# ABR Dynamic Funds' Portfolio Construction Series: Part 7 <br> "If you are properly diversified, you will always hate at least one of your investments" 

If every investment in a portfolio wins at the same time, then there is a reasonable chance every investment will lose at the same time too. Proper diversification means something is losing, or significantly underperforming, most of the time. That's not a sign of a problem or an investment that needs to be jettisoned; it is a sign of proper portfolio construction. The alternative is performance chasing, moving into whatever has been winning, generally over the past 1-, $3-5$, 5 , or 10 -year period. Performance chasing isn't just useless; it may be harmful.

Rankings are mostly just a standardized way to encourage performance chasing. In the third installment of this series on portfolio construction, we noted how useless rankings have been for picking funds. In this installment, we will shed some light on why rankings have been so useless. In short, the typical time frames used for the rankings ( $1,3,5$, and 10 years) are extremely short. So, how long is long enough to develop performance expectations based on realized results?

To answer this question, we will use the S\&P 500 (without dividend-reinvestment*) as an example investment. Most people have an idea of what to expect from the S\&P 500, but fewer people have a good idea of how much time was required to set those expectations. Using monthly data, we've looked at every $1-, 3-, 5-10-, 20$-, and 50 -year time period in the history of the S\&P 500. The following chart summarizes the possible returns an investor could have earned over those time periods, depending on his/her starting point.

To highlight how much time really was required to set expectations, consider that a 20-year buy-andhold investor in the S\&P 500 would have achieved an annualized return of anywhere from $\mathbf{- 3 . 6 \%}$ to $\mathbf{+ 1 4 . 4 \%}$. And this investor had a 50\% chance of seeing an annualized return OUTSIDE of the $4.9 \%$ to 9.3\% range (highlighted in the chart).

Even with a 50 -year investment, an investor in the S\&P 500 would have achieved an annualized return anywhere from $2.5 \%$ to $9.6 \%$. After half of a century, the starting point and market conditions still mattered.

| Range of S\&P 500 Realized Returns Over the Indicated Time Frames |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 year | 3 years | 5 years | 10 years | 20 years | 50 years |  |
| Minimum | $-70.1 \%$ | $-45.5 \%$ | $-22.0 \%$ | $-9.9 \%$ | $-3.6 \%$ | $2.5 \%$ |  |
| 25th Percentile | $-4.4 \%$ | $1.0 \%$ | $1.1 \%$ | $2.7 \%$ | $\mathbf{4 . 9 \%}$ | $6.1 \%$ |  |
| Median | $9.1 \%$ | $7.5 \%$ | $7.2 \%$ | $6.6 \%$ | $7.0 \%$ | $6.8 \%$ |  |
| 75th Percentile | $19.6 \%$ | $12.8 \%$ | $11.6 \%$ | $10.7 \%$ | $\underline{9.3} \%$ | $7.5 \%$ |  |
| Maximum | $146.3 \%$ | $37.1 \%$ | $29.5 \%$ | $16.8 \%$ | $14.4 \%$ | $9.6 \%$ |  |

Conceptually, this pattern is not surprising, but it may be surprising just how long a track record is needed before historical returns may become somewhat reliable (when it comes to investments with Sharpe ratios in the general vicinity of that of the S\&P 500). If a reader is unconvinced that $4.9 \%$ to $\mathbf{9 . 3 \%}$ is still a very wide range after 20 years, consider an investor who invested $\$ 100$ in the S\&P 500
for 20 years (again, without reinvesting dividends). There is only a 50\% chance that this investor's gain would have fallen within the range of $\$ 162$ to $\$ 491$.

Of course, all the above chart really shows is that performance chasing is pretty useless. So why did we say it may be harmful? There are two reasons:

1. Different investments perform better in different market conditions. Therefore, selecting primarily from the investments that have performed the best recently may mean selecting very similar investments. In other words, it may mean reducing diversification.
2. Many investments have some element of mean reversion to them. The mean reversion can be built directly into the strategy. However, it can also arise as a result of the fact that market conditions are generally mean reverting. Therefore, picking the best recent performers may actually be counterproductive going forward.
a. In fact, when the S\&P 500 trailing 20 -year return was in the bottom quartile (below 4.9\% in the above chart), its return over the next 20 years was $10.2 \%$. Conversely, when the S\&P 500 trailing 20-year return was in the top quartile (above 9.3\% in the chart), its return over the next 20 years was just $4.9 \%$.
i. We acknowledge that valuations are a tool better suited to the illustration of mean reversion in the S\&P 500. However, they are outside the scope of this installment, and they may not be as relevant to some other strategies.

The lesson here is not to consider only investments with at least 50 years of realized results, and, of course, it is also not to invest and wait at least 50 years to evaluate that investment. The lesson is to resist the urge to performance chase, even though rankings may make it seem virtuous.

Instead, it may be helpful to pick investments based on an understanding of how a strategy works, when it is likely to win and lose and especially how that behavior complements the rest of the portfolio. In short, diversification may be a good place to start (but not the phony diversification we have been exposing, and will continue to expose, in the ongoing "Fooled by the Wrapper" installments in this series on portfolio construction).

It's OK that not every investment is the best performer at all times. "If you are properly diversified, you will always hate at least one of your investments." That's a good sign, not a bad sign, for long-term prospects, assuming it really is the result of diversification.
*Dividend reinvestment would boost all of the numbers without having a big effect on the spreads among the numbers, which are the focus here.

Next Week's Preview: Typical real estate investments have not provided much diversification.

