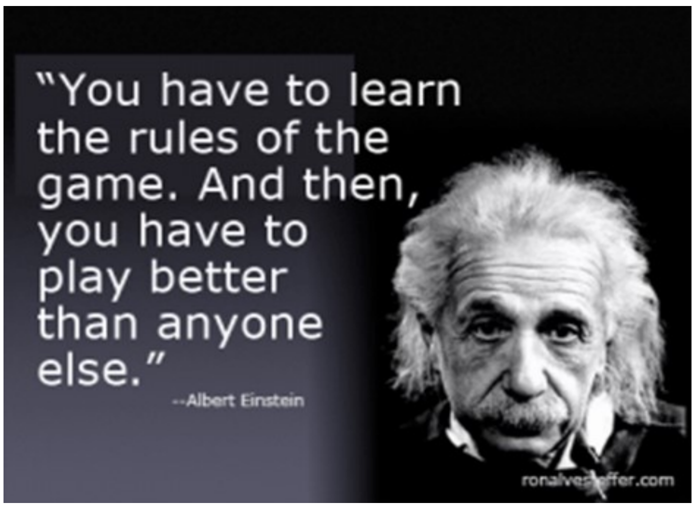
PCM
PEAK CAPITAL MANAGEMENT

# Quantamental Investing

PCM Report August 2015 Volume 6, Issue 8

We are likely entering a period where Good News becomes Bad News . . . for investors. Recent weeks have seen a spike in volatility and concern about the market's ability to maintain the bullish trend that has been in place for nearly 4 years (it has been 45 months since the last 10% stock market correction). There is the realization that so much of the asset price appreciation we have experienced is the result of the Fed's ultra-accommodative stance, and we are now on the doorstep of a change in policy direction.

The economy continues to show signs of accelerating growth. Housing, in most markets, is approaching the 2008 highs or has already surpassed them. However, the world markets were fixated on a potential Grexit when the Greek people rejected new austerity measures. Nobel-Prize winning economist Paul Krugman pointed out that Greece's entire GDP is roughly the size of the Miami metropolitan area.




Focus seemed to have shifted from U.S. corporate earnings (Q2 negative guidance was the smallest in nearly 3 years according to FactSet) to potential global contagion created by a debt default in Greece or the bursting of the bubble known as Chinese stocks in Shanghai. Good news from a macroeconomic perspective is bringing hand wringing that the Fed might have to hike rates faster than the market expects and tight monetary policy will result in a stock market correction (or crash).

What portfolio management approach makes sense in the face of so much uncertainty? We believe the answer is Quantamental investing. While we cannot take credit for coining the phrase, it does describe what our approach has been for many years. Quantamental investing involves combining quantitative analysis with fundamental research.

Warren Buffet, the Oracle of Omaha, is perhaps the best known fundamental investor of the last 50 years. He invests on the basis of what he believes a company's long-term value is and doesn't care how long it may take for that to be realized in the stock market. He famously stated, ***"If you aren't willing to own a stock for ten years, don't even think about owning it for ten minutes"*** (Chairman's Letter 1996).

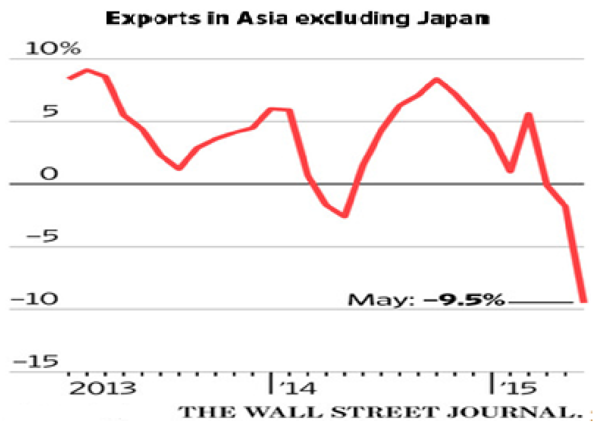
Quant models, conversely, rely upon computer algorithms sometimes known as Black Box investing because the data that is analyzed is often not disclosed. These models do not attempt to identify underlying value as much as they try to take advantage of trends or exploit market anomalies in order to outperform the broad market or reduce portfolio risk. All quant models work when back-tested but actual results do not always succeed in application (just ask the Investors of the defunct Long-Term Capital Management).

We approach investing with a strong conviction that equity investments should be grounded in owning companies with compelling long-term valuations based on fundamental analysis. We look for high levels of free cash flow, above average return on equity, and earnings growth resulting from a business model that is understandable. However, as portfolio managers, we do not have the freedom to only be concerned with what a company may be worth in a decade; investors tend to have short-term memories when brokerage statements show losses. We utilize quantitative models in an attempt to reduce portfolio volatility and manage risk.

Our forecast suggests we are entering a period where downside volatility will increase and risk management will be of increasing importance. We also realize that the global savings glut and continued monetary easing in Japan and Europe could drive stock prices higher in the U.S. and around the world.

In a world where good news can become bad, growth can lead to contraction, and strength might result in weakness, we will rely upon our rules-based, disciplined Quantamental investment approach.

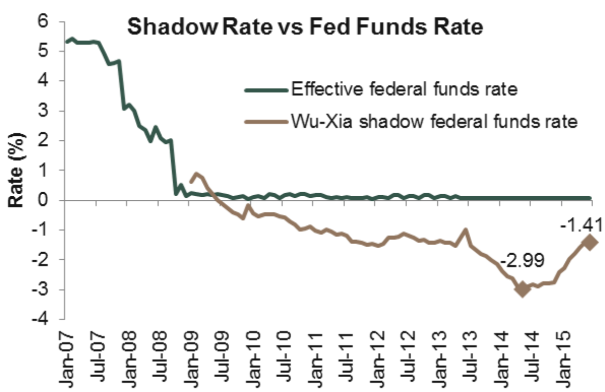
## A Hard Landing




Currency devaluation is supposed to lead to rising exports as a country's products become more competitively priced in the global economy. Unfortunately for emerging market economies, this is not occurring. Local currencies of many emerging markets have fallen by 30% over the last 2 years but exports and economic growth from Indonesia to Brazil are experiencing dramatic contractions. A hard landing appears inevitable and will likely result in greater volatility in global markets. The developed world responds to economic weakness through monetary policy by reducing interest rates or quantitative easing. Because of the risk that inflation becomes rampant, EM's are very limited in how they are able to respond to the current weakness.

- Inflation-adjusted interest rates are at decade highs in emerging markets (EMs) and cutting grates only exacerbate currency devaluation.
- Increasing domestic demand and developing a middle class is greatly inhibited by the inability to grow the economy through exports. This will likely hinder China's development and result in slower global economic growth over the next 3-5 years in our view.
- EM's rely on recovery in Europe and a rebound in U.S. consumption. Slower global growth is likely to keep commodity prices soft, including oil, which could spur a sharp increase in discretionary spending.

## Standing in the Shadows

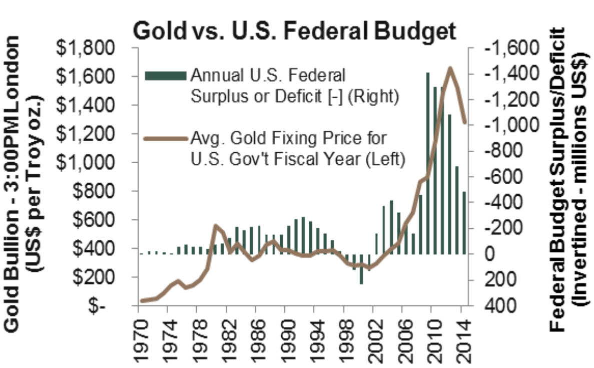



*Sources: Board of Governors of the Federal Reserve System, and Wu and Xia (2014)*

The shadow rate was created by economists Jing Cynthia Wu and Fon Dora Xia and is maintained by the Federal Reserve Bank of Atlanta. The shadow rate estimates where the fed funds rate would be based on Treasury forward rates out to 10-years. It is not bound by zero like the fed funds rate is, so it can go negative as shown in the chart. Some economists use this to estimate how accommodative monetary policy is after accounting for the unconventional measures, like QE, the Fed has employed since 2008. The shadow rate dipped down to -3.0% in May of 2014 and has steadily risen through June 2015, suggesting a less accommodative monetary policy stance already. Will the Fed move its target rate above zero this year? The fed funds futures market suggests some skepticism remains over the first rate hike occurring in September. Near the end of July, participants were placing roughly a one-in-three chance of a September rate hike (WSJ).

- Boston Fed President Eric Rosengren cited continued drop in oil prices, China's economic slowdown, and the on-going Greek debt crisis as areas that may prevent the fed from raising rates in September.
- On July 15, 2015, Yellen stated before Congress, "We're close to where we want to be, and we now think the economy can not only tolerate but needs higher rates."
- We put more weight on Yellen's comments in anticipating a small increase in rates, likely to be in September, followed by a very slow and gradual rate increase over time.

## Can gold regain its shine in 2016?



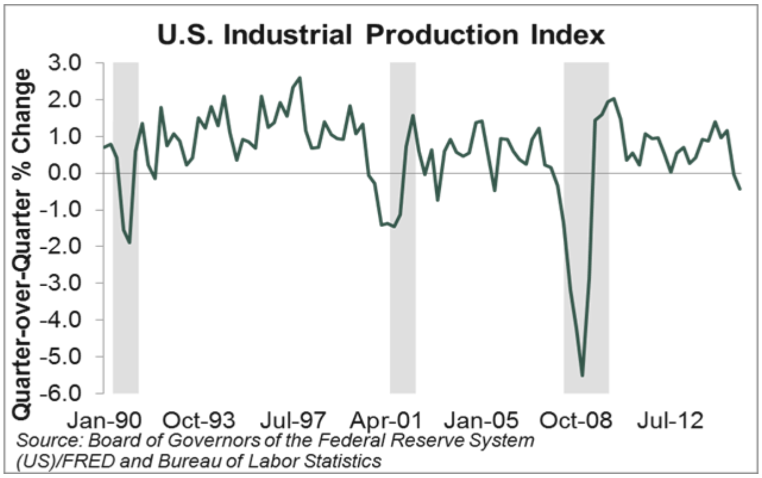

*As of 9/30/2014. Source: St. Louis Federal Reserve, US. Office of Management and Budget and London Bullion Market Association.*

Gold is often regarded as a hedge against inflation or a way to insure against the devaluation of paper money. Typically, gold shines during periods of rising inflation, profligate government spending (i.e. large budget deficits) and/or heightened uncertainty surrounding the overall health of the U.S. financial system, which many feel is largely based on a risky fiat-currency and fractional-reserve-banking scheme. The price of gold peaked in September 2011, just before the U.S. Government posted its third consecutive annual budget deficit of over $1.2 trillion. Since then the Federal Deficit has declined steadily to roughly $500 billion, helping to dull gold's luster. In short, when the promises implicit in paper currencies are in question (namely the U.S. dollar), gold tends to do quite well.

- Inflation is non-existent these days and the U.S. budget deficit has continued to improve, two key trends that have lessened gold's overall appeal.
- While supply plays a role in driving gold prices, there is an interesting relationship between gold's returns and the size of the U.S. Federal Budget Deficit. As the U.S. Federal Budget Deficit has shrunk over the last few years, so have the returns realized by holding gold.
- Can the U.S. fiscal picture hold steady or continue to improve into 2016? Will the U.S. dollar continue its rally? We believe these are two key questions in determin-ing if gold's shine returns in 2016. And at this point, it does not look like gold is poised for a big comeback in our view.

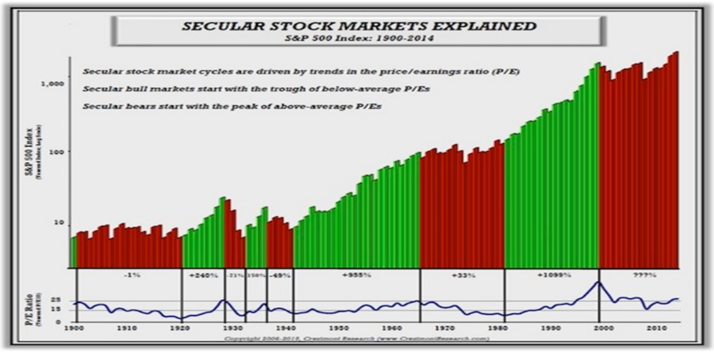
## Macro View– Waning Productivity

Signs of a slowing U.S. economy continue to emerge. Grabbing the attention of economists is the Industrial Production Index, which is an economic indicator that measures real output for all facilities located in the United States. It includes manufacturing activity, mining, and output from electric and gas utilities. Notably, the quarter-over-quarter percent change in this index turned negative in 2Q15 . This has historically been associated with a recession three out of the five times it has happened since 1990, as shown by the shaded areas in the chart. We believe it is something worth watching and that it is further evidence that the Fed will be very patient in "normalizing" monetary policy.




## Taking Stock– Identifying Value

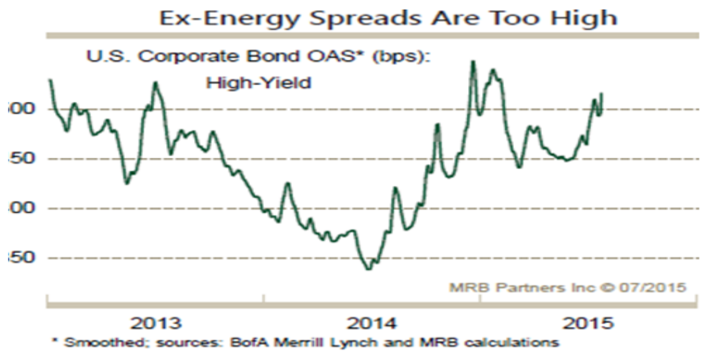
Valuations can help us determine whether equity markets are in the midst of a secular (long-term) bull or bear market. The chart below (Crestmont Research) shows the S&P 500 returns juxtaposed to P/E ratios at the bottom. It is notable that secular bull markets tend to start when P/E ratios have fallen below 15 and bottom out in the low double-digit or high single-digit range. Some have argued that the 2009 bottom in P/E ratios was the beginning of a new secular bull market. Others have pointed out that the 2009 trough in the P/E ratio was not really a bottom and that markets remain in the secular bear that began in 2001. There is much debate over whether we are in a secular bull or bear market, and we remain unconvinced that a new secular bull market has begun. Over this latest cycle, valuations never reached the bargain-basement level we'd expect. We recognize that the Fed's unprecedented intervention these past 6 years may be distorting things. The jury is still out in our view.




## Fixed Income– Eyeing Spreads

As noted in last month's PCM Report, volatility in the fixed income markets has surpassed that of the stock market in 2015. The 7 years following the collapse of Lehman and ensuing credit crisis have been remarkable for bonds. In the nearly forty years since the 30-year Treasury was introduced, 3 of the 4 best performing years have occurred since 2008. We have also experienced 2 of the 3 worst years in that maturity's history and 2015 has already seen one of the worst quarterly performances on record.

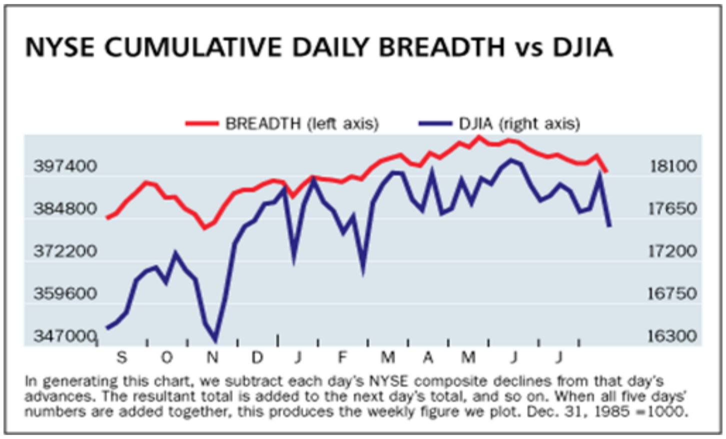
We are closely watching spreads in both high yield and investment grade bonds seeking relative safety in our bond allocations. When spreads are elevated, as they are with high yield (ex-energy) today, they are typically less volatile and susceptible to external events like rising rates. Wider spreads tend to result in falling bond prices while narrowing spreads usually result in gains. Calm waters can be determined by the trend in spreads as much as credit quality and durations.




## Technical– Bad Breadth

Technical divergences are occurring with increasing frequency flashing red lights for many technicians. The Advance-Decline line for the NYSE ($NYAD) has broken down and been in decline since April of this year. An overlay of the $NYAD and the S&P 500 looks eerily like the Fall of 2007 when the market was peaking.

Two particularly worrisome technical data points are stocks hitting new 52-week lows and market concentration. On July 28th there were 476 stocks on the NYSE hitting a fresh 52-week low. Even more concerning, and reminiscent of the late 1990's, is the concentration of stocks lifting the indices higher. The Healthcare and Retail sectors are responsible for 120% of the gains on the S&P 500 this year. This is the most concentrated advance since 2000 according to Bloomberg data. The technical picture suggests caution for equity investors.

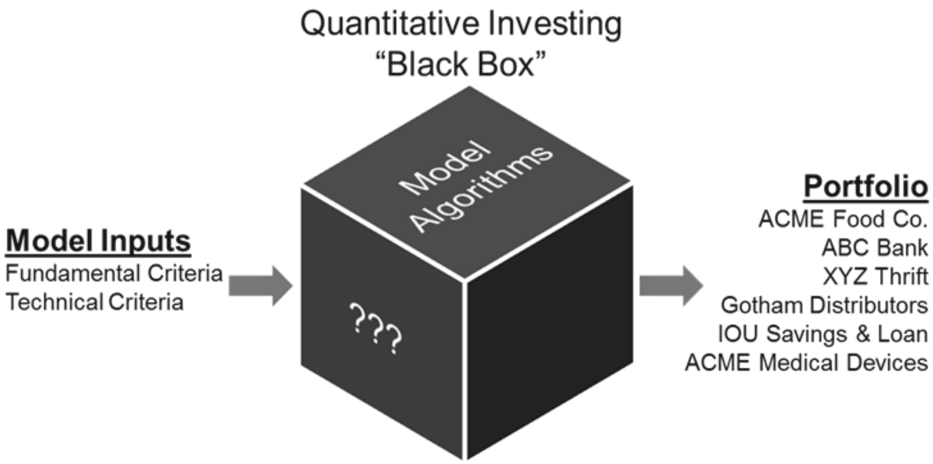


PCM Report August 2015 | Volume 6, Issue 8

# To Quant or not to Quant?

Brett Lapierre, CFA, *Director of Research*

What is the most effective way to make investment decisions? Is it using a specific list of technical or fundamental indicators, or is it employing a combination of both? Is it basic intuition largely driven by qualitative factors, or simply pinning the stock section of the newspaper to a wall and throwing darts at it? While the answer to these questions probably depends on whom you ask, most would likely agree that the best investment approach is one that improves an investor's ability to produce consistent results that are in line with his or her risk and return requirements after considering the cost of implementation. Being consistent is key to investment success and unfortunately human nature tends to make maintaining consistency quite difficult. Emotions of fear and greed can overtake an investor if he or she is not careful. And this can lead to inconsistent and less-than-optimal results.




Discipline is important to success no matter what endeavor one pursues. Investing is no exception. We believe one potential way to instill discipline in your investment decision making process and minimize the impact emotions can have on your returns is to utilize a quantitative approach. A quantitative approach typically involves letting a specific set of rules or criteria drive investment selection. It can include fundamentally-driven criteria like price-to-earnings, operating margins, return on equity and earnings and sales growth. Technical or price-related criteria, such as moving averages, relative strength and money flows, can also be part of a quant model. The idea of a quant model is to make investment decisions based solely on a number of quantifiable and measurable criteria.

Quant models, or "black boxes" as they are often called, can be intimidating for even the well versed and highly experienced investor. They are referred to by many as black boxes because the typical quant model is opaque and only those running it know and fully understand the algorithms driving the buy and sell decisions. All that the typical investor sees when investing in a portfolio driven by a quant model are the returns generated from it and possibly the holdings from time to time. This can create some anxiety for the investor. For instance, what kind of due diligence is being followed in the model? Is the manager blindly accepting the results of his or her algorithm without doing follow-up research on the opportunities stemming from the screening criteria? A lack of due diligence on the part of the investment team can lead to concerns over the quality of the holdings and thus the quant models' potential returns.

Doubts on whether the portfolio manager is closely adhering to the quant model can arise as well. How much deviation is tolerated and under what conditions would that occur? Then there may be some questions over the quant model's sustainability. Will the consistency of returns continue? What if the model no longer works? How much flexibility does a quant manager have in changing the algorithms? All of these issues can make committing to a quant model difficult for the typical investor. Despite these concerns, we think the benefits of using a disciplined quantitative approach far outweigh its potential pitfalls, particularly if the model is driven by solid factor-based research.

Taking a quantitative approach one step further by adding the due diligence and qualitative analysis typically associated with a fundamental investment selection approach can go a long way in improving the investor's comfort with using a quant-driven model. This has been dubbed "quanta-mental" investing in certain circles and makes a lot of sense to us, which is why we attempt to incorporate such an approach in our process. For one, we can maintain a great deal of discipline by following a strict set of rules. Two, we can keep costs low by utilizing technology to help us comprise a short list of potential investment opportunities. This means fewer resources are needed to research and follow the names in our portfolios. And three, studies have shown that managers following a disciplined set of rules tend to outperform those who invest in stocks based on their "stories" or intuition. These are just some of the reasons why we embrace "quanta-mental" investing.

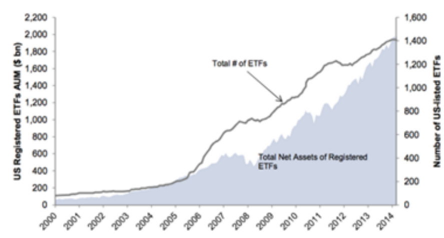
Human behavioral tendencies can get in the way of becoming a successful investor. Utilizing a quantitative process can help minimize these behavioral tendencies, but it can create a different kind of anxiety. Getting over the anxiety associated with investing in a quant model may be difficult for some. It's a matter of trust and getting over the lack of transparency and the feeling of not having full control over the investment process. We believe an approach that combines quantitative criteria with fundamental research can help alleviate investors' reservations with relying heavily on quantitative screening criteria. And despite its various challenges, the return potential associated with quantitative and quanta-mental investing can be quite appealing, which makes implementing such a model well worth the effort in our view.

# Are ETFs the next financial Crisis?

## Brian Lockhart, CFP
## PCM Founder & Chief Investment Officer

It may have been Invesco PowerShares who years ago coined the phrase, “ETF Revolution”, which has certainly proven to be true. Data shows that ETF assets which totaled $230 billion in 2005 have grown to over $2 trillion today. Whether measured by the growth in number of funds or assets under management, the combination of low costs, transparency, liquidity, and preferential tax treatment has resulted in an investment revolution.

**ETF growth remains unabated**
Total Net Assets held by US ETFs versus the total number of ETFs (excludes ETNs and FoFs)




*Source: Investment Company Institute, Bloomberg.*

Does the impressive growth of ETFs represent the potential of a black swan event? Not at all. However, the proliferation of exotic and esoteric asset classes being represented by ETFs is reason for concern in the investment community.

ETFs trade on assumptions made for real -time valuations of the underlying assets they represent. If those assets are easily valued, like the S&P 500, there are no inherent risks in pricing ETFs. When the assets are more difficult to value, or potentially even illiquid, the risk of a systemic collapse caused by ETF trading is much greater.

Using senior secured debt as an example, the five largest ETFs hold around $7 billion in assets with PowerShares Senior Loan Portfolio comprising 75% of the total. These ETFs make it very easy to trade an asset class that might have very limited liquidity in the underlying components of the index. During a period of high volatility, the ETFs could be making a market that does not exist and fails to accurately price in a rapid drop in the individual issues.

While ETFs representing bit coins, gemstones, or forest timber may appear interesting, it is not appropriate for a liquid and transparent investment vehicle. A future threat to ETFs could come from theme-based portfolios created by companies like Motif Investing. This enables an investor to have a basket of stocks selected according to a specific investment theme like fracking or German car part manufacturers.

## Brett Lapierre, CFA
## PCM Director of Research & Chief Equity Strategist

Many investors are attracted to ETFs given their low fees, flexibility, ease of entry and exit, the wide variety of choices and their perceived liquidity. I could also mention active management’s dismal track record as of late as a reason for the popularity of ETFs, but I won’t. I say “perceived liquidity” when it comes to ETFs because I think most investors take the ability to move in and out of ETFs for granted and fail to understand fully the liquidity characteristics of the ETFs they own. To me liquidity is important to note, and investors should account for it when choosing an ETF and setting expectations. Liquidity is more of a concern for fixed income ETFs, like high yield bonds and emerging market debt, than it is for ETFs holding U.S. equities. It is also a concern for ETFs invested in thinly traded asset classes, such as frontier-market equities or micro-cap stocks. An ETF that trades in less-liquid securities, like some high yield bonds, will in fact be less liquid. So exiting an ETF exposed to that asset class during a severe downturn could be challenging and investors need to be alert to that potentiality.

But what if ETFs in general are less liquid than we think they are? Recently, Carl Icahn made some headlines by calling Black Rock “an extremely dangerous company” given the fact that many of its fixed income ETFs hold relatively illiquid securities. He indicated his concern that this poses a systemic risk that could be revealed during the next major downturn. While I think there is some merit to his argument, I am not convinced the risk of systemic illiquidity is as serious as he indicates. Liquidity can evaporate regardless of the vehicle being traded. Whether an investor holds a mutual fund or ETF, both will likely suffer during any mass exodus from a particular asset class. It is the underlying holdings that drive the liquidity in the end, in my view.

I think investors should look at the liquidity attributes of the underlying holdings of an ETF before investing in it. We do at Peak. We also look at the issuer of the ETF and their expertise and presence in the marketplace when deciding which ETF to hold. This gives me confidence in our ability to execute our tactical approach with little risk of running into liquidity problems .

## Ben Fulton, CEO
## Elkhorn Investments, LLC

ETFs, whether Equity or Fixed Income, will not trigger a Black Swan event. Although, they may be the best way to measure the impact of the Black Swan if it occurs. Short term dislocation could occur (typically for minutes or hours) with ETF pricing compared to the ETFs underlying similar to what will occur with under followed securities during a fast sell off. If anything, this could be an excellent buying opportunity for investors, that is if the algorithms run by the large trading firms do not capture the arbitrage before you.

ETFs are an investors friend and will only track the movement of the market, not manipulate it. Even fixed income ETFs that hold High Yield or less liquid bonds have seen improved liquidity and trade at tighter spreads thanks to the advent of Fixed Income ETFs. So the good of ETFs far outweigh the potential short term pain. ETFs may experience short term dislocation. Remember though, that many hedge funds and trading firms are seeking opportunities to capitalize on those dislocations. So “Stay Calm and Trust in ETFs.”

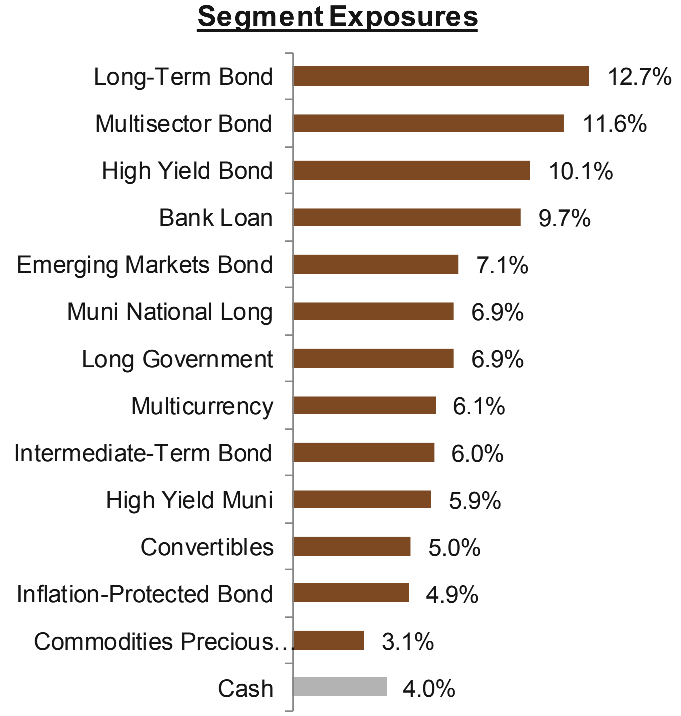
### Ben Fulton, CEO,
### Elkhorn Investments, LLC

Described as a founder of the exchange-traded fund (ETF) industry, Ben Fulton has been contributing to the definitive history of the global financial services industry for over 30 years. Today, through Elkhorn, Ben is pioneering a new chapter in investment design by developing game-changing products through strategic partnerships with some of the world’s most influential research firms.

Previous Managing Director, Head of Global ETF for Invesco Powershares. Elkhorn recently launched its inaugural ETF, the Elkhorn S&P 500 Capital Expenditures Portfolio (Ticker: CAPX), which tracks the S&P 500® Capex Efficiency Index. The Index identifies 100 companies in the S&P 500 that have demonstrated a commitment to efficient capital allocation, maximizing the amount of revenue generated for every dollar of capital expenditures.

Ben resides in Wheaton, IL where he and his wife, Beth, have raised six children.

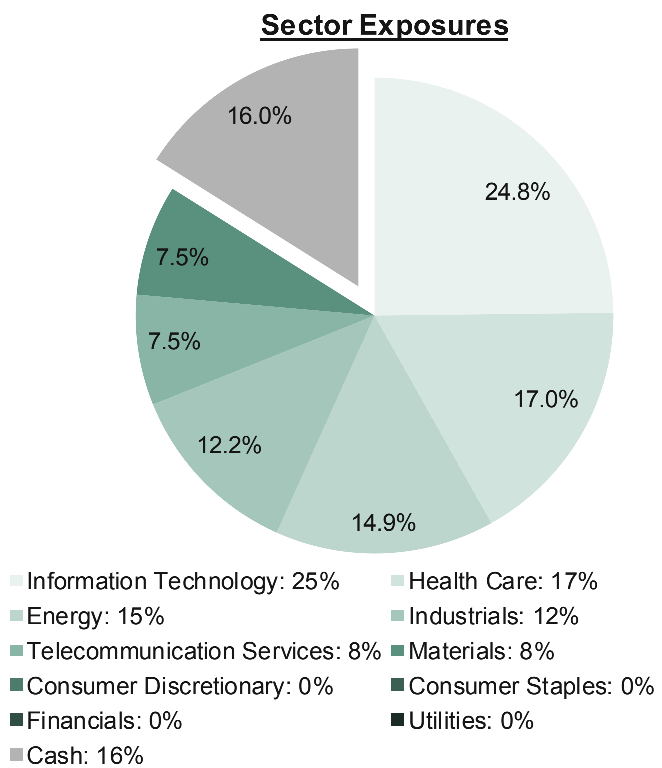
# Fixed Income




*As of 06/30/2015*

- The Fed appears on track to initiatiate a rate hike cycle in 2015 with September still the most likely case in our view.
- We continue with a theme to shorten durations with low credit quality and extend durations on investment grade debt.
- Current yield remains approximately 4.25% with an average duration near 6.5 years.
- Wider spreads in high yield and muni bonds represents a short-term buying opportunity.

# Equity




*As of 06/30/2015*

- We are in the process of increasing cash in the portfolio with a current target of 30% based on relative strength and technical indicators.
- The 2nd half of 2015 could see strong pent up demand for technology upgrades, benefitting microchip and storage leaders.
- Energy companies look to be oversold at present, but we see little stimulus on the horizon.
- The portfolio remains tilted towards companies who report that 50% or more of their sales are in the U.S.

PCM

PEAK CAPITAL MANAGEMENT

15455 Gleneagle Dr., Suite 100
Colorado Springs, CO 80921

Phone: 719.203.6926
Fax: 719.465.1386

Email: info@pcmstrategies.com
Website: www.pcmstrategies.com