Index Options Versus Stock Options

The important thing to remember about options overwriting on stock portfolios is that there are two options to consider.

By Steve Hardy

Options overwriting is a way to provide incremental return to an equity portfolio. With the advent of the index options, the question frequently raised is whether it makes sense to treat a portfolio of stocks as one entity and sell index options against all of the individual components.

There are some obvious advantages to using index options on an option overwriting account. One is lower costs. Writing index options against *one* index as opposed to writing stock options against maybe hundreds of stocks dramatically reduces the number of transactions. This means comparatively nonexistent custodial bank transaction charges, virtually no administrative burden for the client and custodian, and greatly reduced commission costs. Less work for the manager, it often results in discounted fees.

A second advantage is higher liquidity, since the S&P 100 index option is the most liquid option, and possibly more liquid than any stock. Writing index options allows a pension plan's entire equity portfolio to be utilized, rather than just the optionable portion, and reduces the probability and cost of an unwanted exercise.

In addition, there is no negative effect if underlying equities are traded (unless stocks are sold on balance), and individual stocks that run up on rumors, news or tender offers will have virtually no negative effect on the index option. All these advantages greatly enhance the probability of adding the desired incremental value over market cycles.

Yet answers to other questions relating to index option overwriting are not so obvious. One question is whether smaller index option premiums are ample enough to meet our incremental return goals of an average of one percent or more annually. Another is whether an overwriting strategy works as well with index options as it has with individual stock options.

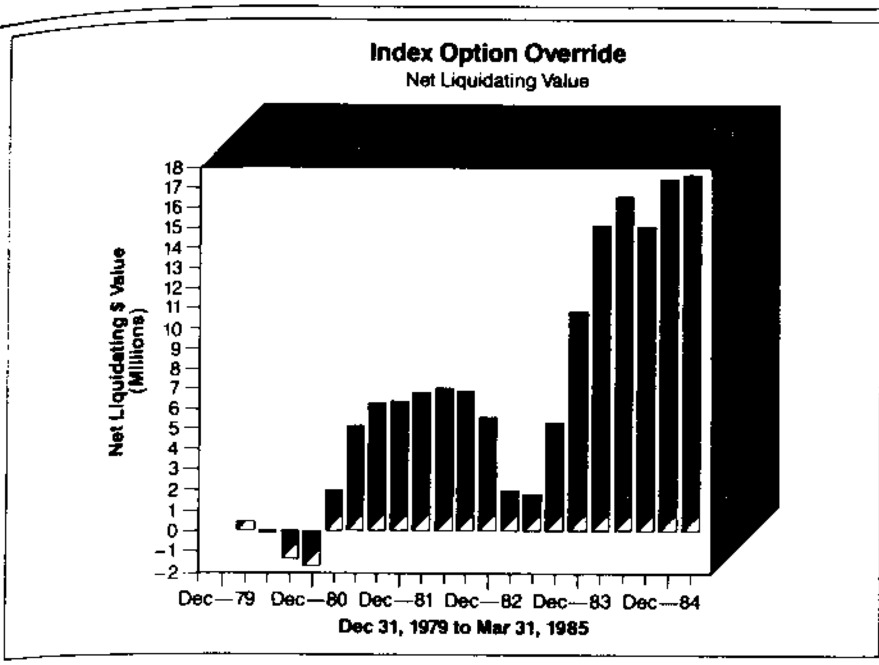
RESEARCH

In order to answer these questions before we began to use index options for our clients, we conducted a rigorous one-year study where we simulated the results of index option writing for the five-year period ending December 1984. Our option overwriting strategy requires no market timing or security evaluation. It is based on a formula that takes into consideration both the movement of the market and the level of option premiums.

Generally, it has us selling more options as the market rises, while selling fewer options as it declines. It was, therefore, easy to test our strategy with index options, without using hindsight. Always assuming Black-Scholes "fairly valued" option prices, our study demonstrated that an index option overwriting program during this period would have resulted in average incremental returns of 175 basis points per year. The market (S&P 100) grew at a compounded annual rate of 13% including dividends but with no options. With options written, the same index would have grown at 14.75% per year. This amounted to just over $18 million in net option profits on a beginning portfolio value of $100 million.

One question that is still being asked by plan sponsors is whether index options should be written against actively managed (nonindexed) portfolios. There is no reason why not, so long as the portfolio is well diversified and moves in the same direction as the market index.

Most clients have actively managed portfolios because they assume they will outperform the market averages. Given the choice, we will



always select the weaker portfolio to write options against which, in this case, should be the index. In other words, if the actively managed portfolios do, in fact, outperform the market, we will be much better off writing against the market index as opposed to the stocks in the actively managed portfolios.

Our actual experience with index options began in the fall of 1985. So far, we have no reason to quarrel with any of the advantages outlined. We have found that writing index options against an entire portfolio causes the percentage of options we write to change significantly. It increases much more dramatically as the market rises while decreasing much more dramatically as the market declines.

For instance, the market strength over the past six months has caused us to get close to 100% written with our index option overwriting programs, whereas we are only about 60% written in accounts where we use only stock options. As far as the index options are concerned, this can be both good and bad. It means that there is a greater chance that a client might be asked to put money into the program during a strong market advance.

STOCK OPTIONS

There is much less likelihood of this occurring with the stock options, since our percentage of options written stays relatively small. On the positive side, the index options will provide much greater profits when the market eventually goes down or consolidates, because of this heavily written position.

Using our strategy, the index options tend to be more aggressive in that they will hold back returns more in a rising market but will make more money in a flat and declining market. We are confident that over a full market cycle index options will provide as great or greater returns than stock options, but they are not necessarily good for every client. For instance, if a client is concerned about opportunity cost in a rising market and the prospect of possibly having to finance the option program with cash during such a strong market, we recommend he avoid index options and stick with stock options. For more aggressive clients less concerned with this shorter term drawback, we recommend the index option overwriting.

There are also other factors to consider in deciding whether to use stock or index options. A client with a small dollar portfolio, with a relatively large number of stocks, should favor using index options because of the much lower transaction cost.

Clients with actively managed portfolios where the turnover is high should also favor index options, since the turnover does not affect the writing of index options, but can be quite detrimental to an option overwriting program using stock options.

A client with a poorly diversified stock portfolio with either too few stocks or one concentrated heavily in only one or a few industries should favor using stock options. Such a portfolio could move in the opposite direction to the market. With index options, it could be possible to lose money on both the stock and options, if the index was rising and the portfolio of stocks was declining. Depending on your portfolio, both the stock options and the index option market will survive and provide individuals and institutions with viable speculating and hedging opportunities. IM

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