

MuhlenkampMethods

For the Intelligent Investor

Answers to questions you may not even know you have.

What Is Risk? (Part II)

This essay was originally published in Muhlenkamp Memorandum Issue 28, October 1993. At that time, one of Ron's largest clients (a pension fund) was being told by a stock brokerage firm to increase its investment allocation to bonds, since bonds were "guaranteed" and the returns for the prior 10 years had been nearly as good as the average for stocks. Ron didn't think the prior 10 years was the appropriate time to consider. In this essay he looks back to 1952 to examine the long-term performance of stocks and bonds. In doing so, he illustrates why the brokerage firm's advice to invest in more bonds was misguided.

We have kept the original 1993 data and added updated data for 2002 in parentheses. The year 2002 provides an interesting comparison because the recession in 2001 and its impact are quite similar to the economics of a decade earlier.

Much has been written about the "riskiness" of stocks and the "safety" of bonds. But the data seems to focus on only the recent history, a time of falling interest rates and capital gains in bonds. Our discussion has a more long-term focus.

Risk versus Return

To get a little longer history on the riskiness of stocks and bonds, we have plotted the annual returns from stocks and bonds for 1952–92 (2002) in Figures 6.5 and 6.6.

In 41 (51) years:

- Stock returns averaged 11.7% (11.2%) per year with 10 (13) down years;
- Bond returns averaged 5.6% (6.8%) per year with 13 (16) down years;
- Inflation averaged 4.2% (3.9%) per year.

We are not convinced, however, that a one-year period is the appropriate time frame to judge long-term investments. So, we've smoothed the annual returns of stocks and bonds by computing three-year trailing averages. These averages are shown in Figures 6.7 and 6.8. Note that a three-year average does not change the average annual return.



Figure 6.5 S&P 500 Index Yearly Total Returns, 1952-2002

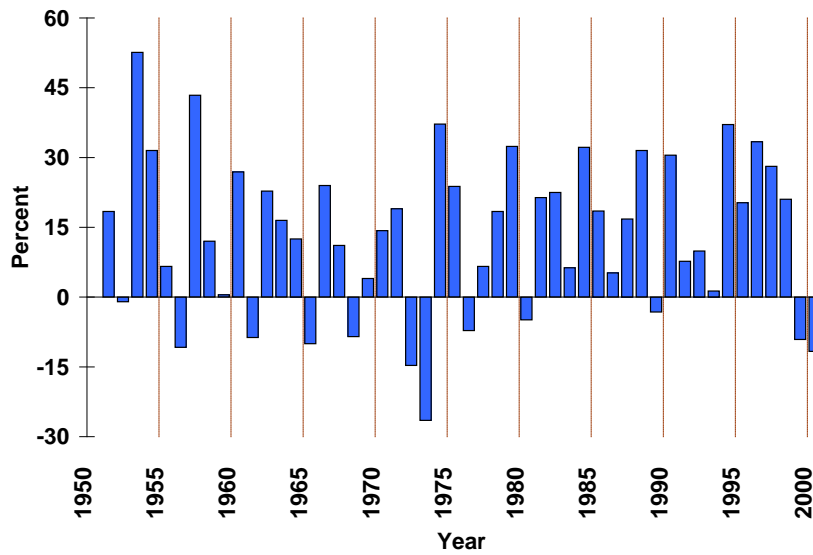


Figure 6.6 Long-Term Government Bonds Yearly Total Returns, 1952-2002

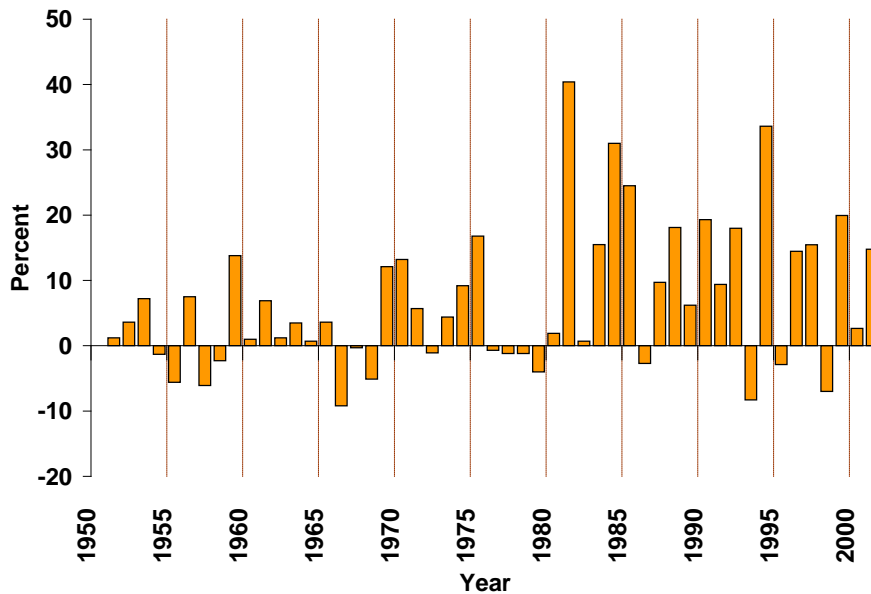


Figure 6.7 S&P 500 Index Total Return Three-Year Trailing Average, 1952-2002

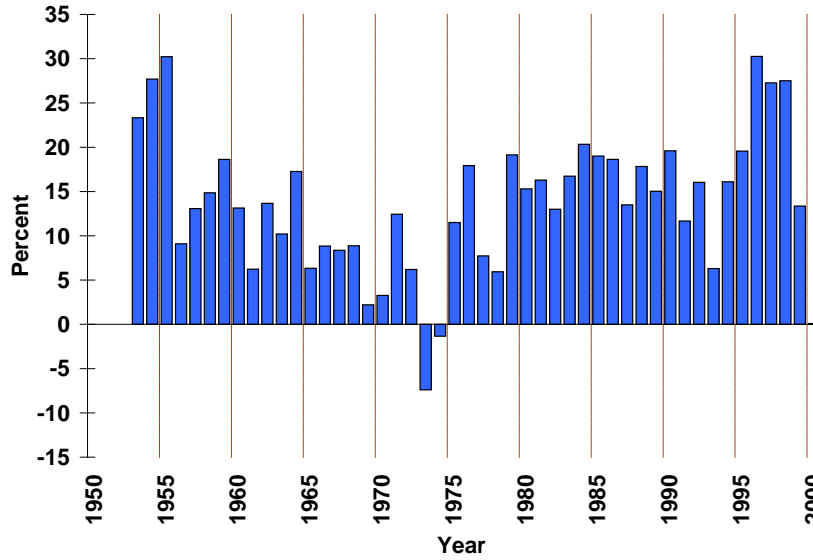
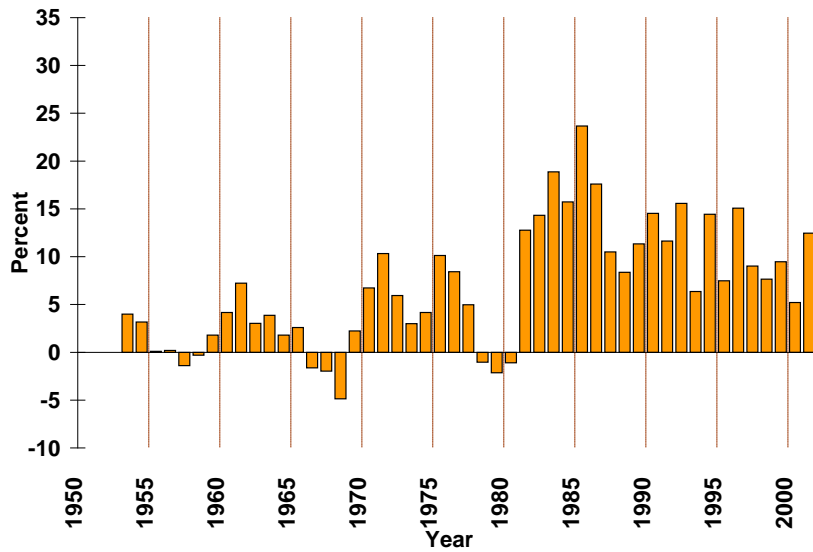


Figure 6.8 Long-Term Government Bonds Total Return Three-Year Trailing Average, 1952-2002



On a three-year basis, stocks have had one (two) down period(s), and bonds have had three (three) down periods. So, if your definition of risk is the probability of losing money, the difference is small, but it favors stocks.

When people on Wall Street talk about risk, they really are talking about the variability of returns, not the probability of losing money. Wall Street maintains that stocks are riskier than bonds simply because there is a greater variation in the *one-year* return.

By Wall Street's definition, even if returns were positive each year and had the same pattern for stocks and bonds, but stocks varied between 0% and 20% while bonds varied between 0% and 10%, stocks would be considered riskier because the variation was greater. We think the problem is in the definition. Over 41 (51) years:

- Stocks averaged 11.7% (11.2%) per year, which was 7.5% (7.3%) over inflation, netting a total of 17 (33) times the original purchasing power;
- Bonds averaged 5.6% (6.8%) per year, which was 1.4% (2.9%) over inflation, netting less than two (four) times purchasing power.

Total returns from stocks consist of the dividends received and the change in price. Total returns from bonds consist of the interest received and the change in price. People seem to have forgotten that when interest rates go up, bond prices go down, and investing in bonds can lose you money. By 1980, 5% bonds bought in 1966 were worth less than 50 cents on the dollar. So, if you can predict interest rates, you will know when to own bonds.

We have found, however, that you don't need to predict interest rates to know when to own bonds. You only need to know whether current "real" returns are attractive.

Get the "Real" Story

At Muhlenkamp & Company, we define risk as the probability of losing purchasing power over time. When we look at bonds, we subtract the current inflation rate from the current yield level to get the expected "real" return.

We then set a hurdle rate of a 3% real return before we are willing to lend money by buying bonds. We've plotted nominal long-term interest rates in Figure 6.9 and real long-term interest rates in Figure 6.10. We have also indicated our 3% hurdle rate in Figure 6.10.

Figure 6.10 makes it apparent why from 1968 (when I entered the investment business) to 1981, I never invested in long-term bonds. Bonds didn't meet the 3% hurdle rate for real returns except for a brief



period. It also illustrates why I was very comfortable investing heavily in bonds from 1981 through 1986. Then, current real returns on bonds were 6%–8%, versus a hurdle of 3%. At various times during that period, corporate interest rates were higher than corporate returns on equity, meaning it was unprofitable for companies to borrow money and interest rates had to fall. But Figure 6.10 demonstrates more than that.

Figure 6.10 demonstrates three (four) distinct periods in the returns available from bonds:

- From 1952 to 1965, bonds promised average nominal returns of 3.5% and real returns of 2.1%. Hindsight and Figure 6.6 show that they actually provided nominal returns of 2.1%. We consider this period “normal,” at least in comparison to what followed.
- From 1966 to 1980, bonds promised nominal returns of 6.75% and very poor real returns of 0.1%. They produced nominal returns of 2.6% (because rates went up).
- From 1981 to 1993, bonds promised nominal returns of 9.5% and unusually good real returns of 5.0%. They produced nominal returns of 13.6% (because rates went down).
- (From 1994 to 2002, bonds promised nominal returns of 6% and real returns of 3.9%. They produced nominal returns at 9.2%—because rates declined.)

Figure 6.9 Nominal Long-Term Government Bond Rate, 1952-2002

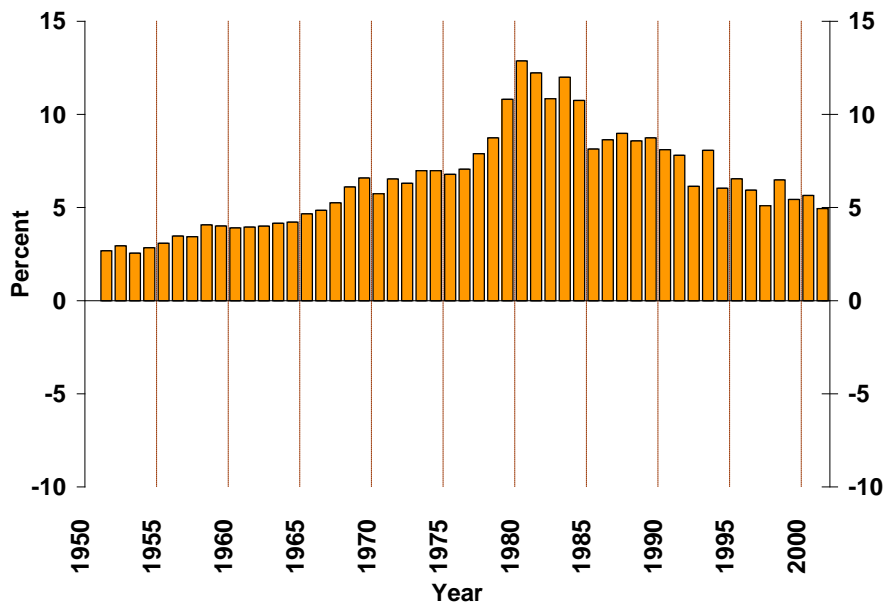
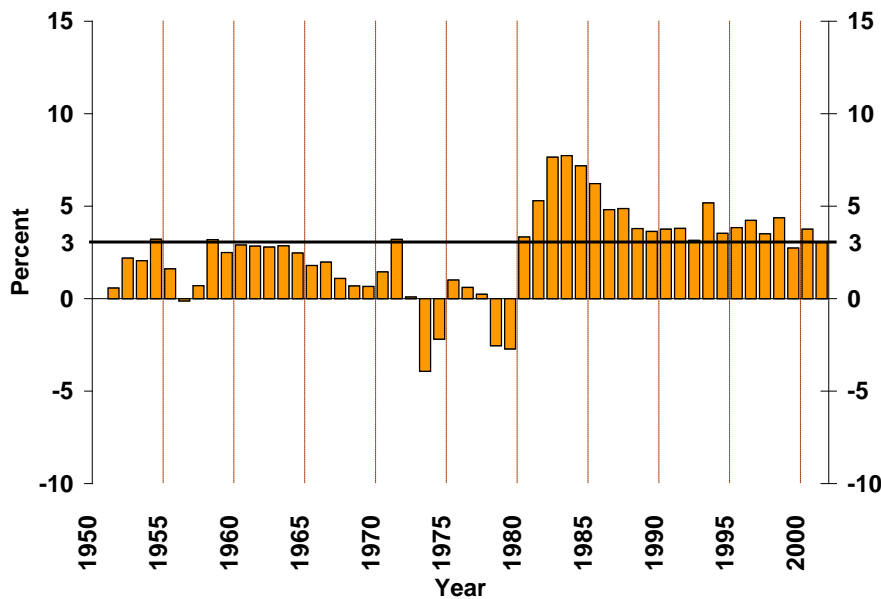


Figure 6.10 Real Long-Term Government Bond Rate, 1952-2002



We consider both the 1966 to 1980 period and the 1981 to 1993 period to be unusual and not likely to be repeated any time soon. For an explanation about why this happened, see our essay “And the Climate Is . . .”

If we also calculate the stock returns for these periods, we find that:

- In the 1952–65 period, when bonds averaged a 2.1% return, stocks averaged 14.5%.
- In the 1968–80 period, both stocks and bonds did poorly, but stocks did better than bonds: 6.7% compared to 2.6%.
- In the 1981–92 period, when bonds did very well, stocks did better: 14.7% compared to 13.6%.
- (In the 1993–2002 period, stocks did 9.5%, compared to bonds 9.2%.)

To understand why this is so, read our essay “Why the Market Went Down.”

At Muhlenkamp & Company, we believe the reason stocks perform better than bonds is not because they are “riskier” but because corporate management works for the stockholder and against the bondholder.



Figure 6.10 also shows that, after an unusually good decade, real long-term interest rates have returned to “normal” levels of roughly 3% over inflation. Rates are now 6%–7% (4%–5%). Returns greater than 6%–7% (4%–5%) will require a continued decline in interest rates, either because inflation continues down or because public enthusiasm for bonds causes an overshoot beyond fair value.

While we believe each of these possibilities has a slightly greater than 50% probability (now less than 50%), bond returns will no longer be driven by the unusually high real interest rates of the last decade. The time to be heavily invested in long bonds has just come to an end (even more true today).

Figure 6.9 also can be read as the return investors expected from their purchases of bonds in each of the past 41 (51) years. In fact, these returns were guaranteed. Figure 6.6 shows the returns investors actually received. Realized returns were well below guaranteed returns until 1981.

Conclusion

Although we haven’t yet constructed a chart for stocks similar to Figure 6.10, we judge the average stock to be priced to return 9%–10% (8%–9%). The caveat is that stocks are normally more sensitive to public hopes and fears than are bonds, so corrections of 5%–15% can occur at any time. Partly, this is because stock prices are reported on the news every day and played up by the media and the brokerage community, while bond prices are largely ignored. Frankly, the most likely trigger for such a correction in stocks in the current environment would be an up-tick in interest rates, and therefore, a decline in the price of bonds. When we put all of the above together, we see the following current conditions:

- Inflation is 3%–3.5% (~2%).
- Short-term debt is likely to return a nominal 3% (1%); 0% (–1%) real.
- Long-term debt is likely to return a nominal 6%–7% (4%–5%); 3%–4% (2%–3%) real, with some volatility.
- Stocks are likely to return a nominal 9%–10% (8%–9%); 6%–7% (6%–7%) real, with greater volatility.

Therefore, for money with a horizon beyond three years, we find the real returns available on stocks to be double those available on bonds, and we find both stocks and bonds to be more attractive than short-term investments.



Editor's Note

So what's the bottom line? Looking at the performance of stocks and bonds from 1952 to 2002, we see that in the long term (three years or more) stocks have better returns than bonds. This is because the corporation works for the stockholder and against the bondholder. In other words, a company will doggedly try to increase its profitability but will not pay one penny more than it has to on its loans. So in a well-run company, you would rather be an owner (stocks) than a lender (bonds). You don't want to be either in a poorly run company.

