

## Are Bonds Going to Outperform Stocks Over the Long Run? Not Likely.



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Given the poor performance of stocks over the past year and the past decade, there has been ample discussion about the relative performance of stocks versus bonds. Some even argue that investors should allocate entirely to bonds, not only because bonds are the safer investments, but because they believe bonds will outperform stocks over the long run. In other words, if bonds can deliver higher returns with less risk, why bother with stocks?

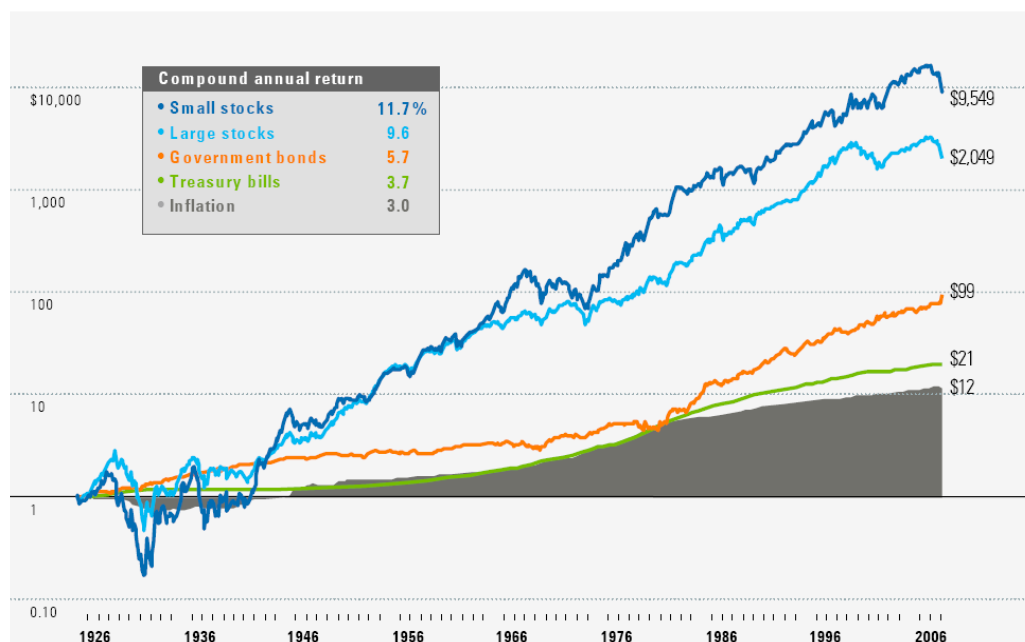
Table 1 shows the performance of the S&P 500, BarCap/LB US Aggregate Bond Index, Ibbotson Intermediate-Term and Ibbotson Long-Term Government Bonds over various time periods. Not only have the average annual stock returns been poor over the last 10 years, but relative to bonds, stock returns look mediocre over the last 20, 30, and even 40 years.

**Table 1: Compound Annualized Total Returns (%) Ending June 2009**

	S&P 500	IA SBBI Inter-Term Government Bond	BarCap US Agg Bond	IIA SBBI Long-Term Government Bond
1 year: Starting July 2008	-26.22	5.52	6.05	7.67
5 year: Starting July 2004	-2.24	5.10	5.01	7.14
10 year: Starting July 1999	-2.22	6.01	5.98	7.55
20 year: Starting July 1989	7.76	6.79	7.06	8.55
30 year: Starting July 1979	10.75	8.28	8.49	9.46
40 year: Starting July 1969	9.19	7.95	8.38*	8.53
Jan 1926 – March 2009	9.60	5.34	NA	5.47

Source: Ibbotson. \* BarCap/LB US Aggregate Bond Index only goes back to January 1976.

By looking at the returns over the last 40 years, the argument that bonds might outperform stocks looks to be valid. But, one should view this with skepticism. First, note that over the 20-, 30-, and 40-year periods, stocks actually performed quite well, even if some bond categories did better. Over the very long term, it is no longer a contest. Chart 1 (on the next page) gives the results of the capital market returns over the last 83 years. During this longer period, stocks easily beat bonds.

Chart 1: Ibbotson SBBI Chart: Stocks, Bonds, Bills and Inflation 1926-2008<sup>1</sup>

Source: Ibbotson

Table 2 looks at a longer history of U.S. stocks. The returns on the stock market have been consistently high over almost two centuries. The returns over the last 40 years are roughly comparable to the more distant returns.

Table 2: Annualized Compounded Total Returns %<sup>2</sup>

	Large Company Stocks
January 1825–December 1925	7.3
January 1926–June 2009	9.6
January 1825–December 2008	8.3

Source: Ibbotson

Long-term history provides two major insights:

1. Stocks have outperformed bonds.
2. Stock returns are far more volatile than bond returns, thus more risky. Given the additional amount of risk, it is not surprising that stocks don't outperform bonds every period—even over extended periods of time.

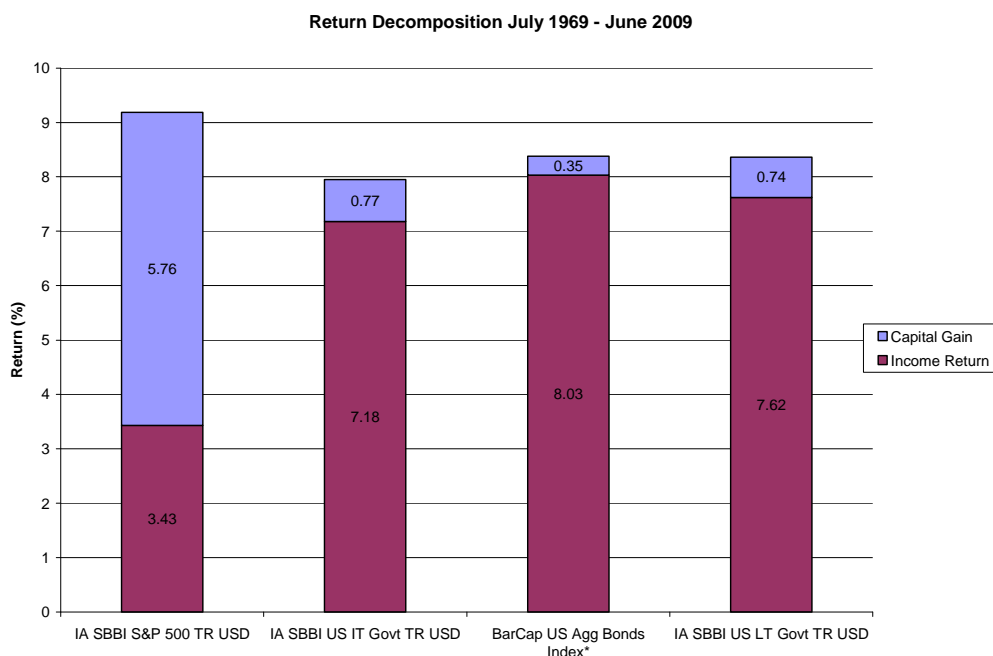
<sup>1</sup> Past performance is no guarantee of future results. Hypothetical value of \$1 invested at the beginning of 1926. Assumes reinvestment of income and no transaction costs or taxes. This is for illustrative purposes only and not indicative of any investment. An investment cannot be made directly in an index.

<sup>2</sup> Stock returns from 1825-1925 are from the article authored by William N. Goetzmann, Roger Ibbotson, and Liang Peng, "A New Historical Database for the NYSE 1815 to 1925: Performance and Predictability," *Journal of Financial Markets*, December 2000.

## Stocks vs. Bonds in the Future

How likely are stocks to outperform bonds going forward? To try to figure out the future, let us look in more detail at what happened during the last 40 years.

**Chart 2: Historical Returns Decomposition Over the Past 40 Years (July 1969-June 2009)**



Source: Ibbotson, . \* BarCap/LB US Aggregate Bond Index only goes back to January 1976

Despite the substantial decline in yields over the last 40 years, Chart 2 shows the bulk of the bond returns come from the income return portion, or yield. On average, the bond income return from coupon payments was more than 7%. Capital gains caused by the yield decline made up the additional return.

Today, yields are much lower. Table 3 presents the current bond yield information. As of the end of the first quarter of 2009, the Long-Term Government Bond yield was 3.55% and the Intermediate-Term Government Bond yield was only 1.68%. For bonds to continue to enjoy the same amount of capital gains over the next 40 years, a rough estimation would put the yield into negative territory, especially for Intermediate-Term Government Bonds. This is simply impossible, because it implies that investors would be willing to lend their money to a borrower and pay the borrower an interest rate. Over the last 40 years, bond investors have enjoyed abundant returns because of a high-yield environment followed by a steady decline in yields.

**Table 3: Bond Yield %**

	July 1969	June 2009	Change
IA SBBI US LT Government Yield USD	6.21	4.30	Declined 1.91
BarCap/LB US Agg Bond Yield USD	7.92 *	3.88	Declined 4.04
IA SBBI US IT Government Yield USD	6.93	2.51	Declined 4.42

Source: Ibbotson . \* BarCap/LB US Aggregate Bond Index only goes back to January 1976

To analyze which asset class is more likely to outperform going forward, let's take a deeper look at the historical data and the current market environment. We analyze each component of returns going forward for stocks and bonds as follows:

Bond returns = current yield + capital gain

Stock return = current yield + earning growth + P/E changes

First, given the current low-yield environment, it would be almost impossible for bonds to generate the same amount of capital gains as they did in the past. In fact, a reasonable estimate might be that there will be no more capital gains going forward, since yields may be at least as likely to rise as to fall<sup>3</sup>. If there were no future fall in yields, all of the return would have to come from the coupon return. That means the total returns for bond investments would likely be between 3 to 4%.

For stocks, the annualized dividend yield from January to July 2009 for the S&P 500 was 2.59%. If stocks produce more than 2% in capital gains per year on average, they will likely beat bonds. Stocks capital gains can be decomposed into nominal earnings growth and changes in the P/E ratio<sup>4</sup>. Historically, U.S. long-term nominal earnings growth has been roughly 5%, which is comparable to the nominal GDP growth. If we assume the market valuation level (operating P/E of S&P 500) stays at the same level over the next 40 years, then we would have an equity return of around 7%. Even if we forecasted a decline in the valuation level, the 10 year average P/E level would need to fall from just about 20 to below five to get equity returns around 3%.

<sup>3</sup> Some would even argue that bond yield would likely increase over time, thus produce capital losses for bonds over time.

<sup>4</sup> We can decompose stock capital gains into earnings growth and P/E changes. For detailed information on the formula, please refer to Ibbotson, Roger G., and Peng Chen. "Long-Run Stock Returns: Participating in the Real Economy." *Financial Analysts Journal*, 59 (January/February 2003), pp. 88-98.

## Conclusions

Bonds not only have outperformed stocks by a large margin over the past year because of the financial crisis, but also roughly matched stocks over the past 40 years. This begs the question, will bonds continue to outperform?

Upon closer examination, we show that stock returns over the last 40 years were virtually in line with the long-term historical average. On the other hand, bond returns were not only much higher than their historical averages, but also higher than their current yields. This high bond return is due to higher interest rates in the 1970s and a subsequent declining interest rate environment. This scenario for bonds is very unlikely to repeat in the future, given today's low interest rate environment. Investors hoping bonds will outperform in the coming years will likely be disappointed.

Stocks tend to outperform bonds over time, but are much more risky, even over longer periods. Bonds can outperform stocks over a long period, but investors need almost perfect timing to get in and out of the market to realize such returns. We believe the right strategy is to follow a disciplined asset allocation policy that considers the return and risk tradeoffs by taking advantage of the diversification benefits between stocks and bonds over time.

As Warren Buffett wrote in his 2009 annual shareholder letter: "When the financial history of this decade is written, it will surely speak of the Internet bubble of the late 1990s and the housing bubble of the early 2000s. But the U.S. Treasury bond bubble of late 2008 may be regarded as almost equally extraordinary."

**About Ibbotson**

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