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Uncertainty Game

I recently renewed my fascination with the game of chess and now spend a lot of my spare time either playing or thinking about the theory that encompasses this remarkable game; I might add that I am a relatively weak player in case you were wondering.

Using chess terminology there is a "book-line" for the ideal moves and responses for each particular opening. So if I begin with the *Reti* Opening, the chess gurus use optimization algorithms to analyse a massive database of games with this opening. These book-lines become the beacons along which the experts typically try and replicate the game so as to gain the advantage from the best road already travelled.

This on the surface seems quite boring as the winner then should be the player with the greatest memory, as I used to naively assume. However, the game of chess with its 64 squares and 16 white and black pieces (each) is far more complex and intriguing. Let me just run through some of the numbers which are quite remarkable.

The average number of moves in competition level chess is 40. Therefore I wanted to establish how many different combinations or new games exist, so I posed this question to the chess theorists and was astounded at their answer. Their recommendation was that I should ask the question how many new games of 100 moves exist on this 64 square board, as if this would make the comprehension any more logical (I suppose there should be fewer 100 move games than 40). How many possible 100-move games are there then?
For every move there are typically 10 variations. The answer is 10 x 10 x 10 .... x 10, one hundred times over, $10^{\wedge 100}$, 1 followed by 100 zeros. A "googol" of games. To give this some context, the number of atoms in the universe are around $10^{\wedge 78}$ -- 1 followed by 78 zeros.

So you may be asking where the heck am I going with this astronomical information? You see even though there may be an ideal way of playing a particular game of chess (according to the depth of the database analyzed) almost all games are different because human beings are not robots, we are thinking human beings governed by pre-cortex impulses and are prone to make mistakes (in my case far too many). So the game of chess never becomes boring as there are an infinite number of games to be played. When it comes to the markets and economic theory there are the so called chess book-lines, but the number of possible responses to each step of the economic/market process is equally infinite. The reason is the same as in chess, we humans the actors in the economic world have free will to make our own choices, never mind whether they are logical or absurd. So a system that proceeds along the notion of the Neo-Classical, Keynesian or Monetarist

Economic Theory, centered on the rational man, is likely to make for an elegant theory on paper but wanting when it comes to real world application.
The Austrian School of Economics ("Austrians") have built their theory of economics on a much firmer foundation, thus incorporating man and his actions as the central theme of their theory, known amongst Austrians as Praxeology. Praxeology is the study of those aspects of human action that can be grasped *a priori*; in other words, it is concerned with the conceptual analysis and logical implications of preference, choice, and so forth.
To fully explain the concept of Praxeology is beyond the scope of this letter, my point rather is to convey that even a school of economic thought that is far sounder in its logic and its worldly application is unable to accurately quantify the likely outcome of a given

set of economic events. At best adherents to the Austrian Schools principles are likely to enjoy a more efficient market place than believers of a logically flawed system implemented by morally corrupt politicians.

The reason I make these statements is to try and convey the framework with which I develop our macro themes in the Freestyle Fund and of course the real world we live in. Whilst I remain interested in fluffy theories such as "double dipping" and "green shoots" and prepare our fund accordingly for the seemingly endless knee-jerk reactions in the market to new policy; as hedge fund managers we have to, our job is to meet the demands of generating positive returns in the medium to long term; however, I wish to emphasize that our macro constructs are based on theoretically sound economic principals that provide us with the necessary tools to build profitable strategies, not whimsical intuitions that are subject to random results.

Daniel Faraday the brilliant physicist in the science-fiction mini-series thriller, *Lost*, realizes the solution to his quest for changing history. As someone who has discovered the formulae for time travel, he theorizes that by going back in time and changing the variables not the constants he will indeed be able to change history. In other words we have no influence over the constants in the historic time travel equation, but the variables are us human beings. Humans are free to choose based on subjective preferences at any given point in time and therefore assuming we can go along the time continuum there is no likelihood of our history repeating itself, as the number of variations to the game called life are many more Googols than a game of chess or an investment in the stock market. Thus Faraday in Lost is suggesting what took Phil in *Groundhog Day* many identical days in a time-loop to figure out; we can and do change our history based on our actions influenced by subjective preferences at a point in time.

Understanding that there are no equations that can scientifically predict how thinking individuals (my theory differs slightly when dealing with group thinking) will react to a given circumstance is the first step in making a major leap forward in our understanding of the uncertain investment universe. The uncertainty that comes with this understanding is what separates science from fiction.

In conclusion, I leave you with a few thoughts on uncertainty. *In his book On Being Certain, neurologist Robert A. Burton quotes F. Scott Fitzgerald – "The test of a first rate intelligence is the ability to hold two opposed ideas in the mind at the same time and still retain the ability to function." Buddhist teacher Pema Chodron calls it "being comfortable with uncertainty" – being willing to take every aspect of reality as the starting point, without wasting energy wishing things were different, without denying reality as it is (even if your next step is to work toward changing things), and without needing to know what will happen in the future. "The truth you believe and cling to makes you unavailable to hear anything new. The best thing we can do for ourselves is to be open to an unknown future." Burton offers the same advice. Tolerating the unpleasantness of uncertainty, he writes, "is the only practical alternative to cognitive dissonance, where one set of values overrides otherwise convincing contrary evidence.*

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