1980

Chicago Board Options Exchange

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Recommended Citation

DH&S Reports, Vol. 17, (1980 no. 1), p. 19-28

The Chicago Board Options Exchange

To the uninitiated, the trading floor of the Chicago Board Options Exchange is a chaotic scene. Large groups of traders crowd around oval-shaped trading posts, jostling each other and shouting out bids. Their yells blend into the overall din of the high-ceilinged room. Messengers, aptly called runners, rush through the crowds, carrying buy and sell orders. Paper, in some areas an inch deep, litters the floor. Indeed, veteran traders can estimate the day's activity by the amount of paper strewn about. Ticker-tape machines spew long paper ribbons in the member-firm booths, cramped areas with telephones, video screens and other communications equipment on tall desks. Traders, runners and those stationed at the booths wear loose jackets ranging in color from red, yellow, pink and light blue to mint green, olive drab, tan and dark blue. The different colors denote the many brokerage firms and independent traders who deal on the Exchange.

At first glance, it is hard to imagine how anything can be accomplished on the noisy trading floor. But beneath its hectic exterior, options trading is a well-coordinated, smoothly run operation. The shouts and the fast-paced action reflect the fact that trading in options is one of the most popular investment strategies around. All options traded on the CBOE are based on stock issues listed on the New York Stock Exchange.

A tightly-packed group of traders stationed before one of the trading posts of the Chicago Board Options Exchange watches closely the posted securities options quotes. On the crowded floor, traders jostle each other as they shout out bids for the ninety-five separate securities options classes listed on the Options Exchange.

When it first opened its doors seven years ago, the Chicago Board Options Exchange began a revolution in the nation's securities industry. A market was created where no formal market had existed before. Soon, trading in this new investment vehicle took hold, with investor and broker wanting a piece of the action. Activity in the new market soared. The CBOE grew from the smallest securities exchange in the country to the second largest in less than three years — an accomplishment without parallel in the securities industry.

However, the phenomenal growth of the Chicago Board Options Exchange, now the acknowledged leading marketplace for the buying and selling of options, has not been without growing pains — or controversy, especially since the Securities and Exchange Commission, the governmental regulator of the industry, imposed a moratorium on the expansion of listed options in October 1977. The moratorium was ended late in March of this year.

The CBOE has overcome the operational problems caused by heavy volume which it experienced a few years ago. A new computerized system, for example, has been developed to handle buy and sell orders more efficiently. Other operational procedures have been streamlined as well. And with the recent lifting of the SEC's moratorium, CBOE officials are looking to the future with renewed optimism.

The Chicago Board Options Exchange, which has been a Deloitte Haskins & Sells client since it first opened, was formed by the Board of Trade of the City of Chicago, a commodity futures exchange and a long-standing DH&S client. An option contract is similar to a commodity futures agreement. In both instances, a right based on the future value of the respective underlying issue or commodity is traded. In the case of an option, the underlying issue is a stock listed on the New York Stock Exchange; with a commodities future, the underlying commodity can be anything from soybeans to cattle to gold, or a financial instrument such as a Government National Mortgage Association (GNMA) security.

But the similarity ends there. An option is a unique investment form, with its own sets of rules, strategies, nuances and complexities. Defined simply, an option is a contract permitting the owner to buy or sell a security at a specified price within a specific length of time. There are two kinds of options, "calls" and "puts." A "call" option gives the buyer the right to purchase a par-

The trading floor of the Chicago Board Options Exchange forms a background for CBOE president Chuck Henry (l.) and DH&S engagement partner Russ Wende. The Options Exchange, which opened seven years ago, is the leading marketplace for the buying and selling of options on securities listed on the New York Stock Exchange.

ticular security. A "put" option gives the buyer the right to sell the underlying issue.

Formerly traded only in the over-the-counter market by a limited number of investors, the option was transformed into a flexible investment tool by the CBOE's pioneering efforts. Buying options offers many investors exactly what they are looking for — a potentially large profit from a relatively small investment but with a high risk. An individual may choose to be either a buyer or a writer (seller) of options contracts, depending on his or her financial objectives. At one time the investor may elect to buy options and at another time to write them.

Each option listed on the CBOE is normally for 100 shares of an actively traded stock issue on the New York Stock Exchange. To purchase an option, the investor pays a premium, which is the price of an options share multiplied by 100. For example, if an options share were trading at $2.50, the buyer would pay $250 for an options contract. Options must be exercised, that is, the underlying stock must be bought or sold, by a specific deadline. This expiration date is the last day on which the buyer is entitled to exercise his option to purchase or sell the underlying stock. Of course, the buyer may decide not to exercise the option. In that case, the option simply expires — ceases to exist — and the investor loses his premium.

Options quickly became popular because an investor could establish a position in the stock market through a small initial investment. For example, assume the common stock of a company is currently quoted at $50 per share. To purchase 100 shares of that stock would require an investment of $5,000. An alternative to buying the stock would be to purchase a call option with an exercise price of $50 a stock share. If the options share is $2.50, the cost of the options contract would be $250.

Now, assume the value of the underlying stock issue increases to $55 per share. Depending on conditions in the options market, the price of the options share may rise to $4.50. The option investor, as a result, would realize an 80-percent gain. There are essentially two strategies available to the investor: he or she can acquire the underlying stock for $50 per share; or sell the option contract, which in this case might command a premium of $450, to another investor.

One reason for writing options is to improve the yield on securities already owned. For example, if 100 shares of stock was purchased at $50 a share and it pays a dividend of $3 a share, the owner might write an option to sell the stock at $55 a share anytime during the ensuing six months. For this option he or she may receive a premium of, say, $150. If the stock does not go up, his yield is in effect doubled. If the stock does go up, the investor will have a gain of $5 per share.

Before the CBOE opened, several groups and exchanges investigated the possibility of creating their own options exchanges. However, the logistical problems in setting up a new exchange with a new product, compounded with concern about being able to attract a large number of traders, caused those groups to decide against the idea. The Chicago Board of Trade took the risk and sponsored a four-year research and development project which led to the creation of the Options Exchange. After approval was given by the Securities and Exchange Commission, the new options market opened on April 26, 1973. It was located in the Board of Trade building in Chicago's financial district.

In the four years after its opening, the CBOE and the options industry ex-

Traders crowd around an oval-shaped trading post, one of eleven, of the Chicago Board Options Exchange. In all, ninety-five different options classes are sold and bought in the CBOE's auction market. The video screens pictured above the trading post contain the latest information about the options issues traded at that post, such as price quotes and trading volume.

panded rapidly, and options were listed by the American, Midwest, Pacific and Philadelphia stock exchanges. There were signs of even more explosive growth.

Faced with applications for listing options submitted by the New York Stock Exchange, the nation's largest, and the National Association of Securities Dealers, a self-regulatory association for the securities industry, the Securities and Exchange Commission decided to examine the industry before it grew any further. As the SEC began its study of the industry, it placed the moratorium on the listing of any new options classes.

"The SEC, to all intents and purposes, called time out," said Walter Auch, chairman and chief executive officer of

As viewed from a trading post on the floor of the Chicago Board Options Exchange, a crowd of traders shout out their bids for securities options. Trading on the CBOE is conducted in an auction market. The Options Exchange, as well as the options industry, has grown dramatically since the CBOE opened its doors seven years ago.

Two traders in foreground conduct an options trade. Since January, the daily volume at the Chicago Board Options Exchange has averaged 190,000 contracts. Currently, the Options Exchange has nearly 1,300 members, representing more than 300 brokerage firms. A CBOE membership is the right to trade options on the Exchange's floor.

the Options Exchange. Before he joined the CBOE last year, Mr. Auch was executive vice president of a large brokerage firm, where he was instrumental in the formation of its branch-office system. "The agency wanted to examine where we (the options industry) had come from and where we were before we expanded any further."

During the moratorium the SEC conducted an exhaustive study of the options market. Areas investigated by the regulatory agency ranged from the surveillance techniques and procedures of the options exchanges to the options sales practices of brokerage firms. The agency released a report on its findings in February 1979, which contained recommendations for changes in the exchanges' rules and regulations governing the trading of options.

"We at the CBOE were pleased to find that the SEC was complimentary of our surveillance procedures and systems," Walter Auch commented. CBOE officials were also delighted that the regulatory agency held up the exchange's audit trail as a model for the other options marketplaces. The CBOE audit trail can reconstruct every options trade on the exchange, giving the time of the trade down to the second, as well as the trade's volume, price, underlying stock quote and options bid and offer, and the names of the buyer and seller.

In order to respond to the SEC's options report, the country's five options exchanges formed a task force to study the agency's recommendations. Last December, the Options Exchange submitted to the SEC its rules changes in response to the study. "Some of the

Left

Standing in front of one of the eleven trading posts of the Chicago Board Options Exchange, traders shout out bids for buy and sell orders. The ninety-five securities options classes listed on the CBOE are traded in an auction market. An option contract is an agreement to buy or sell 100 shares of the underlying security at a specified price before a specific deadline.

The Chicago Board Options Exchange's order support system (OSS), one of several computerized systems designed to streamline operations, provides member firms and their customers with one of the industry's most advanced trading-floor services. CBOE controller Don James (r) and Fred Goldman, DH&S audit staff, are surrounded by some of the sophisticated electronic equipment of the system.

rules changes in the report have already been adopted," Mr. Auch said.

"In retrospect, we believe the moratorium was probably a good thing," Mr. Auch said. "Because options were a new investment tool, stockbrokers and investors possibly had less knowledge of options than of any other product offered to the public for investment."

Realizing this, the Options Exchange during the past year has conducted a number of educational seminars throughout the country. "I also average a speech a week explaining the options business," Mr. Auch added. "The seminars and our other appearances are aimed at instructing investor and broker alike in this complex form of investment. An informed investor is the best assurance we have that people will employ options in an intelligent manner."

During its early days, the CBOE listed sixteen stocks on which options were traded. Roughly forty traders participated in the new options market. The CBOE trading floor was then located in a section of the members lounge of the Board of Trade. However, the new investment tool became more popular than anticipated and new facilities were needed.

The CBOE's present trading floor was constructed in the air space above the trading floor of the Board of Trade. Materials and equipment for the new CBOE trading floor had to come in piece by piece through a seventh-floor window, and construction could only take place after the end of the trading day and on weekends. Despite these obstacles, the new facility, which measures 20,000 square feet, was completed in only six months and at a cost of $2.5 million.

The move into this new facility in December 1974 came none too soon. By then monthly trading volume was exceeding 500,000 contracts and the original room was seriously overcrowded.

The Options Exchange provides sophisticated communications equipment for the use of traders. Information screens are positioned above each of the eleven trading posts, keeping traders up to date with news and market developments, as well as showing them the current prices, bids and trading volume of each options class.

At the time the CBOE's new facility was constructed, the Options Exchange became independent. A primary reason for that move was governmental regulation, according to Walter Auch. "We are regulated by the Securities and Exchange Commission, while the Board of Trade is overseen by the Commodities Futures Trading Commission," he explained. "We felt that it would be better to be incorporated as a completely separate membership organization in order to reflect the regulation of the two exchanges by two separate federal agencies."

Chicago office partner Russ Wende, who has supervised the CBOE engagement for the past four years, describes the firm's relationship with the exchange as very fine. The engagement team includes manager Barbara McKee and senior Fred Goldman. "While much of our work has been in audit and tax services, we have assisted in the development of new systems that will handle the Exchange's growth in the years ahead," Russ said.

The firm's services to the CBOE have expanded along with the exchange. "EDP operations are ever-expanding," Russ explained. "Their speed and efficiency become more important as contract volume increases. Those records must have up-to-the-minute information." In that area, DH&S Chicago's MAS group is assisting the Options

Crowding before a trading post at the Chicago Board Options Exchange, traders bid on securities options. Trading is fast-paced, with runners and traders rushing about to fulfill buy and sell orders. Positioned above the trading post are video screens showing up-to-the-minute information on securities options and the options market.

DH&S engagement partner Russ Wende (l.) and CBOE controller Don James discuss the features of a high-speed printer, which is used to monitor the records stored in the Options Exchange's order support system (OSS). OSS is one of several systems designed to streamline operations installed recently by CBOE.

Exchange in the design and implementation of three computerized accounting systems, which will replace the current smaller system, according to Don James, CBOE controller. "DH&S has given us significant help in this area," he commented. There are three separate systems under development: an integrated billing and accounts-receivable record, a general ledger and an accounts-payable system.

"We have also represented the CBOE before the Internal Revenue Service," Russ added. "The IRS has argued that a substantial portion of the initial years' expenses of the CBOE should be capitalized as 'start-up' costs, and not deducted. We disagreed because we felt that the IRS's start-up period was unduly long. We filed a protest with the IRS appeals division and eventually about half of the Options Exchange's expensed items were approved by the agency."

From an initial membership of 284, including representatives of 121 firms, the Options Exchange has grown to a membership of nearly 1,300, representing over 300 firms. The price applicants are willing to pay for a CBOE membership, which is the right to trade CBOE-listed options, has risen dramatically — from $10,000 at the Exchange's inception to $80,000 today. During fiscal year 1979, more than 33.5 million call and put option contracts were traded, representing more than 3.35 billion shares of common stock. The average daily volume during the period increased to 133,000 contracts from a figure of 115,000 posted for the previous twelve months. Currently, the Exchange's daily volume has averaged 190,000 contracts since January. Ninety-five separate options issues, including many of the country's largest blue-chip corporations, are currently listed on the Exchange. Call (buy) options are traded on each of the ninety-five issues, while put options, a newer kind of option contract, are available on only five of those issues.

Put options were introduced simul-

As the traders in foreground study the video screens of the trading post, others yell out bids to fulfill buy and sell orders on options listed on the Chicago Board Options Exchange. Beneath the noisy and hectic exterior of the trading floor, options trading is a well-coordinated and smoothly run operation.

taneously on the five options exchanges in June 1977 as an experimental program. The Securities and Exchange Commission, which approved the listings, limited each exchange to offering five put-option contracts. The SEC had set that restriction in order to study the performance of the new investment vehicle before it was expanded to all options issues.

Originally, the experimental program was scheduled to last for roughly three months. The CBOE and other options exchanges envisioned an expansion in put options after the completion of the SEC's study. However, before the pilot program ended, the agency imposed its moratorium. As a result, the number of put options remained stationary. Now that the moratorium has been lifted, the CBOE will submit proposals for the expansion of its put option program. The Exchange also plans eventually to list more stock issues on which options can be traded.

Although the CBOE's growth has been outstanding, especially considering the lengthy SEC moratorium, that growth has not occurred without problems, which were intensified in the spring of 1978 when the stock market experenced a tremendous rise in volume and the New York Stock Exchange posted a record high (since broken) of more than 65 million shares traded in one day. Daily volume at the CBOE also surged, and it experienced considerable difficulty in maintaining the pace of trading because of the record number of transactions.

Spurred by the need to maintain an efficient marketplace, the CBOE embarked on an extensive program to streamline its operations. One of the new computerized systems in this program is the order support system (OSS), on which the Options Exchange spent about $5.5 million in development costs.

"It's a very ambitious program," commented CBOE chairman Walter Auch. "OSS and other systems will enable us to render maximum, efficient service. At the same time, this program will reduce the operational costs of our membership."

The Options Exchange has already begun implementing the new system. When completed, the order support system will provide member firms and their customers with one of the most advanced trading-floor services offered by a securities exchange. Officials of the Exchange say that OSS and other computerized systems will give CBOE the capability to handle daily trading volumes of 300,000 contracts on a sustained basis, and peak trading volumes of more than 600,000 contracts.

The CBOE has undergone another change as well. The Exchange restructured the duties and positions of its upper management in mid-1979. "The Exchange has grown so much in the past several years that it quickly became a big business," Walter Auch explained. "Big business requires a more structured organization, with established reporting procedures. Thanks to the reorganization, morale at the Exchange is high, and we have good communications with our members. Everyone is aware of the challenges facing the Options Exchange today, and we are all prepared to meet them."

Mr. Auch was appointed the CBOE's first full-time chairman at the time of the reorganization. Previously, a chairman was elected by the membership and served for a year. As the Exchange grew, the demands on the chairman also grew, especially the need to meet frequently with the members of the financial community, one Exchange spokesman explained.

The duties of president were expanded to include those of chief operating officer. Chuck Henry, former president of the Pacific Stock Exchange, was selected to fill this position on Mr. Auch's strong recommendation. The Exchange's board of directors, which includes the chairman and the president, represents the trading membership, industry professionals and the public. The twenty-one-member body determines exchange policy, with assistance from member committees and staff.

As a sign of its strength and leading position among the options exchanges, the CBOE was able to acquire the options program of the Midwest Stock Exchange, which is also located in Chicago. During 1979 the Midwest's options program was relocated to the CBOE trading floor in the first phase of a plan to combine the two exchanges' programs.

The SEC approved the acquisition plan under which the CBOE will now assume all financial, administrative and regulatory responsibility for the MSE program. Many of the brokerage houses that trade options on the CBOE also have operations in the Midwest program. The consolidation of the two programs will save those firms an estimated $1.5 million in operating costs, according to Mr. Auch.

"Once we begin expanding, we will make sure that the Exchange and our membership can efficiently service buy and sell orders from investors," Mr. Auch said. Within a year, he added, the CBOE will substantially expand its facilities. It is also investigating the possibility of constructing its own building.

Although the Options Exchange envisions rapid growth, it has taken steps to become more than a one-product market, according to the chairman. "We have prepared applications to list options on bonds and Government National Mortgage Association (GNMA) securities and will submit them soon," he said.

"Options are really still in their infancy," Mr. Auch concluded, "and we expect that the options business and our Exchange will continue to experience dramatic growth in the years to come." □

As one trader (facing left with upraised arm) communicates by hand signals to his member firm booth, others bid on options issues at the Chicago Board Options Exchange. Since it first opened seven years ago, trading volume at the CBOE has soared to a daily average of 190,000 contracts, representing more than 19 million shares of securities listed on the New York Stock Exchange.