

From: Lesley Groff <[REDACTED]>
To: Michael Fowler <[REDACTED]>
Subject: Re: ATorus Daily Portfolio Report - 5/9
Date: Mon, 12 May 2014 17:02:32 +0000

ok, thanks

On May 12, 2014, at 12:54 PM, Michael Fowler <[REDACTED]> wrote:

No worries....around anytime that is good for him

Best Regards,

Michael J. Fowler
[REDACTED] - Intl. Mobile

.....Sent From My Mobile Device

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On May 12, 2014, at 12:52 PM, Lesley Groff <[REDACTED]> wrote:

oops! totally see you did NOT talk to JE...will get you back on call list!

On May 12, 2014, at 12:32 PM, Mike Fowler <[REDACTED]> wrote:

Lesley,

Please find attached the Daily Portfolio Report for 5/9. Also, I didn't hear from Jeffrey on Friday, or I could have been out of cell service. I'm now back, so anytime he's available let me know to finalize basic commercial terms for IMA per Darren. Thanks!

- Daily Commentary -

There has been considerable discussion recently on how 'Risk-Parity' strategies have performed poorly over the past 18-months. While we feel most of the discussion is a classic example of most people being unable to "separate the signal from the noise," there is some truth to the issue vexing these funds. For full disclosure, we don't know the intricacies of the respective models, but can make some deductions. To be clear, we think risk-parity makes more sense than most, but with one underling assumption that could potentially create a structural issue with the methodology.

Specifically, the reliance on long term stable correlations between indicators, which are generally econometric based. While we assume there are many more than any two variables driving their respective

models, it is evident that the relationship between 10-year break even rates and equity market portfolio weighting has broken down, recently. Recently, being the operative word, as it's entirely possible these correlations revert back to historical values. But, what happens if they don't? Maybe it's demographic shifts that have occurred in the US? Maybe it's the lack of any differentiating technology that fundamentally alters, at the same rate previously, the speed at which we can complete tasks that encompass most of our day or in our own personal mobility?

We don't know, but our point, is that relying on these types of correlations on the foundation has it's own risk. We think our approach of relying on price and volatility mitigates a potential structural breakdown in a similar fashion. By treating all positions in isolation, if we receive a trade signal we act on it, independent of the balance of the system. This has it's own risk as well. The trade off we believe is that, although we receive relatively infrequent trade signals (less than 10 in SPX since 1995), we assume the risk-parity funds receive even fewer. As such, our win ratio will be less, but we think the trade off is warranted. There's nothing more disconcerting, when a low-oscillating stable relationship breaks down.

*For quantitative reconstructed methodology of Bridgewater see -

(http://www.markovprocesses.com/download/BridgewaterPureAlpha_CaseStudy_MPI.pdf)

*For implied *All Weather* performance as *10-Year Breakeven Rates* diverged from *Equity Market*

Performance see - (<http://markovprocesses.com/blog/2013/07/chart-of-the-week-update-on-bridgewater-all-weather/>)

Additional Thoughts

While having some time recently reread the books "*Thinking Fast and Slow*" and "*Rewire Your Brain*," a thought triggered in my mind of why from both a psychological and neuroscience perspective one might be able to explain why net/gross movement degrades proportional to the square root of the interval of time forecasted multiplied by average period realized volatility over the interval.

In essence, while it's possible to model this process stochastically, maybe the reason large values of net/gross movement occurs over short intervals of time is related to (I) people's fast System 1 impulsive responses (versus the slower but statistically reasoning System 2) to the current moment and (II) how the System 1 response maybe related from a neuroscience perspective to dopamine levels and the interaction between the prefrontal cortex and the amygdala (<http://www.dana.org/News/Details.aspx?id=42898>). Considering how something may be different than observed takes cognitive effort, and hence depletion makes the effort more difficult. Not dissimilar from how in ant colonies (<http://nautil.us/issue/12/feedback/ants-swarm-like-brains-think>) positive feedback provides short term productivity but more instability, but negative feedback provides long term stability to the system.

Wouldn't it be fun for a Bloomberg Terminal to have a built in PET scanner to measure the current activity levels of the prefrontal cortex and the amygdala? May create the ability to construct a great mean reversion strategy as net/gross movement is high over short intervals of time, as PMs dopamine levels decrease to minimal levels.

Best Regards,

Michael J. Fowler

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