Alternative Analysis:
EMC Capital Advisors

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To kick off our new 'Alternative Analysis' series where we dive deep into the professional trading advisors we work with each month; we're looking at EMC Capital Advisors.

EMC Capital Advisors have certainly changed since its legendary beginning with the birth of Managed Futures and story of the turtle traders. The team has modernized the alternative investment firm b y e mbracing t he w orld o f t he Liquid Alt mutual funds, launching three new programs, where they've earned a ranking at the top of the Morningstar list in the multi-alternative strategies category.

The numbers speak for themselves. These programs, EMC Alpha and Alpha Plus, have generated double digit yearly returns, while the flagship program has established a 19% annual return over the past three decades. Put that all together, and it's easy to understand EMC's assets jumped from $70 million to $260 million (a 370% increase) just under three years.

The growth in assets certainly catches onlookers, but what are John and his team doing to ensure their programs stay on top? Why are investors choosing EMC from the hundreds of the new alternative mutual funds? Enter our Alternative Analysis series, where we ask the why, when, and how questions that are only natural to those about to entrust their hard earned money to a manager; but rarely covered in the analytical 'fact sheets' which don't have the room to cover the human element.

PS - If you like listening to the managers themselves, we have an upcoming webinar you can subscribe to, here.

The Essentials:

EMC Capital Advisors

Since: 1988

Website: http://www.emccta.com/

AUM: $260 million

Program: Classic, Alpha, Alpha Plus, Financial

The Firm & People

In the Beginning…

How EMC came to be is one heck of a story tracing its roots all the way back to the "Turtle Traders." Back in the 1980's, two renowned traders - Richard Dennis and Bill Eckhardt - had a nature vs. nurture disagreement: were you born with the ability to trade, or is it something that can be taught. To test this theory, the two made the bet of the century.

The pair placed an innocent ad in the Wall Street Journal offering an opportunity that seemed too good to be true. Dennis would teach a select few his proprietary trading method and provide them with capital to trade. A famed trader spilling his secrets was astonishing enough, but in another unusual twist, the ad noted the pair's willingness to take applications from anyone, including those with no prior experience in trading. Two of those chosen were EMC's Brian Proctor and the late Liz Cheval. The rest is history (You can learn more about turtle traders here).

Fast Forward to today...

After Liz's passing in early 2013, John Krautsack, took the reigns as President, implementing a new vision for EMC. John restructured the firm and finalized the capital reinvestment into EMC's research and trading infrastructure, and the results produced 3 innovative new programs.

John's Background

If we were to tell you John had connections with Alice Copper and Andrea Jaeger you might not think that managing a managed futures business would be his first choice of occupation, but his aspirations all started after a quick lunch at The Merc Club.

> *"Back in the mid 80's an old friend asked me if I wanted to go down to the Chicago Mercantile Exchange where his brother-in-law worked. I'll be honest, I was 21 and had absolutely no idea what went on at the CME. It turns out his brother-in-law (trading badge MAX) was one of the biggest local traders in the S&P 500 pit. We gained access to the floor and waited for him to exit the pit. Standing there for ten minutes I couldn't believe the total chaos surrounding me. MAX finally came out of the pit looking like he was just in a fight. The three of us headed up to the Merc Club for lunch and for the first few minutes MAX just stared at his trading cards then back up at the quotes on the ticker board. During lunch we had a short conversation and then MAX said he had to get back to the pit but before he departed he looked across the table and said "John do you want to work for me?" I said yes and never looked back."*

This was just before the big financial crash of 1987 where fortunes were made or lost in a few short hours. But instead of scaring off Krautsack, John says this moment was when he knew this was the

John Krautsack, President of EMC Capital Advisors

"John implemented a new vision for EMC going forward."

industry for him – why he wanted to help others manage money.

> *"As crazy as it sounds, the 1987 crash drew me to wanting to manage money… I saw firsthand how the whole world is long everything and irrational /emotional decision making persists… especially during these crisis periods. I figured that a disciplined approach of actively managing money using a pure systematic approach in the face of all of that non-disciplined behavior could reap big returns. Ever since, I've seen that the*

diversification benefits managed futures offer is unlike any investment out there… and is the main reason why managing money in this space still gets me excited. "

Soon after the 1987 crash, John moved to Arizona with the aforementioned Max to start a Managed Futures firm, Crown Capital Management. Then, after seeing Crown Capital run its course, he started actively pursuing any ex-turtle traders.

"A lot of the students from that program launched their own CTAs and were putting up triple digit returns. My first interview was with Elizabeth Cheval at EMC Capital Management. Elizabeth wasn't hiring at the time but was so kind to refer me to JPD Enterprise. JPD was run by James DiMaria who also participated in the turtle program. I worked at JPD from 92-93 on the trading desk, and landed at ALH Capital Corp in northern California in 94-95 heading the trading department."

We forgot to say Spoiler Alert at the top, because you already know by John's current title that even though he didn't get the EMC job with Liz Cheval right away, she did in fact track him down years later asking him to join the team.

It's a Team Effort

Speaking of the team, anyone who watches sports with regularity knows the teams with continuity and players who've been together for a while tend to do better than those working in some new faces. Which is why EMC's consistency in employees speaks volumes to their success, with the core group working together for decades.

"EMC has a tight nit team of six, together for decades. That's because each member of the team has the ability to share decades worth of knowledge and transparency that clients can trust. Pair that alongside the advancement in technology in the finance sector over the last 30 years, and the firm has been able to launch new programs and grow in fund size without the need for new hires."

The Program:

Why Managed Futures?

Before we get into the nitty-gritty of how and why EMC's programs make money, we asked EMC why someone might need a managed futures investment in the first place? Every manger has a different way of explaining this, and John says he likes to think of Alternative Investments as your portfolio airbag.

"I would explain all of our alternative products as a car's airbag. You go out and buy a car which has an engine, wheels, windshield and airbag. You would never decide not to include the airbag because you don't think you'll ever crash. That's obviously silly in the case of the car – but we see investor after investor follow that line of thinking with their portfolio. I don't plan on crashing my car, but it sure is nice knowing it's there to soften the blow. Similarly – I don't plan on my portfolio blowing up, but it's sure nice knowing there's something there to soften the blow."

And just how long do you need that portfolio airbag there? Well, if the clients with EMC for 30 years doesn't give you the hint, maybe this will. John says that if he ever writes a book, it could be called "Staying Diversified for Life."

On to EMC's Trading Systems

As alluded to earlier, EMC as a firm (and John personally) believe in a systematic approach to managing money.

"We analyze price data to build a variety of

rules based systems. These systems contain multiple parameters which determine when to initiate and liquidate positions. The objective is to capture long term trends and cut short your losing trades. We take more losing trades than winning trades, but the winning trades on average are three times larger than the losing trades. EMC takes a disciplined approach to following the rules of all the systems."

EMC currently has multiple systems which are designed to be a balanced mixture of momentum and range dependent strategies; meaning, some of these systems rely on markets to keep moving higher or lower to make money (aka having momentum), whereas the other systems rely on markets not moving above or below certain price ranges (aka range dependent).

When do you enlist one type of system versus the other? How do you know whether to 'turn on' the momentum or range bound systems? The key to EMC Capital Advisors lies in the unique metrics that each of the systems in the portfolio are optimized to, which EMC called "supervalues." Supervalues are mathematical expressions that shape each system's expected return stream, and in turn play a large role in building the system.

Building the Systems

How do you best build trading models? Do you start with a market, start with a fundamental idea, or start with an indicator? Optimize? Backtest? Forward test out of sample? There are millions of permutations, making the process of building models of the utmost importance to a systematic trader. We asked EMC for one of their 'a ha' moments in this process to shed light on how they approach building out models.

"I remember one research meeting where we sat around looking at each one of our systems and tried to pull out one parameter and see what the system looked like after it's optimized without it. We discovered that all systems want some sort of volatility filter of some kind which helps to reduce the amount of bad trades we take. The "aha" moment was realizing we are paid to take risk and capture outright trends and we could potentially miss opportunity with every system having this volatility filter. To rectify this, EMC's research committee made a strategic decision to develop and implement a system without a volatility filter."

There's a lot of inside info in that small paragraph. For one, they have a robust research process that combines quantitative results with the team's practical trading experience to develop investment programs. Second, there's a lot of debate in the space on whether to keep traditionally successful systems the way they are. EMC takes the disclaimer, past performance is not necessarily indicative of future results to heart. The research committee is not content to rely on what's made a name for themselves, but continuously re-evaluating their systems to find improvements. John says this process is well worth it in the end, as a 2008 trade in Crude Oil verified.

"When the second half of 2008 came, we were rewarded in markets like crude oil after the volatile run up to $140 and then sharp reversed down. All of our legacy systems were screened out of that down move due to the volatility being too high; except the one we created per the parameter removal example above. As things turned out, the ride down in Crude was even better than the ride up; even to the point of one of our large investors calling us in the second half of 2008 to say we were one of a few managers he follows taking risk and in this trade. That trade would never have happened if not for a process to review our systems and make incremental improvements over time"

Let's Talk Risk Management

If a few little hairs on your neck pricked up when reading that volatility filters were removed – congrats – you would fit right in with our risk analysts and due diligence geeks. And of course, no investment analysis is complete without talking about risk. EMC goes a little meta when describing their risk management, saying it's built like a model itself, designed to control risk by utilizing the following factors:

- Market Volatility
- Leverage Factors
- Open Trade Equity
- Trailing Returns
- Scale Factors
- Market Weights

John says these risk parameters are optimized to a utility function in order to quantify and limit risk across the portfolio. The result:

> *"It successfully reduces the portfolio's exposure after long extended profitable portfolio runs and reduces the chances that the portfolio will experience large drawdowns from peak equity in performance which improves the program's overall risk adjusted returns."*

The Hot Seat Performance Questions

Worst Annual Drawdown:

Every investment has bouts of poor performance, and a careful analysis of how bad it got when it was bad can tell a lot about the program and the people behind it.

EMC is unique in this aspect, as its old days of putting up a +187% returns and drawdowns of -40% aren't reflective of the risk and volatility targets in its current trading strategy. The first significant changes to the strategy happened in 1996 when multiple

Brian Proctor, Managing Director of EMC Capital Advisors

systems were added to reduce volatility. If we look at the programs stats since 2007, when they revamped their risk management, their maximum yearly drawdown stands at -16.55% in 2009. And an even closer analysis will show the program with a max drawdown of just -16% (in '13) over the past 5 years as the model has continued to evolve.

The Fun Part – Trading Examples

Numbers, metrics, ratios, returns, are all essential in making a decision on alternative investments, but most investors we talk to want to know real life examples of how those numbers came to fruition. What does the strategy look like in real time, placing real trades? Here's a few examples of live trades per John:

> *"The best trade in Classic over the past few years has to be Cotton. One of our range*

dependent systems trade initiated a buy on 8/5/2010 at 55.60. Strong demand, particularly from China, and tight supplies drove prices to record highs. The early stage price activity was the perfect storm for this system to initiate a long position. Our liquidation parameter is a shorter term version of our initiation parameter, and the price activity during the rally allowed us to stay in the trade for a long time. Nine months later, the system sold the position at 154.45, on 5/19/2011."

"For the EMC Alpha and Alpha Plus programs, it's probably the buy of the US dollar index on 7/25/2014 at 82.05, selling it at 95.01 on 4/29/2015. (See here for what was happening in the markets at the time)."

"The worst trade in our Classic program was in Platinum. We sold platinum on 09/22/2015 at 952.2 which was initiated by our momentum system. Precious metal prices were falling due to the expectation that the FED would tighten monetary Policy. Higher rates curb the appeal of precious metals, which don't pay interest or give returns like bonds and equities. We exited our position on 10/16/2015, with our strict hard stop (max risk per trade) after prices abruptly turned around. We are disciplined to limit losses and let winners run. This system eventually took another short position, as markets resumed its down-trend, and exited with a large profit."

What Makes EMC Unique

This is what separates the standard systematic managed futures managers from the leaders. Not only is EMC Capital Advisors one of the longest successful track records, but they also have the computing infrastructure, the dedicated research team, and the innovation that makes it possible to compete with anyone.

Take a stroll into EMC's office and you'll find enough computing power to take on the NSA.

"All of our software in research & trading is developed in house. EMC reinvested capital in a 600 square ft. server room that houses 400 quad core servers. The research engine uses genetic algorithms to speed up the natural parameter selection or building process of our systems. Our proprietary front end trading platform integrates system signals with live data to automatically execute via FIX protocol."

The computing power is just part of the equation. Their research is not isolated to a few quants locked in a room churning out models, but rather is open to the entire firm allowing for ongoing testing and perspectives from all walks and angles. While the technology itself allows for efficiency crunching out mass amounts of data and permutations, their real strength is knowing that the markets of tomorrow won't look like the markets of today (make this a blow out quote). Their real strength is planning for that and dynamically adapting to it in real time.

"The quantitative method EMC employs is concerned with the design and development of algorithms that allow computers to automatically recognize complex patterns based on probability distribution and make intelligent decisions based on the data. The algorithms perform a user designed task – for EMC it's the development and optimization of trading systems and risk management. Identifying best/optimal parameters of each system for the desired result."

All of this translates to three new programs in the last three years, each with unique strategy styles. The EMC Alpha and Alpha Plus programs incorporate a multi-strategy approach adding further diversification, with four different sub-categories with low to negative correlations. This is different from the Classic program where multiple systems were developed across the construction of the portfolio, creating one strategy.

To learn more about these strategies, be sure to register for a webinar with John to talk trading strategies and markets.

The Analysis

There's a few impressive feathers to stick in EMC's cap right away. For starters, there's the personal history and impressive "bloodlines" tying back to the Turtle Traders. Then there's the uber-impressive track record length, which is longer than some managers' ages. You simply can't have that much experience and not have learned a secret or two along the way.

Gone are the days investors have to curtail their sights on which managed futures manager to invest in based on how much capital they have available. For pensions and family offices, a $5 million minimum is an average size for this type of investment. For the individuals out there that don't have $5 million to dedicate to 10-15% of your portfolio, EMC Capital Advisors has partnered with Dearborn Capital Management to launch a mutual fund based on their private fund strategies, which is closing in on its second year of performance sitting comfortably above average for the category benchmark.

Depending on who you talk to, one thing to consider is EMC's new programs haven't hit a three year track record yet. As we've talked about before, that's not necessarily a negative, as we suggested that new programs often see better performance than more established managers; but there are large investors out there who use that as an indicator of whether to invest.

What we really like more than the history, more than the numbers, and more than the talent at the firm, is the commitment to research and development of a process for continuously trying to improve the models. Many investors get caught up in wanting to invest based on a trailing return or Sharpe ratio or performance in 2008 – when all of that is (by definition) in the past. What really matters is how and if they have a process in place to repeat that performance, across an ever changing market environment. Relating this to basketball – you want to pick the coach and the system, not the players. The coach and the system drive long term success… the players dictate how you do year in and year out (sometimes better, sometimes not as good).

Putting it all together – our summary is: good guys (and girls, rest in peace Liz) + good research + good history = great manager!

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Those investors who are qualified eligible persons as that term is defined by CFTC regulation 4.7 and interested in investing in a program exempt from having to provide a disclosure document and considered by the regulations to be sophisticated enough to understand the risks and be able to interpret the accuracy and completeness of any performance information on their own.

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RCM Alternatives ("RCM") is a registered commodity brokerage firm which helps high net worth individuals, registered investment advisors, and institutional investors identify and **access top alternative investments** focused in commodities and managed futures.

In addition to assisting end investors, RCM's **low-cost, consultative, education-based approach** to alternative investments is a natural fit with investment advisors, while a professional services desk assists hedge funds, commodity trading advisors, and mutual funds set up and efficiently access markets around the world.

RCM's asset management arm, **registered Commodity Pool Operator** Attain Portfolio Advisors, aids investors and their advisors in accessing select managers which have been filtered through our real-time due diligence process at lower investment levels via institutional grade fund vehicles structured as Limited Liability Companies.

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