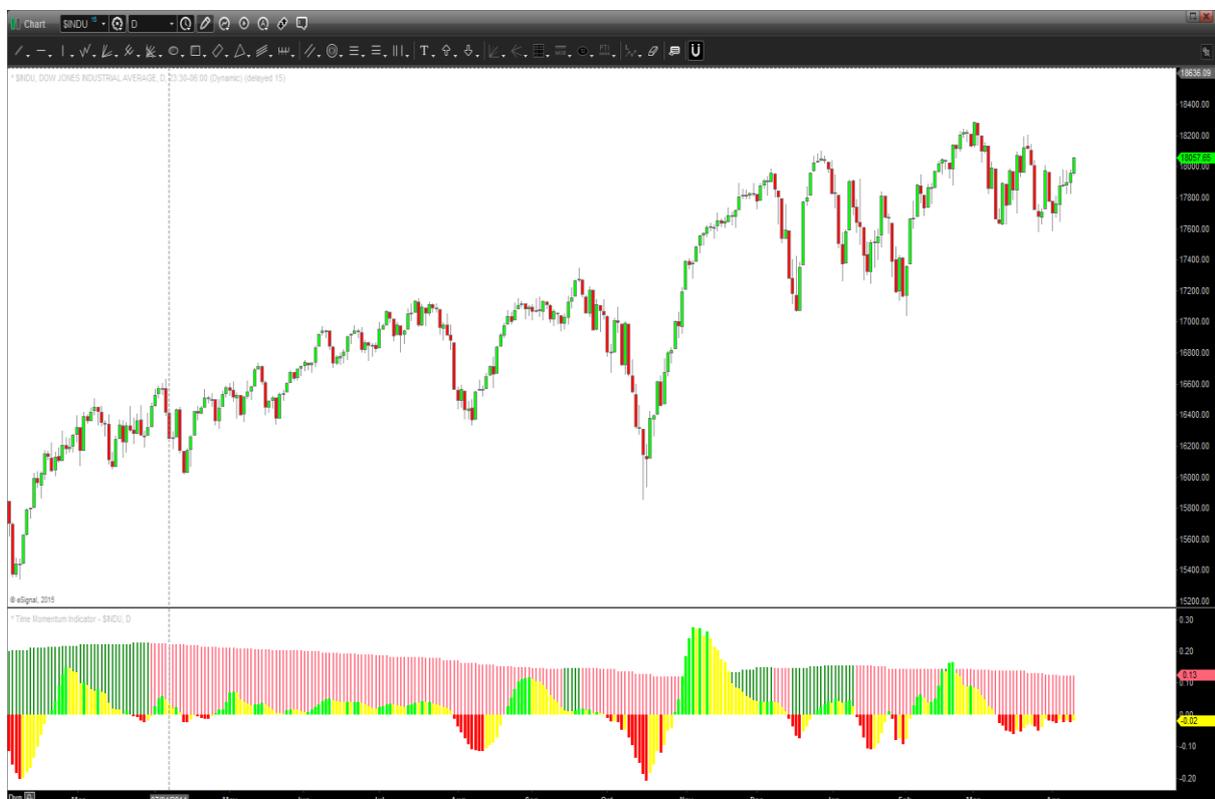


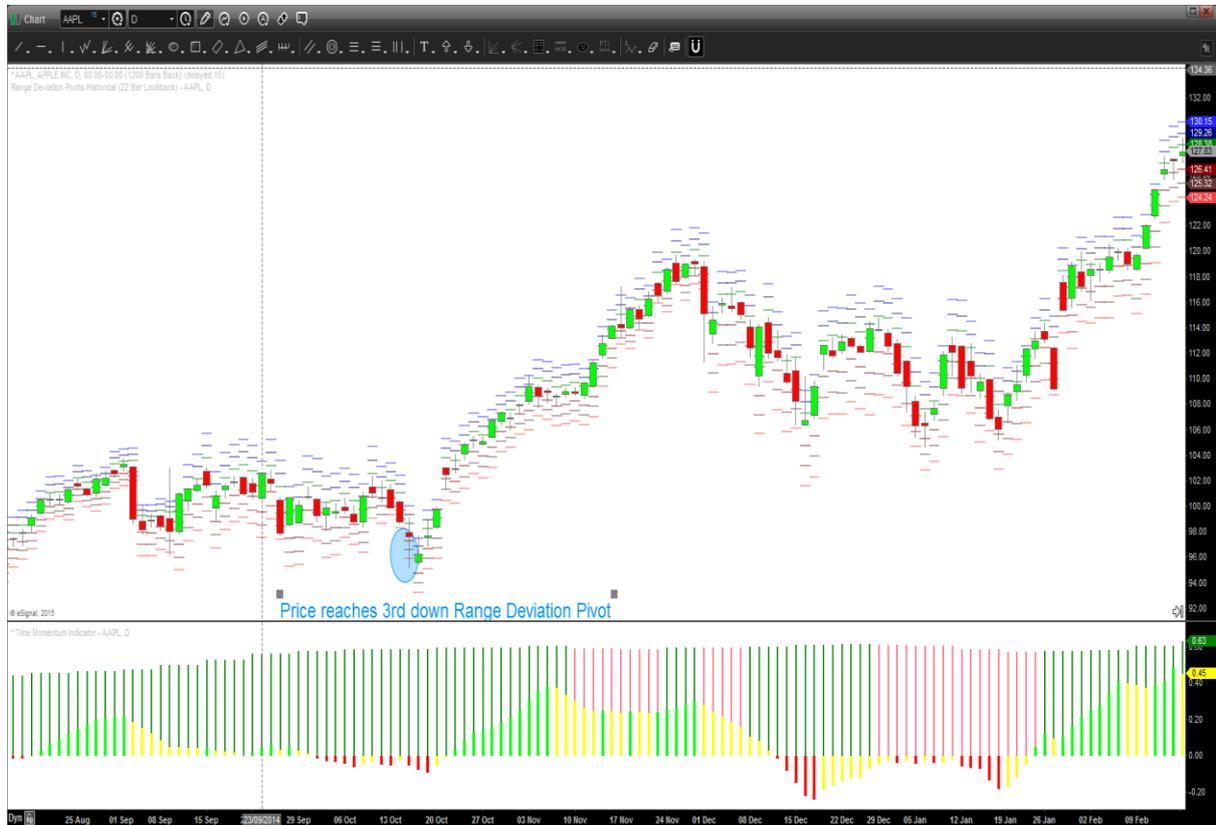
## Time Momentum Indicator

Time Momentum Indicator was designed to enable the trader to better gauge the energy momentum of the underlying trend via two higher time frames, Daily and Weekly. Nearly all momentum based indicators look at momentum on a continuous basis and have no automatic adjustment for the time of day that it is, or what the normal behaviour is at that time. The study calculates the current time of day's range in relationship to its user defined average of range, and from a proprietary algorithm, creates a variable moving average depending on that relationship. The greater the range from the normalized range the lower the moving average and vice versa. By using the time of day's range the algorithm is more responsive than standard momentum indicators based off moving averages. Positive readings infer the market is tracking above the variable moving average and negative readings below it. The study then calculates the momentum of the variable moving average.

The indicator can be used in a variety of ways. The long term trader can employ this study waiting for energy momentum in the weekly study to turn negative or perhaps add to positions when daily momentum accelerates out of a down phase whilst the weekly trend is still strong which is akin to buying a dip. Accelerations of the trend can be seen when daily and weekly accelerate simultaneously. Alternatively, perhaps the shorter term trader can take buy signals from the 4<sup>th</sup> Dimension toolkit when daily momentum is accelerating to the downside whilst the weekly trend remains strong to the upside.



In the daily chart of Apple below price hits the 3<sup>rd</sup> down range deviation pivot indicating a potential trend reversal is possible given the strength of the weekly trend. The following day the low holds. Two days later, the reversal is confirmed by the simultaneous acceleration of both daily and weekly energy and the long term weekly upward trend resumes.



Divergence patterns in the energy momentum are also a valuable tool in the trader's arsenal. In the Daily chart of Apple below, at the same time price reaches extremes of monthly Range Deviation (3<sup>rd</sup> up), the Daily Momentum study has been diverging indicating a correction is ahead.



Within Setup the user can modify the graphical relationship between Daily and Weekly by using the Scale Multiplier (0 scale multiplier leaves the study unadjusted and the Weekly momentum can outsize the Daily momentum), and the moving averages themselves using fast period and slow period. The default is recommended.

