

Stock Market Perspective: Rebalancing: a Good Idea?

A common bit of investment advice one hears and sees is first to determine an appropriate allocation among the various asset classes. Those are targets based on factors such as an investor's ages, current financial situation, and long-term financial objectives such as funding retirement. Once the initial portfolio is put into place according to the targets, rebalancing periodically is recommended to keep to percentages in the asset classes from varying too much from the targets.

It can take place according to the calendar, such as monthly, quarterly, semi-annually, or at the

end of each year. Alternatively, rebalancing can be done when the percentage in one or more asset classes has moved too far away from its target. The latter approach likely is better because it makes "corrections" before the situation becomes more out of line. It also avoids the hassle and possible costs and taxes incurred when no action is really needed at the scheduled time. One could combine the two approaches by rebalancing at certain times only when the divergences from the targets are too large.

The typical rationale for rebalancing is that it forces one to "sell high and buy low." How can that be a bad idea? In a little bit we will see one way in which it can. Another benefit is that it can reduce risk. Depending on the assets involved, rebalancing can help in that regard. Can it also result in better returns than leaving the initial portfolio alone? Once again, the answer is it depends ...

A recent article by Michael Kitces (<https://www.kitces.com/blog/how-rebalancing-usually-reduces-long-term-returns-but-is-good-risk-management-anyway/>) explores the question in more depth than most and provides some good insights, some of which I summarize.

(I know Michael personally from the time we were the two independent trustees of a start-up mutual fund, which no longer exists. I have been impressed by his ability to promote himself and get his ideas, which are almost always "spot on," circulated. His web site, the Nerd's Eye View (www.kitces.com) has much of interest to all investors although it is geared to advisors. I no longer have any business association with him since the only one was as trustees of the fund.)

Does rebalancing between stocks and bonds improve long-term returns? Reduce risks? The answers: maybe, definitely.

The article first deals with the question of whether rebalancing can result in higher investment returns. He

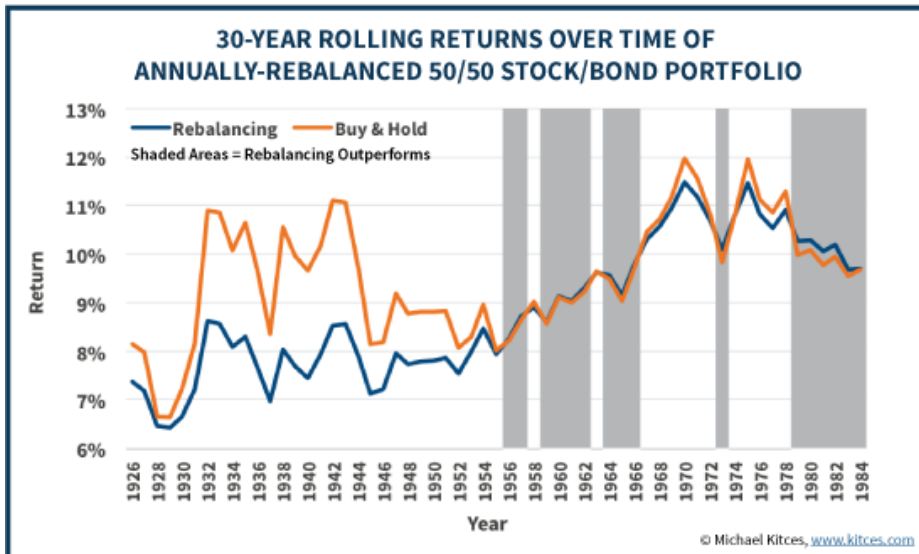
starts with a simple example of a portfolio that consists only of stocks and bonds, and each year the stocks have a fixed positive return that is higher than the fixed positive return for bonds. No matter what the initial allocation is, if there is no rebalancing, sooner or later the portfolio will be much more heavily weighted in stocks. That illustrates why rebalancing is often called for. However, in the simple example, returning to the original allocations moves assets from a higher returning class, stocks, to one with a lower return, bonds, so the returns due to rebalancing will be lower than if it had not taken place.

(If we knew for sure that a certain asset would have a superior positive return every year, we would just put the whole portfolio into it and not worry about things except for the possible taxes when we want to sell and enjoy the profits.)

To get a more realistic idea, he looks at the returns over 30-year periods starting each year from 1926 to 1984 for a portfolio starting with half in stocks and half in bonds. In one case the portfolio is bought and held with no further action and in the other it is rebalancing annually to get back to 50/50. The chart below compares the approaches.

The shaded areas indicate the starting years of the 30-year periods when rebalancing outperformed buy and hold. All of those started

very small. That indicates the potential risk reduction would be the primary benefit of rebalancing in today's markets.

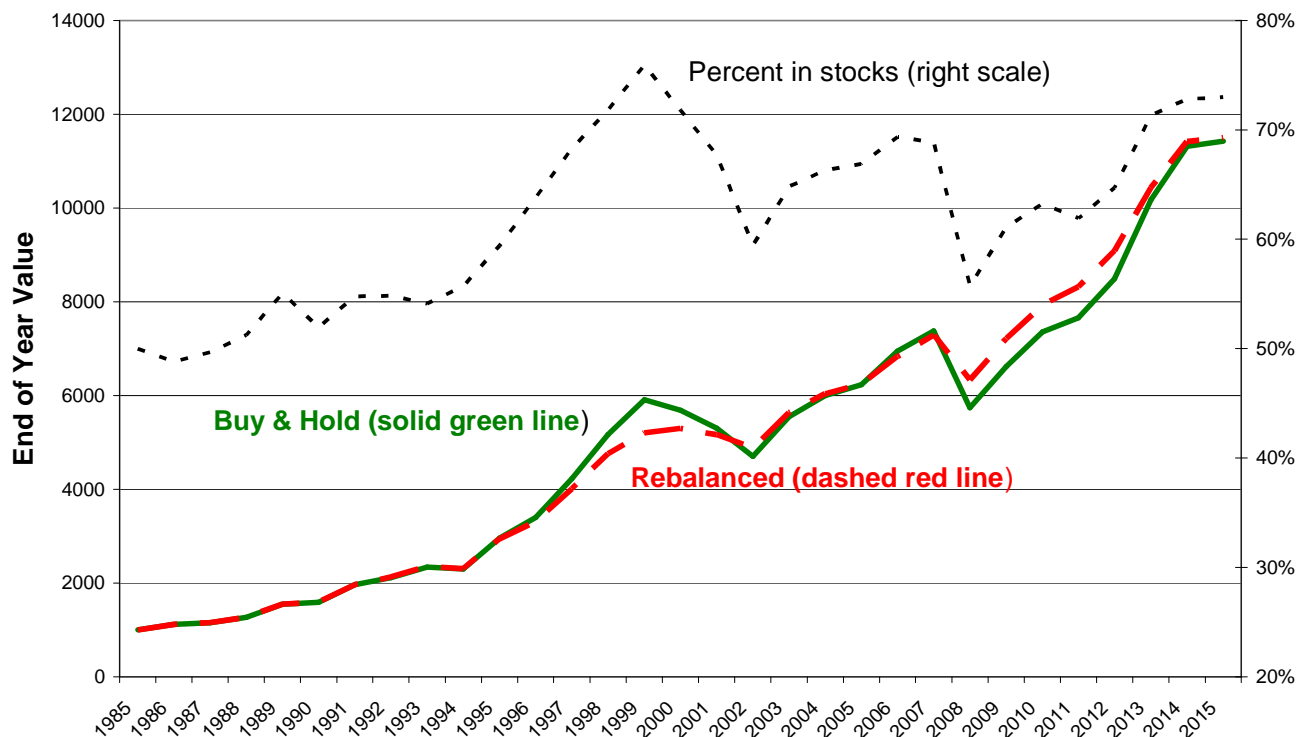


Kitces's chart ends with the 1984-2013 period. Since 2015 is now in the books, we can get a more recent example. I generated the graph on this page that shows how rebalancing between stocks and bonds would have worked in the 1986-2015 period, and it provides a look at how things work year-to-year.

in 1956 and later years. The large differences, which were in favor of buying and holding, all were in the earliest years. Since the early 1950s the differences in 30-year compounded annual returns between the two approaches have been

The lines for rebalancing and just holding show the value at the end of each year of \$1,000 at the start of 1986. For the first ten years there hardly is any difference, the largest being about half a percent. The blow out bull market in the last half of the 1990s saw no rebalancing move ahead by almost twelve percent at the end of

Rebalance vs Buy & Hold (1986-2015) 50% stocks & 50% bonds allocations



1999. The plunge at the beginning of the secular bear market saw that advantage disappear and the two lines were almost even at the end of 2005. Not rebalancing moved ahead a little through 2007 although that is not really evident in the chart. The second drop of over 50% in the S&P in 2008 pushed rebalancing ahead by over ten percent. The strong market for stocks that began in early 2009 has eroded that difference, and at the end of 2015 rebalancing was ahead by about two-thirds of a percent. The compound annual returns for the thirty-year period are virtually the same, 8.48% for rebalancing and 8.46% unmanaged. Any transaction costs, even once a year, might have eliminated the miniscule difference.

The upper dotted line shows the percent of the unmanaged portfolio in stocks. Except for the first two years when it was slightly below 50%, more than half of the assets have been in stocks. The peak, not surprisingly, was at the end of 1999 at 76%. That dropped to not quite 56% at the end of 2008, and it has climbed back to 73%. So not rebalancing resulted in a large divergence from the target allocations.

It is evident from the graph that not rebalancing results in increased volatility of the annual returns. That is one measure of risk. Every analysis of risk, including some mentioned in the Kitces article, has shown rebalancing reduces risk. One example in the numbers behind the graph is the worst year-to-year drawdowns, which would not be as large as the ones computed from the highs and subsequent lows during the years. For not rebalancing, there a drop of 22% in 2008, which was not fully recovered until 2010. The rebalanced portfolio fell by 13% that year, and by the end of 2009 a new high end-of-year value had been achieved.

The unreballed portfolio did better in 19 of the 29 years (as the two had to be equal in the

first year), which is not surprising since over time stocks return more than bonds. In most of the years, the differences were fairly small. Since the whole period returns are essentially equal, that behavior is another indication that not rebalancing and holding more than the target allocation in stocks increases risk levels.

The Kitces article goes on to discuss rebalancing between similar asset classes such as large cap and small cap stocks. It concludes in such cases rebalancing works differently than when done between not as highly correlated asset classes. Its effect is minimal on risk, but it enhances return. If you are interested in some of the details, please follow the link and read the article.

My thinking is that rebalancing is a useful tool, but it is not a very effective risk control tactic. One way to reduce risk is to have a higher allocation in less volatile investments. In contrast to the above worst years of -22% and -13% for unmanaged and rebalanced respectively with a 50/50 stock/bond split, with 70/30 those drawdowns are -29% and -23%, but with 30/70, they fall to -13% and -4%. In all of those splits there is virtually no difference in the thirty-year compounded returns. However, the returns are higher when the allocation to stocks is greater.

The above values show that reducing one's allocation to stocks and other more volatile asset classes is an effective risk control measure. That typically comes at the cost of investment returns. As you probably know, I believe the best risk control measure is avoiding the bulk of the larger drawdowns. That is what the models I use to trade are designed to do, and for the most part they have proved to be quite effective in that regard.