

How to Invest in the Low Interest Rate Environment

- *Hint: Think Outside-The-Box*



This paper is a follow-up to a February report we published (The Rise & Eventual Fall of the U.S. Bond Market) addressing the lack of return potential for the fixed income markets in the short to intermediate future. The February piece also outlined current and historical reasons for interest rates to rise and suggests that bond investors move the maturity profile of their fixed portfolios shorter at a minimum. This report takes it one step further, recommending investors move a healthy percentage to a **negative duration position and aggressively lower credit risk**. The primary reason for an allocation to fixed income is to preserve capital, with income generation as the secondary goal. By moving the portfolio to a negative duration, low risk position, you are limiting the potential for negative returns (preserving capital) and positioning the portfolio to outperform the broad bond market during both rising and falling economic environments. It sounded too good to be true to us when we first crunched the numbers, but the data is very compelling.

There are 2 basic ideas we want to present to you regarding the imbalance of risk: **1) Intermediate maturities are extremely expensive.** The 5-year Treasury is currently yielding 0.70% and has a realistic bottom of 0.25% — where Japanese rates are today — making the benefit from a positive duration position very limited. Conversely, a realistic normalized yield is the 2006 level of 5%, which makes the downside not very limited. **2) Lower quality investments are not yielding nearly enough on an absolute basis to compensate for the risk.** High yield bonds, in particular, are recording both record high prices and low yields. The upside is extremely limited, while the downside is 25-35% in principal loss in a recessionary scenario. The uniqueness of these situations for the bond market means that the downside in both economic scenarios is much greater than the corresponding upside. For example, if the economy improves, yield levels will rise much higher than credit spreads can tighten; while, in a recession yields cannot fall enough for duration to make up for the widening of credit spreads. We present this discussion in more detail in the 4 sections that follow: 1) why negative duration; 2) intermediate maturities are expensive; 3) the mispricing of credit; and, 4) Appendix: scenario analysis.

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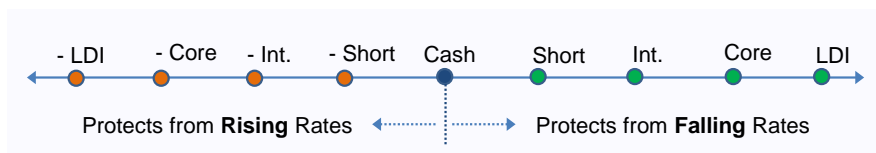
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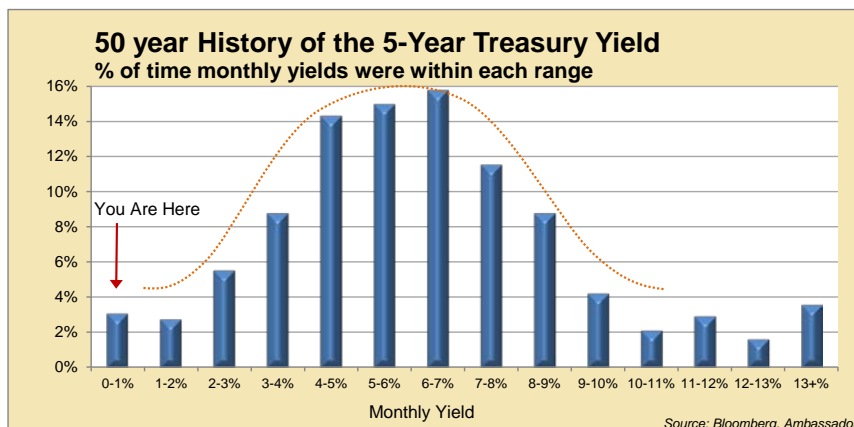
NEGATIVE DURATION JUST MAKES SENSE

The term negative duration conveys, well . . . a negative tone. Our solution is to call our style the Protection Against Rising Rates (PARR) approach. Receiving PARR sounds much better doesn't it? Humor aside, the name does get to the heart of our argument: **Why invest your entire fixed income portfolio in bonds that benefit from falling interest rates, when rates are very likely to rise sometime in the future?**

In an effort to protect against rising rates, most experts recommend shortening duration, which is accomplished by moving from the right to the left on the graph below.



For instance, if invested in Core, investors are advised to shorten to Intermediate; if Intermediate, move to Short. Most, if not all, discussions end at cash. Why not keep moving further to the left and actually benefit from rising rates? Imagine you had no past market experience and were presented the choice of investments above and an historical chart of the 5-year Treasury yield ranges (below). Given that over the last 50 years interest rates have been higher than they are today 97% of the time, the choice you would make is easy to predict.

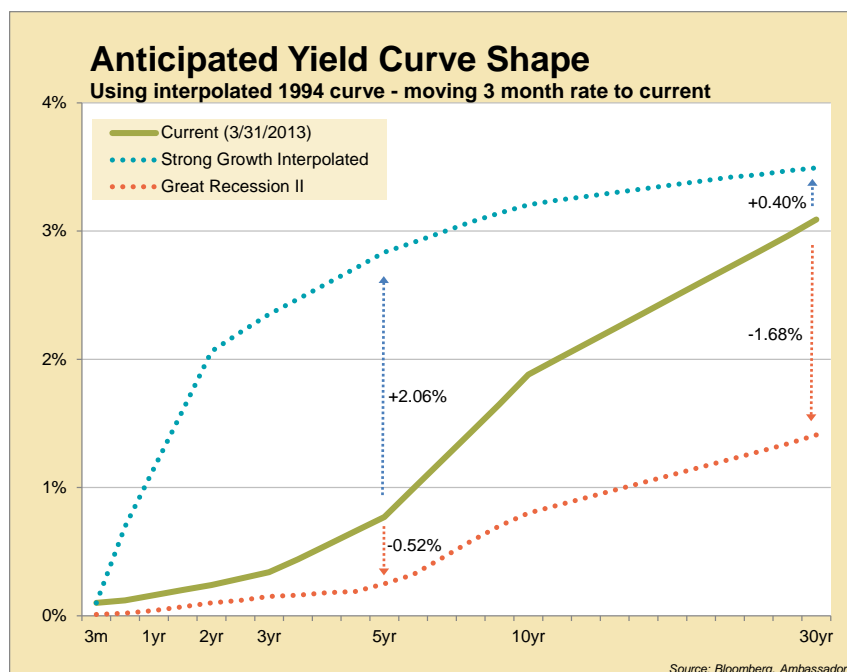


A simple reminder of the 2 main rules for bond investing: prices move in an opposite direction of interest rates; and, the longer the maturity, the larger the movement in price.

In addition, the higher yield levels received for extending maturity are not enough protection. For the past 30 years, bond income has generally been high enough to maintain positive returns during times of rising rates, but current yield levels are so low that a negative return is likely for even a small rise in rates. A perfect example is that the total return for the Barclays Aggregate Index was negative in the first quarter, even though yield levels only rose on average 10-15 basis points. The negative returns will be much worse when the Fed begins to scale back on monetary policy stimulus.

INTERMEDIATE MATURITIES ARE EXPENSIVE

A negative duration approach simply and efficiently addresses the very real risk of large price declines that will happen when interest rates rise. Ambassador's plan to generate negative duration involves shorting Treasury securities, specifically intermediate maturities. We view the intermediate portion of the yield curve (belly) as the most expensive (lowest yielding relative to risk) of the maturity ranges, and history supports our observation. The graph below shows Ambassador's estimation of the shape of the yield curve given two separate directions for the economy: strong growth and a second great recession. The interpolated graphs use history as a guide on the upside for yields and the Japanese yield curve on the downside. Because the belly has an extreme concave shape, 5 year yields have much more room to rise than fall, making the potential loss of principal 4 times as great as any potential gain. Of course, the loss can also be much worse than our scenario, whereas the gain has a floor of 0% . . . we all hope. This means that **the belly of the yield curve is likely to have the worst duration-adjusted return of any maturity whether interest rates fall or rise.**

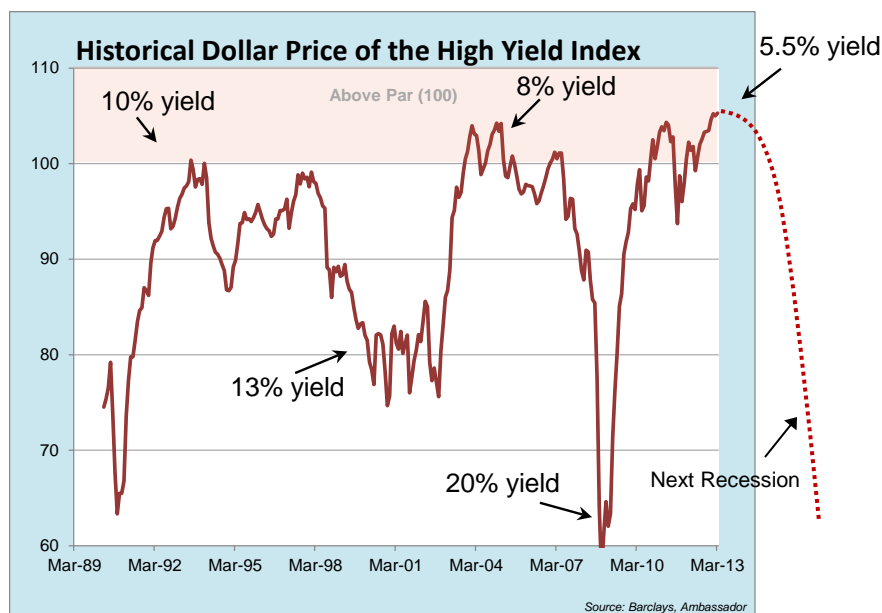


The starting point for the Strong Growth curve was adjusted down to use the same 3 month yield for purposes of comparing the shapes. Please see additional disclaimers on the yield curve shape at the end of this report.

The shape of the yield curve exposes the major **problem with simply shortening the duration of core portfolios to an intermediate index.** In addition, regardless of whether interest rates are destined to rise sooner or later, the economic road to higher rates is unlikely to be a smooth one as rising interest rates will undoubtedly expose overly risky and leveraged investment strategies.

CREDIT RISK IS NOT PROPERLY PRICED

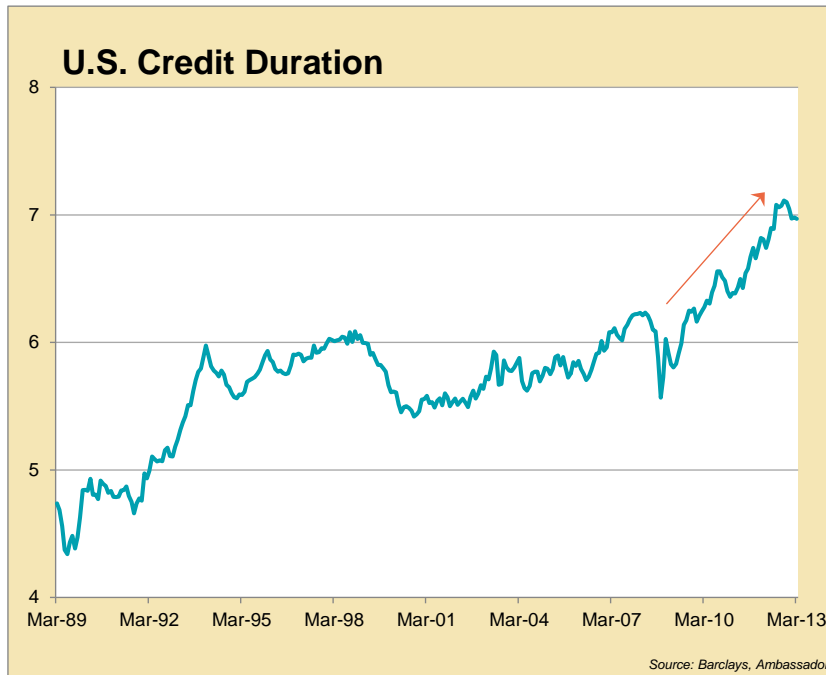
As a general rule, bonds with risk are priced and traded on a yield spread basis over (supposedly) risk-free U.S. Treasuries. Currently, that spread (option-adjusted) is slightly tighter than the historical average, and as a result many strategists view the yield offered by corporate bonds as close to fair value – which in today's environment means cheap. Ambassador believes that the analysis of yield spreads is not the proper barometer to use in today's environment, however, and we are much more concerned that absolute yield levels for risky bond investments are at their lowest levels ever (*graph below*). The bond market seems to be forgetting that default risk does not care about yield spread over Treasuries. High yield investors in particular should certainly be concerned that they are not receiving proper compensation for expected losses from default. Default rates are currently very low, but to lock-in today's rate anticipating this trend to continue into perpetuity seems imprudent for the environment we are currently experiencing. Consequently, in addition to recommending a negative duration approach, Ambassador also advocates **greatly reducing both credit and structure risk in the portfolio.**



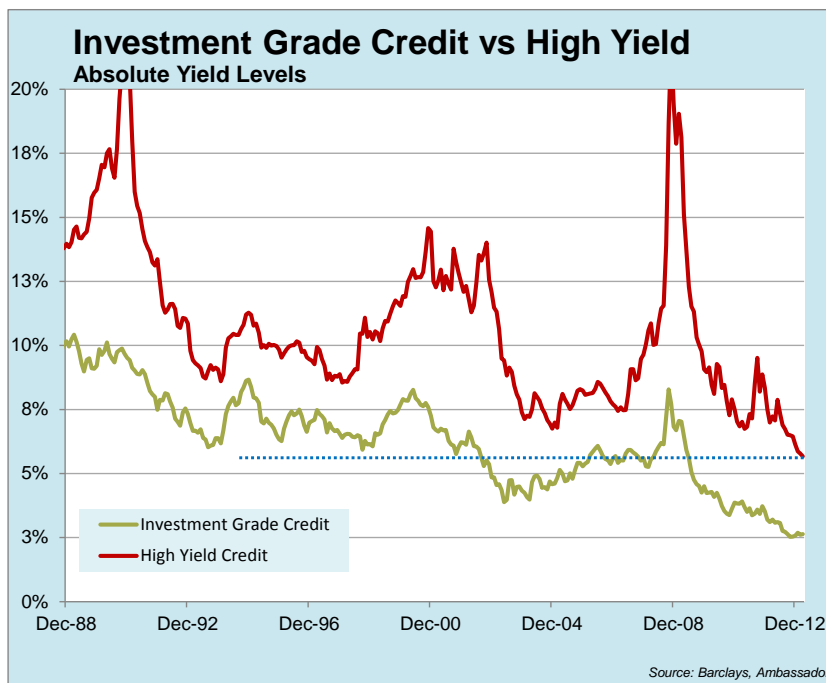
*The average dollar price of the high yield index sits at its highest level ever and the **yield at its lowest**. The last 3 recessions have seen "junk" prices fall to 70 on average, and in fairly quick fashion. It would take 6 years at a yield of 5.50% to make up for this loss.*

The high yield market is the most susceptible sector to an economic downturn, but investment grade and structured products are not that far behind. Ironically, the increased risk of the credit sector associated with inadequate yield is occurring at the same time that the credit market is much riskier structurally as well. The graphs on the following pages explain this concern. The first graph is the most disturbing as it shows that the duration of the credit index has extended over 1 year recently, thereby exposing prices to an additional 1+% decline for every 1% rise in interest rates.

Both Maturity and Dollar Price Risk Have Increased Recently. . . .

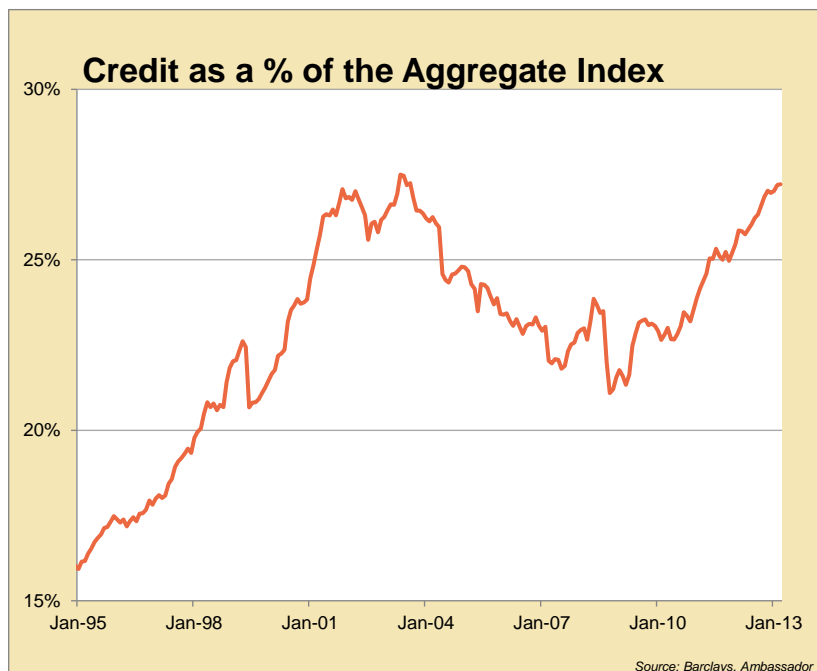


The duration, or sensitivity to interest rates, of the credit index has increased by over 1 year since 2010. This means that for every 1% increase in interest rates, the credit index will drop in price by an additional 1% than it would have 3 years ago.

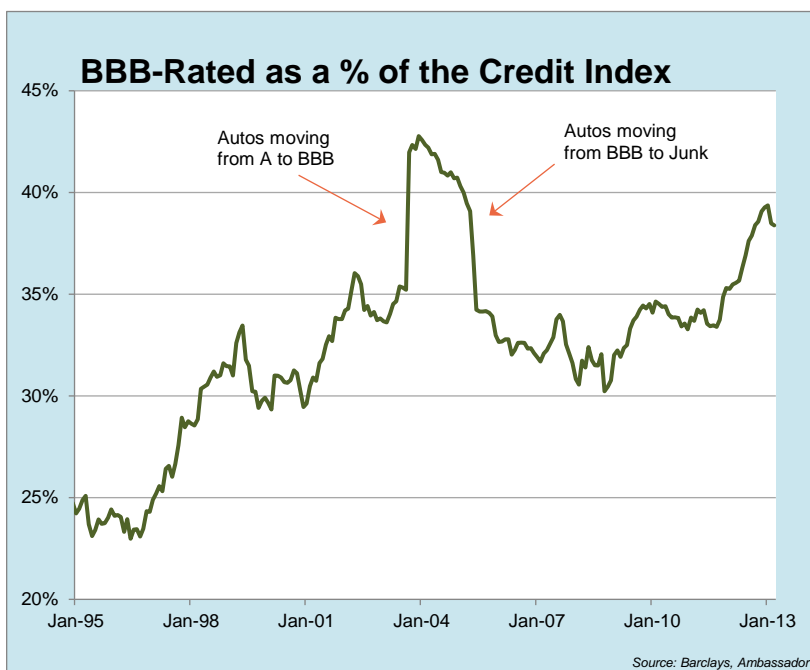


To compensate investors for the additional risk in the credit sector, the absolute yield level paid has fallen to the lowest level ever. Wait, what? That's right – junk bond yield levels have **fallen below where investment grade** credit has traded for the past 50 years prior to 2000. Boy, the Fed is really good at this.

Investment Grade Credit Has Also Become a Much Riskier Space



The credit sector as a percentage of the broad, aggregate index is near its highest level ever.



The lowest quality investment grade rating in the index (BBB) has increased as a percentage of the credit index, and therefore of the Aggregate index as well.

CONCLUSION

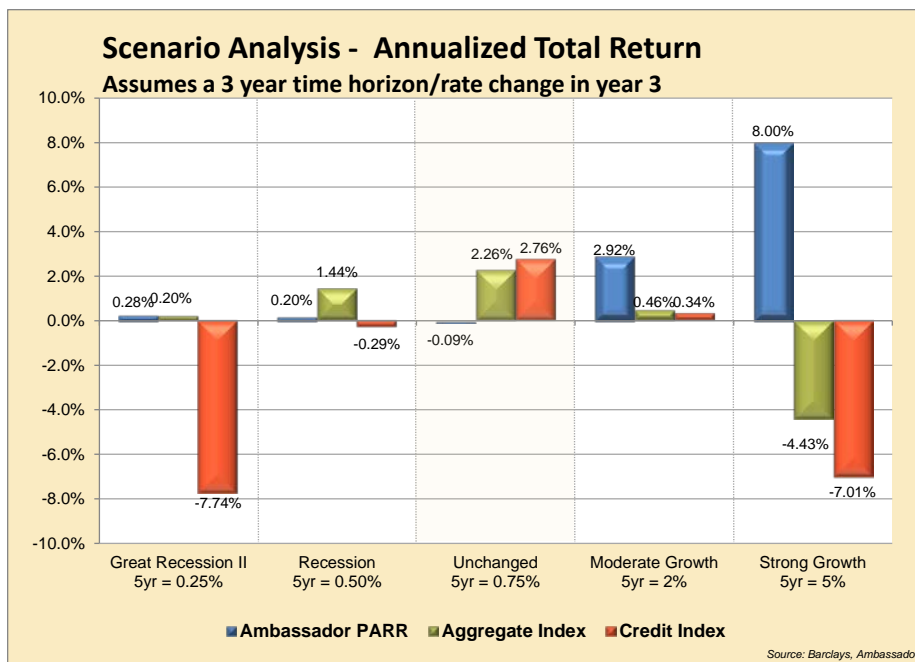
Nearly every investment policy statement we read states that the primary goal of the fixed income portfolio is preservation of capital. The secondary goal is to generate income. These two goals are always naturally at odds with one another, but in the current very low interest rate environment the disconnect is even more glaring. Factor in that most policies also define a return objective that currently is not reasonably achievable and you have a real conundrum. If preservation of capital is the primary goal, that means investors should both shorten the durations of their portfolios and reduce credit risk, which unfortunately will reduce income and ensure that the plan falls short of its return bogey. Ambassador's PARR approach results in lower current income as well, but it also provides the best opportunity to preserve capital, while offering investors a realistic chance of reaching their long-term return objectives.

In summary, fixed income investors need to realize that the strategy of consistently investing long in the bond market has reached its upper limit and consider positioning the portfolio for a move in the opposite direction for 2 reasons. First, an allocation to a negative duration product with very low credit risk will greatly diversify a current fixed income portfolio by outperforming in both a slowing and expanding economy over the next 3-7 years. Second, Ambassador's approach has very limited downside risks regardless of the economic environment. Current fixed income allocations, on the other hand, are mostly traditional, long only approaches, which have very large downside risks in most economic situations where the economy does not remain unchanged and either slows or recovers. We believe that there is a high probability that the economy will not remain unchanged over the next 3-7 years.

The appendix page that follows presents scenario analysis comparing likely future market movements. There are some assumptions that need to take place in terms of sector yield spreads, but the calculations themselves are fairly straightforward, and simply adjust principal returns for interest rate changes and add income to generate total return assumptions. **The numbers are unbelievably compelling.** We are willing to share our data to all that inquire. Thank you for reading.

APPENDIX – Ambassador Scenario Analysis

The graph below represents scenario analysis Ambassador has performed using various assumptions for the economy over the next 3 years. It charts return expectations comparing the Ambassador Protection Against Rising Rates (PARR) approach versus the Barclays Aggregate and Credit indices. The Ambassador PARR approach uses a negative duration of (–) 5 years, a barbell structure, and very high quality holdings. The calculations assume that the change in yields and spread levels all occur at the end of year 3. Our assumptions are pretty straightforward and we have primarily used history as our guide. We will gladly provide the data underlying our assumptions for all of our strategies and welcome any comments or critiques.

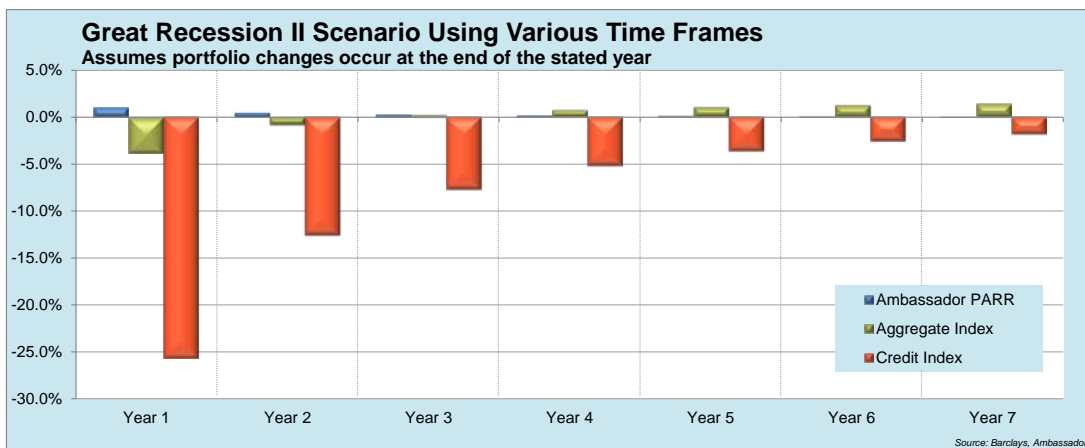
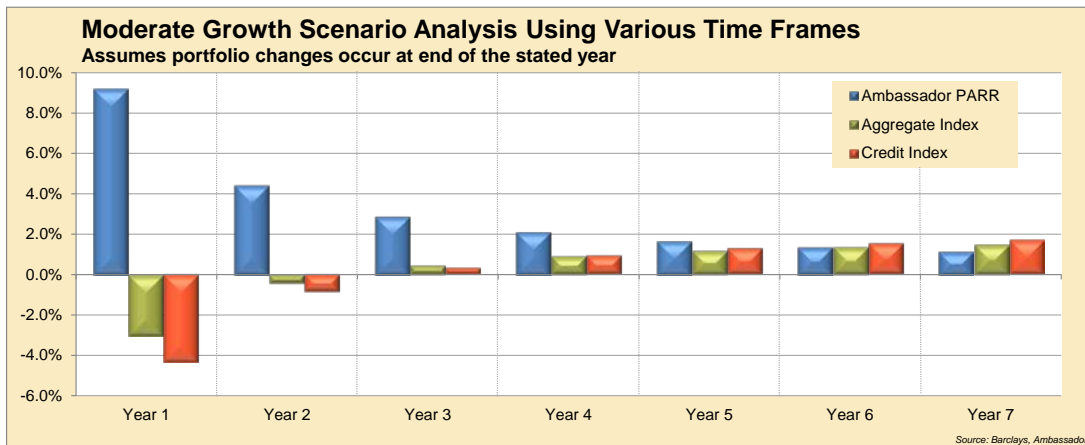


Some observations:

- ✓ The current give-up in yield is 2.35% versus the Aggregate index.
- ✓ The maximum annualized loss for PARR is -0.09%.
- ✓ The Aggregate Index does reasonably well in a Great Recession II scenario due to the high percentage of Treasuries in the index. As was revealed in 2008, however, most bond managers do not own Treasuries and therefore average manager returns are likely to be closer to the Credit Index than the Aggregate.
- ✓ We believe that when the Federal Reserve simply stops QE purchases, the 5-year Treasury will quickly move back to the 2% levels shown above (Moderate Growth); similar to levels from early 2011, 2 years ago.
- ✓ As we have stated from the beginning: **We believe investors need to focus on protecting portfolios from the right side of this graph (higher rates).**
- ✓ Please see assumptions under important disclosures at end.

APPENDIX

Ambassador views the odds as low that the Federal Reserve is able to maintain the current environment over the next 3-7 years. First, it would be very rare for the economy to not experience a recession almost 10 years after the last one. Second, absent a recession, it would be surprising if the Fed did not end Quantitative Easing at a minimum. We show below a timeline analysis of the two scenarios using our interpretation of Moderate Growth for the upside and a second Great Recession for the downside. The graphs depict annualized returns assuming the portfolio changes occur at various times in the future. Because of the yield give-up in an unchanged environment, the earlier the yield change takes place, the greater the benefit of PARR.



Some observations:

- ✓ The breakeven time period for Ambassador PARR vs. the Aggregate Index is 3 years for a recession and 6 years for moderate growth.
- ✓ Neither the Aggregate nor the Credit Indices earn more than 2% over the next 7 years if either scenario occurs.
- ✓ The difference in return for Ambassador PARR vs. the Aggregate Index is over 10% in favor of PARR the year of the yield change.
- ✓ The only scenario where the Credit Index outperforms PARR is moderate growth that occurs at least 6 years from now.

Ambassador Capital Management strongly believes that a completely different approach to fixed income investing is warranted in the current, low yield environment. This includes not only maturity decisions, but also implications for credit risk exposure as well. After digesting this report, if you come to the same conclusion, we would welcome a discussion on ideas we have on how to best position fixed income portfolios going forward.

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IMPORTANT DISCLOSURES

Results presented in this analysis indicate market scenarios that have inherent limitations and in no way should be considered representative of the past performance of any actual investment product or predictive of future investment expectations for the benchmarks. The results for individual portfolios may vary depending on actual market conditions and the composition of the portfolio. The scenarios assume that bonds are purchased at current valuations and held throughout the period rather than traded, which would not be the case in an actual portfolio. The scenarios also rely on mathematical models that do not take into account all potential factors that could impact return, including maturity roll and yield curve twists, and can be wrong even in cases where the assumptions used turn out to be valid. Actual market events or results could be much worse. The analysis also does not show the impact of any management fees or other expenses, which would reduce cash flows.

This paper is provided for informational purposes only and should not be construed as investment advice. The statements contained herein reflect the subjective judgment and assumption of the author and the opinions of Ambassador Capital Management, LLC. and the information available at the time of publication. Investment recommendations may be inconsistent with these opinions. There can be no assurance that developments will transpire as forecasted and actual results will be different. Hypothetical examples are shown for illustrative and educational purposes only. Data and analysis does not represent the actual or expected future performance of any investment product. We believe the information, including that obtained from outside sources, to be correct, but we cannot guarantee its accuracy. The information is subject to change at any time without notice.

Assumptions for return scenario estimates in Appendix:

- Index data from Barclays Capital as of March 29, 2013
- Yield and spread changes occur at the end of each stated year
- Yield spread adjustments are made on the non-Treasury sectors as follows:
 Great Recession II: Credit OAS +450bps, Mortgage OAS +150bps, Agency OAS +25bps
 Recession: Credit OAS +150bps, Mortgage OAS +100bps, Agency OAS +25bps
 Moderate Growth: Credit OAS -25bps, Mortgage OAS -25bps, Agency OAS -25bps
 Strong Growth: Credit OAS -50bps, Mortgage OAS -50bps, Agency OAS -50bps
- Yield curve twist changes as follows:
 Great Recession II: 5yr -0.50%, 30yr -1.50%
 Recession: 5yr -0.25%, 30yr -0.75%
 Moderate Growth: 5yr +1.25%, 30yr +0.50%
 Strong Growth: 5yr +4.25%, 30yr +2.75%

Costs of PARR Position*

Cost of carry:	1.19%
Roll give-up:	0.30%
Yield give-up:	0.71%
Margin loss:	<u>0.16%</u>
Total Cost	2.36%

*Versus Aggregate Index