September 2012

The Repair Strategy

Warren Buffet once said: "Rule No. 1 is never lose money. Rule No. 2 is never forget rule number one." Wouldn't it be nice if all the stocks in a portfolio were all winners? Unfortunately, losses are part of the equation in the investing world. Ultimately what counts is how an investor manages their losses.

In this issue, we'll look at how an investor holding shares above the current market price could recover losses. To do so, the investor may execute a repair strategy that will reduce the break-even price, without investing more funds and, most importantly, without increasing risk. However, the trade-off is that the investor will have to give up extra profits above the new break-even price.

THE REPAIR STRATEGY: THE CONSTRUCTION

The repair strategy is implemented by buying one call option and by selling two call options with a higher strike price and the same expiry date. In general, the strike price of the call option bought is equal to the current stock price; while the strike price of the call options sold is halfway between the initial purchase price and the actual price of the stock. Ideally, the repair strategy will be implemented when the security has lost no more than 20% of its value. In this context, it is possible to find options that permit to implement the strategy at a minimal cost, or even at no cost. However, when the losses incurred are material (> 20%), it becomes almost impossible to find options for a no-cost repair strategy.

THE REPAIR STRATEGY: AN EXAMPLE

In April 2012, an investor bought 1,000 shares of Methanex Corp. (MX) for which they paid $35. Methanex now trades at $29. To recover the initial capital, the investor has three alternatives. The first alternative is to hold tight and wait for the share price to rise above the initial purchase price. The second alternative consists of "doubling-up" the position to reduce the break-even price in the hope to sell shares if their price rises above the break-even price. The third alternative is the repair strategy. Waiting for the share price to rise (alternative no. 1) could take some time. Doubling the number of shares (alternative no. 2) allows recovering the losses more rapidly since the purchase of new shares reduces the break-even price. However, it requires an important additional outflow of capital which results in heightened risk. Since the investor wishes to recover the initial capital by reducing the break-even price, without putting up more capital or increasing the risk, the investor opts to implement the repair strategy.

The investor holds 1,000 MX shares at a price of $35. They decide to buy 10 MX APR 2013 29 call options at of $2.40 per share for a debit of $2,400 and, simultaneously, sell 20 MX APR 2013 32 call options at $1.20 per share for a credit of $2,400. As a result, these transactions are executed at no additional cost.

The purchase of 10 MX APR 2013 29 call options gives the investor the right to buy 1,000 additional MX shares (10 contracts × 100 shares per option contract) at a price of $29 per share up until the expiration date of the options in April 2013. The sale of 20 MX APR 2013 32 obligates the investor to sell 2,000 MX shares (20 contracts × 100 shares per option contract) at $32 per share if assigned up until the expiry in April. The investor only holds 1,000 shares; however, the 10 call options contracts may be exercised to deliver the 2,000 shares if the investor is obligated to do so.

April 2012	**Purchase of 1,000 MX shares @ $35** Debit of $35,000 (1,000 × $35)	
October 2012 MX @ $29	**Loss of $6,000** (($29 – $35) × 1,000)	**Purchase of 10 MX APR 2013 29 call options @ $2.40** Debit of $2,400 (10 × 100 × $2.40) **Sale of 20 MX APR 2013 32 call options @ $1.20** Credit of $2,400 (20 × 100 × $1.20) **No cost**

THREE SCENARIOS AT EXPIRY

Let's consider three possible scenarios at the expiration date in April 2013. In the first scenario, MX share price continues to decline and stabilizes at $20. In the second scenario, MX share price remains stable and closes at the current share price of $29. In the third scenario, MX share price rallies above $32.

1. MX declines to $20 at expiry in April

April 2012	**Purchase of 1,000 MX shares @ $35** Debit of $35,000 (1,000 × $35)	
October 2012 MX @ $29	**Loss of $6,000** (($29 – $35) × 1,000)	**Purchase of 10 MX APR 2013 29 call options @ $2.40** Debit of $2,400 (10 × 100 × $2.40) **Sale of 20 MX APR 2013 32 call options @ $1.20** Credit of $2,400 (20 × 100 × $1.20) **No cost**
April 2013 MX @ $20	**Loss of $15,000** ($20 – $35) × 1,000)	**MX APR 2013 29 call options** No value **MX APR 2013 32 call options** No value
Total	Loss of $15,000 (loss of $15,000 on the stock position + results from the option position)	

As can be seen in the preceding table, if MX share price declines to $20 in April, both call options will expire worthless and will have no impact on the investor's position. As a result, the investor incurs a loss of $15,000 which would be the same had they not adopt the repair strategy. In this scenario of a falling share price, while the repair strategy did not worsen the investor's position, it did not help it either.

2. MX share price is stable at $29 at expiry in April

April 2012	**Purchase of 1,000 MX shares @ $35** Debit of $35,000 (1,000 × $35)	
October 2012 MX @ $29	**Loss of $6,000** (($29 – $35) × 1,000)	**Purchase of 10 MX APR 2013 29 call options @ $2.40** Debit of $2,400 (10 × 100 × $2.40) **Sale of 20 MX APR 2013 32 call options @ $1.20** Credit of $2,400 (20 × 100 × $1.20) **No cost**
April 2013 MX @ $29	**Loss of $6,000** ($29 – $35) × 1,000)	**MX APR 2013 29 call options** No value **MX APR 2013 32 call options** No value
Total	Loss of $6,000 (loss of $6,000 on the stock position + results from the option position)	

When MX share price remains stable to close at $29 in April, both call options will expire worthless and will have no impact on the investor's position. As a result, the investor incurs a loss of $6,000 which is the same had the investor not adopt the repair strategy. Therefore, one realizes that the repair strategy had no negative impact on the investor's position.

3. MX share price increases above $32 at expiry in April

April 2012	**Purchase of 1,000 MX shares @ $35** Debit of $35,000 (1,000 × $35)	
October 2012 MX @ $29	**Loss of $6,000** (($29 – $35) × 1,000)	**Purchase of 10 MX APR 2013 29 call options @ $2.40** Debit of $2,400 (10 × 100 × $2.40) **Sale of 20 MX APR 2013 32 call options @ $1.20** Credit of $2,400 (20 × 100 × $1.20) **No cost**
April 2013 MX @ $32	**Loss of $3,000** ($32 – $35) × 1,000)	**MX APR 2013 29 call options** Value: $3,000 (($32 – $29) × 10 × 100) **MX APR 2013 32 call options** No value
Total	No loss (loss of $3,000 on the stock position + $3,000 value of the option position)	

When MX share price increases to $32 in April, the MX APR 2012 32 call options sold will expire worthless, whereas the MX APR 29 call options bought are worth $3,000. The total value of the options position is $3,000, which is also the net profit on the options position since the position was established at no cost. This gain will completely offset the loss incurred on the stock position and will allow the investor to close-out the entire position at no loss with a share price of $32.

As we can observe in the following table, when MX share price is higher than $32 in April, there is no additional benefit to the investor since in all cases the investor recovers the loss incurred from holding MX shares through the repair strategy using options.

MX Share Price at Expiry in April 2013	Profit/Loss on MX Shares	Profit/Loss on MX APR 2013 29 Call Options	Profit/Loss on MX APR 2013 32 Call Options	Net Profit/Loss
$20	-$15,000	$0	$0	-$15,000
$29	-$6,000	$0	$0	-$6,000
$32	-$3,000	$3,000	$0	$0
$35	$0	$6,000	-$6,000	$0
$40	$5,000	$11,000	-$16,000	$0

CONCLUSION

The repair strategy allows an investor, who holds a losing position on a security, to reduce the break-even price without the need to provide additional capital. It is possible to implement this strategy at no cost when the losses on the security are not greater than 20%. Above this percentage, it becomes very difficult, or even impossible, to find options that allow an investor to execute the strategy at no cost. Even though the repair strategy offers no downside protection, it does not increase the risk from holding the shares. Consequently, an investor that expects further declines in the price of the shares should therefore implement a protection strategy to reduce this risk. Finally, the investor that implements the repair strategy should be ready to give up additional profits above the new break-even price.