AN HONEST UPDATE ON THE TREND FOLLOWING LANDSCAPE

Background

Trend following is the most prevalent strategy utilized throughout the managed futures industry. Over three years ago, during the toughest recession our industry had ever experienced, we published the original version of this paper. Our aim was to offer a transparent and intellectually honest update on the track records of many of the most well-known trend followers. At that time, all twenty managers included in our analysis, including our Systematic Global Macro (systematic trend following) program, along with all of the major CTA indexes, were in a drawdown off their all-time high water marks.

In late 2013, as Central Bank policies began to diverge, "beneficial" volatility (i.e. directional and sustained) began to manifest itself in many of the futures markets that are the core of most trend following CTAs' portfolios. Most trend followers were able to capitalize on these favorable market conditions throughout 2014, with the best-performing managers producing all-time net-new equity highs, and in many cases, and then some.

Both 2015 and 2016 proved to be a more challenging environment as the Newedge CTA and Newedge Trend CTA indexes were down -2.86% and -6.15%, respectively, throughout this period (Note: Societe Generale renamed these indexes the SG CTA Index and the SG Trend Index).

How will the Trump inauguration and presidency ultimately end up affecting trend following CTAs' performance in the coming weeks and months? It will certainly be interesting to watch play out. In the meantime, for two different length periods, 3 years and approximately 13.5 years, the question remains the same as we posed in the original version of our paper: what is the best way to objectively analyze, measure, and compare the performance of a group of trend following CTAs? To help answer this question we developed our own metric that measures and compares the "goodness" of similar managers' returns. This paper updates our original work (and subsequent versions that we published during 2014 – 2016) and the measurements and ranking methodology that we initially introduced remain the same.

Who was analyzed?

This updated version of our paper includes analysis on 19 of the 20 trend following managers that we initially studied (one closed down in 2014), plus the SG CTA Index, the SG Trend (CTA) Index, the SG Trend Indicator, and four additional managers that we added during 2014 – 2015. It is important to note that the SG CTA Index represents the equal-weighted performance of the top 20 largest diversified CTAs open for investment, the SG Trend CTA Index represents the equal-weighted performance of the top 10 largest trend following CTAs open for investment, and the SG Trend Indicator is a fully-disclosed, rule-based trend following strategy that offers an interesting and transparent look into the daily performance and positions of a professionally developed, albeit basic, trend model.

Common Misunderstandings

Each year it seems a manager or two in our list receives accolades for their 'impressive', outsized performance. For instance, during 2014 one manager made +67.38% and another produced +61.95%. However, the problem is reporting only these types of "return" numbers tells, at best, only half of the story (this is a fact; not just our opinion). When you hear a manager's performance being quoted, the first question someone should ask is, "At what level of risk / margin-to-equity / volatility?" A Commodity Trading Advisor makes a *subjective choice* as to what level margin-to-equity to operate his or her program – but the level chosen is *not*, in and of itself, a source of "goodness." Furthermore, an investor who opens a managed account with a CTA, through the use of notional funding, can modify the manager's regular program volatility to suit their own appetite for risk. Therefore, due to the inherent leverage (i.e. free; no cost to

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660

lever up – unlike stocks) found in the futures markets, *risk-adjusted* returns (not absolute returns) are the only accurate and proper way to compare similar managers' returns.

A program run with a higher margin- to-equity ratio will produce a higher compound rate of growth at the price of higher drawdowns (periods of loss). For example, assume one manager produces a +60% net return over 12 months and another manager only produces a +20% net return. If the second manager used only 1/3 as much margin-to-equity, and produced only 1/3 as much volatility in his returns, then the two managers' performance were essentially equal on a risk-adjusted basis. However, the first manager will often win awards and be touted for having "better" performance – which demonstrates a lack of understanding of, or at least a lack of concern for, a crucial aspect about managed futures and how to correctly measure performance.

This point appears to be repeatedly misunderstood by most members of the financial press. A recent example is Barron's 'Top 100 Hedge Funds for 2016' which included at least three CTAs that we analyze in this paper. But for the entire list they only report 'returns' data, with no accompanying 'risk' data (annualized volatility, maximum drawdown; something would be better than nothing).

To bring this point full-circle, while the net returns of the two earlier mentioned managers of +67.38% and +61.95% during 2014 indeed sounded impressive on the surface, a study of their track records showed that the former had lost over 35% in one recent calendar year (and lists a 45.04% maximum historical drawdown) and the latter lost money in three consecutive recent calendar years and lists a 34.79% maximum drawdown. Both managers went on to produce all-time net-new equity highs, for which they should be commended, however, in order to get an intellectually honest and accurate reading of their true relative performance, one must include data on both returns and risk in one's analysis.

Ranking Methodology

Our proprietary metric aims to step into the shoes of a loyal, long-term investor with any of the managers that we analyze, and asks, "What aspects of my CTA manager's performance are most important to me?" The following table conveys the most important aspects, the proxies we use to measure them, and the weight we give to each individual measurement in our weighted final ranking:

Important Aspect of Manager's Returns	Proxy for Measurement	Weighting
When was the last net new equity high made?	Months in Current Drawdown	25%
What is the current drawdown from the last high-water mark?	Depth of Current Drawdown	25%
How good have the manager's risk-adjusted returns been over the long run?	Sortino Ratio	50%
		100%

For the period since the inception of our Systematic Global Macro program (September 2003) through December 2016, we measure each aspect of the managers' returns via our proxies and then assign them a weight.

Once we have the rankings for each of the managers on the individual aspects, we combine the rankings at their above respective weights to arrive at a final rank (similar to how one calculates a grade point average). This is a straightforward, quick method to compare similar futures managers to one another. By design, and to reduce the complexity of the process, the rankings do not have proportional information embedded in them, i.e. *how much better* is Manager A than Manager B, etc. When considering the results of our ranking presented in the table on the next page, the following should be noted:

- Since a CTA's returns, volatility, and drawdowns are functions of a subjective decision that has been made by the manager, only analyzing the managers' length and depth of their current (if applicable) drawdown is not sufficient. A risk-adjusted metric (referred to as "Reward to Risk Ratio" in the forthcoming table) must be applied that normalizes managers' returns against one another.

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660
www.RedRockCapital.com

- As we convey in our white paper, *Sortino: A 'Sharper' Ratio*, the Sortino ratio is a more appropriate measure to use for this purpose than the more popular Sharpe ratio. This is because the Sharpe ratio, by assuming that the returns it is measuring are normally distributed, unfairly and incorrectly penalizes managers whose returns exhibit positive asymmetry (skewness). In reality, investors typically welcome upside volatility and perceive only downside volatility as actual risk. As R. McFall Lamm, Jr., then Chief Investment Strategist of Deutsche Bank Private Wealth Management aptly stated, *"... positive asymmetry should have value...[because] investors prefer upside to downside risk — and are generally willing to pay for it."*

Ranking Results

				Ranking by Individual Sector			
Sep 2003 - Dec 2016	Months in Current Drawdown	Depth of Current Drawdown	Reward to Risk Ratio	Months in Current Drawdown	Depth of Current Drawdown	Reward to Risk Ratio	FINAL RANK
WINTON	10	-4.52%	1.64	7	4	1	**1**
TRANSTREND	5	-3.49%	1.12	1	3	5	**2**
RED ROCK (SGM)	6	-7.57%	1.57	4	7	3	**3**
WELTON	6	-2.94%	0.98	4	2	9	**4**
MILLBURN	5	-2.68%	0.67	1	1	15	**5**
ECKHARDT	6	-8.31%	0.79	4	9	13	**6**
MULVANEY	10	-16.31%	1.03	7	16	8	**6**
ISAM	10	-23.10%	1.18	7	25	4	**8**
SYSTEMATICA (BLUETREND)	10	-18.84%	1.08	7	20	7	**9**
ABRAHAM	21	-9.79%	0.94	13	11	10	**10**
SG CTA INDEX	10	-9.27%	0.77	7	10	14	**11**
COVENANT	23	-19.70%	1.58	20	21	2	**11**
LYNX	21	-20.21%	1.10	13	22	6	**13**
ASPECT	10	-13.59%	0.67	7	13	15	**14**
MAN AHL	21	-16.85%	0.86	13	17	11	**15**
DUNN	5	-15.46%	0.55	1	14	21	**16**
ESTLANDER	68	-15.55%	0.86	22	15	11	**17**
CHESAPEAKE	21	-6.43%	0.62	13	6	20	**17**
SG TREND CTA INDEX	21	-12.53%	0.63	13	12	18	**19**
DRURY	70	-8.16%	0.66	23	8	17	**20**
HYMAN BECK	70	-6.00%	0.53	23	5	22	**21**
SG TREND INDICATOR	63	-17.19%	0.63	21	18	18	**22**
GRAHAM	21	-17.33%	0.53	13	19	22	**23**
CAMPBELL	21	-19.88%	0.33	13	21	26	**24**
ALTIS	72	-49.94%	0.53	25	26	22	**25**
SUNRISE	85	-21.74%	0.37	26	24	25	**26**

Source: BarclayHedge, Altegris, IASG, Soc Gen, manager websites. 'Reward to Risk Ratio' is Sortino Ratio (Target = 0%). Systematica / BlueTrend from April '04; Welton from June '04. Past performance not necessarily indicative of future performance. For informational purposes only. Red Rock Capital, LLC not responsible for subsequent modifications to, or accuracy of, performance data.

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660
www.RedRockCapital.com

Observations & comments about the results:

- Winton once again regains the #1 ranking.
- 3 out of 26 managers (11%) made their last high-water mark 5 months ago (July 2016).
- Another 3 out of 26 managers (11%) made their last high-water mark 6 months ago (June 2016).
- Winton, along with 4 other managers and the SG CTA Index, produced their last high-water mark 10 months ago (Feb 2016).
- 5 out of 26 managers (19%) have not made a net-new equity high in over 5 years (!!). Strangely, in the face of such vast underperformance, some of these managers have seen it fit to launch new "improved" programs and even ETFs. (BTW, it should come as no surprise that the ETF already failed / went out of business due to poor performance.)
- The SG Trend Indicator, a fully-disclosed and freely-available-to-the-public strategy, has, according to our ranking methodology, outperformed four popular CTA trend following managers on our list with BILLIONS of dollars of investor capital under advisement. Exactly what are these investors paying for?
- Despite their abysmal performance, investors still have over $7 billion invested with managers in the bottom quartile of our ranking.
- A significant amount of one manager's performance data, at least in the database that we sourced, ***had been modified in their favor*** (effectively making their last high water mark easier to reach) <u>after more than two years' time had passed</u>. Does this shock anyone else? We found it rather concerning. Hopefully this was all well-documented and on the up and up.
- Good "recent performance", as so many seem to focus on and reward with praise, needs to be kept in the correct perspective. For instance a manager could be up 10% one year and then up another 5% the following year (and win awards, etc.) then down -11%, and back up 8%... yet the entire time still be under their high water mark. Should a savvy, loyal investor, who has not experienced a net new equity high in 80+ months, really care if a manager is "up" this year to date? We argue that they should not.
- Considering the length of some of the managers' drawdowns, we believe concern is warranted, from a current or prospective investor standpoint, as to whether or not such managers will ***ever*** make another new equity high again. Unfortunately, as we've seen too many times before in our industry, those managers often share the same concern – and conveniently try to shift focus away from that particular program – only to launch another "new and improved" variant. Prospective investors would do themselves a favor by being skeptical of firms launching new programs, Mutual Funds, and ETFs in the wake of ailing flagship trend following CTA programs.

A well-respected Introducing Broker in the industry recently suggested to us that an additional, pertinent characteristic to consider is the minimum managed account (SMA) size requirement for the managers and programs analyzed in this paper. Some minimums are reported to be $50 million – while qualified investors can obtain their own investment account with some of the other managers, who are ranked highly on the list, for only $500k.

As stated previously in the paper, the primary analysis period for which we presented results is nearly 13.5 years in length. We thought readers may also be interested in seeing a shorter period of comparison...

(continued on next page...)

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660

www.RedRockCapital.com

The below table ranks all of the managers and indexes on two risk-adjusted metrics, the Sharpe ratio and the Sortino ratio, over the past 36 months. Since with both ratios 'higher is better', one can attain a quick, normalized look across managers of the same ilk by adding the two ratios together and then sorting from highest to lowest to achieve a succinct ranking. (Additionally, we added two managers to our analysis: Cantab and Quantica. Both have received a lot of fanfare and accolades, and neither have long enough track records to be included in the longer analysis period.)

Jan 2014 - Dec 2016	Sharpe Ratio	Sortino Ratio	Rank
MILLBURN	1.26	2.61	**1**
RED ROCK (SGM)	1.06	2.34	**2**
ISAM	0.86	1.79	**3**
WELTON	0.88	1.62	**4**
MULVANEY	0.66	1.22	**5**
ASPECT	0.65	1.10	**6**
DUNN	0.62	1.09	**7**
SG TREND INDICATOR	0.54	1.03	**8**
TRANSTREND	0.57	0.99	**9**
HYMAN BECK	0.56	0.91	**10**
ABRAHAM	0.52	0.82	**11**
WINTON	0.49	0.84	**12**
CHESAPEAKE	0.51	0.81	**13**
SG CTA INDEX	0.48	0.82	**14**
MAN AHL	0.49	0.78	**15**
GRAHAM	0.40	0.71	**16**
SG TREND CTA INDEX	0.40	0.65	**17**
DRURY	0.37	0.61	**18**
CANTAB	0.36	0.61	**19**
ECKHARDT	0.34	0.52	**20**
LYNX	0.31	0.49	**21**
SYSTEMATICA (BLUETREND)	0.20	0.29	**22**
QUANTICA	0.18	0.26	**23**
ESTLANDER	0.18	0.27	**24**
CAMPBELL	0.15	0.22	**25**
COVENANT	0.12	0.21	**26**
SUNRISE	-0.07	-0.10	**27**
ALTIS	-0.26	-0.35	**28**

Source: BarclayHedge, Altegris, IASG, SocGen, manager websites. Sharpe Ratio is Annualized Return / Annualized Standard Deviation (RFR = 0%). Sortino Ratio uses Target = 0%. Past performance not necessarily indicative of future performance. For informational purposes only. Red Rock Capital, LLC not responsible for subsequent modifications to, or accuracy of, performance data.

(continued on next page...)

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660
www.RedRockCapital.com

In this article we present an efficient, consistent, and straightforward method to objectively measure and compare the performance of similar trend following CTA managers. Toward the latter part of 2013, Central Bank policies began to diverge, and many of the managers in our analysis, along with the major CTA indexes, went on to produce impressive results through 2014. The next two years proved more challenging for most trend-followers.

What will the future hold for trend followers? Events surrounding President-Elect Trump's inauguration and then his first year in office could produce a catalyst that once again has trend followers off and running...

– Thomas N. Rollinger, Managing Partner
– Scott T. Hoffman, Partner

Important Disclosures

This document is for informational purposes only and it is not a solicitation for investment. Past results are not necessarily indicative of future results. An investment with any Commodity Trading Advisor should only be made after careful study of the advisor's Disclosure Document including the description of the objectives, principal risks, charges, and fees associated with such an investment. Red Rock Capital, LLC not responsible for subsequent modifications to, or accuracy of, performance data. Indexes such as the SG CTA and SG Trend CTA Indices have inherent limitations, one being that they are uninvestable.

About Red Rock Capital

Red Rock Capital is a multi-award winning commodity investment management firm. During 2017 Red Rock's Systematic Global Macro Program will proudly celebrate its 14th anniversary. The firm is led by Thomas Rollinger, most notably a devoted pupil and former protégé of quantitative hedge fund pioneer, Edward O. Thorp. Given recent developments with the firm, plus increasingly favorable market conditions, Red Rock is especially well-positioned to continue to grow and thrive in the managed futures industry.

Red Rock Capital, LLC
5000 Birch Street, Suite 3000
Newport Beach, CA 92660
www.RedRockCapital.com