

## **Market Monitor**

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### **A Common Fallacy of Investing**

There are a number of commonly held beliefs among investors concerning certain supposed truisms or stylized facts about investing. This week we're going to cast a critical eye on one of these beliefs that are commonly held by investors, be they retail investors, some institutional investors or even professors of finance. The fact that so many people hold this belief reveals a great deal about misperceptions of the relationship between risk and return. So when talking about risk and return, the natural place to start is the stock market. A common fallacy held by many investors concerning the stock market is the oft-stated belief that stocks are safer in the long run. Today, we will review the following:

- The misperception that stocks are safer in the long run.
- The extra return on stocks is compensation for risk.
- The risk of investing in the stock market doesn't decrease as the time period of the investment horizon increases.

If we look at the U.S., we know that historically over the course of the last century, stocks returned on average a real return of approximately 7% with annual volatility of approximately 20%, expressed as geometric as opposed to arithmetic averages. In fact, if we go all the way back to the beginning of the 19th century, the available data for stock market returns tell pretty much the same story,

with average annual real returns of approximately 7% and average annual volatility of approximately 18%. Short-term U.S. Treasury bills, on the other hand, returned less than 1% annual in real terms over the course of the 20th century, albeit with much lower volatility of only about 4%. For the comparable period dating all the way back to the dawn of the 19th century, however, short-term U.S. Treasury bills actually generated much better real returns of approximately 3% with average annual volatility of approximately 6%. It is important to keep in mind that the superior historical returns on U.S. stocks have been compensation for risk, and that for extended periods of time — think of the Great Depression or even the inflationary 1970s — the stock market in the U.S. has delivered negative returns, sometimes severely negative returns.

The extra return on stocks is compensation for risk, it is not guaranteed; and the return on stocks in the future is not guaranteed at all. History may not be a guide to future returns. Also, we all may want to keep in mind that the U.S. had a very good 20th century, especially in comparison to the horrors visited upon most of the other major countries and major markets in the world.

If the future return on stocks is not guaranteed, what of the common saying that stocks are safer in the long run? Well, actually, no they are not. The risk of investing in the stock market does not decrease as the time period of the investment horizon increases. To illustrate this point, start by considering the implications of what would be required to guarantee for a client a future return, say one year from now, of the historical average return from the U.S. stock market. Suppose a client did in fact come to you and ask for a portfolio of stocks with a guarantee attached that this portfolio would in fact generate the historical average return. What would you do? You would go purchase shortfall insurance, in effect a hedge on the portfolio. To guarantee a future return on a portfolio of stocks is not free of course, and the cost of this hedge is in fact very expensive. Why is this so? Well to think about this, consider the fact that the only truly guaranteed real rate of return in a security is that offered by Treasury Inflation Protection Securities, known as TIPS. These securities have a real rate

of return of approximately 2% with annual volatility of about 2% as well. Hence, we can see that there is a large difference between the only guaranteed real rate of return, about 2%, and the expected real rate of return on stocks, historically about 7%, which comes with annual volatility of about 20%. This is logical enough, because risk comes with a price.

As we go farther into the future, the volatility math does not change. What this means is that the annual volatility of approximately 20% a year continues year after year after year, meaning that the risks of owning stocks continues to be the same whether your — and your client's — investment holding period is one year, five, 10 or 20 years. The corollary to this fact is that the cost

of guaranteeing a certain return, such as the historical return that stocks have generated, continues to rise as well as the investment holding period rises. If you ask an options trader to put a price on an option that would guarantee that stocks would deliver the historical real rate of return say 10 years in the future, you would receive the following answer — the cost of guaranteeing a certain real return over and above the rate of TIPS is very costly, and only gets more and more costly the farther into the future we look.

So the moral of the story is not that stocks are bad, it is just that the return on investing in stocks is a compensation for risk, and this risk does not in any way diminish with time. If you think about it, there is no reason to think that it should.

Sources:

Robert Shiller, "From Efficient Markets Theory to Behavioral Finance" in the **Journal of Economic Perspectives**, Vol. 17(1), p. 83-104 (2003). Jeremy Siegel, Stocks for the Long Run, McGraw-Hill, 1998.

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