

## Stock Market Perspective: Stocks vs. Bonds vs. Inflation

Standard investing “wisdom” says that most portfolios should have a substantial portion in stocks because that is the best way to earn a “real” return, one that is more than inflation. Also, some part of the portfolio should be in bonds to reduce the risk from owning stocks and to provide a stream of income greater than what stocks can produce when one needs to spend, rather than reinvest, the income. The overly simplistic (since it ignores investors’ financial positions and eventual needs) rule one often sees or hears is that the stock percentage should be one’s age subtracted from 100, or sometimes 110 is given.

The assumption behind that rule and the general advice is that over the “long term” stocks will outperform bonds and inflation by a significant margin. Recently, I have seen some articles suggesting that maybe stocks are not so great for the long run. To some extent, that feeling has been motivated by the losses of over half in the major indices since the highs about a year and a half ago. As is often pointed out, hindsight tends to be accurate. As I have

Enough of the ruminations; let’s take a look at what actual performance data show. The first issue is what is meant by the long term. I’ll use 20 years although there is nothing special about that number. To some extent, it is a matter of convenience since the Investors FastTrack total return mutual fund data that I frequently use starts in late 1988. A useful feature of the 1989-2008 twenty-year period is that it is almost evenly split on an annual basis between the last secular bull market (1989-99, 11 years) and the current secular bear (2000-08, 9 years).

Vanguard<sup>1</sup> has some funds that can be used in the analysis and have been in existence for the entire period. I will look at three of them. One is the original index fund, the Index 500 Fund, whose ticker symbol is VFINX. That fund closely replicates the performance of the S&P 500 index with dividends reinvested, but less Vanguard’s modest expenses, about 0.20%. The other two are bond funds for two sides of the bond world, government issues and corporate debt. They are the Vanguard Long-Term U.S. Treasury Fund (VUSTX) and the

Vanguard Long-Term Investment Grade Bond Fund (VWESX).

The table to the left shows data for 1989-2008, the two ten-year halves, and the four five-year quarters of the period. The first set of columns shows the compound annual returns of the three

RETURNS, RISK, 1989 - 2008							Consumer Price Index
VFINX - Vanguard Index 500 Fund							
VUSTX - Vanguard Long-Term US Treasury Fund							
VWESX - Vanguard Long-Term Investment Grade Bond Fund							Annualized Inflation
	Annualized Return			Negative Deviation			
	VFINX	VUSTX	VWESX	VFINX	VUSTX	VWESX	
1989-2008	8.3%	9.4%	8.2%	2.8%	1.4%	1.4%	2.8%
1989-1998	19.0%	10.9%	10.8%	2.2%	1.2%	1.0%	3.1%
1999-2008	-1.5%	7.8%	5.7%	3.3%	1.5%	1.7%	2.5%
1989-1993	14.3%	12.9%	13.2%	2.0%	1.1%	0.8%	3.9%
1994-1998	24.0%	9.0%	8.5%	2.4%	1.3%	1.1%	2.4%
1999-2003	-0.6%	6.4%	6.8%	3.5%	1.7%	1.5%	2.4%
2004-2008	-2.3%	9.2%	4.6%	3.2%	1.3%	1.9%	2.7%

written about several times, what we have seen is typical of what happens in a secular bear market, and we have been in one since 2000.

funds. The second set of columns shows the

<sup>1</sup> The use of Vanguard funds in this analysis should not be considered as a recommendation to buy or sell those funds or an endorsement of that fund company’s products.

*negative deviation* for the funds in the periods. That is a risk measure similar to the often shown standard deviation. I have computed it on a monthly basis, and the months when a fund gain do not contribute to the negative deviation. I think it is an excellent risk measure because it accounts for both the severity and the frequency of the losing months. Like the standard deviation, lower values mean less risk. The last column shows the compounded annual change in the Consumer Price Index, which is the most common measure of inflation.

In the 20-year “long term” period, stocks did not outperform the bond funds. The higher returns of the Treasury fund result primarily from the recent plunge in rates, which is reflected in the 2004-08 period returns. Otherwise, the returns of the two bond funds are fairly close. Risk levels for the bond funds, as expected, are considerably below those of the stock fund. More importantly, although

the prior twenty years. None of the three Vanguard Funds was around in 1969, so regardless of data availability I can’t replicate the table for 1969-88. However, the total return of the S&P Index is available for that period, and it can be used as a good measure of the performance of stocks. I will use that and ignore Vanguard’s small expense ratio on its index fund. I could not find any bond fund or its data that was around in 1969. However, the yield on 10-year Treasury Notes is available. Using that data and some standard formulas, I was able to construct a hypothetical mutual fund that owned only that security and did not have any expenses deducted. That construction is likely to be more volatile than a real T-bond fund, and if a real fund’s managers are performing well, they should be able to add value by moving among the longer or shorter maturities as interest rate conditions and trends indicate.

RETURNS, RISK, 1969 - 1988					Consumer Price Index Annualized Inflation
S&P - S&P 500 Total Return					
10 yr Tr. - Hypothetical 10 year T-Bond fund					
	Annualized Return		Negative Deviation		
	S&P	10 yr Tr.	S&P	10 yr Tr.	
1969-1988	9.5%	8.1%	2.9%	1.8%	6.3%
1969-1978	3.1%	5.0%	2.9%	1.2%	6.7%
1979-1988	16.3%	11.3%	2.9%	2.2%	5.9%
1969-1973	2.0%	5.6%	2.9%	1.4%	5.4%
1974-1978	4.3%	4.4%	3.0%	1.0%	7.9%
1979-1983	17.4%	8.2%	2.3%	2.6%	8.4%
1984-1988	15.3%	14.5%	3.5%	1.7%	3.5%

The table on this page for 1969-88 is like the prior one, but with just two mutual funds shown. We see that inflation was much higher, primarily in the 1970s<sup>2</sup> and early 1980s. This period was not evenly divided between the secular animals. The bear was lurking for the first thirteen years (1989-81) before the bull emerged for the last seven (1982-88). Nonetheless, stocks did better than in the most recent

they did have two or three losing years out of the twenty, the bond funds did not come close to having a losing five-year or longer period. The table shows such is not the case for stocks. The bond funds nicely outpaced inflation as did stocks over the longer term and some of the shorter terms.

twenty years. However, that is misleading. Compared to inflation, stocks gained only 3.2% in 1969-1988, but 5.5% in 1989-2008. Also the S&P 500, having mostly recovered from October 1987, was less than 20% below its all time high at the end of 1988 as compared to being over 40% below at the end of 2008.

A question that arises fairly naturally is whether there was something unusual about this most recent twenty years. We see that inflation was fairly modest, which was not so in

<sup>2</sup> Some of us remember President Ford’s WIN button for Whip Inflation Now. It took Fed chairman Paul Volker several years later to do that.

Comparing the performance of stocks and bonds, we see that bonds were considerably less risky as expected, but stocks generally did better than bonds in most of the periods shown. Both were unable to keep up with inflation in the 1970s, but the bull markets for both in the 1980s combined with much lower inflation later in that decade saw both produce a positive real return over the longer period.

The returns and the risk levels for the two twenty-year periods do not make a strong case for a substantial amount of stock ownership. I have seen some studies of returns looking further back, some to the early 19<sup>th</sup> Century, that also show that stocks are not really a superior investment to bonds for long-term holders. I have also seen analysis that comes to the opposite conclusion.

Which is correct? My answer is that for the accounts I manage and my personal accounts, I don't know and I don't need to know. The above tables are relevant for those who are going to "buy and hope," possibly rebalancing every so often or those who are going to own target date funds. While covering periods that are much longer than I normally think about, the tables show there are good times to own stocks and other times when they perform poorly making the risks of ownership much too high. That is true to a lesser extent for bonds. The models I use for the Tactical Asset Allocation accounts have track records that show they are effective in the shorter term, with trades normally lasting a few months and sometimes a year or two. As a result, the longer term returns and risk levels turn out well, and that is what we are after.