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Bullish on Implied Volatility -- Buy VIX[®] Call Option

VIX options are an excellent tool for traders who want to take a position on expected implied volatility. Just like traditional stock options, they can be traded during normal stock market hours through a securities broker. Be sure to learn the expiration date and mechanics, because the last day for trading VIX options is a Tuesday with the final settlement value being determined at Wednesday's opening.

The CBOE Volatility Index[®] (VIX) arguably is the most watched indicator of market volatility. The VIX tracks the implied volatility of the SPX—options on the S&P 500[®] index. In 2004 the CBOE Futures Exchange (CFE) launched futures on the VIX, and in early 2006 CBOE announced plans to list options on the VIX. Traders who wish to take a position on expected implied volatility can now easily do so with VIX options.

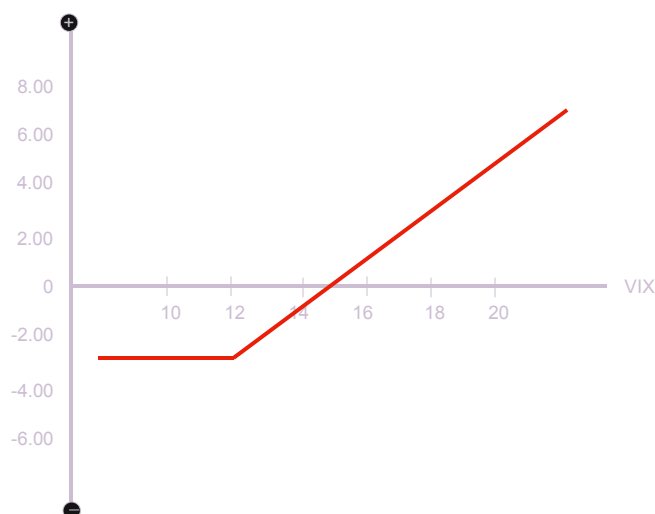
Scenario

For the following example assume that today is January 31st. Also assume that the market has been rising steadily all month and that *you believe* that optimism is excessive. *You also believe* that the current low level of VIX of 10.40 indicates too much complacency. Further evidence of the market's expectations for continuing low levels of implied volatility through August is the price of 121.00 of the August VIX futures. VIX futures are based on 10 times the VIX, so this futures price implies a forward VIX level in August of 12.10. As a result of these facts and your opinion, you believe that the stock market could suffer a 5% or greater price decline and that VIX will rise substantially, possibly as high as 20.00.

VIX options enable you to make a trade based on your view that the VIX Index and August VIX futures will rise from their current levels to approximately 20.00. One strategy that might profit from the forecast in this example is buying a VIX call. Commissions and other transaction costs are not included in the following example.

With August VIX futures at 121.00, implying a VIX level of 12.10, let's buy 1 VIX Aug 12½ call at 2.75. The profit and risk potential of this strategy at expiration is illustrated in the graph below.

Long VIX Call – P&(L) Diagram



Three Possible Outcomes

1. VIX below 12.50 at expiration in August: If the VIX Index is below 12.50 at August expiration, then the call expires worthless and the entire investment of \$275 (2.75 times \$100) is lost.
2. VIX above 15.25 at expiration in August: If the VIX Index is above 15.25 at August expiration, then the result is a profit. The amount of profit is equal to the value of the option less the cost of the option times \$100. For example, if the VIX final settlement value is 20.00, then the profit is \$475 which is calculated as follows: $(7.50 - 2.75) \times \$100$. With VIX at 20.00 at expiration, “7.50” is the final settlement value of the 12½ call. It’s cost was 2.75 in this example, and \$100 is the multiplier, just as it is for traditional stock options. Note that the profit result of \$475 only occurs if the option is sold for 8.00 or if the VIX final settlement value is 20.00. If the VIX index reaches 20.00 prior to August expiration, there is no guaranty that VIX futures will be trading at or above 20.00 when the VIX index reaches that level. Consequently, the VIX 12½ call might be trading at a price below 8.00 when the VIX index is 20.00. Furthermore, since VIX options are European-style exercise, they can only be sold prior to expiration; they cannot be exercised early.
3. VIX between 12.50 and 15.25 at expiration in August: If the VIX Index is between 12.50 and 15.25 at August expiration, then the result is a loss. The amount of loss is equal to the cost of the option less the value of the option times \$100. For example, if the

VIX final settlement value is 13.00, then the loss is \$2.25 which is calculated as follows:
 $(2.75 - .50) \times \$100$.

Summary

If you have a directional view on the VIX Index and VIX futures contracts, then VIX options can be traded in a manner similar to traditional stock and index options. As with traditional stock and index options, many strategies are available. The unique feature of VIX options is the underlying, which is the expected implied volatility of SPX options. Whether you are bullish, bearish or neutral on SPX implied volatility, VIX options are a tool that makes it possible to trade your view.

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