TO ORDER, EMAIL US
info@equinoxfunds.com

2019
INSIGHTS

When Does Trend Following "Kick In"?

October 2018 was a very difficult month, and managed futures* investors were severely disappointed as many trend-followers lost money along with equities. The increasing popularity of terms such as "crisis alpha" and "crisis risk offset" may have exacerbated confusion as to how managed futures may be beneficial during market downturns, leading some investors to think of managed futures as an equity market hedge.

In this note, we will show that historically, trend-following becomes increasingly negatively correlated to equities as the observation window lengthens (i.e. daily, monthly, quarterly) and that trend-following exhibits the strongest convexity (defined later) to equities at the quarterly horizon. This underlines what we have been saying at Equinox for years: managed futures are not a hedge, per se, but do provide some level of risk management during equity bear markets, when they often experience positive returns.

HIGHLIGHT

"Trend-followers will often lose money on long equity positions in the early stages of a bear market. If the bear continues to develop, trend-followers may reduce their longs and ultimately go short, seeking to make money during the downturn."

**Although the term "managed futures" is typically associated with trend-following, there is in fact a wide range of trading strategies that futures traders employ.*

Definitions of Terms and Indices can be found on page 5.

CORRELATION

Let's first look at the basic or unconditional correlation between the S&P 500® ("S&P") and the SG Trend Index ("Trend") over various horizons:

Correlation: S&P vs. TREND (Jan 2000 - Nov 2018)

DAILY	-0.0687
MONTHLY	-0.0988
QUARTERLY	-0.2180
ANNUAL	-0.4176

Past performance is no assurance of future results.

The correlation between the two indices decreases monotonically as we go from daily to annual observations. This presents us with a clue as to what kind of behavior to expect from trend-following: daily and monthly correlations are close to zero, suggesting that Trend returns during negative days and months for stocks are almost equally likely to be positive or negative. For quarterly and annual observations, the correlation is much more meaningful and negative, suggesting that Trend is often, but not always, positive when the S&P has a losing quarter or year.

If we zoom in on conditional correlations when the S&P has a losing month or quarter, we see an even stronger negative relationship. This translates into positive expected return for Trend when the S&P has a negative quarter. On the other hand, the correlation is positive when the S&P has a positive quarter, indicating that Trend returns are more likely to be positive than negative during positive S&P quarters.

Correlation: S&P vs. TREND

	All Observations	S&P Positive	S&P Negative
Monthly	-0.0988	-0.0639	-0.3003
Quarterly	-0.2180	0.2808	-0.4947

Average Trend Returns

	Positive Quarters	Negative Quarters	Total
S&P Positive Quarters	5.0% (26)	-4.4% (26)	0.3% (52)
S&P Negative Quarters	8.4% (14)	-4.7% (10)	2.9% (24)
Total	6.2% (40)	-4.5% (36)	1.1% (76)

Definitions of Terms and Indices can be found on page 5.

S&P 500® – SPDR S&P 500® ETF (Ticker: SPY)

Sources: AlphaVantage; www.societegenerale.com.

Past performance is no assurance of future results.

Alternative investments involve specific risks that may be greater than those associated with traditional investments. ***Alternative investments may not be suitable for all investors.***

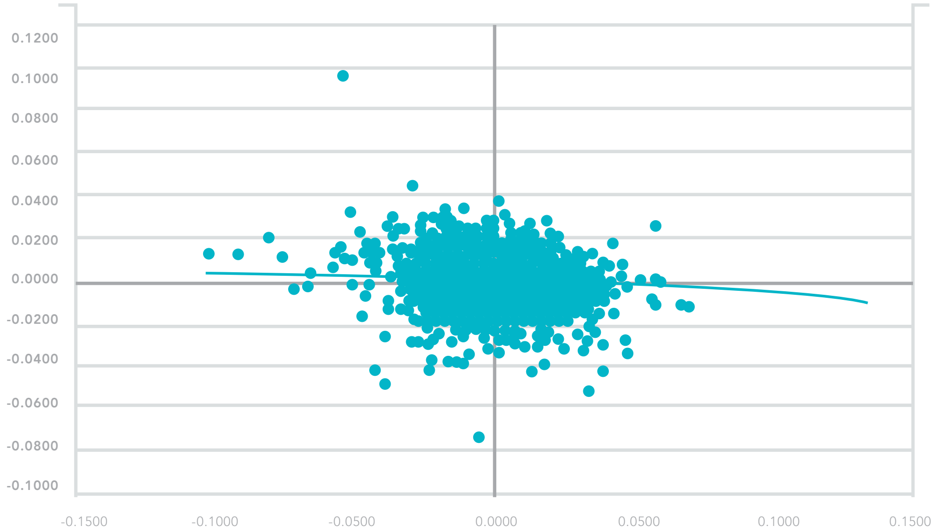
Since January 2000, S&P returns for 24 out of 76 calendar quarters have been negative (approximately 1/3 of the time) with an average return of -7.8%. Trend was positive 14 of those 24 quarters (about 58% of the time) and had an average return of 2.9% when the S&P had a negative quarter. On average, when the S&P has had a negative quarter, Trend has made money. Trend also made money, albeit much less (0.3% vs 2.9%) on average when the S&P was positive. While this is not necessarily what a "hedge" would look like, it certainly shows that Trend has portfolio benefits and a tendency to provide some level of risk management when stocks have protracted losses. However, this analysis does not take the magnitude of loss into account; we discuss that in the next section.

CONVEXITY

Artur Sepp defines convexity as "the beta coefficient of strategy returns to the square of returns on the benchmark. In this way, the convexity measures the dynamic risk of strategy performance in tails of the performance of the index." Strategies with positive convexity tend to have strong positive performance when the benchmark has extreme returns. Trend exhibits almost no convexity relative to the benchmark when we look at daily returns but has strong positive convexity for quarterly observations. When we examine the scatterplot of quarterly returns for S&P and Trend, we see an asymmetric pattern that is sometimes called a "smirk" rather than a "smile:" Trend performs more strongly during large negative quarters for the S&P. This is exactly when investors would prefer that it "kicked in."

S&P vs. TREND (Daily Observations)

Stocks and Trend are effectively independent at the daily scale.



Definitions of Terms and Indices can be found on page 5.

Sepp, Artur. "Trend-following strategies for tail-risk hedging and alpha generation." White paper. April 23, 2018.

Past performance is no assurance of future results.

Plot points represent returns of both indices.

X axis = S&P 500®

Y axis = SG Trend Index

S&P vs TREND (Calendar Quarters)

Trend kicking in when most desired (S&P suffers a large negative quarter).

Past performance is no assurance of future results.

Plot points represent returns of both indices.

X axis = S&P 500®
Y axis = SG Trend Index

RATIONALE

Why does Trend behave in this fashion? A very simple explanation is that most trend-following strategies, by definition, need time to change the direction of their positions. Depending on how things play out, a trend-follower could take several weeks to flip from long to short. Trend-followers will often lose money on long equity positions in the early stages of a bear market. If the bear market continues to develop, trend-followers will reduce their longs and ultimately go short, and make money during the downturn.

As most readers know, trend-followers also trade bonds, currencies and commodities. A slightly more nuanced explanation (explored in our previous piece: "Managed Futures During Equity "Crises" – An Update") is that bear markets do not play out in a vacuum – investors withdraw their funds from equities and move them elsewhere. As a bear market deepens, capital flows tend to accelerate from "risk-on" assets into "risk-off" assets, and trend-followers can also earn profits from being long "risk-off" assets. These profits may even exceed those from short equity positions, as trend-followers tend to size their positions inversely to volatility. In a volatile equity bear market, short equity positions may be smaller than long "risk-off" positions whose volatilities may be lower.

Definitions of Terms and Indices can be found on page 5.

Equinox Fund: "Managed Futures During Equity 'Crises' – An Update." Insight. 2019.

Available on equinoxfunds.com.

CONCLUSION

While managed futures should not be viewed as a reliable hedge for equity risk, they have tended to offer material protection during equity bear markets or "crises," as we can see from the performance of Trend during negative quarters for the S&P, with higher returns "kicking in" during large negative quarters.

APPENDIX

DEFINITIONS

Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the markets as a whole.

Correlation is measured on a scale from 1.00 to -1.00. [1.00] Investments with high correlation tend to rise and fall together. [0.00] Non-correlated investments tend to move up and down with no relation to one another. [-1.00] Investments with negative correlation tend to move in opposite directions.

Crisis alpha refers to profits or gains that can be made by exploiting certain market trends during times of market turmoil.

Long Position refers to the buying of a security such as a stock, commodity or currency, with the expectation that the asset will rise in value.

Managed futures is an alternative investment strategy in which professional portfolio managers use futures contracts as part of their overall investment strategy. Managed futures provide portfolio diversification among various types of investment styles and asset classes to help mitigate portfolio risk in a way that may not be possible in direct equity investments.

Risk-on risk-off is an investment setting in which price behavior responds to and is driven by changes in investor risk tolerance. Risk-on risk-off refers to changes in investment activity in response to global economic patterns. During periods when risk is perceived as low, the risk-on risk-off theory states that investors tend to engage in higher-risk investments; when risk is perceived to be high, investors have the tendency to gravitate toward lower-risk investments.

Short Position is a position whereby an investor sells borrowed securities in anticipation of a price decline and is required to return an equal number of shares at some point in the future.

A **Trend-Following Strategy** seeks to capitalize on momentum or price trends across global asset classes by taking either long or short positions as a trend is underway. Price trends are created when investors are slow to act on new information or sell prematurely and hold on to losing investments to long. Price trends continue when investors continue to buy and investment that is going up in price or sell an investment that is going down in price.

Volatility is a measure of fluctuation in the value of an asset or investment. Lower volatility improves the stability and lowers the risk of an investment portfolio.

INDEX DESCRIPTIONS

Investors cannot directly invest in an index and unmanaged index returns do not reflect any fees, expenses or sales charges.

The **SG Trend Index** (Societe Generale) is designed to track the 10 largest (by AUM) trend following CTAs and be representative of the trend-followers in the managed futures space. The SG Trend Index is equally weighted, and rebalanced and reconstituted annually.

A Word About Risk

The purchase of a managed futures investment involves a high degree of risk. Specifically, you should be aware that, in addition to normal investment risks, managed futures investments entail certain risks, including, in all or some cases:

• Managed futures often engage in leveraging and other speculative investment practices that may increase the risk of investment loss.

• Managed futures can be highly illiquid.

• Managed futures are not required to provide periodic pricing or valuation information to investors.

• Managed futures may involve complex tax structures and delays in distributing important tax information.

• Managed futures are not subject to the same regulatory requirements as mutual funds.

• Managed futures often charge high fees.

PAST PERFORMANCE DATA QUOTED HERE REPRESENTS PAST PERFORMANCE. CURRENT PERFORMANCE MAY BE LOWER OR HIGHER THAN THE PERFORMANCE QUOTED ABOVE. PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS.

DIVERSIFICATION DOES NOT ENSURE PROFIT OR PREVENT LOSSES. AN INVESTMENT IN MANAGED FUTURES IS SPECULATIVE AND INVOLVES A HIGH DEGREE OF RISK. YOU CAN LOSE MONEY IN A MANAGED FUTURES PROGRAM. THERE IS NO GUARANTEE THAT AN INVESTMENT IN MANAGED FUTURES WILL ACHIEVE ITS OBJECTIVES, GOALS, GENERATE POSITIVE RETURNS, OR AVOID LOSSES.

---

equinox funds

Securities offered through Equinox Group Distributors, LLC, Member FINRA.

47 Hulfish Street, Suite 510
Princeton, NJ 08542
T 1.877.837.0600

equinoxfunds.com

3021-NLD-1/8/2019