PRACTICE ESSENTIALS®

FIXED INCOME 101 | U.S.

Rising Rates' Silver Linings

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Over the last six decades, the trajectory of U.S. interest rates has been quite dramatic (see Exhibit 1). It's not hard to imagine why all eyes are on the Federal Reserve's next move. Beginning in the mid-1950s, interest rates increased steadily until they reached a pinnacle in the early 1980s. Since then, bonds have been having an impressive bull run.

Beginning in April 1953, interest rates increased steadily until they reached a pinnacle in the early 1980s. Since then, bonds have been having an impressive bull run.

Exhibit 1: 10-Year U.S. Treasury Bond Rate

Source: U.S. Federal Reserve. Data from April 1953 through September 2015. Chart is provided for illustrative purposes.

This preoccupation arises in large part because interest rates are, as Exhibit 1 indicates, hovering near their lowest levels in history and, more importantly, they are near zero, leading to the natural conclusion that there's only one direction for interest rates to go.[1] When anticipating rising rates, perhaps the last thing to think about is bond investments. But, for a number of reasons, some circumstances necessitate an allocation to fixed income, whether for diversification or risk reduction.

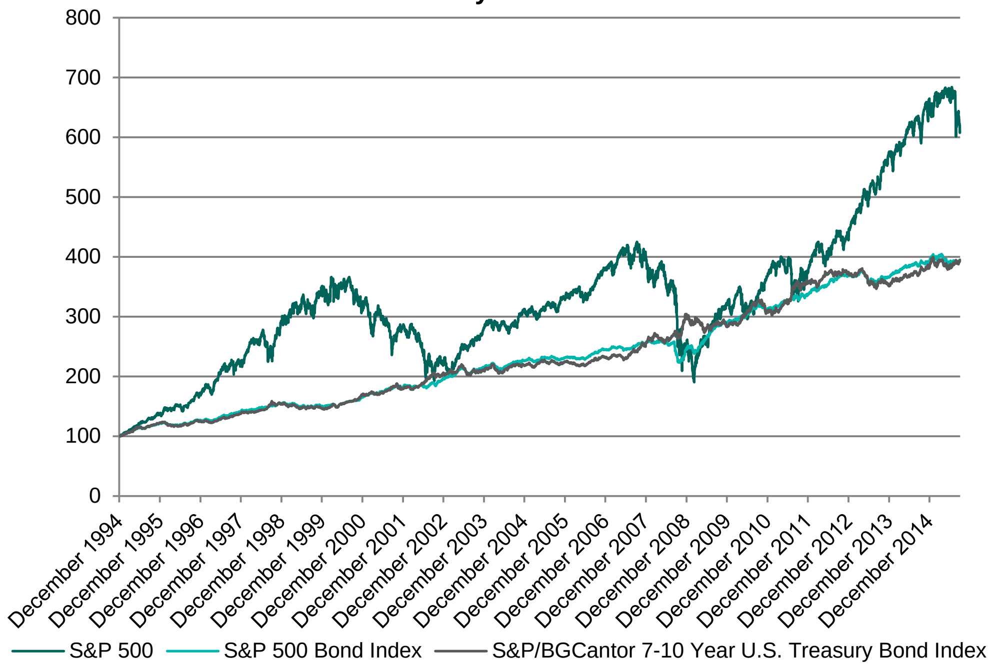
[1] Chan, Fei Mei, and Craig J. Lazzara, "Much Ado About Interest Rates," September 2013.

INTEREST RATE MATTERS

Though bond values will, definitionally, fall when interest rates rise, different types of bonds have differing characteristics. What type of bond is the right fit depends heavily on individual circumstances. Exhibit 2 charts the performance of the S&P 500®, the S&P 500 Bond Index[2], and the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index.[3] The chart not only highlights the remarkably different risk profiles of stocks and bonds, but also the performance divergence between the performance of corporate debt and U.S. Treasuries in the 2008 financial crisis.

During the recovery from crisis mode in 2009, the S&P 500 Bond Index far outperformed the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index.

Exhibit 2: Relative Performance of the S&P 500, S&P 500 Bond Index, and S&P/BGCantor 7-10 Year U.S. Treasury Bond Index



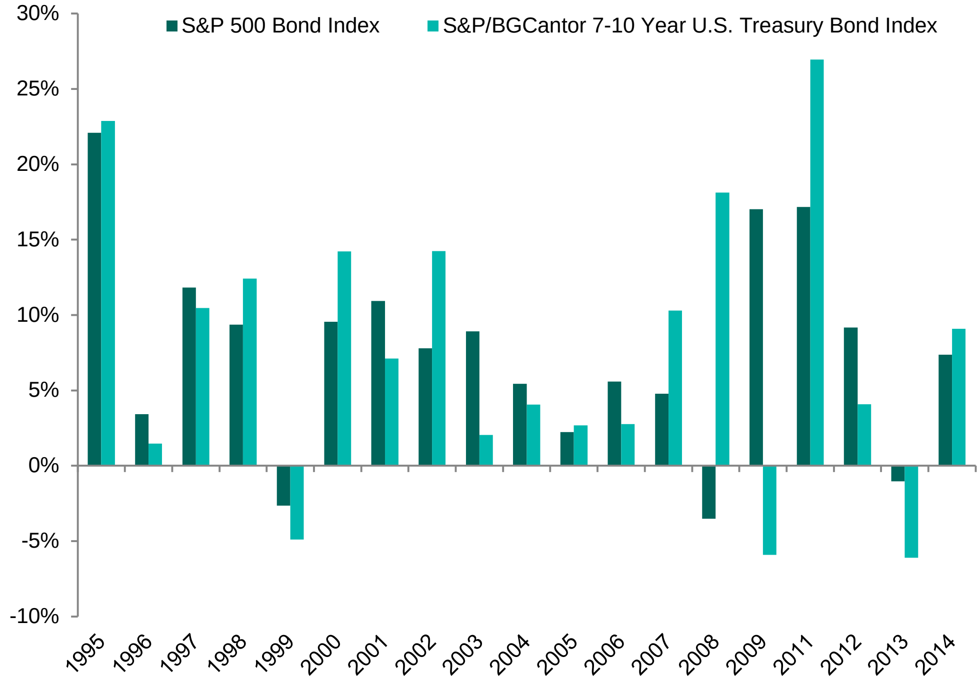
Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1994, through Sept. 30, 2015. Daily index levels rebased to 100 on Dec. 31, 1994. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The chart of annual returns provides a better picture of the difference in performance for the two bond indices during times of turmoil (such as in 2008), as well as in the recovery from crisis mode in 2009, when the S&P 500 Bond Index far outperformed the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index (see Exhibit 3).

2 Hong, Xie, and Aye M. Soe, "S&P 500® Bond Index: Simplifying the U.S. Corporate Bond Market," September 2015.

3 As of Sept. 30, 2015, the S&P/BG Cantor 7-10 Year U.S. Treasury Bond Index has a weighted duration of 7.67 and yield of 1.94%, which is the closest treasury index to the S&P 500 Bond Index's weighted duration of 6.67 and yield of 3.34%.

Exhibit 3: Annual Performance of the S&P 500 Bond Index and S&P/BGCantor 7-10 Year U.S. Treasury Bond Index



Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1994, through Dec. 31, 2014. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

ALL BONDS ARE NOT CREATED EQUAL

Under certain circumstances, investors may prefer corporate bonds to U.S. Treasury bonds. Inexorably, corporate debt comes with greater risk. But, relative to U.S. Treasuries, corporate bonds also have higher return potential.[4]

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Between the S&P 500 Bond Index and the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index, the former is much more correlated with the S&P 500 (see Exhibit 4). This is not surprising, since corporate debt is riskier than U.S. Treasuries. When a crisis is such a threat that corporations' survival is in peril, then naturally debt issued by corporations will also be in danger of default.

Exhibit 4: Correlations

Correlation	S&P 500 Bond Index and S&P 500	S&P 500 Bond Index and S&P/BGCantor 7-10 Year U.S. Treasury Bond Index	S&P 500 and S&P/BGCantor 7-10 Year U.S. Treasury Bond Index
	0.256	0.641	-0.194

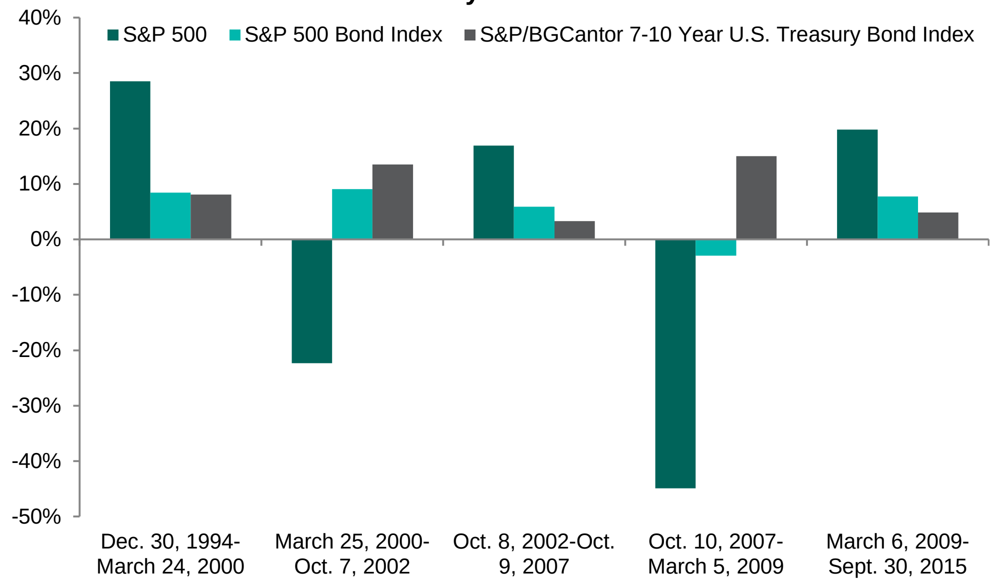
Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1994, through Sept. 30, 2015. Table is provided for illustrative purposes. Past performance is no guarantee of future results.

4 Villarreal, Pamela, "Are Corporate Bonds Worth a Look?" National Center for Policy Analysis, April 23, 2013.

This dynamic is manifested in the performance history of the S&P 500 Bond Index and the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index. In periods of good equity performance, the S&P 500 Bond Index has underperformed stocks but outperformed U.S. Treasuries. In periods of poor equity performance, the S&P 500 Bond Index outperformed stocks, but was itself outperformed by U.S. Treasury bonds. Exhibit 5 highlights the performance of stocks, corporate bonds, and U.S. Treasuries in various stock market environments.

In periods of good equity performance, the S&P 500 Bond Index has underperformed stocks but outperformed U.S. Treasuries. In periods of poor equity performance, the S&P 500 Bond Index has outperformed stocks, but was itself outperformed by U.S. Treasuries.

Exhibit 5: Comparative Performance of the S&P 500, S&P 500 Bond Index, and S&P/BGCantor 7-10 Year U.S. Treasury Bond Index



Source: S&P Dow Jones Indices LLC. Data from Dec. 30, 1994, through Sept. 30, 2015. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

THE WORST OF TIMES FOR U.S. TREASURIES

Between 1995 and 2015**, in the months when U.S. Treasuries delivered their worst performance, corporate bonds outperformed U.S. Treasuries by the largest margin** (see Exhibit 6). We divided the 249 months in this period into modified quartiles based on whether the S&P/BGCantor 7-10 Year U.S. Treasury Bond Index was positive or negative, and then further divided those months equally into the biggest and more moderate changes in each direction. In the worst quartile, U.S. Treasury bonds showed an average monthly decline of 2.04%, while the S&P 500 Bond Index's average decline was only 0.79%, an outperformance of 1.25%. In those same months, an archetypal 60/40 allocation with corporate bonds yielded an outperformance of 0.49% versus the same allocation with U.S. Treasuries.

Exhibit 6: Performance in Various Interest Rate Environments

Treasury Performance	Number of Months	S&P/BGCantor 7-10 Year U.S. Treasury Bond Index (%)	S&P 500 (%)	S&P 500 Bond Index (%)	S&P 500 (60%)/S&P 500 Bond Index (40%) (%)	S&P 500 (60%)/ S&P/BGCantor 7-10 Year U.S. Treasury Bond Index (40%) (%)
Biggest Declines	46	-2.04	1.49	-0.79	0.60	0.11
Moderate Declines	46	-0.43	1.25	-0.02	0.75	0.59
Moderate Increases	79	0.71	1.06	0.69	0.92	0.93
Biggest Increases	78	2.55	-0.32	1.55	0.45	0.86

Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 1994, through Sept. 30, 2015. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Historically, when interest rates have risen, their effect on corporate bonds has been muted compared with their effect on U.S. Treasuries.

Heightened sensitivity to anticipated interest rate increases is understandable. However, the impact of interest rate changes varies with different types of bonds. **Historically, when interest rates have risen, their effect on corporate bonds has been muted compared with their effect on U.S. Treasuries.** Similarly, a balanced allocation incorporating corporate bonds has offered more protection relative to U.S. Treasury bonds during these times.

ADDITIONAL RESOURCES

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The S&P 500 Bond Index was launched on July 8, 2015. The S&P/BGCantor 7-10 Year U.S. Treasury Bond Index was launched on March 24, 2010. All information for an index prior to its launch date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect on the launch date. Complete index methodology details are available at www.spdji.com. It is not possible to invest directly in an index.

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Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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