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Report to the Chairman, Subcommittee on Commerce, Consumer, and Monetary Affairs, Committee on Government Operations, House of Representatives

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SECURITIES AND FUTURES MARKETS

Efforts to Detect Intermarket Frontrunning

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The Honorable Doug Barnard
Chairman, Subcommittee on Commerce,
Consumer, and Monetary Affairs
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In response to your request and subsequent discussions with the Subcommittee, we reviewed regulatory efforts to detect intermarket[1] frontrunning. Intermarket frontrunning is generally defined as an abuse in which market participants improperly trade stocks, stock options, stock index options,[2] or stock index futures[3] on the basis of nonpublic market information about imminent and material transactions in these instruments. We found that (1) the self-regulatory organizations (SRO) we reviewed have programs in place designed to detect stock options and stock index frontrunning; (2) the Securities and Exchange Commission (SEC) has reviewed its SROs' programs and recommended improvements that are in progress; and (3) SEC is studying whether certain intermarket trading abuses, including some types of intermarket frontrunning, are occurring. In addition, according to Commodity Futures Trading Commission (CFTC) officials, CFTC has begun reviewing its SROs' programs. This report summarizes the key information we gathered.

Background

Frontrunners use their access to material nonpublic market information to take unfair advantage of other market participants. SEC and CFTC officials told us that frontrunners can be prosecuted under antifraud provisions of securities and commodities law. SEC officials also said, however,

[1] Intermarket transactions involve two or more of the stock, stock options, stock index options, or stock index futures markets.

[2] Two of the securities self-regulatory organizations we reviewed—the New York Stock Exchange and the Chicago Board Options Exchange—do not include in their definition of intermarket frontrunning trades in stocks that are based on nonpublic information about imminent and material transactions in stock options or stock index options. According to an options exchange official, these trades do not give the related trader a significant advantage over other market participants because options trades have little or no effect on stock prices. As a result, this type of frontrunning is unprofitable and not worth including in the definition of intermarket frontrunning.

[3] The self-regulatory organizations we reviewed that have definitions of intermarket frontrunning that encompass stock index futures—the New York Stock Exchange, the Chicago Mercantile Exchange, and the Chicago Board of Trade—exclude from their definitions some stock index futures trades made for hedging purposes. Hedging can be defined as reducing the risk of adverse cash price movements by buying or selling futures contracts as a temporary substitute for planned cash market transactions.

that SEC has relied on its SROs to discipline frontrunners under SRO rules. The securities and futures SROs that we reviewed have issued information memorandums to their members stating that intermarket frontrunning is a violation of just and equitable principles of trade.

Regulator and market participant concerns about intermarket frontrunning were first associated with the development of exchange-traded stock options in the 1970s. These concerns focused on stock options frontrunning, in which a broker-dealer trades stock options in advance of a customer's large stock trade to take advantage of expected changes in stock prices resulting from the large trade.

The 1987 market crash and subsequent perceptions of increased market volatility raised additional intermarket frontrunning concerns. Some of these concerns involved potential stock index frontrunning, in which a broker-dealer trades stock index options or stock index futures in advance of a customer's stock program trade.[4]

In terms of frequency and severity, some market participants told us that intermarket frontrunning, as described above, is less of a problem now than in the past. However, the market participants also said that other intermarket trading abuses, which they also characterized as frontrunning, are now occurring. SRO officials told us, however, that these other intermarket trading abuses do not generally fall within the SROs' definitions of intermarket frontrunning.

Some of these alleged intermarket trading abuses have characteristics in common with intermarket frontrunning. Like intermarket frontrunning, the alleged trading abuses involve trading that is based on nonpublic market information. Unlike intermarket frontrunning, however, the alleged trading abuses are also believed to involve market manipulation, in which participants attempt to create price movements in one market to profit from them in a related market. In some scenarios, the nonpublic market information involved may not relate to an imminent transaction but may relate to the trading strategies of other market participants. These abuses may be committed by dishonest customers and broker-dealers acting in collusion. In form, the abusive strategies may be indistinguishable from legitimate trading strategies. In substance, however, the abusive strategies differ from legitimate trading strategies because they are based on the improper use of nonpublic market information.

[4]Stock program trades are purchases or sales of stock portfolios that generally replicate all or a portion of a stock index.

For example, one alleged intermarket trading abuse involves the improper use of the "married put" strategy. This strategy involves a broker-dealer selling a customer a large number of shares of a stock and a corresponding number of the put options on the stock.[5] Although this is a legitimate trading strategy to protect against a decline in stock prices, critics allege that it has also been used illegally by dishonest customers in attempts to manipulate the price of a stock by taking advantage of nonpublic market information from a cooperative broker-dealer. The nonpublic market information is the broker-dealer's knowledge that other customers intend to sell large amounts of the stock should a specified decline occur in the stock's price. If the abusive strategy is successful, the dishonest customer's stock selling will trigger sales of a large number of the stock's shares by other customers. The selling done by these other customers will, in turn, result in a large decline in the stock's price, which will cause the dishonest customer's put options on the stock to rise in value. Thus, this abusive strategy produces a gain greater than that from legitimate trading.

Some SRO officials told us that this strategy is theoretically possible; however, they did not believe that it could be implemented profitably. For example, they questioned whether the information of a single broker-dealer would be sufficient to reliably predict the market's response to the dishonest customer's stock selling. Also, because this abusive activity would only cause a temporary dip in stock prices, the SRO officials doubted that the dishonest customer would have time to realize a profit on the options before stock prices recovered.

Objective, Scope, and Methodology

To address our objective of determining how regulators attempt to detect intermarket frontrunning, we

- interviewed officials at SEC and CFTC headquarters and seven major SROs;[6]
- interviewed market participants, including representatives of three pension funds, an insurance company, and three institutional investors; and

[5] A put option gives the purchaser the right to sell a certain number of shares of a stock at a specified price. The value of a put option increases, and the purchaser of a put option profits, when the price of the related stock declines.

[6] These SROs—the New York Stock Exchange, American Stock Exchange, National Association of Securities Dealers, Chicago Board Options Exchange, Midwest Stock Exchange, Chicago Mercantile Exchange, and Chicago Board of Trade—are responsible for the majority of U.S. stock, option, and stock index futures trading.

- reviewed congressional hearings, intermarket frontrunning literature, and documents and information that SEC, CFTC, and the SROs provided, including SEC inspection reports; SRO investigation and disciplinary action statistics; and SRO surveillance procedures, investigation manuals, and investigation and disciplinary action files.

We did our work between January 1991 and June 1991 in accordance with generally accepted government auditing standards.

SROs Have Programs Designed to Detect Intermarket Frontrunning

The New York Stock Exchange (NYSE), American Stock Exchange (Amex), and Chicago Board Options Exchange (CBOE) have automated surveillance programs designed to detect stock options frontrunning.[7] These programs routinely review SRO audit trail data[8] to identify potential intermarket frontrunning transactions. NYSE and Amex also have automated programs designed to detect stock index frontrunning, while CBOE relies on manual review of audit trail and other data for selected trading periods.[9] In addition, NYSE, Amex, and CBOE have automated programs designed to identify trading activity outside of established parameters for price, volume, and other factors that may indicate intermarket frontrunning or other abuses. The securities SROs that we reviewed, including the National Association of Securities Dealers, routinely share trading data to assist in intermarket frontrunning surveillance.

Securities SRO surveillance programs may identify thousands of transactions annually that must then be manually analyzed to determine if the transactions meet additional criteria that indicate intermarket frontrunning is likely to have occurred.[10] SRO officials told us that their surveillance programs are designed to identify all transactions in which intermarket frontrunning is likely to have occurred. They expect that a subsequent manual analysis by exchange surveillance staff will indicate

[7] National Association of Securities Dealers officials told us that because options are not traded on the National Association of Securities Dealers Automated Quotation system and only a small number of the securities traded on this system are included in stock indexes, the association relies on information from the various option exchanges to identify possible frontrunning violations involving association members.

[8] Audit trail data includes a detailed record of each securities or futures transaction—generally including transaction time, price, quantity, and the participating brokers.

[9] CBOE officials told us that the exchange began efforts to automate this manual surveillance program in spring 1990 and expects to complete the program in spring 1992.

[10] Alleged frontrunning is also identified by complaints, most of which come from floor participants.

that most of these transactions did not involve intermarket frontrunning. The SROs prefer this approach to one that might identify fewer potentially abusive trades because they do not want to risk overlooking an intermarket frontrunning transaction.

When it appears that intermarket frontrunning is likely to have occurred, SRO procedures require a detailed investigation.[11] Because manual analysis substantially reduces the number of suspicious transactions, the SROs do detailed investigations of only a small number of the transactions initially identified by their surveillance programs. For example, at CBOE, where automated surveillance programs identify an average of 15 to 20 potential intermarket frontrunning transactions daily, the exchange opened 4 detailed intermarket frontrunning investigations between January 1, 1990, and June 21, 1991.

SRO procedures provide that if a detailed investigation shows probable cause that intermarket frontrunning occurred, the investigation is to be referred to either the SRO's disciplinary action committee or its enforcement department. According to SEC records, the securities SROs that we reviewed took 20 disciplinary actions against frontrunners from January 1, 1984, through March 30, 1991. Of the 20 disciplinary actions, the SROs took 17 actions for stock options frontrunning and 3 actions for stock index options frontrunning.

Two major futures SROs—the Chicago Mercantile Exchange (CME) and the Chicago Board of Trade (CBT)—also have newly developed surveillance programs designed to detect intermarket frontrunning involving stock program trades and stock index futures. Both SROs use NYSE program trading data in their daily surveillance and data from their audit trail systems and other systems that provide customer account identification. According to these SRO officials, as of June 1991, SRO surveillance programs had not identified transactions that met criteria for opening a detailed investigation of intermarket frontrunning. Also, other sources of information, such as complaints, have not resulted in any disciplinary actions for intermarket frontrunning.

[11] Detailed investigations involve a variety of data sources, including computerized audit trail data, original trading records (e.g., customer order tickets), and market participant interviews.

SEC Has Reviewed Securities SRO Programs; CFTC Is Reviewing or Plans to Review Futures SRO Programs

SEC has reviewed the surveillance and audit trail programs of the securities SROs included in our review and recommended improvements.[12] The SROs have implemented some of SEC's recommendations and are discussing alternative approaches to implementing the others.[13]

CFTC officials told us that they worked with CME and CBT in developing stock index frontrunning surveillance programs. CME has used these programs daily since early 1990, and CBT has used them daily since early 1991. CFTC officials said that a review of CME's intermarket frontrunning surveillance and audit trail programs is underway, and a review of CBT's is planned for late 1992.[14]

SEC Is Studying Whether Certain Intermarket Trading Abuses, Including Some Types of Intermarket Frontrunning, Are Occurring

Some market participants, including pension fund and investment fund managers, allege that some intermarket trading abuses, including intermarket frontrunning, are occurring. SRO officials told us that their surveillance programs may not be able to detect all instances and types of intermarket trading abuses, but some officials questioned whether the alleged abuses can be practically and profitably implemented. SRO officials also said that special studies attempting to detect several types of intermarket frontrunning—most recently the January 23, 1991, report of the joint NYSE, CME, and CBT study of program trading—have not detected these abuses. SEC officials said that they do not know the extent to which intermarket trading abuses are occurring, but as part of its oversight responsibility, the agency is studying whether such abuses, including intermarket frontrunning, are occurring.

Conclusion

The SROs, SEC, and CFTC have taken steps designed to detect intermarket frontrunning, and SEC is currently studying whether intermarket trading abuses, including intermarket frontrunning, are occurring.

[12]SEC used the same precision and independence criteria for assessing the adequacy of audit trail data that we used in our review of futures SRO audit trail programs. See Futures Markets: Strengthening Trade Practice Oversight (GAO/GGD-89-120, Sept. 7, 1989).

[13]SEC's findings and recommendations are not presented in this report because SEC considers the results of its SRO reviews as nonpublic information.

[14]CFTC amended its audit trail rules in 1990 and has been monitoring CME and CBT compliance with them. In addition, CME and CBT are testing electronic methods to further improve audit trail timing.

Agency Comments

Responsible SEC, CFTC, and SRO officials reviewed a draft of this report and generally agreed with the information presented. They also provided technical clarifications that we incorporated where appropriate.

We are sending a copy of this report to the Ranking Minority Member of your Subcommittee. As arranged with the Subcommittee, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will provide copies of this report to SEC, CFTC, NYSE, Amex, CBOE, the National Association of Securities Dealers, CME, CBT, and other interested parties.

Major contributors to this report are listed in the appendix. Please contact me at (202) 275-8678 if you or your staff have any questions concerning this report.

Sincerely yours,

Craig A. Simmons

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