***Trading VIX ETFs***

**Markets traded**

Equities

**Trading frequency**

Daily

**Financial instruments**

ETFs

**Simple trading strategy**

The investment universe consists of 4 volatility ETNs - XIV, VXX, ZIV, VXZ (see table on page 9). Investor uses 83 day momentum to rank these ETNs every day. Investor holds ETN with the highest past 83-day performance in case that past performance is positive. Trading signal is checked on a daily basis and portfolio is rebalanced accordingly.

**Source Paper**

Cooper: Easy Volatility Investing  
<http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255327>   
Abstract:  
For many decades the only way to invest in volatility has been through trading options, futures, or variance swaps. But in recent years a number of volatility-related exchange traded Funds (ETFs) and Exchange Traded Notes (ETNs) have been launched which make volatility trading accessible to the retail investor and fund managers without the need to access futures markets. Our objective is to devise a trading strategy using them. We document where volatility returns come from, clearing up some misconception in the process. Then we illustrate five different strategies that will appeal to different investors. Four of the strategies are simple to describe and implement. All of the strategies have had extraordinary returns with high Sharpe Ratios and low correlation to the S&P500, in some cases negative correlation. The returns seems to be too good to be true - like picking up $100 bills in front of a steamroller - so we have a detailed discussion on the risks and the nature of the steam roller. We illustrate how these strategies can be incorporated into existing portfolios to reduce portfolio risk especially in times of crisis. They have positive exposure to the markets during good times and negative exposure during bad times. Unfortunately they do not always provide absolute returns and while reducing net portfolio drawdowns they can themselves have significant drawdowns. Still, we suggest that a traditional 60% equity, 40% bonds portfolio should be adjusted to 55% equities, 35% bonds, and 10% volatility. This is primarily an expository paper which explains concepts that are quite simple. So we omit formal technicalities such as bootstrap, robustness, statistical, and stress tests and leave out mathematics apart from some interesting notes that we confine to an optional technical appendix. The investing strategies are very easy to apply and the (optional reading) discussions of the mechanics of the futures markets belies their simplicity.

***Trading on the dividend paydate***

**Markets traded**

Equities

**Trading frequency**

Daily

**Financial instruments**

Stocks

**Simple trading strategy**

The investment universe consists of stocks from NYSE, AMEX and NASDAQ that offer company-sponsored DRIPs(Dividend Reinvestment Plans). Each day at close investors buy stocks which have dividend payday on next working day and hold these stocks for 1 day. Stocks are weighted equally.

**Source Paper**

Berkman, Koch: Drained by DRIPS: The Hidden Cost of Buying on the Dividend Pay Date  
<http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2172448>  
Abstract:  
On the day that dividends are paid we find a significant positive mean abnormal return, followed by a reversal that negates most of this price appreciation. This temporary dividend pay date effect has grown in magnitude since the 1970’s, and is concentrated among high dividend yield stocks that offer dividend reinvestment plans (DRIPs). Since the mid-1990s, these stocks yield a mean abnormal return close to 0.5% on the dividend pay date. This temporary inflation is larger in magnitude for stocks subject to greater limits to arbitrage. Quarterly profits from a trading strategy to exploit this anomaly are economically significant, and related to time series movements in market sentiment, transaction costs, the dividend premium, and the VIX. For investors who reinvest their dividends on the pay date, this temporary inflation represents a substantial implicit transaction cost.

***VIX predicts returns***

**Markets traded**

Equities

**Trading frequency**

Daily

**Financial instruments**

ETFs, funds, futures, CFDs

**Simple trading strategy**

The investor uses the rolling past 20 year history of the VIX index to create 20 equally spaced percentiles. He/she then goes long on the equity index at the close for one day if the VIX index on the current day is higher than on any other day during the rolling 2 year window or if the VIX index value is in the highest 2 percentile boxes. He/she goes short on the equity index at the close for one day if the VIX index on the current day is lower than on any other day during the rolling 2 year window or if the VIX index value is in the lowest 2 percentile boxes.

**Source Paper**

Giot: On the relationships between implied volatility indices and stock index returns  
<http://www.core.ucl.ac.be/econometrics/Giot/Papers/IMPLIED2_i.pdf>  
<http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=5ABA12147DEB71866EF16F4D51343C90?doi=10.1.1.199.4665&rep=rep1&type=pdf>  
Abstract:  
For the S&P100 and NASDAQ100 indices, we show that there is a negative and statistically significant relationship between the returns of the stock and implied volatility (VIX and VXN) indices. For the S&P100 index, this relationship is asymmetric as negative stock index returns yield bigger changes in VIX than do positive returns. The VIX’s response to negative stock index returns is sharper in low-volatility periods, which suggests that option traders react aggressively to negative returns in low-volatility periods by strongly bidding up implied volatility. For the NASDAQ100 index, the asymmetric effect is rather weak but the VXN response to the index is also somewhat muted in high-volatility trading environments. In a second step, we assess the relationship between implied volatility and forward looking stock index returns. There is some evidence that positive (negative) forward looking returns are to be expected for long positions triggered by extremely high (low) levels of the implied volatility indices.