

How many stocks should you own?

By Keith Richards, CTSA

Various research studies done by Elton & Gruber, Ibbotson Associates, and others have attempted to calculate the ideal number of stocks that a portfolio manager or individual investor should hold in their portfolio. The ideal mix is one that will have the least amount of risk while offering the best potential of outperforming the broader markets. Obviously, the more stocks we own, the closer we resemble the market return – and its risk profile. The less stocks we own, the greater the potential for both risk and return. A one-stock portfolio made up of Netflix over the past year gave you about a 500% return.

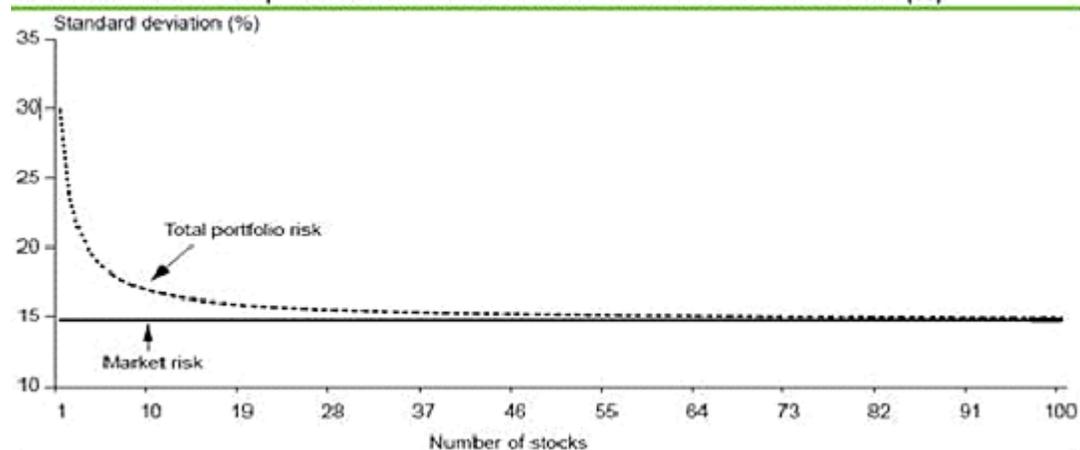


A one-stock portfolio consisting only of Atlantic Power destroyed 70% of your wealth. Big risk, big returns are available in under-diversified portfolios.



Conversely, according to a study done by Elton & Gruber, as well as a study done by Terry Smith of the Financial Times, most of the reduction in risk that can be attained through diversification is achieved by owning no more than 20-30 stocks. The problem with owning more than that number of stocks is that, while doing little to reduce portfolio risk in a meaningful way, you are severely limiting the potential of outperforming the market. Effectively, you are ultimately limited to the number of good stocks that may outperform the market. Finding these stocks, and owning them with enough concentration becomes an increasingly difficult task as you add positions to the portfolio. Peter Lynch referred to the problem associated with holding too many stocks as “diworsification”.

Diversification: total portfolio risk as a function of number of stocks held (%)



Source: Dresdner Kleinwort Macro research

In Edwin J. Elton and Martin J. Gruber’s book “Modern Portfolio Theory and Investment Analysis”, they found that the average std. deviation (risk) of a portfolio of one stock was 49.2% — increasing the number stocks of could reduce the portfolio’s standard deviation to a maximum of 19.2% by effectively owning the entire market. Interestingly, a portfolio of 20 stocks reduced risk to about 20%. Therefore, the additional stocks from 20 to “buying the market” only reduced the portfolio’s risk by about 0.8%, while the first 20 stocks reduced the portfolio’s risk by 29.2%. To illustrate the point- take a look at the chart above, copied from Investopedia (www.investopedia.com).

A study done in the US by Sapp & Yan found that, on average, mutual fund managers own 90 stocks – and 20% of all mutual fund managers own an average of 228 stocks! The authors conclude that mutual fund managers have less fear of losing money than they do of differing too much from their peers –thus, they over diversify to closely represent the index.

As Portfolio Manager for ValueTrend Wealth Management, I have made it a practice to hold on average 15-20 positions. Some of these positions are typically sector ETF’s that may hold 10 or more stocks within a given sector, so my portfolio is probably a little less concentrated than the outright number of holdings implies. That said, we make a point of holding about 5% / position, with a minimum/ maximum of 3%-7% on a stock, and no more than 10% in an ETF. With an average weighting of 5% in a stock, we have enough leverage on the position to realize the upside it provides, should the stock turn out to be a major outperformer. Should the stock underperform and lose, say, 20%, it costs the portfolio only 1% – hopefully offset by other stocks that rise.

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