SYSTEMATIC INVESTING STRATEGIES FOR PORTFOLIO PERFORMANCE IN A POST QE-CLIMATE OF RISING RATES AND HIGHER VOLATILITY

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Equity markets, particularly in the United States, have exhibited strong performance since the credit crisis in 2008. As the risk-reward in maintaining an overweight allocation to these markets diminishes, investors looking to rebalance gains from equities should consider incorporating systematic macro strategies as part of their hedge fund portfolios. Part of the objective of a hedge fund allocation is to provide diversification from equities. Systematic macro strategies meet this objective. They are an effective and liquid way to incorporate further diversification into an asset allocation due to their low correlation with equities. They also tend to perform well in periods of financial market dislocations. For instance, during the credit crisis, the Barclay CTA Index recorded gains of 9.5% from September 2008 to March 2009, compared to losses of 37.6% posted by the Standard & Poor's 500 Index (S&P 500) during the same period.

Period	Number of Months	Event	S&P 500 (Total Return)	Barclay CTA Index
Fourth Quarter 1987	3	U.S. Stock Market Crash	-23%	14%
Third Quarter 1990	3	Invasion of Kuwait by Iraq	-14%	16%
Third Quarter 1998	3	Russian Default, LTCM Crisis	-10%	9%
November 2000 - December 2000	2	U.S. Presidential Election Uncertainty	-7%	9%
September 2001 - October 2001	2	9/11 Terrorist Attack	-6%	1%
October 2001 - July 2002	10	Enron and World Com Bankruptcies	-11%	8%
January 2000 - December 2002	36	Technology Bubble Burst, U.S. Recession	-38%	22%
July 2007 - December 2008	18	Global Credit and Mortgage Crisis	-38%	20%
September 2008 - December 2008	4	U.S. Financial Institutions Face Liquidity Crunch	-29%	7%

Source: Morgan Stanley

Systematic Macro Strategies: An Overview

The evolution and development of systematic macro strategies can be tied to the growth of the futures contract, one of the instruments primarily traded to execute systematic macro strategies. A futures contract is a standardized contract between two parties to buy or sell a specified asset of standardized quantity and quality for a price agreed upon today with delivery and payment occurring at a specified future date, that is, the delivery date. Farmers began using futures contracts in the 1800s to hedge fluctuations in prices of crops and livestock.

The first publicly-available systematic macro fund was introduced in 1948 by Richard Donchian. Many of the techniques he developed, for instance, breakouts and moving average crossovers, are still being used today. However, the growth of systematic macro strategies started to accelerate in the 1970s and 1980s. This can be attributed to a combination of:

A. Rampant inflation in the 1970s, which set the stage for an unprecedented commodities bull run that fueled a great opportunity for the use of futures contracts.
B. Technological innovation in futures markets, which led to the rapid growth of the number and volume of futures contracts traded during this period, fueling greater liquidity and diversification.

Demystifying Systematic Macro Strategies

In general, investors tend to be more comfortable and have more experience with traditional discretionary strategies that are based on fundamental analyses of markets and individual securities.

Since systematic macro strategies are model-based, they tend to be more mysterious and it is not always clearly understood how they consistently generate returns.

Systematic macro strategies typically rely on the “trending” and “counter-trend” behavior of markets to generate returns. Systematic macro managers simply build systematic rules that buy and sell markets based on these market movements; Trading rules are designed to generate returns as long as these market inefficiencies persist.

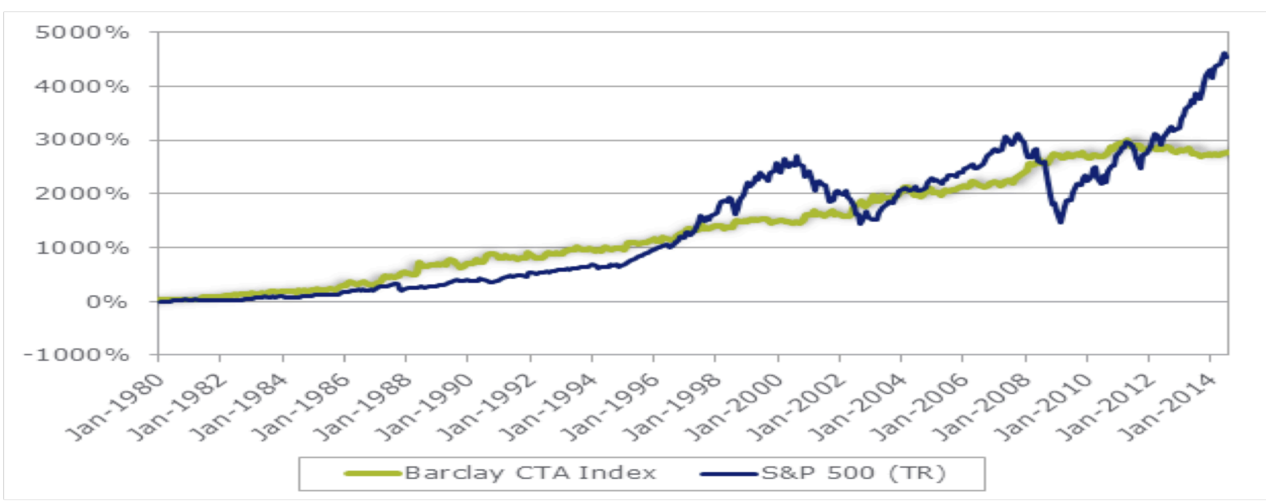
This leads to another misconception that investors may have with regard to many of these strategies: the belief that eventually all models break. This may be true for some models that are built to exploit short-term market anomalies. However, as described above, the market inefficiencies that the most robust systematic macro strategies seek to exploit are based on factors that are deeply embedded in macroeconomic cycles and human behavior that have persisted over a long period of time.

Model Construction

Systematic investment managers base their trading on technical models devised through extensive research, rigorous statistical and historical analysis. Investment decisions are made algorithmically thus all the rules are applied consistently and there is limited uncertainty as to their application. Even though discretionary traders may also follow trends they still base their trading decisions on manager discretion. Thus one of the challenges of discretionary traders is the control of human emotion in challenging markets. Systematic programs do not have this inherent weakness. As all trades are executed by the program. In addition, the lack of human emotion allows for possibly better risk control, which could reduce the risk of failure. There is lesser "key man risk" which would be associated with discretionary traders. Discretionary traders may frequently suffer from disposition effect, as they are quick to realize gains and are slow to realize losses. Systematic funds have the additional advantage of scalability across multitude of markets due to their automated nature and can thus accept more capital while allowing for more diversification across markets, strategies employed and number of trades.

In essence the main difference between the two always lies in how an investment strategy is conceived and implemented rather than what the strategy actually is.

Cumulative Performance of Barclay CTA Index vs. Equities (January 1980– June 2014)



Source: PerTrac

Benefits of Systematic Strategies

1. **Long and successful track record**: Systematic macro strategies have exhibited robust long-term risk-adjusted performance. The recent rally in US equities has outpaced systematic macro performance due in large measure to greater central bank intervention, which has lowered long-term global volatility.

2. **Portfolio diversification**: Systematic macro strategies are an effective and liquid way to diversify a hedge fund portfolio because of their low correlation to equities. More importantly, they have outperformed in periods where equities have experienced market dislocations.

3. **Lower drawdowns**: Systematic macro strategies have generally exhibited smaller drawdowns than equities and many other hedge fund strategies. This is due to robust risk management practices that focus on the preservation of capital. For example, many systematic macro strategies incorporate stop-loss disciplines. This can sometimes be costly during choppy market conditions, repeatedly triggering stop-loss orders. However, in the long run, it can allow for the generation of option-like returns with limitations on capital losses.

4. **Liquidity**: Most systematic macro managers trade the most liquid, centrally-cleared and ex- change-traded global commodity and financial futures markets to protect investors from excess slippage risks that can cause negative returns. The diversification of positions across several markets makes it possible to enter and exit positions with reasonable efficiency. Futures contracts also re- quire only a small margin payment (typically less than 10% of the notional value of the exposure provided per contract) to establish a remaining portion of an investor's capital is kept in cash or cash-like instruments. These features enhance the liquidity profile of most systematic macro managers and allow investors the ability to access their capital in a timely manner. For in- stance, during the financial crisis in 2008, many investors had difficulty accessing capital in less liquid hedge fund strategies with an asset-liability mismatch. This was generally not the case with systematic macro managers.

5. **Transparency**: Most systematic macro managers are regulated entities and are required to re- port their performance on a monthly basis. Additionally, track records and business processes are audited. In separately managed accounts, systematic macro managers place trades directly into individual accounts and investors have full access to monitor all trades, calculate gains and losses, and view open positions and account value on their daily statement.

6. **Low key-man risk**: Systematic macro investing holds low key-man risk since maintenance of models can be transferred from one person to another. This is unlike discretionary investing, which could hold key-man risk related to the manager.

Through this brief paper, I have attempted to build a better understanding of systematic strategies. A deeper understanding of this space should hopefully lead to an increased level comfort with these strategies and encourage more investors to explore the benefits they provide. The empirical evidence demonstrates that systematic strategies have carried a distinctly positive return profile with a low correlation to traditional asset classes. At Johnson & Company, we believe systematic macro investing has the potential to provide robust long-term risk-adjusted performance and downside protection.

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