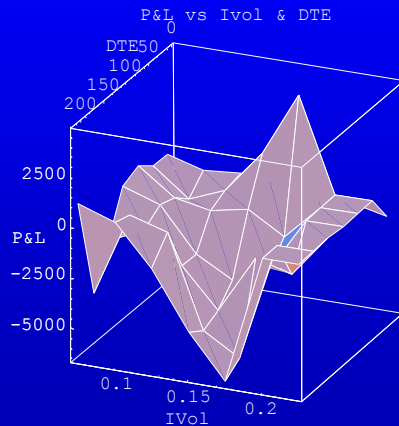




Average Cheap/Dear Surface



Struct 049

- Buy/Hold to Exp
- Average of the trades

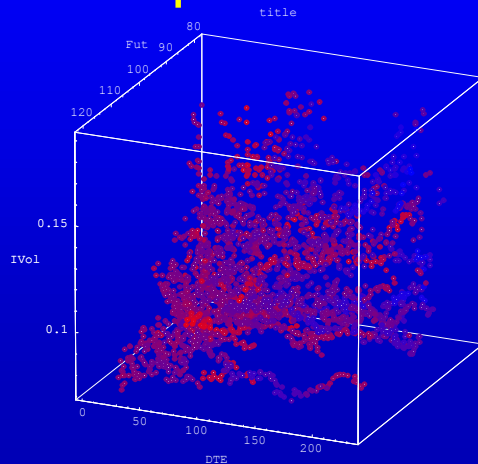
This slide is one of many in a series on cheap/dear analysis for options trading. The surface represents average P&L against implied volatility and days to expiration for a particular option structure that is hedged with a particular rebalancing strategy (details omitted from here). Each point on the surface is the net P&L over the holding period of the trade including all rebalancing costs, funding costs etc (just as if you were trading it). The analysis back test the purchase of the structure and the entire rebalance strategy over a ten-year history of market prices, leading to nearly 5000 “virtual portfolios” that result in the surface.

This type of analysis can be used in many ways. For example, though the analysis of such trades is rather more involved than can be exhibited in a few slides, even at this level it can be seen that this trading strategy is expected to make upwards of USD 2,500 per “unit of trade” (again details omitted) when there are 30 or fewer days to expiration and the implied volatility is relatively high. The explanation of this phenomenon is omitted from these slides.

Conversely, the strategy losses upwards of USD 6,000 per “trading units” when there is 6 months to expiration and volatility is relatively high. This means that under these market conditions, we should have “sold” this structure/rebalance strategy combination.



Example of an “Other” Factor



Struct 049
-Buy/Hold to Exp

4-D plot testing price level as an other determinant of profitability.

Many other factors are looked at: eg. Mov. Ave. etc.

This slide is one of several slides illustrating visualisation methods for determining arbitrage (or buy/sell) conditions. As before, the points represent net P&Ls for trades (including their rebalance strategies, costs, etc) over a holding period using a ten-year market history. Here, however, the plot is “4-dimensional” in that each of three axis is a market condition, while the colour of the point represents profitability (the fourth dimension).

The “blue” points are at one end of the P&L spectrum, while the “red” points are at the other. This means that implied volatility, days to expiration, and futures prices are all used to decide when to transact on this structure.

Indeed, it is the case that a complete analysis of such trades requires additional “dimension” to the three used here.