A Comparison of CTA Indexes

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Investors and money managers interested in diversifying into Managed Futures are often attracted to the daily transparency and better liquidity that Managed Futures have over the typical hedge-fund structure. Professional money managers in the Managed Futures space are known by the regulatory designation of Commodity Trading Advisors (CTAs). However, with hundreds of CTA programs from which to choose, it can be daunting to know where to start one's analysis of this investment space. One place to begin is with CTA indexes, which compile and track the performance of different CTA programs. This paper summarizes and analyzes information on over ten CTA indexes, and while it attempts to encompass the most-oft used indexes, it is not a completely exhaustive list. Finally, since much of this information is not readily available, the purpose of this paper is to serve as an effective and efficient informational resource for the industry going forward.

Upon delving into this material one quickly discovers there are differences between the various CTA indexes in terms of construction methodology, the number of CTA programs tracked, and minimum requirements with regard to track record length, financial auditing, and assets being managed.

Before presenting the information on the indexes themselves, we thought it would be helpful to offer some background on the terms "Managed Futures", "CTAs", and "Systematic Trend Following."

Defining Managed Futures, CTAs, & Systematic Trend Following

"Managed Futures" is an extremely broad term that requires a more specific definition. Managed Futures traders are commonly referred to as "Commodity Trading Advisors" or "CTAs," a designation which refers to a manager's registration status with the Commodity Futures Trading Commission and National Futures Association. CTAs may trade financial and foreign exchange futures, so the name Commodity Trading Advisor is somewhat misleading since CTAs are not restricted to trading only commodity futures.[1] [Note: many investors generically say "Managed Futures" or "CTAs" when they more precisely mean "systematic CTAs who employ trend following strategies (or 'Systematic Trend Followers')," likely due to the fact that many of the largest and most successful trading managers employ some variation of a trend following strategy.]

[For a more thorough summary on Systematic Trend Following / Systematic Global Macro, see Appendix I.]

That being said, Managed Futures may be thought of as a collection of liquid, transparent hedge fund strategies which focus on exchange-traded futures, forwards, options, and foreign exchange markets. Trading programs can take both long and short positions in as many as 400 globally diverse markets, spanning physical commodities, fixed income, equity indexes, and currencies. Daily participants in these markets include hedgers, traders, and investors, many of whom make frequent adjustments to their positions, contributing to substantial trading volume and plentiful liquidity. These conditions allow most Managed Futures programs to accommodate large capacity and provide the opportunity to diversify across many different markets, sectors, and time horizons.[2]

Diversification across market sectors, active management, and the ability to take long and short positions are key features that differentiate Managed Futures strategies not only from passive, long-only commodity

indexes, but from traditional investing as well. Although most Managed Futures programs trade equity index, fixed income, and foreign exchange futures, their returns have historically been uncorrelated to the returns of these asset classes. The reason for this is that most managers are not simply taking on systematic beta exposure to an asset class, but are attempting to add alpha through active management and the freedom to enter short or spread positions, tactics which offer the potential for completely different return profiles than long-only, passive indexes.[1]

Early stories of futures trading can be traced as far back as the late 1600s in Japan.[3] Although the first public futures fund started trading in 1948, the industry did not gain traction until the 1970s. According to Barclays (2012), "…a decade or more ago, these managers and their products may have been considered different than hedge funds; they are now usually viewed as a distinct strategy or group of strategies within the broader hedge fund universe. In fact, Managed Futures represent an important part of the alternative investment landscape, commanding approximately 14% of all hedge fund assets [which equated to] $284.4 billion at the end of 3Q11."[4] More recent estimates, according to alternative investment database BarclayHedge located in Fairfield, Iowa, show that Managed Futures now account for approximately 17% of all hedge fund assets under management ($331.6 billion of the total $1,946.3 billion invested in hedge funds).

Managed Futures should also be thought of as a subset of global macro strategies that focuses on global futures and foreign exchange markets and is likely to utilize a systematic approach to trading and risk management. The instruments that are traded tend to be exchange-listed futures or extremely deep, liquid, cash-forward markets. Futures facilitate pricing and valuation and minimize credit risk through daily settlement, enabling hedge fund investors to mitigate or eliminate some of the more deleterious risks associated with investing in alternatives. Liquidity and ease of pricing also assist risk management by making risks easier to measure and model.[1] In fact in research conducted *before* the Global Financial Crisis, Bhaduri and Art (2008) found that the value of liquidity is often underestimated, and, as a result, hedge funds that trade illiquid instruments have underperformed hedge funds that have better liquidity terms.[5]

The quantitative nature of many Managed Futures strategies makes it easy for casual observers to mistakenly categorize them as "black box" trading systems.[1] According to Ramsey and Kins (2004), "The irony is that most CTAs will provide uncommonly high levels of transparency relative to other alternative investment strategies."[6] They go on to suggest that CTAs are generally willing to describe their trading models and risk management in substantial detail during the course of due diligence, "short of revealing their actual algorithms." CTAs are also typically willing to share substantial position transparency with fund investors. Ramsey and Kins conclude that, "It is difficult to call CTAs black box, considering they disclose their methodology and provide full position transparency so that investors can verify adherence to that methodology."

Separately managed accounts, common among Managed Futures investors, greatly enhance risk management by providing the investor with full transparency, and in extreme cases, the ability to intervene by liquidating or neutralizing positions.[1] In addition, institutional investors who access CTAs via separately managed accounts substantially reduce operational risks and the possibility of fraud by maintaining custody of assets. Unlike the products traded in other hedge fund strategies, those traded by CTAs allow investors to customize the allocation by targeting a specific level of risk through the use of notional funding. The cash efficiency made possible by the low margin requirements of futures and foreign exchange allows investors to work with the trading manager to lever or de-lever a managed account to target a specific level of annualized volatility or other risk metric. Some CTAs offer funds with share classes with different levels of risk. Unlike traditional forms of leverage, which require the investor to pay interest to gain the additional

exposure, assets used for margin in futures accounts can earn interest for the investor. Another advantage of trading futures is that there are no barriers to short selling. Two parties simply enter into a contract; there is no uptick rule, there is no need to borrow shares, pay dividends, or incur other costs associated with entering into equity short sales. Thus, it is easier to implement a long-short strategy via futures than it is using equities.[1]

[To see a summary of how institutional investors view Managed Futures and CTAs, see Appendix II.]

Background on the CTA Indexes

ALTEGRIS 40 INDEX

The Altegris 40 Index is designed to represent the performance of the 40 largest CTA programs based on program assets. All programs in the Altegris CTA database are eligible for inclusion in the index.

Each month all CTA programs in the Altegris database are ranked by program assets. The 40 largest programs are selected as index constituents for the following month. The index return for the month is the asset weighted average return of the constituent programs for that month.

As of September 2013, the 40 programs in the index represented assets of approximately $94 billion.

The proprietor of the Altegris 40 Index is Altegris Clearing Solutions, LLC, and they, in conjunction with Altegris Advisors, LLC, calculate the index. The index is available without cost online at www.managedfutures.com and Altegris Clearing Solutions can be reached at TSG@altegris.com or (858)459-7040.

BARCLAY BTOP50 INDEX

The Barclay BTOP50 Index is designed to represent the performance of CTA programs in the BarclayHedge database representing at least 50% of total assets in all CTA programs that are open to new investment. To qualify for inclusion in the index the program must be open to new investment, the manager must be willing to report daily returns, the program must have two years of performance history, and the program CTA must have at least three years of operating history.

The index calculation methodology is such that the index performance represents the return of a hypothetical portfolio comprising an equal dollar allocation to each index constituent at the beginning of each calendar year. During the fourth quarter of each year, all CTA programs in the BarclayHedge database that meet the inclusion requirements (candidate universe) are ranked by third quarter ending program assets. Beginning with the largest program, the constituent list for the following year is compiled by successively adding the next largest program to the constituent list until a minimum of 20 programs have been included and the cumulative program assets of the constituent list equals at least 50% of the total program assets of the candidate universe. The result of this process is the constituent list for the index for the following calendar year. At the beginning of the year a hypothetical portfolio is formed with each constituent program given an equal dollar allocation. The index daily return is simply the daily return of this hypothetical portfolio. There is no rebalancing of allocations during the year.

As of October 2013 there were 20 constituent programs in the index.

The proprietor of the Barclay BTOP50 Index is BarclayHedge, Ltd., and they also calculate the index. The index is available without cost online at www.barclayhedge.com and Sol Waksman, the President and Founder of BarclayHedge, can be reached at swaksman@barclayhedge.com or (641) 472-3456.

BARCLAY CTA INDEX

The Barclay CTA Index is designed to broadly represent the performance of all CTA programs in the

BarclayHedge database that meet the inclusion requirements. To qualify for inclusion in the index, a program must have at least four years of performance history. Additional programs introduced by qualified advisors (advisors who have at least one program that meets the four year history requirement) must have at least two years of performance history.

The index constituent list each year is comprised of all CTA programs that meet the inclusion requirements at the end of the prior year. At the beginning of the year a hypothetical portfolio is formed with each constituent program given an equal allocation. The index monthly return is simply the monthly return of this hypothetical portfolio. There is no rebalancing of allocations during the year.

As of October 2013 there were 582 constituent programs in the index.

The proprietor of the Barclay CTA Index is BarclayHedge, Ltd., and they also calculate the index. The index is available via a $150 yearly subscription which provides a complete monthly historical data set for all of the Barclay CTA Indexes and monthly updates for the next 12 months. BarclayHedge's website is www.barclayhedge.com and Sol Waksman, the President and Founder of BarclayHedge, can be reached at swaksman@barclayhedge.com or (641) 472-3456.

BARCLAY SYSTEMATIC TRADERS INDEX

The Barclay Systematic Traders Index is designed to represent the performance of CTA programs in the BarclayHedge database whose approach is at least 95% systematic. To qualify for inclusion in the index, a program's approach must be at least 95% systematic and have at least two years of performance history. The index constituent list each year is comprised of all CTA programs that meet the inclusion requirements at the end of the prior year. At the beginning of the year a hypothetical portfolio is formed with each constituent program given an equal allocation. The index monthly rates of return are simply the monthly rates of return of this hypothetical portfolio. There is no rebalancing of allocations during the year.

As of October 2013, there were 466 constituent programs in the index.

The proprietor of the Barclay Systematic Traders Index is BarclayHedge, Ltd., and they also calculate the index. The index is available via a $150 yearly subscription which provides a complete monthly historical data set for all of the Barclay CTA Indexes and monthly updates for the next 12 months. BarclayHedge's website is www.barclayhedge.com and Sol Waksman, the President and Founder of BarclayHedge, can be reached at swaksman@barclayhedge.com or (641) 472-3456.

CISDM CTA EQUAL WEIGHTED INDEX

The CISDM CTA Equal Weighted Index is designed to broadly represent the performance of all CTA programs in the Morningstar database that meet the inclusion requirements.

The index calculation methodology is designed to exclude, each month, constituent performance deemed to be an outlier observation. Each month, statistics are generated for CTA programs in the Morningstar database that meet the inclusion requirements and that have reported returns for that month. Programs whose returns are +/- 3 standard deviations from the average return are excluded. The index return for the month is the simple average return of the non-excluded programs.

As of October 2013 there were 435 constituent programs in the index.

The proprietor of the CISDM CTA Equal Weighted Index is the Center of International Securities and Derivatives Markets (CISDM) and their research analysts calculate the index. CISDM provides Morningstar with the index on a monthly basis and it is available without cost on both Morningstar's and CISDM's websites. See CISDM's website at www.isenberg.umass.edu/CISDM or contact Patricia Bonnett, Executive Director, at CISDM@isenberg.umass.edu.

CREDIT SUISSE MANAGED FUTURES HEDGE FUND INDEX

The Credit Suisse Managed Futures Hedge Fund Index is designed to broadly represent the performance of Managed Futures hedge funds (in contrast to CTA programs) in the Credit Suisse database representing at least 85% of total Managed Futures hedge fund assets under management. To qualify for inclusion in the index, a fund must provide audited financials, have a minimum $50 million in assets, have a minimum one year of performance history, and consistently report to the database.

At the end of each quarter, funds that meet the inclusion requirements are added to the constituent list for the following quarter. Constituent funds remain in the index until they cease operations even though they may not continue to meet the initial inclusion requirements. The index return each month is the asset weighted average return of all constituents for that month.

As of September 2013, there were 34 constituent funds in the index.

Credit Suisse is both the proprietor and responsible for calculating the Credit Suisse Managed Futures Index. The index is available without cost online at www.hedgeindex.com and Credit Suisse can be reached at hfindices.ir@credit-suisse.com.

ISTOXX® EFFICIENT CAPITAL® MANAGED FUTURES 20 INDEX

The iSTOXX® Efficient Capital® Managed Futures 20 Index is designed to represent the aggregate return of 20 of the largest CTA programs and be easily replicated as an investment product. To qualify for inclusion in the index, a program must have a minimum of $100 million in assets, be open to new investment, be available through a managed account, be offered with fees lower than or equal to the corresponding publically traded fund, and have at least three years of performance history.

At the end of each year all CTA programs that meet the inclusion requirements are ranked by program assets. The 20 largest programs that meet the inclusion requirements are selected as index constituents for the following year. The index return each month is the simple average of the individual volatility adjusted (normalized) return of each constituent. A rolling 36 month standard deviation of each constituent's returns is used as the measure of volatility.

As of September 2013, the 20 constituents in the index represented over $70 billion in assets.

The proprietor of the iSTOXX Efficient Capital Managed Futures 20 Index is STOXX Ltd, and they independently calculate and publish the index value on a daily basis. Efficient Capital Management serves as the research partner. The index is available online at http://www.stoxx.com/indices/index_information.html?symbol=STXECMF and STOXX can be reached at customersupport@stoxx.com or +41.58.399.5900.

NEWEDGE CTA INDEX

The Newedge CTA Index is designed to represent the performance of the 20 largest CTA programs. To qualify for inclusion in the index, a program must be open to new investment and report returns on a daily basis.

At the end of each year all CTA programs in the Newedge CTA database that meet the inclusion requirements are ranked by program assets. The 20 largest programs are selected as index constituents for the following year. At the beginning of the year a hypothetical portfolio is formed with each constituent program given an equal allocation. The index daily return is simply the daily return of this hypothetical portfolio. There is no rebalancing of allocations during the year.

As of October 2013, the 20 programs in the index represented assets of approximately $76 billion.

The proprietor of the Newedge CTA Index is Newedge Group, and they, in conjunction with Bar-

clayHedge, calculate the index. The index is available without cost online at www.newedge.com and Ryan Duncan and James Skeggs, Global Co-Heads of the Advisory Group, can be reached at ryan.duncan@newedge.com and james.skeggs@newedge.com, respectively.

NEWEDGE CTA TREND INDEX

The Newedge CTA Trend Index is designed to represent the performance of the 10 largest Trend Following CTA programs. To qualify for inclusion in the index, a program must be open to new investment, report returns on a daily basis, be an industry recognized Trend Follower, and exhibit significant correlation to trend following peers and the Newedge Trend Indicator.

At the end of each year all CTA programs in the Newedge CTA database that meet the inclusion requirements are ranked by program assets. The 10 largest programs are selected as index constituents for the following year. At the beginning of the year a hypothetical portfolio is formed with each constituent program given an equal allocation. The index daily return is simply the daily return of this hypothetical portfolio. There is no rebalancing of allocations during the year.

As of October 2013, the 10 programs in the index represented assets of approximately $60 billion.

The proprietor of the Newedge Trend Index is Newedge Group, and they, in conjunction with BarclayHedge, calculate the index. The index is available without cost online at www.newedge.com and Ryan Duncan and James Skeggs, Global Co-Heads of the Advisory Group, can be reached at ryan.duncan@newedge.com and james.skeggs@newedge.com, respectively.

STARK 300 TRADER INDEX

The Stark 300 Trader Index is designed to represent the performance of the 300 largest CTA programs in the Stark database that meet the inclusion requirements. To qualify for inclusion in the index, a program's CTA must be registered with the NFA and be willing to report performance to the Stark database on the monthly basis.

Each month all CTA programs in the database are ranked by program assets. The 300 largest programs comprise the constituent list for the following month. The index return for the month is the asset weighted average return of the constituent programs for that month.

As of October 2013, the 300 programs in the index represented assets of approximately $75 billion.

Daniel B. Stark & Co., Inc. is both the proprietor and is responsible for calculating the Stark 300 Trader Index. The index is available without cost online at www.starkresearch.com and they can be reached at info@starkresearch.com or (619) 702-1230.

STARK SYSTEMATIC TRADER INDEX

The Stark Systematic Trader Index is designed to broadly represent the performance of the all CTA programs in the Stark database whose approach is systematic and that meet the inclusion requirements. To qualify for inclusion in the index, a program's approach must be systematic, the program's CTA must be registered with the NFA and be willing to report performance to the Stark database on a monthly basis.

The index return for the month is the asset weighted average return of all programs that meet the inclusion requirements for that month.

As of October 2013, there were 357 constituent programs in the index representing approximately $69 billion in assets.

Daniel B. Stark & Co., Inc. is both the proprietor and is responsible for calculating the Stark Systematic Trader Index. The index is available without cost online at www.starkresearch.com and they can be reached at info@starkresearch.com or (619) 702-1230.

Analysis

DESCRIPTIVE INFORMATION

	Type of Weighting Method	Number of CTAs	CTAs Disclosed	Start Date	Backfilled To	Rebalance Frequency	Constituents Reformed	Reporting Frequency	Is Index Investable
ALTEGRIS 40	Asset	40	No	Jan-90	N/A	Monthly	Monthly	Monthly	No
BARCLAY BTOP50	Equal	20*	Yes	Jan-02	Jan-87	Annually	Annually	Daily	No
BARCLAY CTA	Equal	582*	No	Jan-87	Jan-80	Annually	Annually	Monthly	No
BARCLAY SYSTEMATIC	Equal	466*	No	Jan-88	Jan-87	Annually	Annually	Monthly	No
CISDM	Equal	435*	Yes^	Jan-94	N/A	Monthly	Monthly	Monthly	No
CREDIT SUISSE	Asset	34*	Yes	Nov-99	Jan-94	Monthly	Quarterly	Monthly	No
ISTOXX EFFICIENT	Equal†	20	Yes	Aug-12	Jan-01	Monthly	Annually	Daily	Yes
NEWEDGE	Equal	20	Yes	Jan-00	N/A	Annually	Annually	Daily	No
NEWEDGE TREND	Equal	10	Yes	Jan-12	N/A	Annually	Annually	Daily	No
STARK 300	Asset	300	Yes	Oct-93	Jan-82	Monthly	Monthly	Monthly	No
STARK SYSTEMATIC	Asset	357*	Yes	Oct-93	Jan-82	Monthly	Monthly	Monthly	No

** Number of constituents is dynamic*
^ Yes—with subscription
† Volatility-adjusted / normalized

In the above table, rebalance frequency refers to how often the index is reset back to its original weighting scheme. The annual rebalancing methodology of the equal weighted Barclay and Newedge indexes has the effect that during the calendar year between rebalancing, the effective weight or contribution of well performing constituents increase relative to poorer performing constituents. In this way, the hypothetical portfolio of the initial equal weighted constituents become unbalanced over time; hence the need to rebalance. Technically, rebalancing only has significance when the index reporting period is different than the rebalance period. If the index reporting period is the same as the rebalance period, the index never has a chance to become unbalanced.

Is an asset weighted index better than an equal weighted index? The answer will depend on what aspect of the Managed Futures space the reader is interested in. An asset weighted approach is more representative of the total assets under management (AUM) in the space. Equal weighting is more representative of the diversity of different trading styles. They both have merit. If one wants to gauge the performance of the majority of AUM allocated to Managed Futures, then they should focus on an asset weighted index. If, on the other hand, they are interested in how the average program did, then they should concentrate their focus on an equal weighted index.

Are more constituents better than fewer? The number of constituents in an index is a measure of how broadly the index represents the performance of CTA programs. Since the large majority of assets in the Managed Futures space are concentrated in a relatively small number of the largest managers, the number of constituents in an asset weighted index becomes less significant once the number of constituents in the index represents the large majority of assets being managed in the space. For an equal weighted index, the more constituents represented in the index, the more broadly the index represents the entire diversity of CTA programs in the Managed Futures space. Additionally, rebalancing and reconstitution events have a bigger impact with a smaller number of constituents

since each constituent has a larger percentage impact on the index as a whole, i.e. with 500+ constituents, dropping, adding, or rebalancing will not have much impact on the entire index.

Some indexes have been designed to be easily replicated in an investable product, such as the Barclay BTOP50 Index, both the Newedge CTA Index and the Newedge Trend Index and the relatively new iSTOXX Efficient Capital Managed Futures Index. Such indexes will necessarily have fewer constituents and qualify constituents by size. These qualifications are necessary to facilitate the practical considerations of actually replicating the index methodology, particularly the issues of manager capacity, reallocation, and rebalancing events.

PERFORMANCE STATISTICS *(January 2003 – August 2013)*

	Annualized Return	Annualized Standard Deviation	Sharpe Ratio (0)	Sortino Ratio (0)	Max Drawdown	Skewness	Kurtosis
ALTEGRIS 40	4.05%	9.81%	0.41	0.66	-15.23%	0.05	-0.73
BARCLAY BTOP50	3.66%	7.13%	0.51	0.87	-10.92%	0.24	0.15
BARCLAY CTA	3.65%	6.22%	0.59	1.02	-9.04%	0.26	0.16
BARCLAY SYSTEMATIC	3.28%	7.47%	0.44	0.72	-10.79%	0.23	0.18
CISDM	5.97%	8.20%	0.73	1.37	-11.10%	0.46	-0.03
CREDIT SUISSE	4.33%	11.40%	0.38	0.60	-17.27%	0.01	-0.93
ISTOXX EFFICIENT	4.19%	7.72%	0.54	0.89	-12.80%	0.03	-0.12
NEWEDGE	4.05%	7.81%	0.52	0.85	-11.11%	0.03	-0.50
NEWEDGE TREND	4.93%	12.59%	0.39	0.61	-17.53%	-0.03	-0.56
STARK 300	3.30%	7.29%	0.45	0.74	-10.33%	0.11	-0.66
STARK SYSTEMATIC	2.83%	7.70%	0.37	0.59	-11.05%	0.14	-0.66
U.S. STOCKS	9.85%	15.11%	0.65	0.95	-50.84%	-0.81	2.24
AGGREGATE BONDS	4.32%	3.66%	1.18	2.06	-3.93%	-0.31	1.75
60% STOCKS / 40% BONDS	7.74%	9.18%	0.84	1.26	-32.48%	-0.96	3.31

U.S. Stocks represented by Vanguard Total Stock Market Index Fund (VTSAX)
Aggregate Bonds represented by Vanguard Total Bond Market Index Fund (VBTLX)
60% Stocks / 40% Bonds represented by Vanguard Balanced Index Fund (VBIAX)

Indexes with a larger number of constituents tend to be less volatile than indexes with a smaller number of constituents possibly due to the more diversification represented by the more broadly defined indexes.

During the analysis period the maximum drawdowns for all CTA indexes were substantially lower than for U.S. Stocks and the traditional 60% Stocks / 40% Bonds institutional portfolio. Furthermore, all three traditional asset class variants exhibited significant amounts of negative skewness, which means the distribution of monthly returns was impacted more by negative outliers than positive outliers – i.e. they showed a propensity for downside volatility / negative fat tails.

When comparing the performance of CTA indexes to those of traditional asset classes like stocks and bonds, it is important to recognize that the return reported by CTAs does not include the return on interest earned on any notional amount invested in the program. This is a significant point which will understate,

and in periods of higher interest rates *significantly* understate, the actual return earned by an investor in a CTA program.

This is because of the notional funding possible in a futures account whereby an investor in a CTA program is only required to deposit a small fraction of the nominal account size used by the CTA to determine the size of trading positions. The amount not on deposit as margin with the futures broker, termed the notional amount, is retained by the investor and can earn interest outside the futures account. This interest is in fact earned by the investor, but is not includable in the CTA's reported performance. Current regulations prohibit CTAs from imputing interest earned on notional funds; they may only report returns actually earned in the futures account.

All indexes in our survey were very highly correlated to each other regardless of index size, composition, weighting method, or calculation methodology. For the period of 2003 through 2013, the average correlation was 0.94 with a minimum of 0.90.

ANNUAL RETURNS *(2003 – August 2013)*

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*
ALTEGRIS 40	15.99%	2.57%	4.51%	6.70%	7.18%	15.47%	-7.98%	11.33%	-3.23%	-4.75%	-5.63%
BARCLAY BTOP50	15.55%	0.86%	2.76%	5.61%	7.57%	13.58%	-4.77%	6.38%	-4.25%	-1.83%	-1.89%
BARCLAY CTA	8.69%	3.30%	1.71%	3.54%	7.64%	14.09%	-0.10%	7.05%	-3.09%	-1.70%	-2.25%
BARCLAY SYSTEMATIC	8.71%	0.54%	0.95%	2.10%	8.72%	18.16%	-3.38%	7.82%	-3.83%	-3.20%	-1.90%
CISDM	11.07%	3.83%	2.44%	5.66%	11.57%	21.76%	0.61%	14.29%	-3.14%	-1.76%	-1.74%
CREDIT SUISSE	14.15%	5.96%	-0.11%	8.05%	6.00%	18.23%	-6.57%	12.20%	-4.19%	-2.93%	-7.25%
ISTOXX EFFICIENT	15.82%	-0.53%	5.58%	7.70%	9.54%	13.24%	-3.57%	8.68%	-4.82%	-3.79%	-2.88%
NEWEDGE	15.75%	1.46%	3.20%	5.75%	8.05%	13.07%	-4.30%	9.26%	-4.45%	-2.87%	-1.71%
NEWEDGE TREND	11.91%	2.68%	0.75%	8.24%	8.58%	20.88%	-4.80%	13.13%	-7.93%	-3.52%	-2.57%
STARK 300	10.55%	2.93%	0.47%	5.94%	5.85%	11.41%	-4.18%	7.92%	-4.67%	-3.38%	-0.60%
STARK SYSTEMATIC	10.17%	2.86%	-0.32%	5.25%	5.85%	12.48%	-5.44%	8.36%	-4.69%	-3.74%	-1.64%
U.S. STOCKS	31.95%	12.57%	6.12%	15.59%	5.59%	-36.99%	28.82%	17.22%	1.10%	16.38%	16.99%
AGGREGATE BONDS	1.93%	4.37%	2.51%	4.35%	7.04%	5.24%	6.02%	6.22%	7.71%	4.20%	-2.95%
60% STOCKS / 40% BONDS	19.98%	9.36%	4.80%	11.07%	6.35%	-22.15%	20.17%	13.26%	4.30%	11.51%	8.75%

**2013 through August*

CORRELATIONS *(Monthly data, January 2003 – August 2013)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. ALTEGRIS 40	1.00													
2. BARCLAY BTOP50	0.96	1.00												
3. BARCLAY CTA	0.92	0.93	1.00											
4. BARCLAY SYSTEMATIC	0.92	0.93	0.99	1.00										
5. CISDM	0.92	0.90	0.97	0.96	1.00									
6. CREDIT SUISSE	0.98	0.94	0.90	0.90	0.91	1.00								
7. ISTOXX EFFICIENT	0.95	0.96	0.92	0.93	0.90	0.92	1.00							
8. NEWEDGE	0.97	0.97	0.92	0.93	0.92	0.95	0.96	1.00						
9. NEWEDGE TREND	0.97	0.96	0.91	0.92	0.91	0.96	0.93	0.96	1.00					
10. STARK 300	0.97	0.95	0.92	0.92	0.92	0.96	0.95	0.97	0.96	1.00				
11. STARK SYSTEMATIC	0.97	0.95	0.91	0.92	0.91	0.96	0.95	0.97	0.96	0.99	1.00			
12. U.S. STOCKS	0.05	0.02	0.06	0.00	0.05	0.08	0.02	0.01	0.06	0.06	0.04	1.00		
13. AGGREGATE BONDS	0.17	0.10	0.15	0.14	0.12	0.15	0.15	0.09	0.08	0.09	0.07	0.00	1.00	
14. 60% STOCKS / 40% BONDS	0.07	0.03	0.08	0.02	0.07	0.10	0.04	0.02	0.07	0.07	0.05	0.99	0.16	1.00

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Appendix I

SYSTEMATIC TREND FOLLOWING

Systematic Trend Following ("Trend Following") is a mature and well-established trading style, having demonstrated performance persistence for more than thirty years. Approximately 72% of the assets under management in Managed Futures belong to this strategy sub-style.[2]

Trend Following attempts to capture price trends which generally result from sustained capital flows across asset classes. Investable trends often occur as markets move both toward and away from their natural equilibrium.[2]

Most Trend Following strategies are of the momentum or "break-out" style, both of which attempt to capture large directional moves. Trend followers generally place stop orders to limit losses when trends reverse. Most trend followers, however, will either not utilize profit objectives, or will set profit objectives much further away from the entry price than the stop-loss orders.[1] The basic strategy often results in a payout profile that is similar to being long options; that is, the strategy experiences large profits when a trend emerges, but relatively small losses when trends reverse or fail to materialize.[7]

Managers who deploy these trading strategies generally make investment decisions systematically, based on mechanical rules devised through statistical and historical analysis.[1] Trend Following has evolved from its naïve, primarily rules-based beginnings to become a highly sophisticated group of quantitative strategies whose ability to generate robust returns has been enhanced by more precisely controlling risk and drawdown.[2]

Managers may attempt to capture price trends across a wide variety of time horizons, from intraday to more than one year. Most intermediate- and long-term trend followers are focused on time frames of a few weeks to a few months. Some managers choose to focus exclusively on one time frame, while others trade a variety of time frames in an attempt to enhance diversification. Since trend followers typically diversify across both markets and time frames, it becomes quite likely that at any point in time, trends will be present in several market and/or time-frame combinations.[1] Obviously differences in risk budgeting across markets, time horizons, and parameter selection will result in Trend Following programs that produce somewhat different return profiles.[2]

Appendix II

WHERE INSTITUTIONAL INVESTORS POSITION MANAGED FUTURES AND CTAS

According to a survey in the Barclays February 2012 Hedge Fund Pulse report, institutional investors view the top three key benefits of investing in CTAs as:

1) Low correlation to traditional return sources

2) The risk-mitigation/portfolio-diversifying characteristics of the strategy

3) The absolute-return component of the strategy and its attributes as a source of alpha

Also, 50% of the investors have some of their current hedge fund portfolio allocated to CTA strategies, while 50% of investors surveyed plan to increase their allocations to the strategy in the next six months.[4]

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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.

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A 16-year industry veteran, Mr. Rollinger previously co-developed and co-managed a systematic futures trading strategy with Edward O. Thorp, the MIT professor who devised blackjack "card counting" and went on to become a quantitative hedge fund legend (their venture together was mentioned in two recent, best-selling books). Considered a thought leader in the futures industry, Mr. Rollinger published the highly acclaimed 37-page white paper *Revisiting Kat* in 2012 and co-authored *Sortino: A 'Sharper' Ratio* in mid-2013. He was a consultant to two top CTAs and inspired the creation of an industry-leading trading system design software package. Earlier in his career, Mr. Rollinger founded and operated a systematic trend following fund and worked for original "Turtle" Tom Shanks of Hawksbill Capital Management. After graduating college in Michigan, Mr. Rollinger served as a Lieutenant in the U.S. Marine Corps. He holds a finance degree with a minor in economics.

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Mr. Hoffman graduated Cum Laude with a Bachelor of Science degree in Electrical Engineering from Brigham Young University in April 1987. In the 1990s, Mr. Hoffman began applying his engineering domain expertise in the areas of statistics, mathematics, and model development to the financial markets. In April 2003, after several years of successful proprietary trading, Mr. Hoffman founded Red Rock Capital Management, Inc., a quantitative CTA / CPO. Early in his trading career, Mr. Hoffman participated in a CTA Star Search Challenge, earning a $1M allocation as a result of his top performance. Since then, Red Rock Capital's outstanding performance has earned the firm multiple awards from BarclayHedge. Mr. Hoffman is active in the research areas of risk and investment performance measurement as well as trading model development. His publications include *Sortino: A 'Sharper' Ratio* which he co-authored with Mr. Rollinger.

About Red Rock Capital, LLC

Red Rock Capital, LLC is an award-winning quantitative asset management firm located on Chicago's Magnificent Mile. The firm is registered with the CFTC as a Commodity Trading Advisor and is a member of the National Futures Association. The firm's flagship Systematic Global Macro Program (Systematic Trend Following) boasts a 10-year track record. In addition to their globally diversified CTA program, Red Rock recently launched a new Commodity Long/Short Program (QEP) and a Commodity Risk Parity (Total Return) Index.