

The CME compliance department also has a program of pit observation. CME divides the trading floor into quadrants and generally assigns one full-time observer to each quadrant. During unusual market conditions, such as the 1987 stock market crash, CME assigns additional observers to active trading pits.

Members and Customers Are the Sources of Most External Inquiries

The exchanges use external sources to identify potential abuses. Investigators look into all complaints, tips, and referrals of possible trade practice violations. The most common source of inquiries at CME is customer complaints. As shown in table 2.2, these complaints were the source of

70 percent of the external inquiries at CME in 1988. During the same year, 63 percent of CBT externally generated inquiries came from members.

Table 2.2: CME and CBT External Sources of Trade Practice Inquiries, 1986 Through 1988

	1986		1987		1988	
	No.	%	No.	%	No.	%
CME						
Member and anonymous	53	39	56	30	39	29
Customer complaints	84	61	128	70	94	70
CFTC referrals ^a	0	0	0	0	1	1
Total - External	137	100	184	100	134	100
CBT						
Member and anonymous	64	88	46	76	66	63
Customer complaints	7	9	13	21	35	34
CFTC referrals ^a	2	3	2	3	3	3
Total - External	73	100	61	100	104	100

^aCME and CBT data do not always agree with CFTC data. According to the CFTC Assistant Director, Contract Markets, CFTC sent three referrals to CME in 1986 and one referral in 1987. According to the same source, CFTC sent three referrals to CBT in 1986, three in 1987, and two in 1988.
 Source: CME and CBT.

Most Inquiries Are Closed Without Action

Most exchange trade practice inquiries are closed without disciplinary action. When a potential abuse is detected and an inquiry is opened, the automated audit trail data is used to do the initial research. If investigators believe further analysis is warranted, source documents—trading cards, order tickets, and account statements—are reviewed and floor participants are interviewed.¹ If investigators believe they have developed a provable case, they prepare a summary of findings and recommendations and refer the case to the exchange disciplinary committee for possible action. Cases are closed if the subject is clearly innocent or the evidence is insufficient to support charges. If investigators do not believe they have a provable case, they close the case with an administrative memo.

Once a case is referred to an exchange disciplinary committee, the committee determines whether to close the case, return it to the staff for further development, take disciplinary action, or refer the case to the board of directors. The latter action occurs when the committee concludes it has insufficient disciplinary powers.

¹CBT refers to cases that warrant this further analysis as investigations. CME continues to call them inquiries.

At CME, audit trail source information is the principal evidence used to build cases. At CBT, cases based on member referrals are most likely to result in disciplinary action because they are most likely to include testimonial evidence that corroborates the circumstantial evidence the audit trail provides.

Table 2.3 shows the disposition of internally and externally generated trade practice cases at CME and CBT. Internal inquiries at CME come from a variety of sources, including CATSS. CME uses CATSS to review all trades at least once, but it does not keep a record of the number of reviews performed. Of 153 internal inquiries at CME from 1986 through 1988, 42 resulted in disciplinary action. Sixty-four of the initial 153 inquiries went before the Probable Cause Committee.² The Probable Cause Committee closed 14 inquiries, and 50 were referred to a disciplinary committee. Of 456 external inquiries at CME, 34 went before the Probable Cause Committee, and 19 resulted in disciplinary action after review by a disciplinary committee.

CBT reviewed 238 externally generated inquiries from 1986 through 1988, 44 of which were reviewed by a committee. Of these, 22 resulted in disciplinary action. Although CBT was unable to provide us with the number of inquiries internally generated through CTR Plus, these efforts were clearly less productive. The CBT uses CTR Plus to review selected trades. It keeps records of the number of computer runs performed, but not of the number of inquiries and investigations they generate. For the same 3 years, a total of 2,159 computer runs generated only 2 cases that could be referred to committee. During the same period, CBT initiated 49 inquiries on the basis of floor observation, rumors, and referrals from other CBT departments. Sixteen of these inquiries were referred to committee, and 7 resulted in disciplinary action.

²At CME, the Probable Cause Committee makes an initial screening of inquiries referred by the compliance department. The Committee can either close an inquiry without action, return it to the compliance department for further research, or forward it to a disciplinary committee for consideration of disciplinary action.

Chapter 2
How Adequate Is the Framework of
Oversight Controls?

Table 2.3: Disposition of CME and CBT Trade Practice Cases, 1986 Through 1988

CME	1986	1987	1988	Total
Internal				
Inquiries	83	40	30	153
Internal inquiries before Probable Cause Committee	15	31	18	64
Inquiries closed by Probable Cause Committee	2	6	6	14
Inquiries referred to disciplinary committee	13	25	12	50
Inquiries closed by disciplinary committee without disciplinary action	4	3	0	7
Inquiries that resulted in disciplinary action	9	22	11	42
Inquiries pending disciplinary committee decision	0	0	1	1
External				
Inquiries	137	184	135	456
Inquiries before Probable Cause Committee	6	17	11	34
Inquiries closed by Probable Cause Committee	2	4	2	8
Inquiries referred to disciplinary committee	4	13	9	26
Inquiries closed by disciplinary committee without disciplinary action	2	2	0	4
Inquiries that resulted in disciplinary action	2	11	6	19
Inquiries pending disciplinary committee decision	0	0	3	3

(continued)

Chapter 2
How Adequate Is the Framework of
Oversight Controls?

CBT	1986	1987	1988	Total
Internal				
Computer runs ^a	488	773	898	2,159
Inquiries (staff-initiated)	12	12	25	49
Investigations (staff-initiated)	4	2	10	16
Investigations referred to committee	4	2	10 ^b	16
Investigations closed by committee without disciplinary action	0	1	2	3
Investigations that resulted in disciplinary action	4	1	2	7
Investigations pending committee decision	0	0	6	6
External				
Inquiries	73	61	104	238
Investigations	23	13	16	52
Investigations referred to committee	17	11	16	44
Investigations closed by committee without disciplinary action	5	5	8	18
Investigations that resulted in disciplinary action	12	5	5	22
Investigations pending committee decision	0	1	3	4

^aCalled Trade Practice Investigations by CBT.

^bIncludes two cases that were generated by CTR Plus. One was closed without action, and the other is pending.

Source: CME and CBT.

CFTC Oversees Exchange Programs

An important feature of CFTC's oversight program for ensuring that the exchanges carry out their regulatory responsibilities is rule enforcement reviews. In addition, CFTC examines disciplinary action notices and exchange investigative logs to monitor the number of investigations conducted, types of violations being investigated and their disposition, as well as the timeliness and adequacy of penalties. CFTC also has its own trade practice surveillance program for reviewing data from exchange audit trails, observing trading floor activity, and investigating potential abuses. When CFTC finds that an exchange has failed to meet its obligation to enforce exchange rules, it can, among other disciplinary actions, issue a cease and desist order directing the exchange to improve its enforcement activity. If the exchange does not comply with the order, it could lose its authority to operate as a contract market.

Rule Enforcement Reviews Evaluate Self-Regulation

Rule enforcement reviews are designed to enable CFTC to, among other things, evaluate the exchanges' ability to detect violations, time taken to complete investigations, thoroughness of investigations, and adequacy of investigative records. They also determine how well the exchanges have implemented previous recommendations. CFTC recently reported on rule enforcement reviews at CME and CBT.

The results of CFTC's reviews are made public through reports that describe the strengths and weaknesses of exchange programs. CFTC officials told us that publicizing findings and recommendations provides an incentive for the exchanges to correct problems, because the exchanges want to maintain investor confidence in their markets. The exchanges are required to respond with a plan for addressing CFTC's recommendations within 60 days of report issuance. This time frame can be shortened if the situation is urgent or extended if an exchange requests it with good cause.

CFTC's goal is to conduct rule enforcement reviews at each exchange at least once every 2 years. However, depending on the effectiveness of an exchange's trade practice surveillance program, CFTC may increase or decrease the frequency of these reviews. In fiscal year 1988, CFTC completed an audit trail rule enforcement review at CME. CFTC had previously reviewed the CME's surveillance program in 1987. CFTC also completed a review of CBT in 1989, including an evaluation of CBT's audit trail system. CFTC's previous review of CBT was completed in 1986.

In addition, CFTC does follow-up reviews to determine how well the exchanges have implemented prior recommendations. The time CFTC gives an exchange before conducting a follow-up review depends on the severity of the deficiencies identified and the kind of changes the exchange needs to make. A CFTC official told us that follow-up reviews, when warranted, usually occur 1 year after the initial review.

CFTC Concluded That CME Had an Effective System and Program

In its two most recent CME rule enforcement reviews, CFTC concluded that CME has an effective CTR system and trade practice surveillance program but found weaknesses in both. CFTC recommended improvements and CME responded positively to all the recommendations. A CFTC official told us that CFTC has followed up on its June 1987 recommendations through its routine oversight. Further, as of March 3, 1989, CFTC was reviewing CME's responses to the September 1988 review.

CFTC found weaknesses in CME's CTR system - A September 1988 CME rule enforcement review reported that CTR was an effective audit trail system that generally produced adequate 1-minute trade times. However, CFTC did identify some areas in which CTR-imputed trade times and recordkeeping could be improved. CFTC recommended that CME

- continue to explore the development of methods for improving the verification of times where the buyer and seller are both trading for their own accounts,
- improve CTR's processing logic for certain trades executed for other members on the floor,
- further review the recordkeeping requirements for this same group of trades, and
- continue its efforts to prevent instances where CTR assigns times to spread transactions that are not consistent with their being executed at a price differential.

CME has indicated that some of these corrections are already underway.

CFTC's evaluation of CME's trade practice surveillance program was generally positive - In a June 1987 CME rule enforcement review report, CFTC concluded that CME maintained an effective trade practice surveillance program that initiated a significant number of internally generated investigations. However, CFTC still recommended that CME improve the timeliness of investigations and ensure that all aspects of possible violative activity were thoroughly investigated. A CFTC official said that CME implemented the recommendations.

The September 1988 CME rule enforcement review report commented on the effectiveness of CATSS. CFTC concluded that CME had effectively incorporated CTR timing data into CATSS and that CATSS had enhanced CME's surveillance capabilities. According to a CFTC official, the agency considers CATSS an effective trade practice surveillance program.

CFTC Was More Critical of CBT

CFTC was more critical of CBT's CTR system and trade practice surveillance program than it was of CME's. CFTC concluded in its February 1989 rule enforcement review report that CBT needed to improve its CTR system. It recommended that CBT take several actions to improve the usefulness of CTR times in detecting and prosecuting trading abuses. It also recommended other actions to improve CBT's trade practice surveillance program. CBT officials told us these recommendations will be easy to implement, and they will act quickly.

CFTC's evaluation of CBT's CTR system was critical -According to a CFTC official, the most recent rule enforcement review found that several improvements were needed in CBT's audit trail system. The CFTC recommended that CBT

- devise a computerized method to verify the degree of accuracy of CTR-imputed times;
- increase surveillance of member compliance with CTR data submission requirements and impose penalties on members that repeatedly fail to comply with the requirements;
- examine methods to improve the logic of CTR processing for some trades, including spreads; and
- require that trading cards be submitted in their exact sequential numerical order, be collected more frequently, and be time-stamped upon their submission to the clearing firms' order desks.

On March 2, 1989, CBT approved the following actions to improve the usefulness of audit trail data by more precisely timing trades:

- Traders and brokers will be required to record the 15-minute time bracket in which a trade occurred instead of the 30-minute bracket now required.
- Traders will be required to be more precise in timing trades during the opening and closing of trading—periods believed to be particularly susceptible to trade practice abuse.
- Traders will be required to account for all sequentially numbered trading cards.
- Clearing firms will be required to collect trading cards hourly, rather than twice a day, and to remit them to CBT's clearing corporation an hour later. The cards will be time-stamped as they are taken from the pit.
- A master clock, synchronized to all time-stamping machines, will be installed on the exchange floor, and a bell will ring every 15 minutes to remind traders they have entered a new time bracket. The clock will be accurate to the nearest second.

These changes will be effective no later than September 1, 1989.

CFTC was also critical of CBT's trade practice surveillance program - In a September 1986 CBT rule enforcement review report, CFTC concluded that CBT had effective procedures for dealing with potential trade practice abuses initiated through complaints or referrals. However, CFTC made several recommendations for improvements, including

- expanding the coverage of routine surveillance to provide greater emphasis on internally detected trade practice abuses and internally initiated investigations,
- modifying the criteria employed in the internal surveillance program so that potential abuses would not be overlooked,
- ensuring that investigations were thorough, and
- completing inquiries in a more timely fashion.

The CBT responded by stating that it would implement the recommendations.

However, CFTC's February 1989 rule enforcement review report stated that although some improvements have been made, inquiries were still taking too long, and too few disciplinary actions resulted from internally generated investigations. Regarding the timeliness of CBT inquiries and investigations, CFTC recommended that the exchange expedite the process and also required that it submit copies of its investigation logs on a monthly basis. By reviewing these logs, CFTC plans to continue monitoring the timeliness of CBT investigations to ensure that the exchange is improving its performance.

Regarding limitations on the criteria CBT used to detect abuses, CBT has implemented modifications to its trade practice surveillance criteria, which CFTC believes should enable more effective detection of various abuses. For example, CBT expanded both the amount of trading time and the number of contracts that its trade practice surveillance program covers. CFTC was unable to evaluate how effective these changes were during its rule enforcement review because not enough time had passed since they were implemented. However, CFTC plans to continue examining the quality and quantity of cases that CBT investigates. Also, CFTC required that CBT submit reports evaluating the effectiveness of the changes.

CFTC concluded that documentation of some internal investigations—specifically, the closing memoranda that serve as investigation reports for cases generated from the CTR Plus program—did not describe the actual trades under investigation, the findings related to those trades, or the justification for determining that various files would be closed. CFTC recommended that CBT ensure these investigation records were complete.

CFTC's report also cited problems regarding those investigations that result from sources external to the trade practice surveillance programs,

including delays in completing investigations. The report, however, also found that these types of investigations were generally thorough and well documented. CFTC attributed part of the timeliness problem to low staff levels in the compliance department and to the investigating staffs' lack of experience. CFTC suggested that CBT increase the size of its compliance staff to adequately investigate the cases in a timely manner.

In response to the 1989 review, CBT officials said they have made progress in these areas since the September 1986 rule enforcement review and will continue to do so. In mid-February 1989, CBT announced several changes designed to strengthen its trade practice surveillance program. The CBT plans to

- submit a rule change to CFTC to increase maximum disciplinary fines from \$75,000 to \$250,000 per violation;
- use its CTR Plus software to review 100 percent of all transactions for potential trade practice abuse; and
- spend about \$1 million to improve the effectiveness of CTR Plus.

CBT's General Counsel said that he disagreed with CFTC's emphasis on internally generated investigations. CFTC regulations and guidelines require that exchanges maintain and review trade registers and conduct thorough investigations of any indicated trading abuses. CBT's General Counsel said that CBT has an excellent record in developing investigations based on complaints and referrals. He added that externally generated investigations are more likely to be supported by eyewitness testimony and are therefore more likely to result in disciplinary action than internally generated investigations. Nonetheless, CBT expects to take disciplinary action in a CTR Plus generated case based solely on trading records in the near future.

CFTC Identifies and Investigates Trade Practice Abuses

CFTC's Division of Trading and Markets (Trading and Markets) conducts routine trade practice surveillance, including trading data analysis and trading floor surveillance. CFTC's Division of Enforcement (Enforcement) further investigates referrals from Trading and Markets as well as referrals and leads from other sources to determine if prosecution is warranted.

Trading and Markets has focused its surveillance resources in its regional offices. The Central Regional office in Chicago has a Trading and Markets, Contract Markets Section, consisting of a branch chief, six futures trading specialists, a futures trading compliance inspector, and a

program assistant. The Central Region is responsible for monitoring trading practices at CME, CBT, MidAmerica Commodity Exchange, and Chicago Rice and Cotton Exchange.

The Central Region's goal is to review each commodity for trading abuses at least once quarterly and to review active commodities more often. These reviews are conducted through CFTC's computer-assisted surveillance system—known as the Exchange Database System (EDS).

EDS is loaded monthly with data from the exchanges' trade register tapes, which CFTC regulations require they maintain. The trade register tapes include such information as quantity, price, order or trading card number, seller, buyer, and transaction time. Through EDS reports CFTC can identify instances of possible trading abuse, such as trading ahead and noncompetitive cross-trading of customer orders.

When CFTC uses EDS to analyze trading data for abuses, the review is designated a trade practice investigation (TPI). The Central Region Contract Market Branch Chief estimates that 90 percent of these investigations are routine, but the other 10 percent are initiated on the basis of a complaint, tip, or news item.

According to a CFTC official, TPIS are rarely initiated from trading floor surveillance. However, the official stated that periodic floor surveillance serves to deter abuses and contributes to ongoing investigations. Although no log is kept of floor surveillance, the Central Region's Branch Chief stated that on average, at least one specialist visits each exchange floor about twice a week.

TPIS initially disclose only potential trading violations. After a TPI is completed, Trading and Markets decides whether the case should be referred to CFTC Enforcement or an exchange for possible disciplinary action. Cases with definitive patterns of trading abuse, blatant abuses, or repeat offenders are generally referred to Enforcement, but other abuses are referred to the exchange where the trading occurred. Table 2.4 shows that from 3 percent to 41 percent of all TPIS the Central Region completed regarding CME and CBT were referred to either Enforcement or the exchanges during fiscal years 1986 through 1988.

Table 2.4: Disposition of CFTC Division of Trading and Markets' TPIs at CME and CBT, Fiscal Years 1986 Through 1988

Disposition ^a	1986		1987		1988	
	No.	%	No.	%	No.	%
Referrals to exchanges ^b	6	35	5	16	0	0
Referrals to Enforcement	1	6	3	10	1	3
Total referrals^c	7	41	8	26	1	3
Closed/no action	10	59	23	74	35	97
Total TPIs completed	17	100	31	100	36	100

^aDisposition is recorded on the basis of the investigation completion date; the actual disposition date may differ.

^bAccording to the CFTC Central Region Compliance Branch Chief, in addition to these TPIs, CFTC conducted six special studies that included TPIs. One of these six studies was referred to an exchange.

^cEach referral may include multiple individuals and firms. Also, CFTC initiated nine referrals (three to Enforcement and six to exchanges) through other routine oversight activities, such as exchange disciplinary action and trade record reviews, rather than as trade practice related TPIs.

Source: GAO review of CFTC Central Region branch log.

Further investigation by Enforcement or an exchange is necessary to determine whether evidence of such potential violations should be presented to an exchange disciplinary committee or an administrative law judge.

CEA authorizes CFTC to investigate violations of the law. Enforcement investigates both alleged violations of CEA and CFTC regulations. Enforcement initiates administrative and civil actions and may refer criminal violations to the Department of Justice. Enforcement also coordinates its activities with other federal and state agencies and exchanges. According to CFTC officials, trade practice cases are one of Enforcement's two top investigative priorities; fraud is the other.

Enforcement investigations are generated from data provided primarily by Trading and Markets. Data is also provided by other CFTC divisions and outside sources, such as commodity news services; industry members; and congressional, other governmental, and public inquiries.

According to Enforcement officials, the investigation process varies by case. If sufficient investigative findings result, Enforcement will pursue the case through litigation. Table 2.5 indicates that Enforcement investigation activity varied somewhat for fiscal years 1986 through 1988.

**Table 2.5: CFTC Division of Enforcement
 TPIs, Fiscal Years 1986 Through 1988: All
 Exchanges**

	1986	1987	1988
Investigations pending, beginning of fiscal year ^a	29	32	23
Investigations opened	19	10	12
Investigations closed	16	19	13

^aEach investigation may include multiple individuals and firms.
 Source: CFTC Division of Enforcement.

CFTC Can Take Enforcement Action

When CFTC finds that an exchange has failed to meet its obligation to enforce exchange rules, it can, among other disciplinary actions, issue a cease and desist order directing the exchange to improve its enforcement activity. If the exchange does not comply with the order, it could lose its authority to operate as a contract market.

Since 1982, CFTC has initiated administrative complaints against the Minneapolis Grain Exchange, Commodity Exchange, Inc., and Kansas City Board of Trade due to alleged inadequate trade practice surveillance activities. In settling these cases, the exchanges, respectively, agreed to civil penalties of \$30,000, \$70,000, and \$60,000 and agreed to cease and desist from any of the alleged improper conduct. In addition, a CFTC Enforcement official told us that an important part of the Kansas City and Minneapolis settlements were agreements for the exchanges to correct program deficiencies. CFTC also filed an administrative complaint against CME alleging inadequate financial surveillance reporting to CFTC. CME denies the allegation.

Observations

Among the questions the Committee may want to pursue concerning oversight structure are:

- Have CFTC and the exchanges adequately assessed the vulnerabilities of the trading systems and established appropriate controls?
- How do these oversight systems compare with those of other markets and regulators?
- Is a 1-minute audit trail time standard adequate?

The advent of the 1-minute standard in 1986, and the subsequent development of computerized audit trail and evaluation systems at CFTC and the exchanges, substantially enhanced their ability to detect and investigate trade practice abuses. Because the systems are new, the process for improving them is evolving.

Chapter 2
How Adequate Is the Framework of
Oversight Controls?

Similarly, the two recent rule enforcement reviews at CBT and CME are CFTC's first public evaluation of these systems. We have not evaluated the timeliness or thoroughness of CFTC's review process. However, if CME and CBT correct the weaknesses CFTC identified, they will be able to better detect trade practice abuses. Thus, CFTC will need to follow up to ensure that the weaknesses identified are corrected.

How Many and What Kinds of Disciplinary Actions Have Been Taken?

Detecting abuse is only the first part of the process needed to minimize the number of abuses that occur. When potential abuses are investigated and the abusers are identified, the penalties must be timely and severe enough to act as a deterrent. CFTC and the exchanges have broad authority to discipline trade practice abusers. The disciplinary actions taken by CFTC, CME, and CBT serve as indicators of the intensity of their efforts to discourage trade practice abuses.

The Exchanges Can Penalize Abusers

At the exchanges, disciplinary action is determined by a committee that has the power to fine or suspend members. CME and CBT disciplinary committees have broad authority. Exchange officials told us that disciplinary action can vary by the type of offense or the existence of a prior disciplinary record. Different disciplinary actions thus often result for what appears to be the same offense.

CME rules state that major offenses are punishable by expulsion, suspension, and/or a fine of not more than \$250,000, plus the monetary value of any benefit received as a result of the prohibited action. Minor offenses are punishable by a fine of not more than \$25,000, plus the monetary value of any benefit received as a result of the prohibited action, suspension for not more than 1 year, or both. A second violation of the same rule, or the same minor offense within 24 months, will carry penalty provisions equal to a major offense.

CBT does not formally distinguish between major and minor offenses. CBT rules allow for suspension or expulsion from membership. The CBT Board of Directors recently voted to increase its maximum fine per offense from \$75,000 to \$250,000. This action is subject to a vote by the exchange's members. CBT and CME may also bar an individual from being associated with any member firm.

Table 3.1 provides some sense of trading volume at CME and CBT relative to the number of disciplinary actions. It shows that the total trading volume by number of contracts has been higher at CBT than at CME. At CME volume ranged from 43 million to 80 million contracts between 1984 and 1988; CBT volume ranged from 74 million to 140 million contracts over this period.

Chapter 3
How Many and What Kinds of Disciplinary
Actions Have Been Taken?

Table 3.1: Volume of Contracts Traded,
Fiscal Years 1984 Through 1988 (Millions)

	1984	1985	1986	1987	1988
CME	43	54	67	80	78
CBT	74	78	103	116	140

Source: CFTC annual reports.

Table 3.2, developed from unaudited exchange-provided data, shows that disciplinary actions for trading violations have increased at CME and remained relatively constant at CBT. The number of CME floor participants penalized for trade practice-related violations increased from 13 in 1984 to 105 in 1988. In contrast, the number disciplined by CBT fluctuated from a low of 8 in 1985 to a high of 32 in 1986. In 1988, CBT penalized 13 floor participants. Table 3.2 also shows that, between 1984 and 1988, CME fines for trade practice abuses ranged from about \$155,000 to a little over \$1.7 million. Fines for all 5 years combined totaled about \$3.6 million. For the same period, comparable CBT fines ranged from about \$65,000 to about \$225,000. Fines for all 5 years combined were about \$812,000.

According to CBT officials, permanent expulsion or lengthy suspensions are even more severe penalties than fines because they deprive floor participants of their livelihood. The table shows that, between 1984 and 1988, the number of members expelled on both exchanges averaged about two a year, including eight expelled at CME in 1987. Suspensions at CME ranged from a low of 238 days in 1986 to a high of 12,392 in 1987. CME officials told us these suspensions represent a combination of business and calendar days. The data are not, therefore, comparable to CBT data. At CBT, suspensions were at a low of 55 business days in 1984 and a high of 5,587 in 1986.

Chapter 3
How Many and What Kinds of Disciplinary
Actions Have Been Taken?

Table 3.2: CME and CBT Trade Practice Disciplinary Actions, 1984 Through 1988

CME	1984	1985	1986	1987	1988
Floor participants penalized	13	60	43	69	105
Fines ^a (thousands of dollars)	155	631	314	1,716	811
Expulsions	1	1	0	8	2
Suspensions ^b (business and calendar days)	570	6,368	238	12,392	6,110
CBT					
Floor participants penalized	12	8	32	26	13
Fines ^a (thousands of dollars)	175	225	203	65	144
Expulsions	4	2	3	1	0
Suspensions ^b (business days)	55	559	5,587	166	4,339

^aRounded to nearest thousand.

^bCME data combines business and calendar days; CBT data is business days only.

Source: CME and CBT.

CEA Violations Can Result in Action Against Abusers

In addition to these exchange actions, CFTC may also take enforcement action. The CFTC has authority to seek administrative or civil action. Administrative and civil injunctive actions can be taken against all types of CEA violations. Generally, administrative actions are taken when violations occurred in the past, and civil injunctive action is used when violations are ongoing. Under CEA, CFTC has authority to administratively fine violators up to \$100,000 for each trading violation, as well as to revoke their trading privileges.

The CFTC Commissioners decide whether the agency will pursue a case through litigation on the basis of the Division of Enforcement's recommendation. According to Enforcement's Chief Counsel, the key factors in their decision to recommend administrative or civil injunctive litigation to the Commissioners are the (1) type of violation and (2) possible disciplinary actions available.

Administrative actions are tried before an administrative law judge. Penalties may include suspension, denial or revocation of a respondent's CFTC registration, trading prohibitions, cease and desist orders, and civil monetary penalties of up to \$100,000 per violation.

Chapter 3
How Many and What Kinds of Disciplinary
Actions Have Been Taken?

According to Enforcement's Chief Counsel, CFTC has had the authority to bring injunctive actions in federal district court since 1975. This authority allows CFTC to swiftly freeze records and assets and appoint a receiver to protect customer funds. Through injunctive actions CFTC may also obtain temporary restraining orders, preliminary and permanent injunctions to halt current violations, and contempt of court citations when parties violate the terms of the injunctive order.

However, CFTC did not obtain injunctive actions in trade practice cases tried in fiscal years 1986 through 1988. Enforcement's Chief Counsel said that CFTC typically proceeds administratively against trade practice violators. Since the action occurred in the past, injunctions are not especially effective; administrative penalties are better equipped to address such conduct.

Enforcement opens a case when a formal complaint against individuals or firms is filed with an administrative law judge or in federal court. Cases are recorded as closed when a final judgment has been made. Table 3.3 shows that Enforcement opened five cases in 1987 and six cases in 1988. The number of cases completed peaked at eight in 1987, with two cases closed in 1988. According to Enforcement's Chief Counsel, the number of cases opened varies with the amount of identified violative activity, while the speed with which cases are closed may depend on case complexity and time taken in appeals.

Table 3.3: CFTC Enforcement Actions Involving Trade Practice Violations, Fiscal Years 1986 Through 1988: All Exchanges

	1986	1987	1988
Cases pending, beginning of year	14	11	8
Cases opened ^a	2	5	6
Cases completed	5	8	2

^aCases under appeal are counted as open cases. Each case opened may have several respondents. The 13 cases shown included 33 respondents.

Source: CFTC Division of Enforcement.

The penalties imposed for fiscal years 1986 through 1988 and for fiscal year 1989 through February 13 are presented in table 3.4. For these years, CFTC initiated enforcement actions resulting in over \$1.4 million in civil penalties, 45 cease and desist orders, 49 trading suspensions or revocations, and 32 registration suspensions or revocations.

A CFTC Enforcement official cautions against comparisons between years because numerous factors, such as the number of completed cases and

Chapter 3
How Many and What Kinds of Disciplinary
Actions Have Been Taken?

different characteristics of cases, can affect the number and amount of penalties imposed in any given year.

Table 3.4: CFTC Administrative Penalties Imposed in Trade Practice Actions^a, Fiscal Years 1986 Through 2/13/89: All Exchanges

	1986	1987	1988	10/01/88- 2/13/89
Civil penalties	\$696,400	\$192,000	\$30,000	\$528,400
Cease and desist orders	23	11	1	10
Trading suspensions or revocations	34	9	0	6
Registrations suspended or revoked	23	6	2	1

^aThis table does not reflect penalties imposed by administrative law judges in cases that are on appeal. In addition, some cases filed or pending during fiscal years 1986 through 1988 have not yet gone to trial and may result in the imposition of additional penalties.

Source: CFTC Division of Enforcement.

Observations

Among the questions that need answering to assess the adequacy of oversight system results are the following:

- Are reliable data available to determine the total number and types of abuses that occur?
- How do disciplinary actions taken in the futures market compare to those taken in other financial markets?
- Do penalties for abuses need to be applied more consistently or made more severe?

It is difficult to determine the adequacy of an oversight system's results because the universe of abuses is not known. Low numbers of investigations or disciplinary actions can mean either that the oversight system is working well because it is an effective deterrent, or that the oversight system needs revision because it is not detecting abuses or punishing offenders severely enough. The final results of the FBI investigation may provide a better idea of the types of abuses occurring and should be an important indicator of the effectiveness of the current oversight system.

Is Oversight Information Used Effectively?

We are just beginning our work to evaluate how CFTC and the exchanges use their oversight information. We have noted, however, that certain information is not routinely aggregated for management's use. For example, when we asked CBT and CME for summary statistics on the sources of their investigations, each had to generate the summaries from their detailed investigation logs.

Observations

The questions to consider on the use of oversight information are broad:

- Do CFTC and the exchanges have the information they need?
- Do they organize and use the information available to improve their control systems, target patterns of abuse, and allocate scarce resources?

The answers are important because it seems that CFTC and the exchanges could make more effective use of summary data from trading activity, investigations conducted, and penalties imposed to improve their oversight programs. For example, by evaluating the frequency and types of member complaints, CFTC and the exchanges could improve their computer systems' capability to identify the trading abuses that led to those complaints.

What Kinds of Market Reforms Have Been Implemented or Are Being Considered?

CME took action in 1987 in response to trade practice abuses in the Standard & Poor's 500 stock index futures pit. In January 1989, CME and CBT formed committees to study how trade practice abuses can be reduced. Both are studying potential reforms to exchange rules and trading procedures. CFTC and market experts are also considering a variety of reforms.

CME Took Action to Reform Stock Index Futures Trading

In 1987, CME responded to allegations of noncompetitive trading in the Standard & Poor's 500 stock index futures pit by limiting trading within broker associations, increasing audit trail requirements, and eliminating dual trading on the top step of the pit. CME made these changes in 1987 after a number of members complained that dual trading floor brokers were trading ahead of customers. Some members were also concerned that groups of brokers were filling customer orders within their broker associations rather than offering them to the trading crowd. These members circulated a petition calling for a vote to ban dual trading.

After the proposal was defeated in a membership vote, CME management approved a package of reforms that became effective in June 1987. Under these rules, only members who are exclusively filling customer orders can stand on the top step of the Standard & Poor's 500 trading pit. The top step is a prized position because it is more difficult to move orders in and out of other areas of the crowded pit. Dual traders cannot stand on the top step and are also required to manually record the time of all personal trades after their first customer order execution of the day.

Broker associations typically share commissions and expenses, customer orders, and/or employee salary expenses. Under the rule change, broker associations must register with CME. Also, association members are not allowed to trade more than 25 percent of their customer orders or 15 percent of their own account volume with their associates. These trading restrictions pertain only to the most active trading months of any contract. Violations of these restrictions may be major CME rule offenses, and repeated violations may result in revocation of the principal's right to act as a floor broker.

CME and CBT Have Formed Study Committees

CME and CBT have both formed study committees to assess their trading systems and determine how these systems could be strengthened to discourage trade practice abuses. CME appointed five non-exchange members to its nine-person committee, including a former chairman of the CFTC, former Senator, and former head of the National Cattlemen's Association. The President of the National Futures Association serves as a special advisor. CME's legal counsel said that the committee will be engaging the services of a number of additional experts to prepare studies on a broad range of issues. CBT has set up several task forces to study a range of issues related to trade practice abuses. These groups are limited to exchange members, directors, and staff.

A Variety of Potential Reforms Are Under Discussion

The exchanges, CFTC, and market experts have many issues under discussion, ranging from incremental adjustments to the way orders are handled and executed, to major changes in the way futures are traded. CBT and CME officials told us that some of these proposed changes could substantially increase the cost of trading, reduce liquidity, and undermine market efficiency. A CME senior official added that some of these changes may have to be adopted despite their significant cost.

Among the incremental changes are proposals to strengthen the audit trail and provide better control over customer orders. These include the following:

- Implement automated order routing systems to deliver orders directly to the trading floor without paper passing between clerks and runners. These systems would also take executed orders and immediately enter them into clearing and audit trail systems. Such steps would reduce opportunities for mishandling orders and improve the accuracy of audit trail records.
- Ban verbal orders by members on the trading floor to ensure that all orders are documented.
- Time-stamp trading cards in the pit to allow more precise timing of trades.

Other changes that would limit the activities of floor brokers and reduce the discretion floor brokers have in filling customer orders are as follows:

- Prohibit or limit dual trading to eliminate the built-in conflict-of-interest inherent in traders executing customer orders while also trading for

their own account. Most trading abuses could then occur only with the assistance of other floor participants.

- Tighten brokers' responsibilities to properly execute price limit orders during "fast markets"—an exchange-designated period when prices are rapidly changing. Tightening requirements would reduce opportunities for trade practice abuse. (A CME official said that this has always been exchange policy.)
- Disallow or limit the ability of broker association members to trade with each other, forcing members to offer customer orders to non-association members, thereby eliminating abuses that rely on intra-group collusion.
- Establish rules on how out-trades are resolved to ensure that traders do not use prearranged trades to resolve out-trades. (CME officials said that they already have procedures to detect out-trade abuses.)

An additional proposal the exchanges are considering appears to be aimed at moderating activity in the trading pits to facilitate oversight. If implemented, this proposal would eliminate opening and closing ranges, and use a single price instead to provide uniform pricing of at-open and at-close orders. A concern exists that during the opening of trading, several prices can occur at the same time and the range of prices executed can be wide, facilitating abusive conduct.

Some exchange study group proposals are aimed at strengthening exchange self-regulation and disciplinary actions. These include the following:

- Review the effectiveness of pit committees that govern trading practices. These committees are self-policing bodies of floor participants who monitor trading and resolve disputes. If the committees have not been effective, some of their functions may be shifted to exchange staff.
- Increase the disciplinary powers of exchange committees so that they can take more severe action against abusers.
- Change rules for sponsoring members for admission and strengthen background checks so that exchanges have better control over who is admitted onto the trading floor.

Market experts have proposed changes that involve fundamental alterations to how futures are traded. These include the following:

- Allow block trading so that institutional customers may independently locate an opposite party to trade at an agreed-upon price. The trade would then be sent to the trading floor, whereas floor participants could only trade against the institution if they could offer a better price.

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- Replace pit trading with computer trading to provide a precise audit trail and total sequencing of trades.

We have not completed sufficient work to reach conclusions about CFTC and exchange efforts to detect and punish trade practice abusers. In light of recent events, CFTC and the exchanges are reexamining issues related to trade practice abuses. As the Senate Agriculture Committee has requested, we will continue to monitor these efforts and assess what actions need to be taken.

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