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> ***"Everyone has a plan 'till they get punched in the mouth."***
> ***— Mike Tyson***

Trading is easy. Anyone can click on a screen and trade. Trading software and technology available on any smart phone can tell us what the markets are doing, manage a portfolio, execute a trade, test strategies, look at graphs and "manage" risk.

Blogs, advisors, commentary and market intelligence are available 24/7 worldwide. Everybody can have a market view, a story, an idea and act on it immediately. Tons of data are available to support almost any market prediction and make convincing outlooks.

Trading has become so easy that many advertisements show wonderful scenes of traders living in exotic locations, living the "dream" with a simple click of a button. The most sophisticated risk management software, once available only to top Wall Street firms and hedge funds, are now accessible to everyone.

Trading is easy.

At least the execution is easy.

Option trading is now also spectacularly easy. Online software show all the sophisticated risk, Greeks, scenario analysis and a multitude of simulations and graphs. This is basically the same options risk-management software used by the professionals.

However, if options trading and risk management is so "easy" why do most fail and only a select few win?

Option strategies which are designed to provide "insurance" tend to bleed for long periods and then often fail when payoffs are needed most.

Options strategies designed to generate "income" by selling premium typically earn a small amount then give back profits, or more, in one fell swoop.

"Long tail risk" or "short-tail risk", many of these strategies fail to generate anything close to the expected profit or loss when the tail hits. Options scenario analysis software, designed to show "what-if" PnL for a wide range of potential market shocks and scenarios, never seem to generate anything close to the real life outcome when the market actually does move.

All of the risk management software and shock scenario analysis graphs and sophisticated trading technology are missing a key variable: **process**.

The shock charts and scenario analysis are only useful in conjunction with the actual trading or investment process underlying the strategy. If a particular scenario occurs what is the trading process as it happens? Without the trading process when the event happens, the risk management is incomplete. For example, if a scenario analysis shows an expected profit (or loss) if the underlying drops 20%, what is the actual trading process when this happens? What is the follow up?

In short - what is the risk management protocol, aka the plan, when the event occurs?

"What if?" scenario analysis must also include a "what then?" For example, below is a scenario analysis of a long straddle in the S&P 500 index options. The profit potential looks great for a large market move - in either direction.

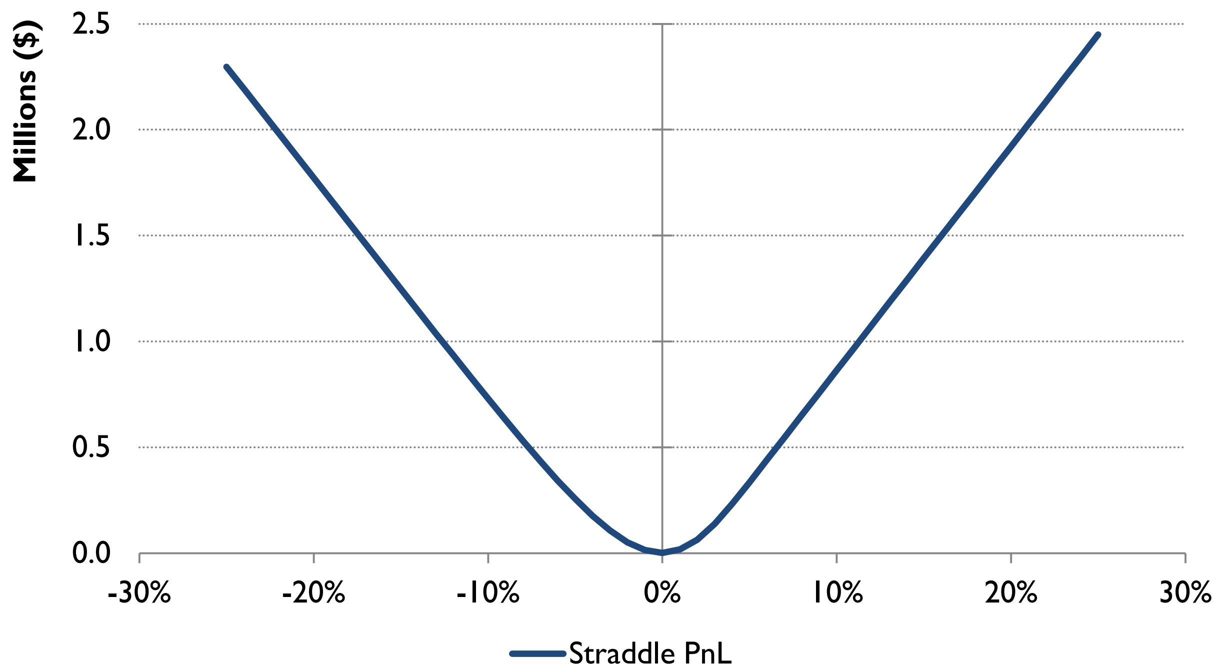

Figure 1: Payoff profile of buying 100 S&P 500 e-mini July 2100 Straddles.

However if the risk management plan is to re-hedge the book as the market moves then the analysis does not include the additional trades as the event unfolds.

If the market drops 5% will you do nothing or take profits and hedge? If the protocol is to hedge the exposure every 5% the market moves, then the ultimate scenario PnL will be very different.

Underlying Market Move	S&P 500 Level	Straddle Delta ($)	Straddle PnL ($)	Futures PnL ($)	Total PnL ($)
-25%	1,575	(9,898,131)	2,297,604	(1,987,359)	310,245
-20%	1,680	(9,889,829)	1,772,604	(1,461,081)	311,523
-15%	1,785	(9,881,527)	1,247,604	(934,803)	312,801
-10%	1,890	(9,779,273)	729,979	(414,540)	315,439
-5%	1,995	(7,876,264)	255,669	-	255,669
0%	2,100	-	1,110	-	1,110
5%	2,205	10,062,701	335,110	-	335,110
10%	2,310	10,631,092	863,603	(479,176)	384,427
15%	2,415	11,159,778	1,392,322	(984,188)	408,134
20%	2,520	11,688,464	1,921,041	(1,512,187)	408,854
25%	2,625	12,217,150	2,449,760	(2,062,214)	387,546

Figure 2: Table of PnL and delta of 100 S&P 500 e-mini July 2100 straddles, the PnL of the futures position assuming the straddle is hedged every 5%, and the combination of the straddle + futures PnL.

In the table above, the "Futures PnL" column shows the losses from delta hedging in this scenario. In a down 25% market move, 86% of the positive PnL generated from the long straddle position is lost because of the process. A risk manager looking at the "Straddle PnL" ex-ante, may assume this hedge is providing more insurance than it realistically will.

In the chart below, we can see the difference in PnL by following the risk framework of hedging every 5%.

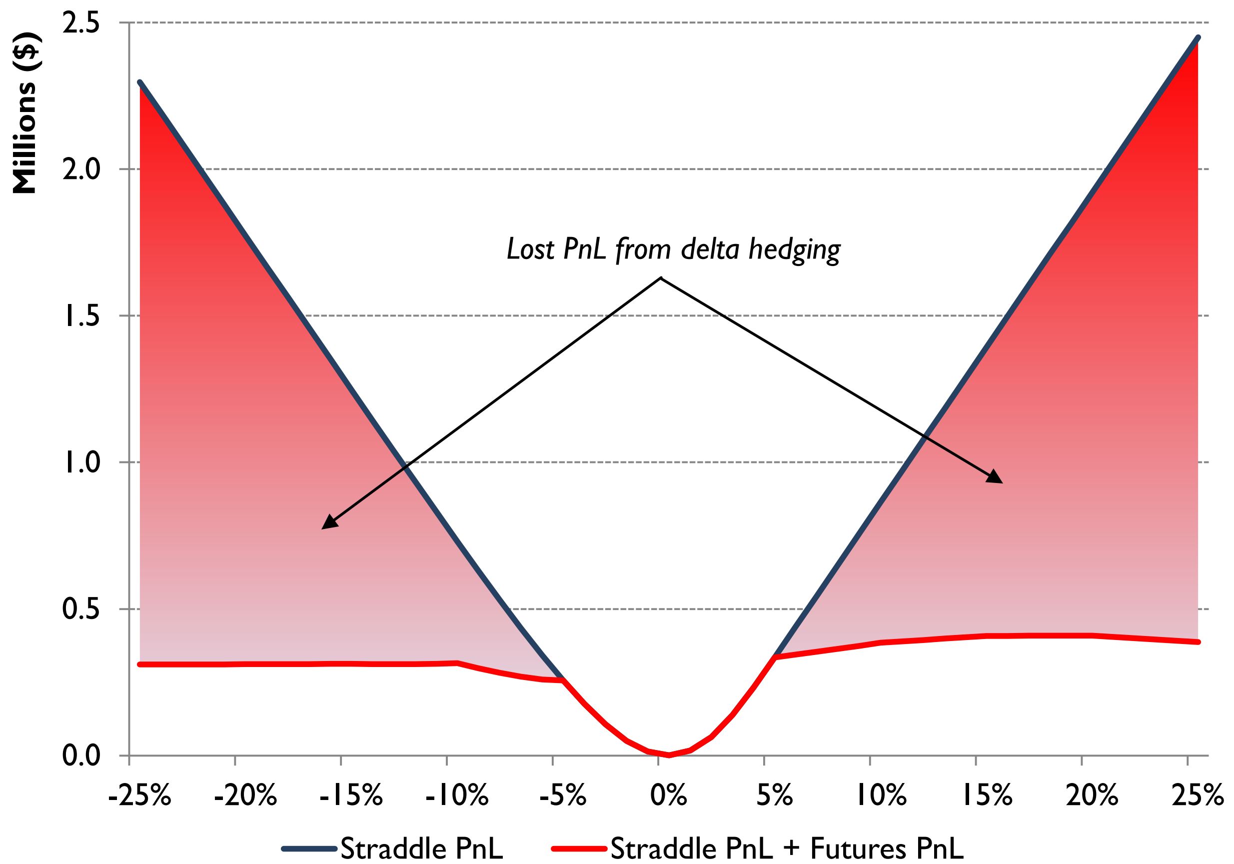

Figure 3: Payoff profile of buying 100 S&P 500 e-mini July 2100 Straddles for $145 and the combined PnL of the straddle and delta hedging with futures every 5%.

Buying the straddle as a form of insurance is easy. All of the fancy risk management software will tell you that it is hedging the book and will perform extraordinarily well in a market shock. One shortcoming of these shock scenarios is they usually fail to consider the human element and process of hedging and taking profits.

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