

“Diversification is a protection against ignorance.”

— Warren Buffett

It has been our observation over the years that a typical diversified stock portfolio usually consists of a few losers, numerous average performers, and a few winners. If a portfolio is properly diversified, winners tend to dominate performance. The tendency of a relatively few winners to dominate the investment results of a portfolio comprised of a number of issues is known in the mathematical world as *skewness*. Skewness is defined as a lack of symmetry or likeness in a distribution of possible outcomes. When applied to stocks, this definition suggests what we all know is true—there will be wide variability in the future returns of individual stocks.

In the following simplified example of skewness, \$100 (in an unmanaged stock portfolio) is invested in each of three stocks (a winner, an average performer, and a loser) and held for a 10-year period. Here are the investment results:

Stock	Investment Return	Initial Investment	Value of Investment at the end of a 10-Year Period
Winner	20% per year	\$100	\$619.17
Average	10% per year	100	259.37
Loser	100% decline	100	-0-
Total		\$300	\$878.54

The example illustrates how a winning stock can more than compensate for a losing stock, even one that declines to zero. In this example, the *portfolio's* compound annual return is 11.34%. We often forget that while it is possible to lose 100% in a poorly performing stock, the investment returns from a winner are unlimited. In the above example, the winner appreciated over 500%.

As mutual fund manager, Tweedy, Browne states, “Not only does diversification have the potential to reduce risk, it also increases the possibility, through the law of large numbers, that an investment strategy will work.” Basically, the law of large numbers says that the expected outcome of a trial increases with the number of trials. For example, when tossing a coin there is a 50–50 chance of heads or tails. However, the first five tosses might be heads, whereas after 50 tosses, there is a likelihood of a near 50–50 split. When applied to a portfolio, the law of large numbers increases the odds that positive skewness will overwhelm negative skewness.

One result of positive skewness is that a particular winner can become such a large portion of the portfolio that the portfolio is no longer well diversified. Then the portfolio is susceptible to severe damage if something goes wrong with that stock. The demise of Enron is a recent and most unfortunate example. Protection against this danger is accomplished by limiting individual positions to a certain maximum percentage (perhaps 10%) of the portfolio's market value. While restricting a position's size may limit the benefit of positive skewness, such action is required to maintain a diversified portfolio.

History shows that a well-diversified portfolio will tend to own some winners, which, through skewness, can greatly offset the effect of losers. The key is to have enough winners in the portfolio to offset the losers. At the time of purchase, we assume every stock will be a winner. However, since we do not actually know in advance which selections will be the winners and which will be the losers, we know we must diversify among numerous companies.