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Investment Newsletter – September 2016

This newsletter starts with an update of the performance of the Long Term Income strategy, including an updated analysis of the underlying market factors that caused year ago losses to be reversed in the current year. Then we'll look at some of the advantages of individual investors compared to institutional investors.

Long Term Income Portfolio Strategy and Performance

What a difference a year can make. Last September this newsletter reported a loss for the preceding year in this strategy. As I explained at that time, the flip side of declines in fixed income securities prices is that we should get higher returns in the future. At that time, the portfolio value was so depressed by a market mood swing towards pessimism that I estimated future returns would exceed 10% annually over the following 2-3 years. It actually took just one year for the market to reverse the portfolio's prior losses in spectacular fashion – returning 19.2% in the last 12 months. Of course one year is not how we should evaluate this long term strategy so let's take a deeper look.

Berkeley Investment Advisors uses several different strategy portfolios to manage client assets. The Long Term Income portfolio focuses on intermediate to long term maturity bonds. Longer maturity bonds provide higher interest rates (yields) than shorter maturity bonds and are more sensitive to changes in interest rates. A bond's interest rate sensitivity risk, known as its duration, tells us how big a change in price we can expect when interest rates change. The duration of the portfolio is currently at 4.9. If we hold a bond with duration of 5 when rates went up 1% we would expect the bond's price to decline by 5%.

Besides interest rate risk, there is also default risk in this portfolio. Bonds with a higher probability of default (relative to other corporate bonds) compensate investors with higher interest payments – hence they are called high yield bonds. High yield bond default risk is like stock market risk - it is correlated with the performance of the economy. At the portfolio level we diversify away individual company default risk by diversifying across a large number of issuers. This insures that the extra premiums earned won't be lost due to a few companies defaulting. Our strategy is to accept market correlated credit risks to earn those extra returns.

The extra return on high yield bonds over the interest rate paid by the U.S. treasury is called a credit spread – it is the compensation that investors demand for taking credit risks. These spreads change according to investors' risk preferences –

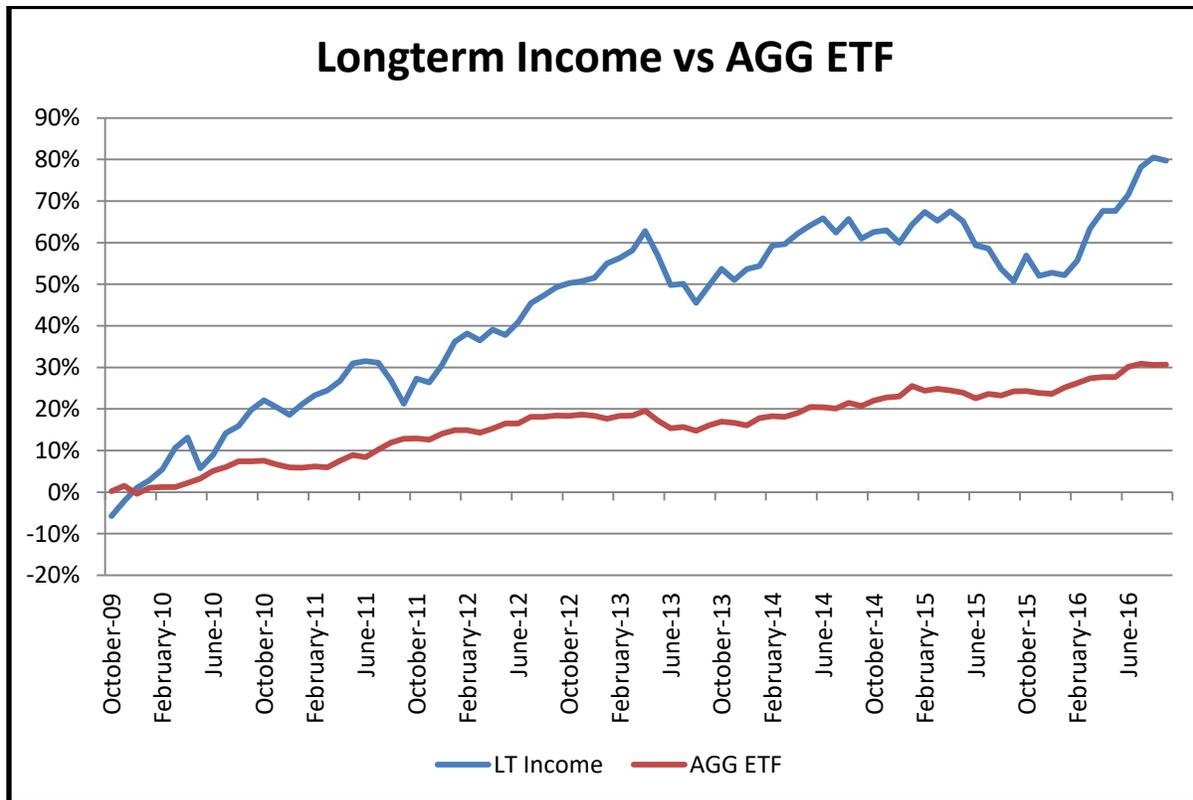
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i.e. how much they need to get paid for taking credit risk changes according to market mood just like stocks. Therefore by accepting default risk we also accept credit spread “pricing risk” and we must endure fluctuations in our portfolio value the correspond to changes in the market mood - risk seeking or risk aversion- but at roughly half the level of stock market moves.

We earn incremental yield by buying closed-end funds (CEF). These securities can be bought at a discount to the underlying bond values (and occasionally sold at a premium). These funds also enhance returns through embedded leverage. Using these securities means we must endure more price volatility in down markets because most retail investors want to sell more at lows. Current market conditions are providing about 1.4% higher yield on our portfolio than if we held the underlying bonds directly. Now that I’ve described the strategy and its sources of risk, we’ll go over the returns for it and a comparison index.

The Long Term Income portfolio is diversified across virtually all sectors of the fixed income market, including government bonds and mortgage backed securities. A good comparison index is the Barclays U.S. Aggregate Bond Index as represented by the iShares Core Total U.S. Bond Market exchange traded fund (ticker AGG). This is meant to represent the total overall U.S. bond market.

Although we first created this portfolio in February 2008, it was not continuously invested until September 2009. Therefore we cannot calculate performance further back than the last 7 years. The graph and table below show total returns including price and interest payments in comparison to the bond index mentioned above as implemented in the exchange traded fund (ticker AGG).



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Returns by Year			
Year	Long Term Income	AGG Bond Index	Difference
1	19.8%	7.4%	12.4%
2	1.2%	5.0%	-3.8%
3	23.1%	5.0%	18.1%
4	0.2%	-2.0%	2.3%
5	7.6%	4.1%	3.5%
6	-6.4%	2.9%	-9.3%
7	19.2%	5.2%	14.1%
7 year total	79.7%	30.6%	49.0%

Our portfolio returns calculated here are based on a particular client's account and have been reduced by annual fees of 1.25% which would apply to new accounts above \$500,000 but below \$1 million.

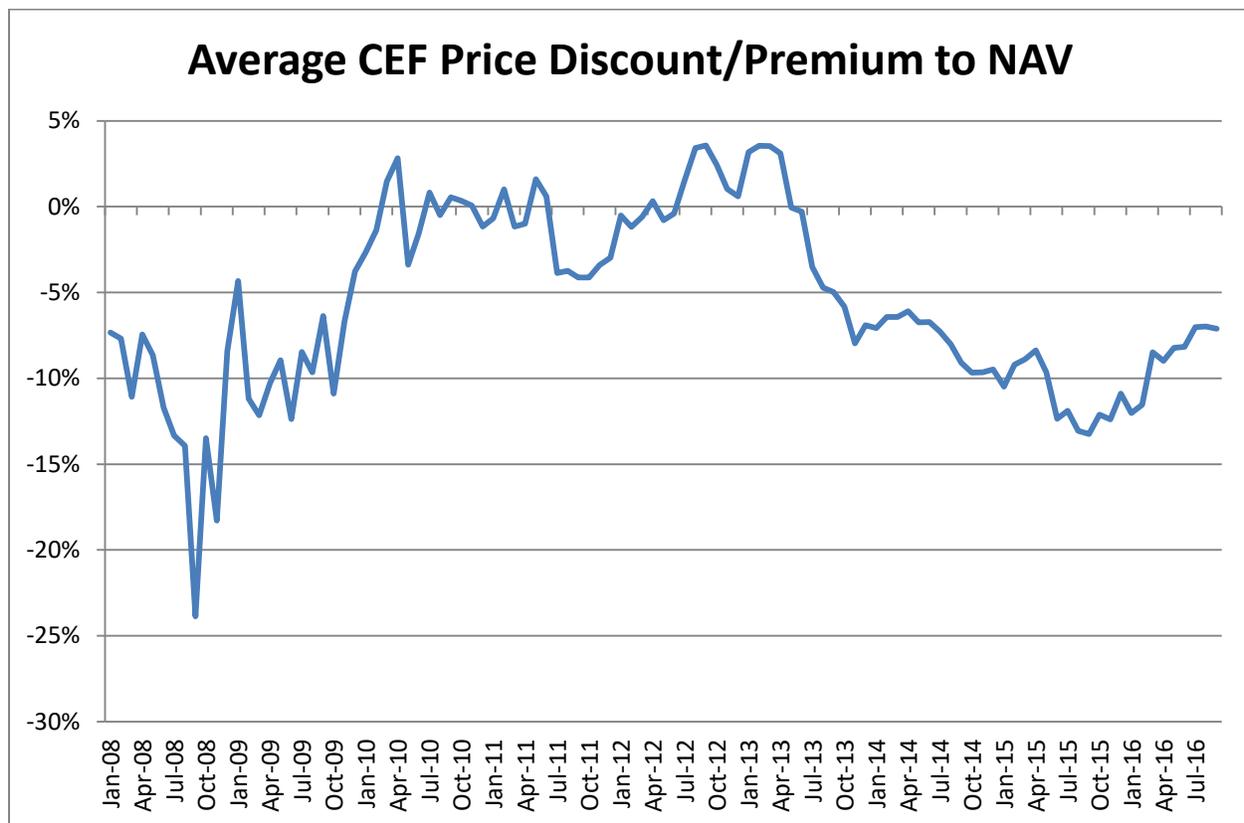
Total return over 7 years is 79.7% - an annualized compound rate of return of 8.7%. The table above makes it clear that the strategy exhibits significant volatility in returns but over the long run the results are quite good.

Now, let's go a bit deeper to look at a significant source of this volatility. The portfolio's price returns (i.e. not counting interest payments) are impacted by changes in CEF prices relative to the underlying bonds. To determine the impact we can look at monthly prices and net asset values (NAVs) for our largest CEF holdings. NAV represents the value of underlying bonds inside the closed end funds and the difference between price and NAV is the discount that funds trade at relative to value.

To get an idea of how much CEF discounts can vary, I pulled data on a group of 8 CEFs with data available back to the beginning of 2008. These CEFs are included in both the Long Term Income portfolio and the Short Term Income Portfolio. The chart on the next page shows the average discount for these 8 CEFs at the end of each month. The chart shows that discounts bottomed at 13.4% exactly one year ago and have now climbed back to 7.1%.

As I explained last year, the chart shows that discounts greater than 10% are unusual. Over time these discounts tend to revert towards the mean, which is what has happened over the past year. We are now at a more typical discount level and therefore we cannot expect much more reduction in the discounts. Although we could see discounts contract even further, which would produce another year of abnormally high returns, this is not what we should expect.

Likewise credit risk spreads have also normalized, pushing the underlying bond prices (fund NAVs) up. If we think of bond returns as a spring that tends to returns to a neutral state then we are right about there. The market goes through cycles of risk seeking and risk aversion whose timing is unpredictable. These cycles drive shorter term returns in stocks and bonds. But in the longer term, returns are fairly predictable and thus we can use this fact to ignore short term volatility in pursuing our long term strategy.



As of quarter end, the yield on the Long Term Income Portfolio is 7.8% (before fees). This seems more than enough return for the risks.

The Size Advantage of Individual Investors versus Institutions

At various times this newsletter has mentioned the advantage that we have (as relatively small dollar investors) over the large brokers and mutual funds that we compete with in the investing marketplace. The idea that we have such advantages contradicts typical financial institution advertising messages and the common mental short cuts we use for judging companies; so it's worth some time elaborating on just what these advantages are. To keep things relatively short, I will focus on just three major advantages: trading flexibility, diversity of potential investments, and freedom from institutional conformity.

As portfolio dollars grow, trading flexibility declines: it becomes more difficult and time consuming to invest (or divest) a given percentage of the portfolio in any particular security. The market price you see during the trading day is determined by how many shares people (or computers) want to sell and how many they want to buy – and how anxious they are to trade. A large order to buy shares at a given price can exhaust all the sellers at that price for some amount of time (and the same is true of sell orders). Therefore to complete the purchase, the buyer must either increase the buying price to buy from the next layer of sellers who are waiting for the higher price, or, sit tight and wait for more sellers to show up who are willing to trade at the original price. The larger the order relative to normal market volume for a security, the larger the price move required to fill the order quickly, or the longer it takes to wait for enough new sales orders to arrive. If the

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investor chooses to wait, there is risk that the market may move further against them and they will pay an even higher price or not complete the order.

As a result of the market dynamics described above, an investor with a smaller portfolio will often achieve better buying and selling prices when investing or divesting from a security as compared to an investor trading an equivalent percentage of a larger dollar value portfolio. Alternatively, if the large portfolio investor refuses to adjust the price, they will end up trading a smaller percentage of their portfolio than desired.

It's clear that we have some advantage here but what is this worth? A research paper titled "Small is Beautiful" published in the Journal of Portfolio Management quantified the advantage of smaller dollar traders versus larger dollar traders. They simulated trading by different portfolio sizes using actual market data combined with similar trading strategies for the funds so as to isolate the size effect. They defined the large portfolio as 20 times the size of the small portfolio. With this magnitude of size difference the smaller portfolio returns were higher by 2% annually. In a market environment where annual returns of 7% are not easy to achieve, this is a huge advantage! These findings are not directly on point because even the small portfolio size they simulated was many times the size of ours, but clearly larger portfolios have significant trading disadvantages that grow worse as portfolio size increases. Small is beautiful indeed.

The size of the portfolio also determines the universe of securities that can have meaningful impact on portfolio returns. Warren Buffet alluded to this issue in his letter to shareholders in 1995:

"In the early years, we needed only good ideas, but now we need good big ideas. Unfortunately, the difficulty of finding these grows in direct proportion to our financial success, a problem that increasingly erodes our strengths."

This is why Buffet tends to buy entire companies when he finds something he likes.

In order to understand this issue, let's consider a recent example. As I mentioned in the March 2016 Newsletter, Jeff Gundlach who runs DoubleLine Capital, recommended a small capitalization security that we owned at the time: Brookfield Total Return Fund. The total market value of this fund is \$310 million – a relatively small issue. Here's what Mr. Gundlach said to Barron's for their Savvy Investment Ideas article:

"There is no way I could buy these institutionally without the discounts instantly disappearing, because the volume is so low, relative to the amount I would have to buy to make a difference on DoubleLine's \$85 billion in assets. Closed-ends are a good opportunity for the retail investor."

Let's do some arithmetic to see what he means exactly. Mr. Gundlach indicated that the fund was at least 10% undervalued. Actually, after the articles came out, the Brookfield Total Return Fund returned 17% over the next 24 trading days. Even if his firm owned the entire fund prior to the article, the total gain in value would have contributed just .06% ($= 310\text{MM}/83,000\text{MM} * 17\%$) to his firm's total returns. This is not a meaningful contribution and, as explained in the earlier section, he could not have bought the whole fund without moving the price.

At a more general level, as a portfolio increases in dollar value, the number of securities available in the market that can be accumulated in a meaningful size decreases. For this reason smaller capitalization securities are not as widely

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followed by institutional investors and these issues can more easily become mis-priced. This provides opportunities to small investors that larger investors cannot take advantage of as a practical matter.

Finally, let's look at some more qualitative factors that inhibit institutional investors relative to individuals (and smaller investment advisors). Most investment firms are founded by people who are passionate about investing and when the firm is small the investment process is driven by the founders of the firm whose objective is usually to earn the best returns they can for a chosen level of risk. Things change as the firm grows.

At some point the founders must hire help and try to create a controlled process for employees to follow in choosing investments. This typically means that investment ideas have to go through a committee process before they are implemented. This is intended to prevent mistakes but it also has the effect of slowing things down and reducing the likelihood of bold bets that go contrary to majority views. Suppose that news comes out which makes a particular stock look extremely cheap. If the founders were still doing everything themselves they could see it and act immediately – as could individual investors. But once there are more people involved, the chances increase that the opportunity will be lost or at least eroded before action can be taken.

Investment managers who are not founders also face career risk when choosing how to invest, especially at very large firms. Once a firm is large enough to spend large sums on advertising, it is usually the case that the marketing side drives profits not the investment professionals. If the investment professionals can simply avoid big mistakes the marketing side can pull in customer money and drive up profits. In this situation, great investment performance is still helpful but the upside to good performance is usually much less than the downside of bad performance. It makes sense for a marketing driven firm to fire any investment manager who has a bad year or two so as to reduce the impact on assets under management (and therefore profits). The incentives favor portfolios not so different from market benchmarks - to avoid any chance of underperforming enough to get fired. As a result, large investor firms tend to move as a herd. This constraint is likely to reduce the upside of finding and investing in contrarian picks that would, over the long run, lead to strong returns.

This brings us to the idea of investment horizon – the period over which you will evaluate your investment performance. In the business of managing money at institutions, managers' performance is continually evaluated and consequences happen quickly if performance is not good. This is especially true for newer, unproven managers. Academic studies show that short term performance of retail mutual funds drives investor fund flows. That is, money goes into funds with good recent performance and money flows out of funds with poor recent performance. For many fund companies and unproven managers this leads to a focus on short term results and therefore investments that are short term in nature.

Although the research¹ indicates that individual investors are the ultimate culprits in the short term orientation of mutual funds, we are not compelled to give in to these impulses. Individual investors have the opportunity to focus on long

¹ Managerial Career Concern and Mutual Fund Short-termism by Li Jin and Leonid Kogan

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term investments that will be ignored by the fast money mutual funds. Even in the institutional world, however, there are some money managers who have the reputation or ownership position in their firm to be able to ride out short term under performance and stick with their long run strategy. Warren Buffet is an example of such a manager. An academic study² of Buffet's investing strategies concluded that one of the factors explaining his extraordinary record was that he set up his investment vehicle (Berkshire Hathaway) so that his investors could not withdraw their money during period of poor performance³. Likewise, investment managers who want to use long term strategies set up closed-end funds or hedge funds that limit or eliminate the possibility of investors withdrawing their money before the strategy has had time to pay off. Here are a couple of nice quotes from Buffet on accepting that some things take time (and therefore patience):

"No matter how great the talent or efforts, some things just take time. You can't produce a baby in one month by getting nine women pregnant."

"We don't get paid for activity, just for being right. As to how long we'll wait, we'll wait indefinitely."

What I've implied above is that if we can be patient in investing when a majority of others are not – including the large mutual funds, then we can use strategies that have higher returns but require longer investing horizons. Academic studies⁴ indicate that open end mutual funds are structurally at a disadvantage in that they cannot take advantage of long horizon miss pricings because they would risk high withdrawals along the way. Here is the conclusion from a study⁵ of this phenomenon by Li Jin of Harvard and Leonid Kogan of M.I.T.:

"Excessive fund manager focus on short horizon investments will also likely affect asset prices, by inflating the price of the most liquid assets, which can be quickly resold without a significant price impact. On the other hand, long term investments, especially in thinly traded assets, could be the "neglected asset class" and thus be less efficiently priced. The evidence in the paper shows that the effect on asset prices can be substantial, suggesting a significant cost of short-termism among fund managers."

At Berkeley Investment Advisors we are devoted to helping our investors patiently invest for the long run and exploit all our advantages over the large institutional investors to the maximum extent possible. We don't always succeed in helping every investor maintain their discipline, but we will do our best to keep you from falling prey to the natural impulse to give up your investing advantages.

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² Buffet's Alpha by Frazzini, Kabiller, and Pedersen

³ In fact Berkshire Hathaway is effectively a closed end fund – Buffet's investors can never withdraw cash from his strategy, they can only sell the shares.

⁴ For example: "Why are most funds open-end? Competition and the limits of arbitrage" by J.C. Stein

⁵ Managerial Career Concern and Mutual Fund Short-termism by Li Jin and Leonid Kogan