

You can trade clearly now with ODI.

by Chris Marczak

As times change, so terms and definitions. And markets, which are projections of human behaviors, evolve along with their changing environments. To stay surfing on the tide, trader must evolve as well, changing his ideas and tools accordingly.

At the time when we were building fundamentals of an option strategy, we first needed a working definition of trend applicable for our purposes. After browsing through many resources, we realized that borrowing this concept from others was not going to be a satisfactory solution. Because we wanted to sell options, our primary concern was to recognize which side of the market had a higher probability factor of success. Thus, our attention was taken to the molecular picture of the entity in question, in this case the market. We termed the molecules that make this molecular picture of the market “micro momentums” - basic movements, which in long term run can move prices, markets, countries, nations and the even the world itself. After that it was just a jump to define elementary terms, which could help us to build a whole picture of market structure.

Market movements are quantitative (there is always some minimum tick) so we explain market movement by quantum theory, rather than by wave theory. Watching this closer leads us to the simple concept that prevalence of positive over negative micro momentums (and vice versa) give us exactly what we need: molecular definition of trend. Hence our definition goes as follows:

Trend is a market condition, in which the absolute value sum of elementary directional momentums is greater than the sum of elementary directional momentums of opposite orientation.

Where:

Elementary directional momentum is market momentum in hypothetical basic time unit.

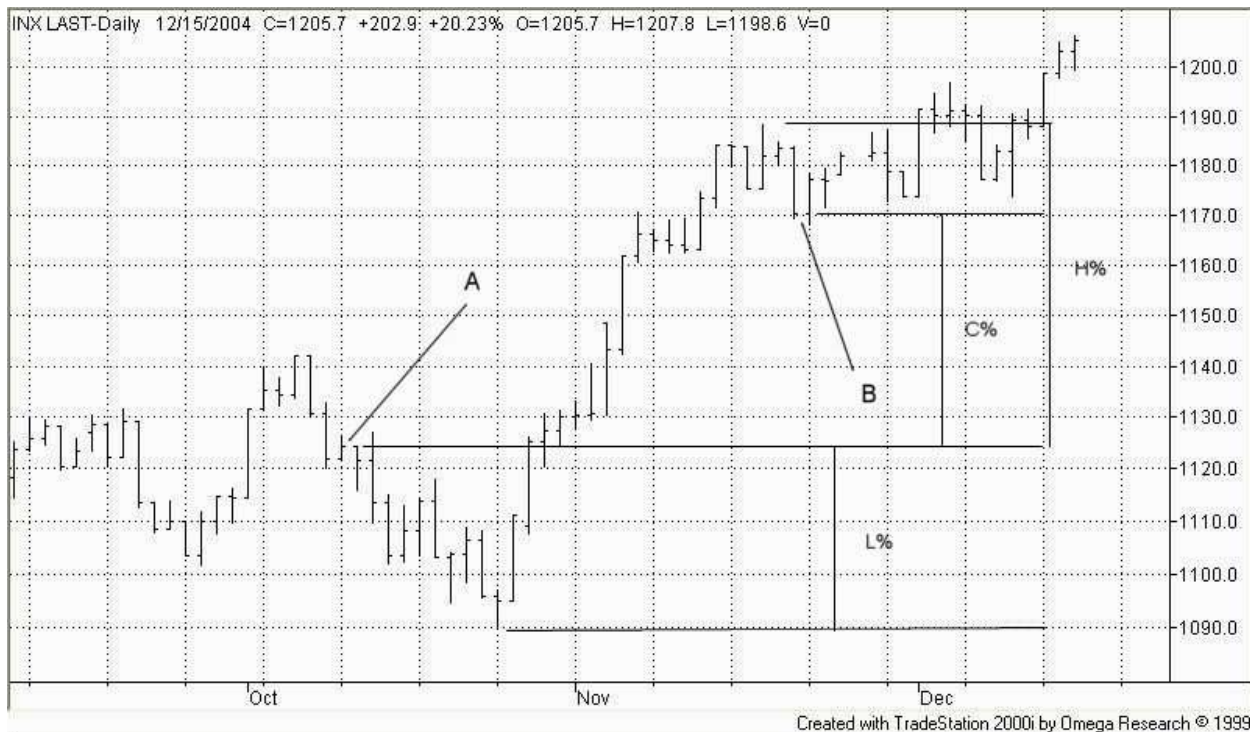
What does it mean and how to take advantage of this theory? There may be multiple ways, but in our case it was as simple as this: We just need to measure total micro momentum deviations from the starting point until the end of a given period. For option sellers the most appropriate end of tested period is the expiration date; however, considering that we often offset short position before time expires, other time brackets can be used, as long we test periods of the same length. To unify our calculations, percentage approach seems to be the most appropriate for such analysis.

Thus we calculate the following (see TPD):

- H% - percentage high deviation from starting point A till point B
- L% - percentage low deviation from starting point A till point B
- C% - percentage close deviation between close at point A and close at point B

Because we want to investigate the balance of the market, high/positive deviations would be calculated as positive numbers, while low/negative deviations come as negative numbers respectively. We can now define Total Periodical Deviation T_{PD} :

$$T_{PD} = H\% + L\% + C\%$$



Source: Trade Station

Total Periodical Deviation is a very useful number. If the market overreacts during the tested period, TPD will show such change in respect to the final correction. During moderate periods TPD changes will reflect prevailing micro momentums action. To use it as an indicator of long-term prevailing trend we need to smooth it out with an additional calculation. In this case, we'll use a simple moving average. The resulting smoothed value of the TPD is what we call the Option Deviation Index (ODI).

General assumption is to get rid of maximum number of psychological movements, so we have a core picture of market sentiment. By denotation this, according to our definition of trend, we obtain analysis of prevailing movements geography. Such configuration is responsible for long-term trends and, therefore, it remains for a number of years before it changes.

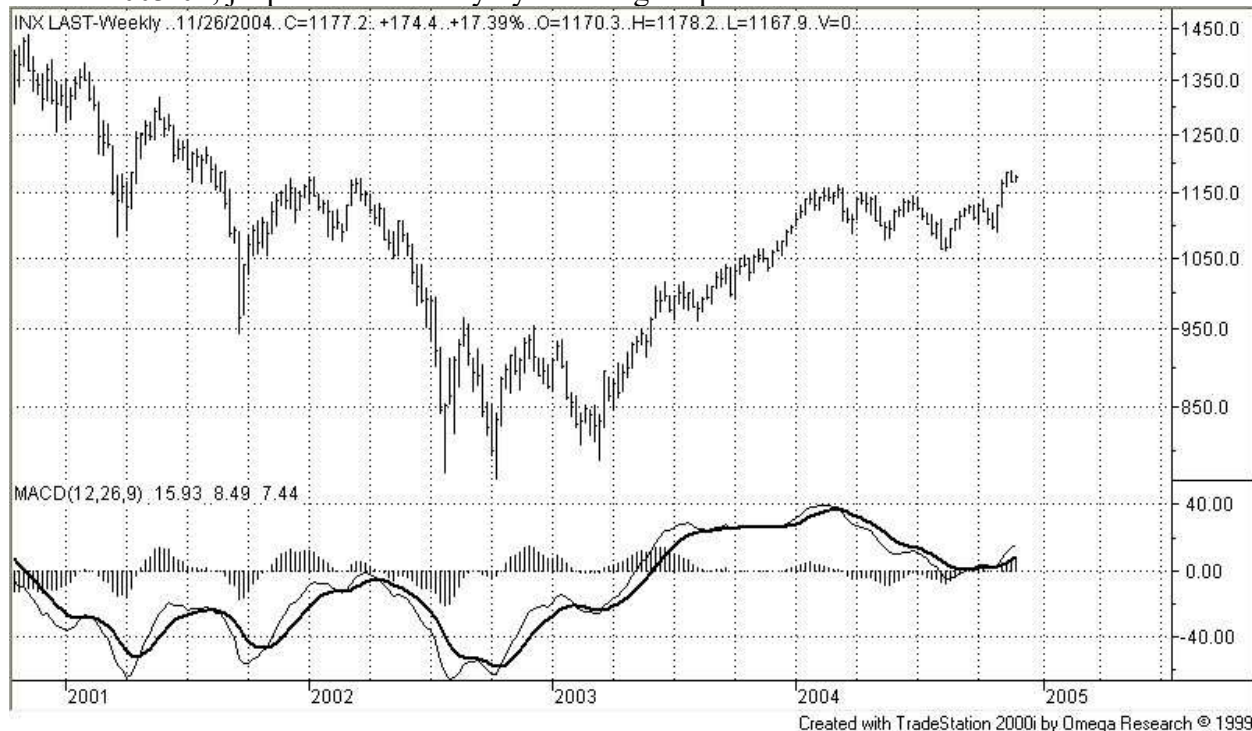
Please note that there is significant difference between ODI and a standard percentage chart. ODI periods are not necessarily consecutive and may overlap – that is, point A might be set at the beginning of the previous month, while point B might correspond to expiration date. In this case, the ODI calculation must be started from the beginning of the next month, still before point B of the first calculated period.

The value of these deliberations to option sellers is rooted in that the principal factor of the out-of-the-money option selling strategy is the probability factor. The trader must know his odds when entering the game. In other words, he needs to know how often and how deeply the market may go against his positions. In a case of using neutral strategies, such determination is very important. As we all know, real-time option prices may differ significantly from all known option pricing models, including Black-Scholes.

Properly built positions weighted on ODI may give us a higher chance of winning, regardless of selecting a put/call combination or using solely puts or calls. Furthermore, ODI can help us to make a choice between puts and calls. Combinations of this calculation with option price selection, expected time in the market and defensive strategy is a ready-to-use successful strategy

formula. If we properly apply all these factors, taking a principal reward-to-risk ratio of each, we may build a strategy of high probability of winning, incomparable to other instruments and trading methods.

To demonstrate the effectiveness of this indicator, we will use the S&P500 index in the period between December 2000 and present. This period reflects long term trend changes and other important factors, such as the violent declining trend started in 2000, leading into the sideways market 2003-04, jeopardized recently by climbing oil prices.



Source: Trade Station

“Classical picture” (above) is something we remember well. Using weekly prices and applying the moving average convergence-divergence indicator to the chart does not help much. Corrections to declining trend of 2000-03 were violent, resulting in high market volatility. The triple bottom 2002-03 took a long time and the 2004 market action, along with climbing oil prices, brought a lot of uncertainty for market forecasting through the entire period. Recognition of change in market sentiment in 2003 was not an easy task, though. Depending on the method used, proper determination of the sentiment shift could have taken place sometime in the second quarter of 2003, but that’ still not impressive in respect to timing.

In turn, if we look at “ODI Picture” (below), using the same time frame (weekly) and applying the same indicator (MACD) with identical inputs (12, 26, 9), but applying indicator to the ODI instead of price, we obtain simplified and smoothed picture of the market. This is much easier to interpret. Besides using classical rules for the MACD indicator itself, we may also apply our own for ODI, such as a comparison between consecutive tops and bottoms. In the case of presented time frame, four ODI points relative to previous tops/bottoms should be ignored.



Source: Trade Station

But if we want to use simply MACD line crossings, our recognition of change in market sentiment occurs significantly earlier than it did in “Classical Picture”. The value of ODI depends on the timeframe used for the study. Using larger periods corresponding with the time of holding our short positions (but not necessarily the same) would give us better perspective. ODI is not a short-term oriented trading instrument. But applied properly, it can be a real friend to the option seller.