First Ascent Asset Management

SHORT, INTERMEDIATE, OR LONG-TERM FIXED INCOME

Which Should I Use in My Portfolio?

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A Reasonable Question

Investors often ask, "When I build a portfolio comprised of stocks and bonds, should I use short-term, intermediate-term, or long-term bonds?" The answer is: "It depends."

Short, intermediate, and long-term bonds have different performance characteristics. So, the choice of which to use in a portfolio should be determined by the goals of that portfolio.

In general, short-term bonds are less volatile than intermediate or long-term bonds. But their long-term returns are also lower. As the duration of the bond increases, both its long-term return and its volatility increase.

For example, the volatilities (as measured by standard deviation) and annualized returns of short, intermediate, and long-term Treasuries from January 1, 1990, through December 31, 2020, are shown below, as are their best years/worst years for that period[1]:

	Return	Std. Dev.	Best Year	Worst Year
Short-Term Treasuries	3.20%	0.99	+9.9%	-0.1%
Intermediate-Term Treasures	5.57%	4.17	+16.8%	-5.6%
Long-Term Treasuries	7.98%	10.07	+31.7%	-14.9%

Of course, the specific results vary over different time periods, but the general pattern is relatively consistent. Longer duration bonds produce higher returns than lower duration bonds, but they come with significantly more volatility.

However, this linear pattern often changes when bonds are combined in a portfolio with stocks.

Here's an example. The graphic below shows the volatilities and annualized returns of a portfolio that includes 60% stocks and 40% short, intermediate, and long-term bonds over the same period from January 1, 1990 through December 31, 2020[2]:

	Return	Std. Dev.	Best Year	Worst Year
60/40 (Short-Term)	7.80%	8.70	+32.9%	-25.6%
60/40 (Intermediate-Term)	8.82%	8.59	+34.5%	-24.2%
60/40 (Long-Term)	9.95%	9.06	+37.3%	-22.1%

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As we saw before, the returns of the 60/40 portfolios increase in a linear fashion as the duration of the bonds in the portfolio increase. This is not surprising. The annualized return for the stock portion of the three portfolios was the same—10.23% for this period. The only difference was the returns for the bond portion of those portfolios, and we already know those returns increased in a linear fashion as the duration of the bonds increased.

But notice that the volatilities of these portfolios do not increase in a linear fashion. The volatility of the portfolio using intermediate-term bonds is actually less than the volatility of the portfolio using short-term bonds. Also, the worst years for the portfolios using intermediate and long-term bonds involve smaller losses than for the portfolio holding short-term bonds.

This happens because the return patterns of the three types of bonds, relative to the return pattern of stocks, are different. This involves a concept called "correlation," which measures the degree to which different asset types move up and down together as markets rise and fall.

All three types of bonds have a slight negative correlation to stocks. That means they tend to move in the opposite direction of stocks when markets rise and fall. However, intermediate and long-term bonds often have lower correlations to stocks than short-term bonds.

The result is that, over the relevant period, we got a slightly better diversification benefit from intermediate bonds than from short-term bonds.

This is an important concept. On a stand-alone basis, short-term bonds were far less "risky," as measured by their volatility, than either intermediate or long-term bonds. But when combined in a portfolio with stocks, that was not the case.

Investors who seek to make their portfolio less risky by holding short-term bonds alongside their stocks may actually be increasing their overall risk.

That is why it is important to identify your goals and consider the effect that each holding has as part of the total portfolio, rather than viewing them in isolation.

Notes

1. Short-term Treasuries are represented by IA SBBI US 1 Yr Trsy Const Mat TR USD; intermediate-term Treasuries are represented by IA SBBI US IT Govt TR USD; and long-term Treasuries are represented by IA SBBI US LT Govt TR USD.

2. Stocks are represented by S&P 500 TR USD (1936) and short, intermediate, and long-term bonds are represented by the indices set forth in Note 1.