Can a limited number of stocks provide complete portfolio diversification?

Category : Investment Asset Diversification Articles -- Reducing Your Portfolio Risk

Published by The Skilled Investor on Jul/15/2005

Can a limited number of stocks provide complete portfolio diversification?

Summary: No, holding a limited number of securities does not guarantee complete portfolio diversification. An analysis by William J. Bernstein challenges the idea that a comparatively small number of securities can provide adequate diversification when compared to an investment in a much broader index. Because of the significantly different returns of the various individual stocks that comprise the broader indexes, the actual risk and return of randomly chosen portfolios with a limited number of stocks can vary significantly. It is true that the expected average for small randomly selected portfolios can closely approximate the risk and return characteristics of the broader index. However, the actual risk and return of any particular smaller market subset portfolio that an individual investor happens to chose can vary quite significantly from the broader index and most often will have lower performance. William Bernstein is an investment advisor and the author of Efficient Frontier: An Online Journal of Practical Asset Allocation. His study, “The 15-Stock Diversification Myth,” points out that holding a limited number of stocks does not provide foolproof diversification.1 Mr. Bernstein formed 98 randomly selected 15-stock portfolios from S&P 500 firms that remained in that index throughout the ten-year period from 12/89 to 11/99. He calculated returns on a buy-and-hold strategy over these ten years. The annualized 10-year return for the S&P 500 on an equally weighted (not capitalization-weighted) basis was just over 24%. Mr. Bernstein’s graph of the variation in returns of these 98 random 15-stock portfolios showed a very distinctive downward skew. Three out of four of his 15-stock portfolios underperformed the index. The reason is that only a relatively few stocks in the overall index were stellar performers over the long haul. Since there were relatively few huge gainers, the odds of including any one of them in a 15 stock portfolio selected from 500 possible stocks were not high. Mr. Bernstein calculated that the odds of picking one of the top 10 stocks for a 15-stock portfolio were only about one in six. Counterbalancing the bad news that 75% of small portfolios underperformed the S&P equally weighted average was the good news of dumb luck. If you had happening randomly to pick better performing stocks and you had the good sense to hold on to them over the long run, this significantly boosted performance. Fourteen of 98 portfolios exceeded 30% in annualized returns over ten years and five of those exceeded 40% annually. Unfortunately, for the vast majority of individual investors stock picking is just the luck of the draw. The scientific investment literature indicates that most individual investors do not exhibit stock picking skill. There is little evidence that individual investors can find super stocks like Walmart, Cisco, or Dell, before they become stock page rockets. In addition, if they get lucky with such a stock, the odds are very strong that they will sell prematurely and miss the long-run price run-up. Individual investors frequently make behavioral investing mistakes, like selling their winners early, while they keep holding on to their losers. (See: What is the cost to individual investors of sub-optimal portfolio diversification?) The primary reason why the average return of any particular small, randomly selected portfolio can vary significantly from the broader index is that not all equities are created equally. Particularly for a multi-year buy-and-hold strategy, not all randomly selected stocks perform the same. For example, a dollar invested in a stock that goes bankrupt by the end of your holding period is worth nothing, but a stock that skyrockets might appreciate by a factor of tens or even hundreds.   As an illustration of such “superstocks, Mr. Bernstein cited Dell Computer, which increased in value 550 times over his study period. If you did not happen to select Dell very early and hold it in your small portfolio, you did not get that big kicker in your portfolio return. However, if you did happen to pick a stellar performer and hold on to it, you get to smile very broadly and brag about your stock picking prowess. However, it is worth stating that picking superstocks is not at all obvious. Dell was a relatively obscure firm near the beginning of the study period, and there is no reason why the average investor should believe that he would have had the foresight to find Dell hidden in the cracks of the stock pages and then hold it for the long-term.   (Note that the author was engaged in business development and corporate valuation activities within the computer industry during the study period. Valuations of technology companies that would eventually become stellar performers (or failures for that matter) rarely looked very attractive. Investors purchased the common stock of such public firms with high current PE multiples based on speculation about these firms’ long-term strategic prospects. Winners were only obvious long after purchase. Technology equities prices virtually always seemed prohibitively expensive, except to those with strong stomachs who were willing to take strategic investment risks.) An individual investor has two primary choices. First, he could chose the more mundane, but much more reliable, expected return of the market and the associated rock-bottom costs of index mutual funds or exchange-traded funds. Alternatively, that investor could build his own small portfolio and accept the risks of higher variability of returns, greater costs, and a higher probability of underperforming the market index.   While a portfolio of twenty, fifty, or a hundred stocks can reduce the volatility of a portfolio compared to one with just a few stocks, only the rarest investor actually does this. Instead, the vast majority of investors hold under ten stocks. These small portfolios are usually characterized by small or large performance deviations from the market index and higher price volatility or risk. These performance deviations are more often negative than positive. This is not a ringing endorsement for individuals to hold individual securities. In fact, virtually all investors should hold funds, rather than individual securities, simply because most funds (actively or passively managed) automatically bring higher levels of diversification along with professional management. ____

These related articles may also be useful to you: ->What is investment portfolio diversification? ->Investment securities markets do not pay you for the risks of holding individual common stocks and bonds ->Why is diversification valuable to individual investors? ->What is a well-diversified portfolio? ->Is the average individual investor portfolio well diversified? ->How many common stocks are needed for a well-diversified portfolio? ->How do changes in common stock price volatility affect diversification? ->How does the size of the common stock risk premium affect diversification? ->How many mutual funds are needed for a well-diversified portfolio? – evidence ->How many mutual funds are needed for a well-diversified portfolio? – a commentary 1) Go to: http://www.efficientfrontier.com/ Then, use the site’s search facility to find “The 15-Stock Diversification Myth”