Does stock market risk decrease over time?

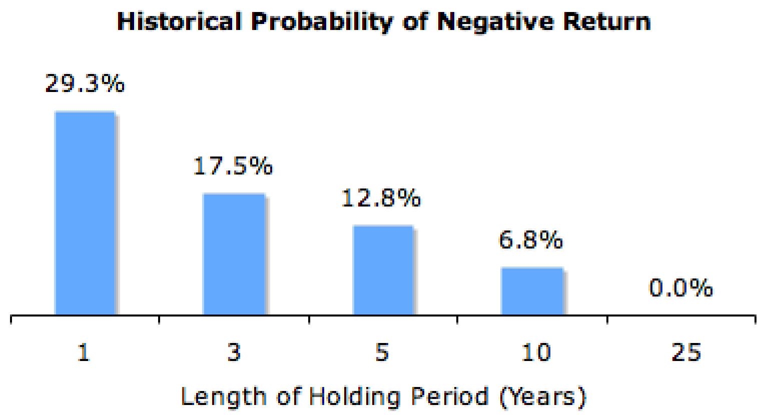
Posted by: Michael Zhuang on: April 27, 2010

- In: Economics & Markets

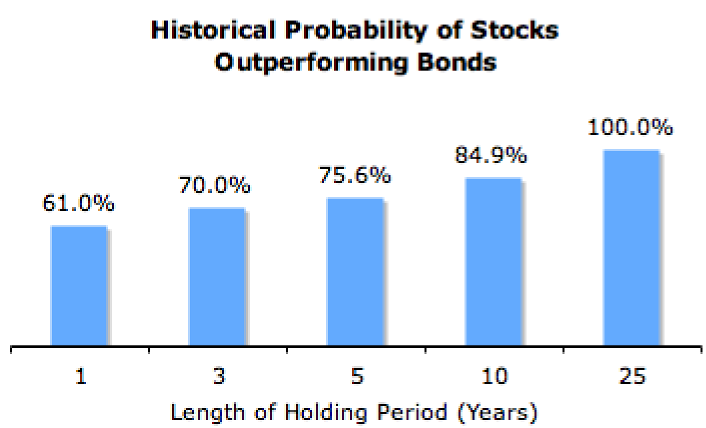
[Guest post by Mike Piper] Conventional investing wisdom states that the risk of holding stocks decreases as the length of the holding period increases. But is that true?
The answer depends primarily upon how you define "risk."

Decreasing Risk Over Time

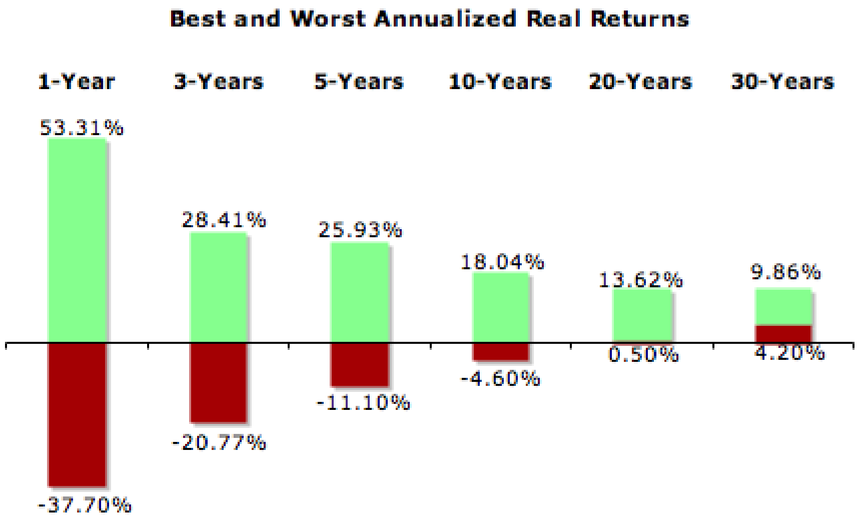
If you define risk as "chance of losing money," then yes, stocks have historically become less risky the longer the holding period:



Similarly, if you define risk as "chance of underperforming cash or Treasury Bonds," then yes, stocks have historically become less risky the longer the holding period:



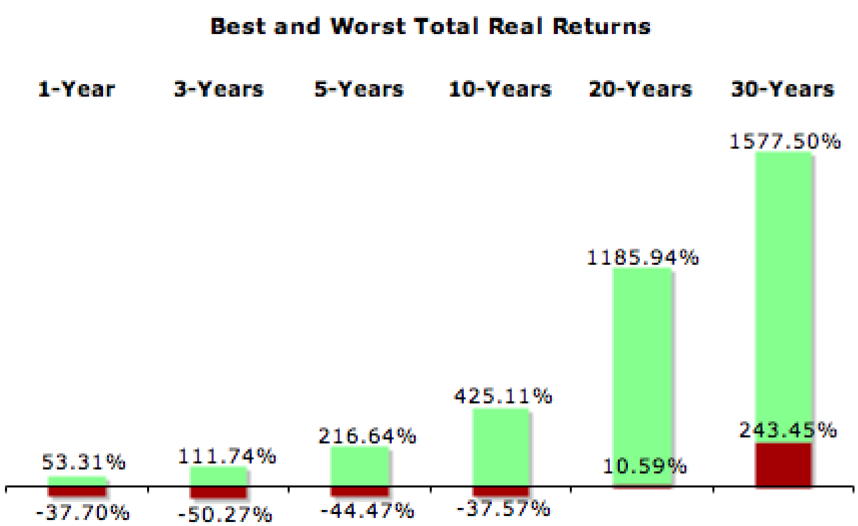
And if you define risk as "range (or standard deviation) of annualized real returns," then yes, stocks have historically become less risky the longer the holding period:



Increasing Risk Over Time

In my experience, however, many investors conceptualize risk by comparing the best and worst possible outcomes. They ask themselves, "how much money will I have if this goes well, and how much will I have if it goes poorly?"

And when you define risk as the range of *total* returns (rather than annualized returns), stocks actually become *more* risky the longer the holding period:



Some people find it surprising that the range of total returns increases over time, despite the fact that the range of annualized returns decreases over time.

For example, if we go back to our third chart and look at 30-year periods, we can see that the worst annualized real return (4.2%) is only 5.66% lower than the best annualized real return (9.86%). The important thing to remember is that, when compounded over 30 years, a 5.66% difference in annual return leads to an enormous difference in ending value.

Does this make stocks a poor choice?

No. (At least, not in my opinion.) Given their tendency to outperform other asset classes over extended periods, stocks still merit inclusion in most long-term portfolios.

It’s important to understand, however, that (when measured in ending value rather than annualized return) stock market performance is unpredictable, *even over long periods*. In contrast, there are other categories of investments–TIPS, primarily–that *do* offer more predictable returns. So if you’re in a situation where predictability is important (such as funding a known expense at a known point in the future), stocks are likely not the best choice.

Important note: All of the above are simply historical observations relating to the U.S. financial markets from 1928-2009. (The S&P 500 was used for stock returns, and 10-year Treasury Bonds were used for bond returns.) While history can be a useful guide, the future will certainly be different from the past–perhaps dramatically so.