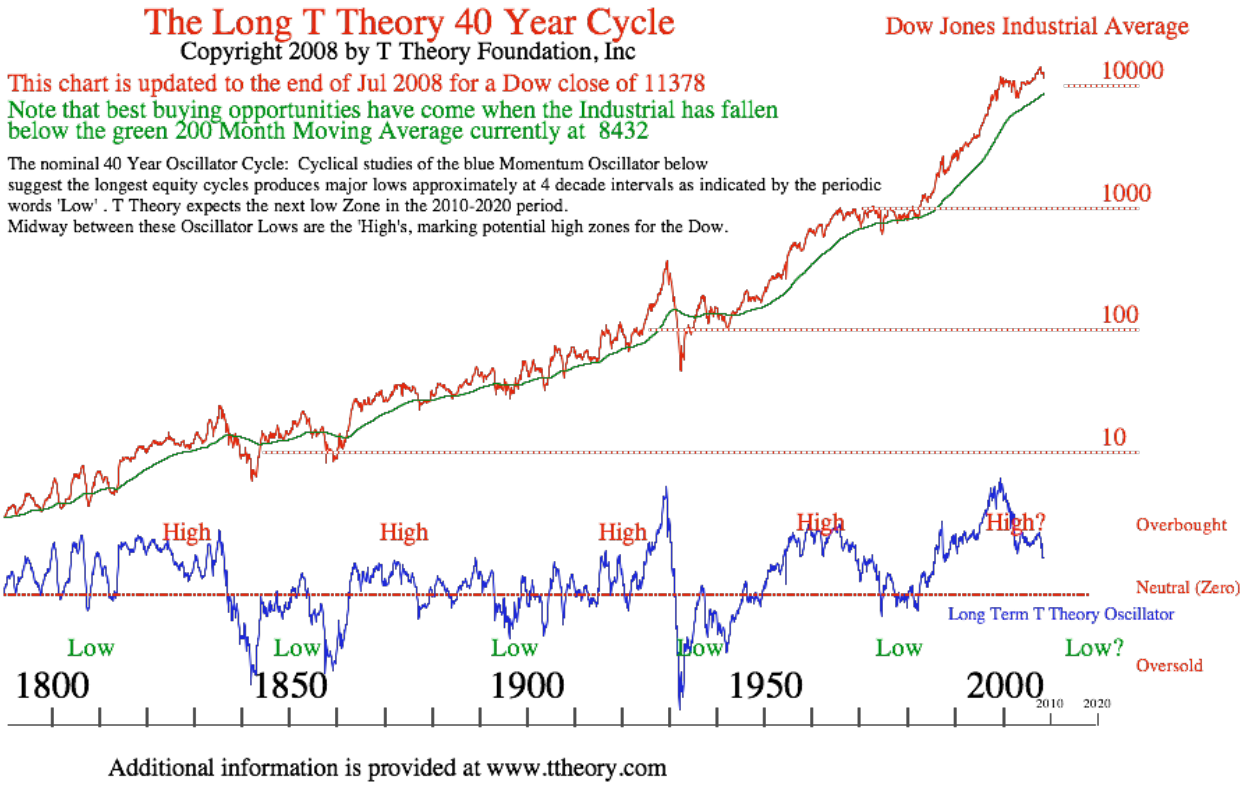
Introducing Terry Laundry's T Theory Forty Year Cycle

Authored by Terry Laundry August 27 2008 Copyright 2008 by T Theory Foundation, Inc.

Fairly early in my professional career, I became very interested in establishing an ultra Long Range T Theory framework for the time symmetry I originally discovered in 1973, and as a first step sought out sources of very long term equity data as the underlying fundamental data for my research. The Foundation for the Study of Cycles, now located on the internet at http://www.foundationforthestudyofcycles.org/ was quite active at that time, i.e. during late 1970's, and I was fortunate enough to obtain the typewritten pages of equity data from the 1790's to the end period, 1977.

At that time the database was carefully being maintained by the Foundation's dedicated advocate Ms Gertrude Shirk, but only in typed form, so I had to enter this data into the primitive computers available at that time, by my "error prone" hand. Doubtless there are a few typos in the data, but once plotted as the upper time series in the upper portion of the image below, gross typo errors were easily noticed and then corrected. The actual data series in computer friendly data is now available from the Foundation for perhaps $100 or so.

For this stage of my T Theory analysis only the monthly progression of a representative equity average covering the US equity was needed so I never went back to try to try to establish the dividend yields for this history. Thus the plot is not directly applicable to the true, sane and practical investor who views the Total Return, that is price gains plus dividends, as the Holy Grail or practical outcome of all long term equity investment. However from the stand point of my T Theory research and the Foundation's cyclical focus only the price fluctuations really mattered. Another caveat worth mentioning is that the very early data is only of a few insurance stocks so the early numbers are not very broad based.



There are many interesting views of this basic monthly price data , but the most important useful information is given by the very Long Term T Theory Oscillator shown in Blue above. The equation that produces the swings above and below the neutral zero level comes directly from the monthly percentage change in the index starting from 1790 and uses the same basic exponential oscillator design as my daily charts. The difference is that this oscillator use exponential moving averages of 36 and 18 years while my blue daily volume oscillator that I post weekly use moving averages of 36 and 18 days. The extraordinarily long moving averages act as a filter for the very long cycles, which the oscillator plot suggests, have occurred at roughly 40 years "top to top" or "bottom to bottom" in terms of these momentum highs and lows.

If one looks carefully at at the price peaks for cyclical behavior one will find there is a fairly well defined 40 year cycle. For example the major 1932 and 1974 lows were separated by 42 years, just a bit long. But other patterns in the momentum oscillator can help with the 1968 peak which was the real high for the ambiguous 6 year period from 1966 to the January, 1973 top formation. Taking 1968 as the right peak date we see the prior obvious peak occurred in 1929, 39 years earlier. Bottoms are more complex so the 40 year estimate needs to consider the continuing pattern of double bottoms separated by 6 to 8 years such as the twin lows around 1850, 1900 1930's and the 1974-1982 twin lows. For example we already see the early 1930's low and the 1974 low were separated by 41 years but the follow-on early 1940's and 1982 lows are also separated by about 40 years. The earlier twin lows look to be separated just under 40 years. I will detail these cycle measurements in a later installment.

I would not make any claims for the precise nature of the 40 year cycle pattern I uncovered, however a very practical conclusion does come out of its history. If one investment career spans at least 40 years then it may be assume that somewhere with this period the investor's survival will be tested by one or two declines to a very oversold condition. Conversely if one succeeds in side stepping these catastrophic events, one or two great investment opportunities will present themselves, which if recognized at the time, can really make the most positive contribution. The main point is that the oscillator history number one makes it clear these cycles are not avoidable because they recur with reasonable regularity throughout history and therefore can, to some degree, be expected to continue their volatility.

Second this oscillator history is helpful in gauging the degree of risk or opportunity from a long perspective. To a reasonable degree, the oscillator position above or below the dotted red neutral line is a measure of equity valuation and can be used to gage relative risk or reward potential over the very long term independent of any cycles, or conventional fundamental equity measures. So for example, by the year 2000 it wasn't necessary to read Robert J. Shiller's best seller "Irrational Exuberance" to recognize the equity market was grossly overvalued since the Long Term Oscillator at that time had reached the 1929 peak as easily seen in the chart. Since the 1929 peak in equity prices was a well known high risk period, the inference for the 2000 and beyond period was highly negative. Also the fact that that a 40 year cycle might have played a part in promoting the speculation wouldn't be necessary to sound a warning.

In large part the long term usefulness of this oscillator can be attributed to the way it was constructed. Using the monthly percentage changes in the equity average, rather than the monthly point change as the input to the calculation, insured that historical references to specific levels of overbought or oversold levels have been normalized sufficient well to allow direct comparisons. An additional feature is the very long term moving averages used. The level in the chart is basically the difference between the 18 year and 36 year moving averages of the monthly percent change in the various averages used in this long history. The 36 year trend effectively smoothes across the violent 40 year cycle swings well enough to establish a more realistic underlying trend for equity prices.

Changes in the 18 year trend then provide the deviation above and below this more stable very long trend. The effect is that the long term oscillator is relatively insensitive to either very long term trends (40 years plus) or short term trends of just a few years. This provides a very effective way to view the general trend. So for example its easy to the the oscillator decline from the 2000 peak is still continuing as it has fallen below the 2002 low.

In my next installment we will take a look at downside projections.