

THE ARITHMETIC OF ASYMMETRY

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Anyone who has played a casual game of darts, say, at a bar or in the basement, knows an overarching rule of the game: it gets harder as it progresses. While rule systems vary, most games start with a wide-open board full of possibilities. But then, by the end, you're aiming for the Double 18 and only the Double 18 to win. In short, it's a game of precision that seems easy at first but becomes very, very hard by the end.

Just like active stock management.

Wait, you mean active management is difficult?

No one can predict the future. If people could, there'd be no such thing as 'risk'. The word would lose meaning because, seeing the future, people would simply avoid hazardous situations. In investment decision-making, however, the word becomes especially nuanced since investors view hazardous situations differently. We know we may make money or lose money, and this means an investment is risky. But that's true of any investment, big or small. Thus, the trick is to find investments that are more likely to result in greater payoffs than losses. Like tossing a dart at a wide-open board, it seems like a very straightforward situation. But, in reality, it's easier said than done.

You see, the additional challenge when investing involves the uncertainty regarding both the probability of success and the potential payoff of said success. There's potential to actually nail that Double 18 only to see it turn into a Triple 4 because the market decided it was worth less. Therein lies the challenge...and the need to reappraise investment risk entirely. One way is to flip the script and start with what investors can know for certain.

Avoid the Losers®

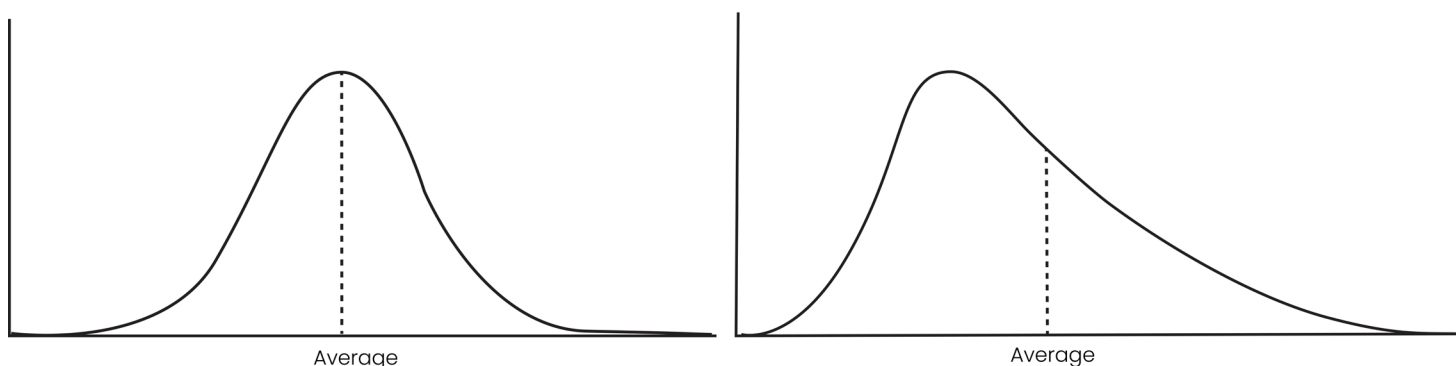
Skewed Results

One truism is that stock returns are, on average, positively skewed. (See the seminal publication of Beedles and Simkowitz (1979)) This means that, if you were to look at the history of a stock's daily returns, you would generally find that there are more big positive returns than there are big negative returns. The reason for this is clear; the most a stock can go down is 100%, but the most it can go up is unlimited.

Another way to describe this observation is to say that a cross-section of stock returns is *asymmetrically distributed*. This means that, if we took the entire S&P 500® and looked at the one-year returns of all those stocks, there would be a few huge winners, but most stocks have more mediocre returns.

The mere fact that a collection of stocks' average return is positive (or even very attractive) does not imply that the risk of loss does not exist. In fact, because returns are positively skewed, that attractive average return might be a bit deceptive. The outcome could be a lot more unattractive returns, but the few positive outliers pull the average up.

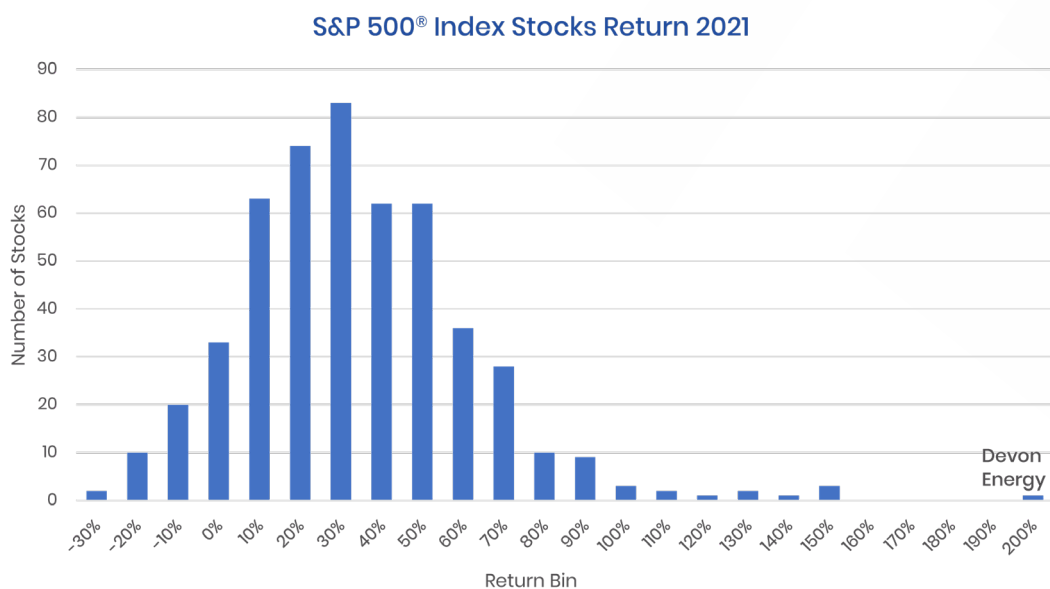
Below are two charts, one with a symmetrical normal distribution and one that is skewed positively. Note in the symmetrical chart on the left, there are an equal number of above average and below average observations. But in the chart on the right, even though the average (or mean) is the same, there are more below average observations than above average observations.



Notice the area under each curve. This is the cumulative probability of any particular return occurring. In a normal distribution, the areas above and below the average are the same. But because there is so much more area under the curve to the left of the average of the skewed distribution, investors are at a disadvantage when trying to beat the average. Investors, practically without fail, always try to pick the best stocks on the right side of the curve. And the question becomes: why are they making it so hard on themselves?

It may come as no surprise that investors display what researchers such as Bali, Cakici and Whitelaw (2011) have called "a preference for lottery-like returns." Why do so many pour capital into microcap or venture capital firms? Perhaps because they are attracted to the potential (yet somewhat unlikely) enormous gains that some such investments typically are perceived to generate – the investments far to the right in this skewed distribution.

This is a behavioral phenomenon created by certain investors that nonetheless impacts everyone's portfolios. The temptation to get-rich-quick is a strong one, no doubt. But that is not responsible investing and, in many respects, is more akin to gambling. Put simply, in an asymmetrical investing environment, high risk-reward stocks have more to lose than low risk-reward stocks. Therefore, we believe that investors are better served by not attempting to pick the winning stocks when they can simply avoid the losers.



* Source: S&P Dow Jones Indices

In 2021 the average S&P 500® Index stock returned 29%. However, of the stocks in the index, 274 returned less than this average, and only 231 returned more. This result was driven by a handful of outliers skewing the distribution to the right. Note the most extreme outlier, Devon Energy Corp, which returned 196% in 2021. (Source: S&P Dow Jones Indices) How many managers would have successfully chosen Devon Energy when the year began? Maybe the manager that did, posted impressive performance and attracted a great deal of attention. But anyone trying merely to beat 29% would have been better served avoiding the 274 stocks pulling the average down than swinging for the fences on Devon Energy. You see, picking winners requires knowledge of the future, which of course is unknown and unknowable. The more the manager attempts to predict the future the more risk he or she is exposed to.

The truth is that selecting the precise stock in the cramped right side of this skewed distribution is just not likely to happen. There just aren't that many of them. And worse, with fewer options to choose from, you're more likely to overpay. In fact, some may say the whole activity is more akin to throwing darts. If one is serious about investment, it's more mathematically sound to simply remove the underperforming stocks on the left – the losers.

The New Age Alpha Human Factor Methodology is specifically designed to identify and avoid those stocks we believe are likely to be losers and make the odds work for the investor rather than against. The methodology may not always pick the Double 18 (the next Amazon or Facebook) but it may still outperform because it avoids the Triple 4s – (the more common stocks on the left side of the distribution).

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