"Disciplined Systematic Global Macro Views" focuses on current economic and finance issues, changes in market structure and the hedge fund industry as well as how to be a better decision-maker in the global macro investment space.

Tuesday, June 9, 2020

Turning points kill trend-following performance

Markets trend higher and trend-followers should make money. Markets trend lower and trend-followers should make money. The transitions or turning points are the problem. There will be periods of giveback and execution delay while the new trend signals are found. If there are more turning points or reversals, returns will suffer. This enemy of trend-followers is all well-known, but a new paper documents the cost of turning points. See "Breaking Bad Trends" by the researchers at Research Affiliates and Campbell Harvey of Duke University. The elegance of this paper is with its simplicity.

The return impact of turning points is devastating for exploiting trends. Using a simple approach of comparing 12-month to 1-month return direction as an indicator of a turning points, the researchers find that as the number of turning points per asset increase the performance from a trend strategy declines. When the number of turning points for an asset reaches six within a year, the median Sharpe ratio falls below zero. This is intuitive but can be used as a good starting point to explain why trend-followers may lose money.
The second graph shows the portfolio performance versus a weighted average number of asset turning points per year. There is a negative linear relationship between portfolio returns and turning points by year. The more recent periods have shown more turning points, on average, for markets. This performance pattern is similar to what has been found with trend-following managers. Asset turning points have become more frequent in spite of the fact that many markets have become less volatile in the post-GFC period.

Their final graph is surprising. The static trend strategy seems to be independent of volatility. If you believe this graph, the work was done carefully and well-documented, the idea that trend following is a long volatility strategy is called into question. It does not matter what is the volatility environment. The turning points matter more.

The switching between long and short momentum trends has increased in recent times and has an appreciable impact on static trend-following. The paper offers further analysis on how to adapt to turning points through a dynamic approach to adjusting to changing trends. This is a fruitful area for further research. The challenge for trend followers is to find ways to adapt to these turning points. In fact, investors should spend...
less time on how trends or found but how managers adapt to the turning points.

Monday, June 8, 2020

Understanding the financial cycle - Look for where risks will materialize

Financial Cycles - Risk build and then materialize
Not an issue of risk being low or high

The researchers at the Bank of International Settlements (BIS) have spent a lot of time developing the concept of the domestic and global financial cycle. This work has advanced our understanding of capital flows around the world. (See, for example, "Global and domestic financial cycles: variations on a theme", "A tale of two financial cycles: domestic and global", "How important is the Global Financial Cycle? Evidence from capital flows")

I want to focus on what is a key concept of this work, the idea that risk across the financial cycle is not high or low but is rising and then materializing. The materializing of risk leads to changes in behavior which will cause the turning points in the financial cycle. While this distinction may be viewed as subtle, it is critical for investors who want to be prepared for swings in the financial cycle.
Financial Cycle - Where do risks materialize?
Not a question of whether risks are high, but where are the risks

Traditional Approach -
Are risks high or low?
For example, is the VIX high or low relative to some base telling about increased uncertainty

Financial Cycle Approach -
Where are risks materializing?
For example, covenant-lite loans to cyclical industries; greater downside to upside

Bank of International Settlements (BIS) view of global financial cycles places the focus on turning points as the time when risks, which were building, materialize in downside prices. High volatility could be a financial cycle indicator but only if it leads to the materialization of risks.

Whether a domestic or global financial cycle, changes in the financial environment are manifested through the flow of capital to risk-taking ventures. Excessive capital flows can occur when there is greater credit availability for risk taking above what is necessary to support economic growth. Credit allows for higher leverage and generates increases in collateral prices as asset valuations increase. Risks will build given the availability of cheap money, higher leverage, and increased valuations.

Investors need to focus attention on those places where risks will materialize. This is not a function of looking at macro variables but studying specific markets which will be affected by capital flows and overvaluations. Macro risks are the summation of increases in the risks of individual market sectors. Investors who want to make money need to analyze the micro flows and how they will be affected if there is a macro catalyst. This could be at the country level, a domestic financial cycle, or at the global level, when capital is cheap across all countries.

The amplitude of the financial cycles has gotten higher because the Fed and other central banks have fueled credit expansions. When risks have materialized, which would have created market retrenchment and risk avoidance, central banks have furthered the credit expansion to stop the adjustment process. Macro-prudential and regulatory policies have been used as an offset to plug leverage problems while maintaining credit expansion. The post GFC period saw an increase in banking regulation to cut leverage excesses only to now have them appear in other market sectors, CLOs, cov-lite lending, and other forms of shadow banking. Cheap credit from the Fed fueled the global financial cycle and the great EM leverage increase.

Volatility has fallen, yet this is not a measure for an investor’s focus. Eyes should be on the risk builds and where they will materialize. Investor focus has to be on the largest beneficiaries of the great post GFC credit expansion and look how an adjustment will play-out given the current round of central bank stimulus.

Posted by Mark Kaczmarski at 8:24 AM
No comments: Links to this post
Labels: macroeconomics

Saturday, June 6, 2020

What is normal volatility for bond markets when the only major player is the Fed?
We use the CBOE MOVE index for 10-year Treasuries as a good measure for volatility expectations, similar to the VIX for equities. It is an option-based measure of market volatility expectations. The MOVE index in March reached levels last seen during the bond temper tantrum; however, these index numbers never reached the levels seen during the Great Financial Crisis. The spike was also lower than the bond jump in 2003.

The MOVE volatility index is now lower than late 2018 and mid 2019 levels and currently does not suggest an abnormal market environment. The MOVE will increase on the latest unemployment numbers; however, can we really say the world is now normal given trillions of Fed purchases of Treasury debt and similar increases in Treasury issuance.

As fast as the Treasury issues, the Fed buys and the private market participants are not the marginal buyers or sellers. What we can say is that a flood of central bank liquidity and large Fed purchases will dampen any change in expectations from private investors. There are only price information signals on central bank behavior, nothing more.
Try and explain artificial intelligence to someone who is not well-versed in the mechanics. It is not easy. It is not even easy for a strong quantitative analyst. You may know the math. You may be able to effectively program the model. You may understand all of the data inputs, but you may not explain what the model is doing. The argument that you just have to live with “hidden layers” may not cut it from a risk management perspective or if performance goes wrong.

Help is supposed to be on the way through a new area of research called explainable AI or more precisely interpretable AI. I was hoping for a new form of AI clarity when I started reading this research. No such luck. (See “Peaking Inside the Black-Box: A Survey on Explainable Artificial Intelligence (XAI)”, IEEE Access.) Investors interested in using AI and machine learning will have to do the heavy work of learning, testing, and expending the sweat equity to understanding what is going.

So, what is explainable AI or xAI? There is no generally accepted definition but is referred to the movement to increase transparency and trust within AI. It is a broad set of techniques or approaches to reduce the obscurity associated with “black box” techniques. There is no simple model that will breakdown the drivers of a model, but looks at simplification, marginal impact and scenario examples to increase our understanding of the model and output. It has a goal of increasing explainability without decreasing forecast accuracy.

More complexity reduces explainability. Hence, interpretable models usually come at the cost of reduced accuracy. The idea behind explainable AI is to reduce complexity or show the additive value of complexity. This does not reduce the difficulties of properly using data or provide some magic easy to read procedure but tries to focus on procedures to link data relations with prediction. There is less of an issue of “black boxes” but complex boxes that focus on non-linear or deep relationships not immediately obvious. The benefit of AI is in its ability to find what in not immediately obvious.

Unfortunately, I would say there are still difficulties associated with “explainable” regression. The strength of visualization software and simulation tools help, but any increase in interpretability will be related to basic knowledge and increased usage.

Usage in many organizations is generational. Old management must be replaced with new management that have employed these techniques as part of their normal decision-making toolkit. This knowledge transfer is faster for smaller organization (hedge funds) and slower for traditional money managers. So for the near-term, crack open the textbook, learn the coding, and runs some models, there is not easy alternative or “free lunch”.

Posted by Mark Rzepczynski at 6/10/2020 7AM
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