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# The NFL is Back

### Are You Ready for Some Football?

It is August, the heart of the "dog days" of summer. Here in the Northeast, we have had a very hot summer, with one of the longest heat waves in recent memory. While our beloved Red Sox are in the mix within the American League East, and Big Papi's farewell season is going strong; August does mark the official return of football with training camps in session and (bad) preseason games on television. Even if baseball is America's past time, it is truer that American football is unique to this country alone, and is arguably the country's favorite sport (at least to watch). For those who are questioning football's popularity, according to a Sports Illustrated article, for the 2015 season, the FOX channel had an average of 20.75 million viewers per week for its football coverage. The CBS network was not too far behind, with reports that the network's broadcast of football games averaged 19.1 million viewers. According to the same article, NBC's Sunday Night Football averaged 22.5 million viewers per week, making it the number one show in terms of prime time viewership, a title it has now held for 5 consecutive years. This popularity is in contrast to viewership of FOX's premiere Saturday baseball game. Per a report from Sports Business Daily, on average, in 2015, only a paltry 2.2 million viewers tuned in weekly to watch FOX's mid-afternoon broadcast. So yes, American football is popular, which may be a function of a shorter season compared to baseball, or the intense nature of the sport relative to the more sluggish pace of a typical baseball game. Nonetheless, folks are getting excited for the season to kickoff next month.

### Do Your Job!

During the New England Patriots title campaign of 2014, the phrase "Do Your Job" became the driving mantra that led the team to a Super Bowl victory over the Seattle Seahawks. The phrase itself can be interpreted many ways. From an individual perspective it could be as simple as "show up and get your work done." But in this context, it may be more relevant to look at it from a team perspective. Team sports are rather unique experiences, in that they require a lot of trust and faith in your teammates, as well as having a perspective that recognizes factors beyond one's own individual capabilities and contributions.



I liken the phrase "Do Your Job" to imply that if every player on a given team does their specific job, and presumably does it well, then the team will be successful. This is not too different from building an investment portfolio. Just like a team is built in a way with complimenting parts and players with specific roles, so too is an investment portfolio. While it is true that a specific team is only built to last a given season, which is roughly 5 months long for a football season (not including playoffs), the typical investment portfolio is (or should be) built to last several years and even decades. To be successful, in terms of building out a portfolio, just as it is with a football team, not every piece can be the "star." But every piece does have a job to accomplish.

## **Do Your Job! - Equities**

The role of equities in a portfolio is a risk and return relationship. Equities can be likened to that of a star quarterback, a deep-threat wide receiver or a flashy running back with breakaway speed. Specifically, the equity portion of the portfolio is the risky piece that should drive long term returns, with the expected volatility associated with higher risk. Not too different than a star quarterback's completion percentage, equities do not offer positive returns all of the time. By way of example, in terms of NFL quarterbacks, Peyton Manning had a 65% completion ratio over his career, while Tom Brady's career rating is just shy of 64%. So even the great ones don't connect with their receivers all of the time.

Of course it should be noted that the quantifiable risk of equities is far greater than the return. This is similar to the risk of a passing play in football; where there is only a 1-in-3 chance of a positive outcome (a catch versus an incompletion or an interception). Looking at the risk of equities, going back to 1988 and using the S&P 500 as an example, the long term volatility of the stock market is 18%, as measured by its standard deviation. This means that, on average, the S&P 500 has deviated 18% on either side (+/-) of its long term average return. The long-term average annual return, of which the S&P 500 will deviate, is in the range of roughly 10%. Thus, the risk or volatility in the stock market is almost twice that of the historical returns.

Further analysis of the risk/reward relationship, for the more math-oriented readers, would require an analysis of the stock market's historical Sharpe ratio. The Sharpe ratio is a risk-adjusted measure of an investment's return. It subtracts the risk free rate of return, which is effectively the yield on short term treasuries, and then divides that net return by the expected or historic volatility. For the sake of simplicity, if we simply assume the risk free rate is currently equal to zero, the Sharpe Ratio would then be calculated as 10/18 which is equal to roughly .55. Said differently, for each unit of risk experienced in the stock market, an investor received .55 units of return. Not a strong Sharpe Ratio, but it does illustrate the role of equities as pure return drivers regardless of the risk involved. In fact, the chart below illustrates this point well. (As a reminder, historical performance is not indicative of future results.)

1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

10
10
1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2011 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Return

A Max Drawdown

40
-50
-60

Chart 1: Annual Return and Maximum Drawdown on S&P 500

Source: Baystate Wealth Management ,Factset

Within this chart, the red bars illustrate the annual total return for the S&P 500 and the green triangles represent the index's maximum drawdown as defined by peak to trough declines (not annualized). Of most interest in this chart, is that while the S&P 500 has only experienced 5 calendar years of negative returns since 1988, it has experienced an average maximum drawdown of 14%. Meaning that over the long run, from a historical perspective, the market falls by 14% peak to trough at any given time. Thus, the role of equities is to add risk to your portfolio with the expectation of greater return on average, relative to less risky investments over the long-run.

### Do Your Job! - Fixed Income

If the role of equities is to add risk and presumably return to a portfolio, then the role of bonds should be and is different -- to add diversification. Just like a quarterback needs blocking, a portfolio needs support from an asset class like bonds to bring some stability and reliability to the portfolio. Going back to 1989, according to data from Factset, the annualized return on the Barclays US Bond Aggregate is 6.6%. Over that time frame, the asset class has experienced only 3 calendar years of negative returns. Further, the historical volatility on the bond index is an annualized 3.87%. Or, said differently, in a given year, the benchmark was roughly plus or minus 3.87% off its long-term average. (Again, keep in mind that historical performance is not indicative of future results.)

As illustrated in the chart below, the return stream and maximum drawdown for the bond market is much more dependable and in a tighter range relative to the S&P 500. Again, the average maximum drawdown for the S&P 500 is -14%, as compared to only a -3% drawdown on average for this bond index.

Chart 2: Annual Return and Maximum Drawdown Barclays Aggregate Bond Index

Source: Baystate Wealth Management, Factset

Based on this data it is clear that the role of the bonds is to be dependable or "the rock" in a given portfolio. Though just as if not more important is the fact that fixed income, in general, is historically a diversifying agent from risk assets. According to a report published by JP Morgan, over the last 10 years through the end of June, the correlation between the Barclays US Bond index and the S&P 500 stock index is -0.27. As a reminder, correlation is a mathematical expression of how one asset behaves in relation another. A correlation of zero would indicate no relationship, while a correlation that is negative would indicate that the two assets tend to move in opposite directions. Thus in "risk off" time periods, it is the bonds in your portfolio that should perform well and offset some of the portfolio volatility.

In doing its job, bonds may be likened to the dependability of a left tackle on an offensive line, a center who can pick up a blitz, or a pulling guard opening a whole for a running pack. Bonds allow for the equities to be volatile with a longer term perspective. By protecting the portfolio in almost all environments, bonds are the rock in a given portfolio, and maybe even an unsung hero.

### Do Your Job! - Alternatives

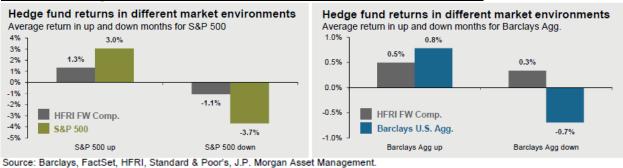
As we see it at BWM, the job of the alternative is to behave in a way that is independent of bonds or equities. Hence, the asset class' name -- it must be an alternative to a stock or bond. In fact, we believe that the simplest definition of an alternative is any investment that is not a pure stock or bond. We might liken this asset class to a special teams player on a football team. Special teams encompass players from the kickoff team, to the field goal kicker, the punter and the punt returner. Each of these players has a specific role, which if executed properly, can have a meaningful impact on the outcome of a game. While a field goal kicker's value is pretty obvious with the potential to add to the team's score, the role of the punter may be less appreciated. In 2015, there was an average of roughly 5 punts per game per team, with an average distance of 45 yards per punt. Considering that a football field is 100 yards long, on average the punter's role is to push a team's offense back to a starting point equal to almost half of the entire field. While maybe not exciting, the punter's job is obviously very important.

At Baystate Wealth, we break alternatives into two categories, risk alternatives and diversification alternatives. In a perfect world, a diversification alternative would have a risk profile identical to that of a bond, but would also have a low correlation to the bond market. On the flip side, a perfect risk alternative would have a risk and return relationship similar to that of a stock, but would move independently from the stock market, and thus maintain a low correlation. What tends to play out is more in line with lower returns and lower volatility in all market environments.

While not perfect or all encompassing, many people benchmark alternatives to that of the aggregate hedge fund universe. Per the same report from JP Morgan, over the last 10 years, the standard deviation of the aggregate hedge fund asset class is 7%, thus double that of the bond market, but less than half that of the stock market. Further, the asset class does display a higher correlation to equity markets with a reading of 0.81, but its correlation to the bond market is negative at -0.20.

A good illustration of the role of alternatives, in the aggregate, can be seen below from a chart from JP Morgan. JP Morgan uses the HFRI Fund Weighted Index as a proxy for the alternative space. This index includes strategies such as equity long/short and event driven hedge funds, as well as global macro strategies.

Chart 3: Hedge Fund Return in Different Market Environments



Hedge fund returns in different market environments are based on monthly returns over the past 15 years through June 30, 2016. Year-to-date returns are as of May 31, 2016.

Guide to the Markets - U.S. Data are as of June 30, 2016.

What is illustrated by the charts above is that over the past 15 years, hedge funds, on average, do not beat the US stock market in positive months, but do offer a positive return. Similarly, in a down market, hedge funds fall less, hence the *hedge*. The relationship is even stronger to that of the bond market, with a positive return in months that the bond market is up or down.

So the job of the alternative is not to beat the stock market, or even keep pace over the long run, but instead to maintain a lower correlation to the market overall, with a tighter standard deviation, as illustrated above. Just as a good punt or long field goal can change the tone or even the outcome

of a game, alternatives are capable of assisting a portfolio in its objective of maintaining strong diversification and potentially reducing overall volatility.

### Building a Portfolio - Like Building a Championship Team

A dominant theme that is central to all that we do at Baystate Wealth is creating and maintaining diversification in our portfolios in all market cycles. Effectively, we view it similarly to building out a championship team with role players who are expected to do their job. Therefore, just as one would execute when building a team, an investor's portfolio should have a boom or bust star-like athlete (equities) surrounded by a stable of reliable and steady performers (bonds), with support from a strong special teams to relieve some pressure for the defense and the offense (alternatives).

While diversification does not guarantee success in all markets in the short run, it does serve investors well over the long run.

As always, please call on us if we can be of service.

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