



Market Entropy

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Introduction

In thermal dynamic's laws, it says that when converting energy from one form to another, the total amount of energy conserves but usable lost. The lost is caused by the entropy of the system. We have to look at market a different view (form) to ensure we have a safe investment results.

Physics and Market

Physics is the discipline to describe a system of matter under various conditions. Market is a system with many different components that moves in various directions governed by their own attributes. Comparing to a physical system, it is rather simple because matters have very small number of factors and behaves well within a set of parameters. This is the Newtonian physics' view. In contemporary physics' view, individualism is the minor. The behavior of a group is dealt with a statistical model. In quantum physics, there is a probability of everything but result is more or less like something. Applying this thinking to market, this is the macro trend. There are a lot of techniques we could share between two disciplines.

Wave or Particle

Light exhibits the behavior of particle which likes a billiard ball that you could count one by one and herd them to a confinement or deviates it with gravity. This theory breaks down when you see the interference pattern which is the result of two or more overlapping waves. The wave property prohibits the light to go through any opening less than the wavelength of it. However, we could squeeze light through a smaller opening than its wavelength to focus X-ray. The properties are contradicting. It is like we have the fundamental and technical analysis for the market.

When the technical analysis indicates the security is very much oversold but if the fundamental is not right it does not matter. For example, a company loses its clientele and market share. The result drives the price down to the oversold. If there is not future for the company, it is not worth to buy it.

When the world's natural gas is really pushing up its demand but the price of natural gas is free falling. Both the fundamental and the technical analysis do not help because there may be other factors that disrupt the order: the entropy.

High or Low Entropy

The analogy of entropy for the volatility of market is a very good description. While a bull or bear market course is set, there is still pocket of correction and rally that shows the existence of entropy. The stronger the macro trend, the higher the entropy. The entropy

will consume the usable energy (the wealth) through trading. So we have to be conservative and refrain from trading.

Trading is very quantum. You have to leap from state to state: buy or sell. There are no in between. Once you jumped from one sentiment to another, it requires a quantum well of energy to switch state. It is both mentally and monetary expensive. When you are trading on margin, the quantum well energy wall may collapse and forces you to sell when price come down. This is the peril of margin trading. To prevent the quantum well melt down the only way is very very low leverage or not at all.