## FIGURE 5

AREA OF BUYER AND SBLLER ADVANTAGE/DISADVANTACE FOR A hypothetical call olmion



OPTION BUYER CAN
RECOVER A PORTION OF KIS
FREMIUM AT ANY PRICE ABOVE $\$ 50$
EXERCISE PRICE = $\$ 50$
PREMIUM $=\$ 6$


OPIIONS SELLER BENEFITS
fROM THE SALE OF THE OPTION
WITYIM THE RANGE OF THE
PRICE MUVEMLNYS COVER
BY THE PREMIUM

The buyer of this same call option will be ahead if the price of XYZ rises above 56 per share sufficiently to cover the costs of exercise, his premium and transaction costs (exercise price $\$ 50$, plus premium $\$ 6$ plus transaction costs). The call option buyer's total outlay and potential loss is limited to the premium plus commissions, whereas his outlay, for 100 shares of stock, would have been $\$ 5,000$, plus commissions and he would bear the full risk of a market decline. If the stock price does not change from $\$ 50$ per share, however, the call option buyer's option would expire worthless and his whole investment would be lost. A stock investor, on the other hand, is not likely to lose all of his investment because of the high guality stocks underlying options and his ability to sell the stock at any time.

Because of the secondary market, either the buyer or the seller or both can close out the option position at any point until expiration by resale or repurchase at whatever the value of the option appears to be at that time. Thus, loss of premium can be reduced or profits realized through closing transactions in the secondary market.
b. Put Option

The writer of a put is obligated to buy stock, at any time during the life of the put, at the exercise price, upon delivery by the put holder of the underlying shares. For the writer of an XYZ May 50 put to protect himself from assuming the risk of a drop in the stock's price, he could sell XYZ shares short, say at $\$ 50$ a share. A premium of $\$ 500$, received by the put writer who has an equivalent short position in the stock, would place him ahead if the price of $X Y Z$ rises no higher than $\$ 55$ per share
(less transactions costs) or declines to no less than $\$ 45$ per share (plus transactions costs during the life of the option (see Figure 6). If XYZ sells below 50 per share, the put writer may be called upon to buy XYZ stock at 50 per share. If that happens, he will lose the benefit of part or all of the premium depending upon how far the market is below $\$ 50$ per share. The put buyer will continue to recover portions of his premium until the stock sells below 45 (plus an amount sufficient to pay transaction costs) at which point he would have recovered the premium from the put purchase and entered his gross profit region. If the put buyer also owns $X Y Z$ stock at the time of the purchase of the put option, he has what is referred to as a "protective" put and he will assure himself of a gross sale price of $\$ 50$, net $\$ 45$ ( $\$ 50$ less his premium) in the event of a price decline. Again, of course, no allowance has been made for commission costs. By paying the premium, however, the put buyer would have indicated his willingness to accept a net price of $\$ 45$ a share and to give up the benefits of small gains (i.e., gains up to $\$ 5$ plus transaction costs) for protection against a large loss (i.e., declines exceeding $\$ 5$ plus transaction costs) if the stock price declines.

The listed puts could be liquidated at any time in the secondary trading market, recovering part or all of the premium value and taking losses or profits.

## gigure 6

AREA OF BUYER AND SELLER
ADVANTAGE/DISADVANTAGE FOR A
hypotyeticai put option

STOCK PRICE



Oprlon buyer can PREMIUM AT ANY PRICE BELOW $\$ 50$


OPTIONS SELLER BENEFITS
FROM THE SALE OF THE OPTION
WITHIN THE RANGE OF THE
BY THE PREMIUM
BOVEMSS COVA

EXERCISE PRICE $=\$ 50$
PREMLUM $=\$ 5$

## c. Gains or Losses to Options Buyers are Offset by

 Losses or Gains to Options SellersThe above diagrams show how the options buyer and seller each may fare as the stock price moves up and down during the life of the option. The manner in which any gain or loss realized by the options seller is offset by an equivalent gain or loss for the options buyer (exclusive of transactions costs) can be illustrated by simple diagrams showing the areas of potential loss and profit of buyers and sellers of options contracts in circumstances where the writer is uncovered (see Figures 7 and 8). These illustrations assume that there are no pricing biases or market inefficiencies which are disadvantageous to buyers relative to sellers and vice versa.

Option premiums reflect the risks being assumed by the writer or alternatively the costs of reinsuring against those risks through covering hedging transactions. They also reflect the option buyer's perception of the value to him of the potential benefits from expected price movements in the underlying stock as well as the avoidance of the usual costs associated with taking positions in the underlying security. Because of the general equivalence of the costs of alternative positions in puts and calls and of the probabilities associated with short-run upward and downward price movements in underlying securities, the risks in writing and the potential returns in buying a call and a put tend to approximate each other. The intercelationship between the stock, a put and a call, is such that there exists a
flgure 7
PROFIT/LOSS POTENTIAL OF A PURCHASE AND UNCOVERED SALE OF A CALL OPTION *

*/ THE AREAS OF POTENTIAL PROFIT AND LOSS ARE BEFORE ANY ALLOWANCE FOR COMMISSION CHARGES.

FIGURE 8
PROFIT/LOSS POTENYTAL OF A PURCHASE
AND UNCOVERED SALE OF A PUT OPTION */

*/ THE AREAS OF POTENTIAL PROFIT AND LOSS ARE BEFORE ANY ALLOWANCE FOR COMMISSION CHARGES.
process called conversion through which a put can be converted into a call and a call into a put. For example, the combination of the purchase of the underlying security on margin plus the purchase of a put is the functional equivalent of a long position in a call option. Likewise, a short sale of stock and the purchase of a call is the equivalent of a long position in a put option.

Recognizing the necessary interrelationships between put and call prices, Hans Stoll developed a theory of put and call parity. 9/ According to this theory, and subsequent tests of it, an arbitrage mechanism tends to keep put and call prices in line with each other through riskless conversion activities. Stoll pointed out how a put could be converted into a call (and/or a call converted into a put) at no risk to the converter. The principle of put and call parity has been used by other researchers to assess the pricing efficiency of the options market.

[^0]B. PRINCIPAL STRATEGIES

1. Introduction

Options participants can be grouped into three categories: 1) public non-professional participants, 2) professional money managers, and 3) professional traders and arbitrageurs. The basic purposes served these participants by the various common types of options transactions are: to obtain leverage, to hedge positions in the underlying security, to increase current income from securities holdings, to arbitrage for profit, to speculate or trade on perceived over-and-undervalued situations, and to facilitate the provision of brokerage and marketmaking services in the underlying stocks.

Investors have varying user perspectives as they approach the options market. Traders, for example, attempt to capitalize on undervalued and overvalued situations by using complex mathematical models and computer technigues to detect and arbitrage against perceived illogical divergences in prices. Studies of option price patterns, however, indicate that while price divergences do occur which may provide profitable trading opportunities for professionals the divergences generally are too small for trading onortunities by members of the public because of transaction costs. Other, generally sophisticated, investors perceive an opportunity to adjust the risk-reward mix of their portfolio of assets in a more precise manner because of the additional combinations of risk and potential return opened up to them by the availability of exchange traded options.

Risk management and risk adjusted performance have become basic criteria upon which professional managerial ability is evaluated. Most individual investors in options, however, are probably using option purchases and sales as a substitute for stock purchases and sales. Dealing in options enables them to take short-term positions in the stock, or shift out of the stock in the short-term with lower transactions costs; and, for buyers, it offers greater leverage than would be the case if they were trading directly in the underlying securities.

## 2. Ten Basic Strategies

Although there are a great many different options strategies, Harris Associates, Inc., in its survey of options investors, $10 /$ listed ten common strategies that appear to be commonly employed by investors:

## Buying

1) Buying options in combination with stock ownership.
2) Buying options in combination with fixed-income securities.
3) "Pure" buying of options without underlying stock or fixedincome securities.

## Mixed Strategies

4) Buying options against a short position in underlying stock.

[^1]5) buying options as a hedge against a short position in securities related to the underlying security.
6) Selling options hedged against other related securities.
7) Spreading options by buying and selling different options in the same underlying securities.
seling
8) Selliny tully covered options.
9) Selling partially covered options.
10) selling completely uncovered options.
'the strategies that the Harris survey identified are as follows: 11/

1) "Yure" buying of options without underlying
'inis "strategy" is the most cormonly employed by options buyers. It entalls a sunstantially higher degree of risk than does the simple investhent on the underlying stock because relatively large increases in the price of the underlying stock are required if the buyer is to protut trom this activity. While the leverage ootainable through the purcnase of options holds toren the potential for large profits if the relatively large increase in stock prices occurs, such large increases are relatively infrequent and, theoretically, are offset by hore trequent, smaller losses. pioreover, attenpts to roll-over optrons positions, because of the frequent payment of cormissions on sucu roll-over transactions, will generally eliminate the possiblily that investors on the average will realize any long-term

[^2]profit trom thas strateyy. Tne simple buying of options is a highly etflclent sutstitute for short-term trading in the stock. The use of Ontions enabies a snort-tenn trader to avoid the substantially larger commissions required and to use less funus than would be required to meet tne purchase of an equivalent position in the stock. It may thus help nim to ubtain a mucn larger position in a stock with a limited amount or capıtal. It also exposes nim to a risk of losing his entire investment. 2) selling fusly covered options
rnis strategy is a substitute for the short-term sale of stock. wnile rost investors who wrate fully covered options appear to do so in the nope of ancreasing their returns from a given stocknolding, the evidence inolcates that they are merely transferring the short-term risk of small movements in the price of the underlying security to the option buyer in exchange for yiving up the potential for large profits from the underlying stockholding. $12 /$ The net effect is that both the rasks and potential rewaras of stock uwnersnip have been reduced. In effect, the fully covered writer is enyayling in a partial sale of his security position

[^3]for the period covered by the option contract. If he wishes to maintain a long-term position in the underlying security, but does not believe that it will rise substantially during the period covered by the option contract, then he can trade on this belief at significantly lower costs by writing options than he could by temporarily transferring his stock ownership. By writing an option, he is effectively taking himself out of the market for that security until the price moves up or down by the amount of the premium, except that he retains the right to any dividends as long as he retains the stock and may retain certain tax advantages that would be lost on the sale of the stock.
3) $\frac{\text { Buyind options in combination with }}{\text { present or potential stock ownership }}$

The purchase of calls increases the leverage and risks of a portfolio holding the underlying stock. Placing all of one's investment in options, however, does entail substantially greater risks of loss than either holding the underlying security or holding some portion of one's funds in the underlying security along with the purchase of call options. Call options may be purchased for the specific purpose of fixing the future price of security purchases in circumstances in which an investor, who currently does not have sufficient money to take the position in the stock desired, anticipates additional funds in the future.

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4) $\frac{\text { buying options in combination with fixed- }}{\text { incone securnties }}$

Tnis partıcular approacn to buying options is frequently used as an illustration of a conservative use of options, in that the risk of such a combined investunent can ve significantly lower than investment in the underlying security alone. whether it is more or less risky depends on the proportion of options in the combined investment. In effect, the purcnase of options involves a nigh degree of risk and the purchase of quallty fixed-income securities a relatively lower degree of risk. There are many possible varlations as one adjusts the proportion of the investment that is in rixed-1ncone securities and alternatively in options. While tans strategy is frequently discussed in options articles and publications, only a very small percentage of investors actually employs this technique. 13/

## 5) Buyiny options against short positon in underlying stock

uptions can be used by traders to hedge a short position in the underlying stock or alternarlvely to nedye against a decline in the underlying stock. Because the snort seller is exposed to very substantial losses lf he is wrony (and the stock price rises substantially), his potential losses can be lmuted oy the purchase of call options. If he is right (and the stock price declines suostantially), the premium paid for the calis is the cost of nis partial protection against large losses and offsets

[^4]a portion of his gains. Similarly, an investor wishing to hedge against a substantial loss in a stock held in a portfolio might purchase a put option.
6) Spreading options: buying and selling different options in the same underlying securities

Traders and arbitrageurs attempt, whenever possible, to buy undervalued and sell overvalued options and to hedge positions taken in options and in the underlying securities in a manner which capitalizes on perceived undervalued and overvalued situations. The technique of spreading involves the taking of positions in different options in the same underlying securities on opposite sides of the market. Spread positions also may involve holding an option with a different expiration date from that of the option written, holding and writing options with different exercise prices but with the same expiration date, or holding and writing options with different expiration dates and exercise prices. Because spreading activities require the near simultaneous execution of buy and sell transactions and correct judgment respecting the appropriateness of the relative prices of the options contracts used in the spread, a high degree of sophistication and knowledge of options and option values is required in order to profit from spreading activities as well as close attention to total transactions costs.
7) Buying options as a hedge with respect to related securities

Some stocks without options tend to move in relation to other stocks, on which listed options are available. Options can be used to hedge positions

In tnese other related securities without listed options. Consequently, Options might be used to neage a position in a security of another company in the same inuustry. In addition options may be used to hedge a position in bonds convertible into the stock underlying an option.

## 8) Selling options to nedge against other securities

'ine writing or options provides a hedge against smaller short-term luoves in the price of a related security. For exanple, a block positioner naving a lony position in a related stock or convertible bond that has ween purcnased from a custoner may wish to hedge his risk until he is able to sell the securities in tne market. He might write options and efreculvely snift sone of his short-term risk exposure in those securities to options buyers until his position is sold at which time he can close out mas options positions by repurchasing calls in the market. Similarly, ne ainht write puts aganst short positions in the security.
y) Selling partially covered options
'the sale of partially covered options involves the writing of more undn one option contract for eacn hundred shares of the underlying security neld in porttollo. 'the rationale for a partially uncovered position is that tne change in the price of the option that usually occurs, for those not deep-in-tne-noney $s$ a result of a change in the underlying stock

14/ A call option, which is exercisable for substantially less than the current market price of the underlying stock, is referred to as being "deep-in-tne-noney," and conversely for a put option.

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is not on a dollar-tor-dollar basis. Therefore, an option writer may belleve that his risk from price chanyes in the option contracts he has written is adequately hedged by the price change that occurs in the shares of the underlying security being used as a cover. For example, contracts that are out-or-the-money 15/ may rise in price by an anount much less than the increase of the stock. The risk of partially covered writing activities 1s tnat they depend upon the use of a delta factor or hedge ratio which cuaryes somethues rapidमy, so that to the extent the option position is uncovered the exposure is that of a writer of an uncovered option.
10) beiling completely uncovered options

This activity involves the writing of options without a position in the underlying stock. Tne risks are large, even larger than the pure buying of options. fhe writer of uncovered options can expect a profit limated to the amount of the premiums received, but, like a short-seller, ne nas theoretically unlimited potential liability if the market moves against him, in the case of a call, and a loss wnich is limited only by the exercise price in the case of a put.
3. Survey of Investor Use of Option Strategies

Tne Harris survey found that the buying of options in combination with tixed-incone securities was the least used buying strategy among individual options investors with oniy 5 percent using that approach.

[^5]
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Unly by percent of individuail options investors were even aware of that scrategy. 16/ Tne simple strategy of buying options alone (pure buying) was, in fact, the strategy used by 38 percent of the persons surveyed. 17/ Amony individual investors, the Harris survey found that 74 percent had used some kind of pure buying strategy, 61 percent had used some form of pure selling strategy, and 38 percent had mixed strategies involving both buying and seliing activities. Among investors who utilized pure seiling strategies, 56 percent did so on a fully covered basis, 19 percent on a partially covered basis, and 19 percent on a completely uncovered basis. Aitony individuals investiny a total of $\$ 2,500$ or less in options, 49 percent enyaged in pure buying without the underlying stock or fixed-income securaties, 23 percent in buying in contbination with stock ownership, and 41 percent nad engayed in selling fully covered options. 18/ In contrast to individual investors, 79 percent of the institutional anvestors surveyed concentrated their activities on the selling of fully covered options. Only $2 b$ percent of institutions engaged in the pure buying of options without tne underlying stock or fixed income securities; and 32 percent purchased options in combination with stock ownership. Unly 7 percent of institutional investors purchased options in combination wath fixed-income securities. Many institutions are restricted to more conservative covered writing activities by either legal or selfinposed guiaelines for investing. Ine Harris survey reported that 35

16/ Harrıs report, pp. 107-108.
17) Harrıs report, p. iu8.

18/ Harris report, pp. 10bit.
percent of responding institutions were restricted to covered writing, and 56 percent of those institutions with $\$ 1$ million or more in assets were so restrıcted. 19/

Another survey of individual options investors undertaken by the Manageinent Analysis Center, Canbridge, Massachusetts and sponsored by the CBOr found that the strategies followed by options investors were: mostly buying ( 28 percent), mostly spreading ( 6 percent), mostly selling uncovered ( 4 percent), and mostly selling covered ( 62 percent). 20 While this latter study differs witn respect to the specific questions that were asked of investors, it found, as did the Harris survey, that the two strateyles nost frequently tollowed by investors were the simple vuying and coverea writiny of options contracts. The percentages cannot we directly compared because, anong other things, the AMEX sponsored survey asked investors whether they had used particular strategies while the CbOE sponsored survey asked investors which strategy they most frequently rollowed. Neitner survey included interviews with broker-dealers, a professional, but extrenely important group, using options in their activaties. Block-positioning firms, marketnakers and other brokeraealers make extensive use of options in providing dealer services to the puolic market, as is described below in the Trading Practices chapter.

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19/ Harrls report, pp. 109ft.
20/ Robbins, et al p. 74.
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As the aioove indicates, an options strategy can be used for a stock strateyy and stock and options can be use in combination to annieve alternative investment strategies. Exhibit I (attached) sets out a detailed list of now varıous stock and options strategies can we used as a substitute for other stock and options strategies.

## 4. Writing Uptions for Premiuns

whale all of the above strategies are used by investors, options advertising by broker-dealers and sales presentations by registered representacives often emphasize the writing of covered options to obtain premium income and as a means to reduce the risk of adverse market price movements, as 15 discussed more tully in the chapter on Sales Practices.
'Ine effects of altering the risk-return ratio through options, however, generaily is not empnasized by broker-dealers and their registered representatives or by published materials curcently available to the general ruolic. For exanple, the following excerpt from a handbook on options states

Atter you read tnis book, you will never be satisfied with less than 40 percent return, compounded annually. The hore you know about the stock market, the more you realize that options writing is tne only way to invest. 2l/

Une West Coast brokerage firm's radio advertisement conveyed a similarly

[^6]
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opthistıc view of options writing:
for a substantial number of investors, selling Call Options is producing premium income in the neighborhood of $12 \%$ to $20 \%$ on many good stocks. That's in addition to the stocks' regular dividends. Of course, like any investinent, there are risks to consider as well as opportunities.

Tnese statements focus on the premiums that at times are available on the sale of options and seem to inply that the overall rate of return on a securities portfolio can be increased by the sale of options. They iynore the effects on overall return that result from reducing risks when stocks and options are efficiently priced. It can be shown that portfolios includiny options can be constructed which incorporate less risk and lower potential return than an investinent in the underlying stock. In an article appearing in the Journal of Business, Merton, Scholes and Gladstein reported on the smulated return on a tully covered writing program for a portfolio of 136 stocks on which listed options were available as of December 1975 over a 12-1/2 year period from July 1, 1963 to Decenber 31, 1975. 22/ Options prices were simulated using a derivation of the Black Scholes options pricing model although they also included dividends. Merton, Scholes and Glaustein concluded that investors can reduce the risk exposure for a porttolio of stocks through writing options but that, over a period of tue, writing options on a portfolio will reduce the expected rate of retum. 'Iney also concluded that the premiun on covered call writing

[^7]should not be considered extra income to be added to the usual return
on a stock investment as some brokerage firm advertisements have implied. 23/
Merton, Scholes and Gladstein sumarized the results of their study
as follows:

> Because the levels of both option premiums and expected returns will vary depending on the perceived levels of volatility for the underlying stocks and interest rates, an unconditional estimate for the expected return on a fully covered strategy is difficult to make. However, based on the simulations, an expected semiannual return of between 38 and $4 \%$ appears to be a reasonable estimate for an at-the-money fully covered strategy when the expected returns on the underlying stocks are between $5 \%$ and $6 \%$ The fully covered strategy will frequently produce realized returns somewhat higher than the expected level. But because of the negative skewness of the returns, these higher returns will be counter balanced by the relatively infrequent but substantially lower returns that will be realized if the underlying stocks decline sharply. 24 /

While the Merton, Scholes and Gladstein study concluded that a consistent practice of writing covered options would most probably reduce the overall rate of return on the covered call writer's stock portfolio, it also concluded that the covered call writer could reduce the volatility of the rate of return. Based on their simulated 136 stock sample, the study concluded that a consistent practice of writing covered calls would have reduced the standard deviation of the portfolio returns by approximately 70 percent

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23/ Merton et al, pp. 213-214.
24/ Ibid., pp. 213-214.
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if in-tin-uoney options were sold, by avout 55 percent if at-the-money options were sold, $\angle 5 /$ and by 35 percent if the out-of-the-money options were sold. 26/

Alhough the merton, Scholes and Gladstein study relied upon simulation, their results correspond with econonic theory that there is a basic correlation in the long run between risk and reward. While their study would seem to imply that the purchase of options in comblnation with fixedincome securities would have been beneficial over this $12-1 / 2$ year period, this period was characterized by the largest bull market and the most severe near harket since 1929-1932. Unfortunately, comparable simulations were not undertaken for "pure buying" strategies, the one most commonly used by Duyers. However, the merton, bcholes and bladstein study demonstrates the need tor brokers and dealers to have studies to back up any claims to customers concerning jotential returns on options, as is recommended in tne Cnapter on Sales Practices.

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## EXHIBIT 1

The Relationship Between Puts, Calls, Straddles and Stocks

The relationship between puts, calls, straddles and stocks is summarized below in terms of the risk and rewards resulting from stock price movements during the life of the option to illustrate the relationship between stocks and options positions. A stock position whether held alone or in combination with options does not have a limited life as does the option. The purchaser or holder of a put, call or stock is referred to as being long, and the seller of stock which is not owned, or the seller of a put or call is referred to as being short. In summarizing the relationship below, each reference to stock long or short is to 100 shares of stock. It is assumed that the exercise price and expiration dates are the same for any combination of either puts or calls or both and that the purchase price of a long stock position or sales price of a short stock position is the same as the exercise price of the options. It is also assumed that the premiums received on the sale of a put or call would be the same as the premiums paid on the purchase of a put or call, although this would rarely be the case. In addition, the following summary does not cover the different amounts of capital and margin that must be used to establish the different positions or the effect of commissions and dividends. In most instances, combining options and stocks
positions in the strategies listed below would be more costly than the equivalent single stock or option strategy with respect to which it is equal.

Long Stock = long call and short put. Buying a call and selling a put with the same exercise price has the same market risk reward during the life of the option as owning stock because the long call provides the right to a benefit from an increase in the stock price and the short put results in having the risk of ownership in the event of a stock price decline.

Short Stock $=$ long put and short call. Either of these positions benefits from a stock price decline but provides no protection against loss in the event of a stock price increase.

Long Call $=$ long stock and long put. A long call provides the $r$ ight to benefit from an increase in the stock price but a premium has been paid to limit loss. Similarly, buying a put to protect a long stock position involves paying a premium to limit loss.

Long Put $=$ long call and short stock. The short stock position will benefit if the stock price declines, but the loss in the event of a stock price increase is limited to the premium paid for the option.

Short Call $=$ short stock and short put. The maximum profit on either position is limited to the premium on the sale of the option (except


[^0]:    9/ Stoll, Hans R., "The Relationship Between Put and Call Option Prices," The Journal of Finance, December 1969. Merton later concluded that the theorv was applicable only to a European option, one not exercisable until maturity. See Merton, R. C., "The Relationshid Between Put and Call Option Prices: Comment," The Journal of Finance, 28 (March 1973) pp. 183-184.

[^1]:    10/ A Survey of Investors In the Listed Options Market, Louis Harris Associates for the American Stock Exchange, Inc., May 1976, p. 112. The source of data for this survey was interviews with a clustered systematical probability sample of 319 options customers selected from 5 of the 20 largest options retail firms. The firms were selected on the basis of various subjective characteristics, including willingness to cooperate.

[^2]:    11/ The Options study does not endorse or recommend any of the stategles described at pp. 28-34. 'iney are used only to lifustrate the common strategies that the Harris survey found.

[^3]:    12) Merton points out that in quiet periods when little companyspecitic information $1 s$ arriving at the market, writers will tend to make what appear to be yreater than normal profits and ouyers will appear to lose. However, in the relatively intrequent active periods, the writers will sutfer large losses, or, if covered, will forego larye protits, and the buyers will protit because movements in stock prices occasionally exhibit large discontinuaties or "junps" in movement. The writer's large losses occur just irequently enough to, on the average, offset the amost steady excess return. Merton, Robert C., "Options Pricing when underlying Stock Returns are Discontinuous," Journal of truancial Economics (1976), p. 132.
[^4]:    13/ See Harris Report pp. 107-108. Only 5 percent of the investors in that survey used this strategy.

[^5]:    13/ A call option, whuch is exercisable at a price higher than the current market price of the undertying stock, is referred to as being "out-of-tne-money," and conversely for a put option.

[^6]:    21/ Auster, Rolf, Optıons Writing and Hedgıng Strategies, Hicksville, New York, 1975, j. 3.

[^7]:    22) Merton, Rooert C., Scholes, Myron S., and Gladstein, Mathew L., '"Ihe Returns and Risk of Alternative Call Option Portfolio Investment strategies," The Journal of Business, April 1978, p. 189.
[^8]:    20 When an option's exercise price is the sane as the price of its underlying stock, the option is said to be at-the-money.

    26/ Ib1d., pp. 209-210.

