

FOCUS ON

# SYSTEMATIC TRADING

Continuing the series of discussions for their Swiss Strategies Think Tank, Nils Beitlich of Credit Suisse and Wolfdieter Schnee of Valartis Fund Management discuss trading strategies with Prof. Dr. Peter Meier of Zurich University of Applied Sciences



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is a director at Valartis Fund Management.

**NILS BEITLICH:** Due to the ultra-expansive monetary policy across the world, equity markets had a very good run and we expect various equity strategies to outperform most other strategies going forward. Simply put, being equities net-long most of the time and only reducing market beta under severe market stress should be a simple but lucrative strategy these days. In our view, if implemented systematically, these strategies offer the best of both worlds, by combining the fundamental framework of a long-only equity fund with the downside hedge of systematically driven futures strategies. What is your view on this – is simple sometimes better?

**PETER MEIER:** Indeed, many quantitative investment strategies these days are very complex and are burdened with complexity risks that very often are not adequately compensated by respective premiums. Simple strategies are easier to understand by the investor and have fewer model and other operational risks. On the other hand, many simple trading strategies like trend-following could successfully be run for many decades before August 2011, the downgrade of the US federal state by the rating agencies. Something seems to have changed the price behaviour of equity, bonds and commodity markets. Models driven by price trends or by volatility lost their predictive power, and their capacity to produce systematic outperformance. Anecdotal explanations for a change of the market regime since August 2011 are the loss of risk free investments, non-equilibrium markets due to the ultra-expansive monetary policy or new forms of bubble buildings because of the near zero interest rate environment. Statistically, the “new” regime exhibits different correlation patterns often described as “risk-on/risk-off” mode: major as well as minor political statements provoke risky assets to move together, and risky asset prices go up in risk-on situations and go down in risk-off environments.

The modelling of this risk-on and risk-off financial world is a big challenge. Many asset managers started to apply reactive portfolio construction strategies like equal weighting of assets, which leads to a rebalancing and a cutting of over- and under-shooting assets, or risk-based portfolio constructions, like risk parity, which also implies a contrarian strategy. A research initiative at ZHAW aims to model the risk-on/risk-off world in a more proactive way. We identify correlation patterns of about 30 futures prices of

many asset classes and derive statistically different market regimes with distinct patterns according to the correlation patterns. The diverse regime periods are characterised by distinct market environments defined by inflation, GDP and so forth. Starting with market environments, and defining correlation dependent market regimes, the best performing trading strategies can be selected.

This promising but complex selection of environment and correlation regime-dependent trading strategies is one possible answer to the altered market behaviour. At the same time it answers your question, if simple dynamic beta adjustments for an equity portfolio could work. According to our analysis, more complex methodologies are necessary to deal with the new market behaviour. Your other proposal to diversify equity risk with managed futures has also failed since August 2011. The return trend of this hedge fund style became negative and started to have higher correlations with equity than before.

**WOLFDIETER SCHNEE:** Since the financial crisis of 2008, many investors began to see volatility trading as an investment strategy, rather than just as a hedge against uncertainty. As more and more managers are using exchange traded derivatives to trade volatility, it also became a strategy which is often systematised, easier to price and more transparent than in the early days. What is your view on the current progress in volatility trading? Would you agree that the current macro environment with the ongoing uncertainty about the US debt ceiling, the forthcoming tapering as well as the continuing problems in peripheral Europe is offering generally favourable conditions for volatility focused hedge fund managers and ultimately their investors?

**PETER MEIER:** Volatility is even proposed by some industry exponents as an asset class, and since 2009 volatility can be traded by retail clients using volatility ETFs. Actually, some ETFs offer long vega (change of volatility) exposure but their performance was poor because of the Contango term structure of the VIX-Futures.

In the hedge fund space, volatility trading has been an important strategy going back to the 1980s. These funds are often classified as equity market neutral when they focus on equity options. But many other hedge fund managers are shorting options. It is the classical fat tail strategy. Cashing in option premiums leads to absolute returns at least as long as no multiple-sigma market drawdowns occur.

The ZHAW hedgegate 17-factor model reveals that the overall hedge fund universe momentarily is vega neutral. Long and short explicit or implicit option positions are balanced. This was very different before and after the crisis. The average hedge fund was short vega during the worst crisis months, and therewith punished by negative equity shocks.

Before and mainly in the aftermath of the 2008 crisis variance swaps were vividly used by fund managers as a protection against extreme losses. But many banks being short variance swaps got into trouble during the crisis and introduced volatility contracts with caps giving up offering extreme risk protection for fund managers.

It is also important to notice that options are not suitable for a static hedging strategy. Even in the current low volatility environment a permanent extreme risk hedging by holding and rolling put options would be too expensive. Therefore, a protection against these risks has always to be dynamic. ■