

## MONTREAL EXCHANGE

# Buying call options instead of buying stocks

### Situation

In many cases, an investor will be reluctant to commit large amounts of capital to the purchase of a stock and yet want to be in a position to profit should the price of the stock rise. Call options offer an attractive strategy to an investor who is bullish on a stock but reluctant—due to cash flow constraints or overall risk considerations—to actually buy common shares of the company. Thus, this strategy enables an investor to profit from the leverage provided by options when he forecasts an increase in price, limiting the loss to the call option premium.

### Objective

Purchase of call options to take advantage of a rise in stock prices.

### Strategy

An investor feels that the MNO BANK shares, which are priced at \$16.00, are undervalued. He does not own any MNO Bank stock but believes the shares will rise over the coming months.

To profit from his forecast, he could, of course, buy MNO Bank common stock. 200 shares would cost \$3,200. Alternatively, six-month call options to buy MNO Bank stock at \$17.00 per share are available at a premium per share of \$0.75. Our investor decides to buy 2 MNO OCT 17 call options at a total cost of \$150.00 (i.e.  $2 \times 100 \times \$0.75$ ), considerably less than the cash outlay of buying 200 shares.

Six months later, MNO Bank stock has indeed risen, closing at \$20.00 on October 7, 2003. The MNO OCT 17 call options are now selling for a premium of \$3.00. Feeling that MNO Bank stock is not likely to rise further, the investor decides to sell his 2 MNO OCT 17 call options for revenues of \$600.00 ( $2 \times 100 \times \$3.00$ ).

### Results

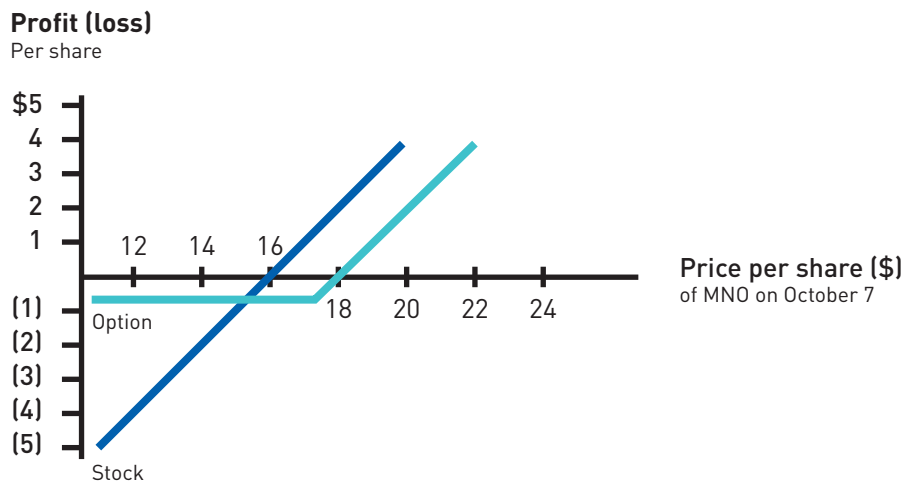
The resale of the 2 calls enables the investor to realize profits of \$450.00 since the options purchased for \$150.00 are resold six months later for \$600.00. Had he instead purchased 200 shares of MNO Bank stock on April 1 at a price of \$3,200.00, he would have realized profits of \$800.00, as the 200 shares would be worth \$4,000.00 on October 7.

Returns on investment are quite different due to the difference in original capital outlays, as the following table illustrates:

<b>DATE AND TRANSACTION</b>	<b>Price per share of MNO</b>	<b>Options</b>	<b>Shares</b>
<b>April 1:</b> buy 2 MNO OCT 17 calls at \$0.75 or buy 200 shares	\$16.00	\$(150.00)	\$(3,200.00)
<b>October 7:</b> sell 2 MNO OCT 17 calls at \$3.00 or sell 200 shares	\$20.00	\$600.00	\$4,000.00
<b>Net profit</b>		\$450.00	\$800.00
<b>Return on investment</b>		300%	25%

Had the investor purchased shares of MNO Bank stock instead of the call options, the rate of return on capital would have been considerably lower. Further, the call buyer's risk is limited to the premium paid, regardless of any decline in the market price of the MNO shares.

A comparison of profits and losses from the two strategies (call options versus purchasing shares) is presented below in graph form using a variety of possible MNO share prices at the call options' expiration. The vertical axis shows the profits or losses on a per share basis. To convert to net profits or losses for the two strategies, multiply by 200.



This graph illustrates the relative advantages of each strategy. For example, the break-even point of the options strategy (the point at which the options graph crosses the horizontal axis) is at \$17.75 per share (the MNO OCT 17 call strike price plus premium of \$0.75 paid on April 1) while the stock strategy break-even is at \$16.00, the original April 1 share price. If MNO stock rises, the investor's total profits are slightly more favourable when owning shares, since he will not have paid a time premium for the options. But profits are unlimited in either strategy.

On the other hand, note the horizontal line in the loss area. This is due to the fact that the options trader cannot lose more than the \$150.00 in premiums he paid. Of course, the owner of 200 shares stands to lose considerably more should the stock price decline substantially. He loses dollar for dollar if share prices decline; the call options buyer cannot lose more than \$0.75 per underlying share.