



INSIGHTS FROM
CFA SOCIETY SINGAPORE

By C Thomas Howard

Why you should embrace the skew

By doing this, investors can unlock the full potential of stock market gains

WHEN we talk about stock returns, most people assume that individual stocks should yield positive returns. That's because the stock market has historically outperformed other asset classes like bonds.

But surprisingly, the median monthly return for a large sample of individual stocks is – drumroll, please – zero. That's right. A study conducted by Henric Bessembinder and published in the *Financial Analysts Journal* in April 2023 found that on a monthly basis, individual stocks generate returns centred around zero. In fact, this paints a “half-full, half-empty” scenario. Half the stocks produce positive returns, while the other half have negative returns.

As an investor or adviser, how do you and your clients react to this? If this zero-median return statistic were the only way to look at stock performance, it would be hard to justify investing in stocks at all. Convincing clients to invest in equities would be an uphill battle, especially if they're seeking short-term gains.

Volatility

In fact, there are many ways to evaluate stock returns beyond just focusing on median monthly performance. One common approach is to measure stock returns in terms of volatility.

Volatility refers to how much a stock's price fluctuates, and it's often measured using standard deviation. On average, the annual standard deviation for stock returns is about 50 per cent, which means that the price of an individual stock can swing wildly throughout the year.

If we apply the 95 per cent confidence interval often used in statistics, this implies that an individual stock's return could vary by roughly +/- 100 per cent in a given year. This is huge. Essentially, an individual stock could double or lose all its value within 12 months.

This level of uncertainty can make stocks seem daunting, especially for those looking for stability. The idea that individual stocks are a “half-full, half-empty” proposition monthly, and are even more volatile annually, can scare away potential investors. But it's important to remember that stocks are primarily intended to be long-term investments.

The short-term ups and downs, while nerve-racking, are part of the journey toward long-term wealth creation. So, what happens when we shift our focus to long-term individual stock returns? Shouldn't we expect more consistency over time? Bessembinder also looked at long-term stock performance, and the findings weren't exactly comforting.

Over the long run, 55 per cent of US stocks un-



The short-term ups and downs, while nerve-racking, are part of the journey toward long-term wealth creation. PHOTO: PEXELS

derperformed US Treasury Bill returns, meaning that more than half of individual stocks did worse than the safest government-backed investments. Perhaps even more alarming is the fact that the most common outcome for individual stocks was a 100 per cent loss – complete failure. These findings suggest that investing in individual stocks is a high-risk endeavour, even when taking a long-term approach.

Typically, when investors and financial analysts assess stock performance, they focus on two key statistical measures: central value (such as the mean or median return) and volatility (as measured by standard deviation). This traditional method of analysis often leads to a negative or at least discouraging narrative about investing in individual stocks.

If returns are largely zero in the short term, highly volatile in the medium term, and risky in the long term, why would anyone invest in stocks? The answer, as history shows, is that despite these challenges, stocks have significantly outperformed other asset classes like bonds and cash over extended periods. But to truly understand why, we need to look beyond the typical first two parameters used in analysing stock returns.

Crucial component

While traditional analysis focuses heavily on the first two parameters – central value and volatility – it misses a crucial component of stock returns: positive skew. Positive skew is the third parameter of stock return distribution, and it's key to explaining why stocks have historically outperformed other investments.

If we only focus on central value and volatility, we are essentially assuming that stock returns follow a normal distribution, similar to a bell curve. This assumption works well for many natural phenomena, but it doesn't apply to stock returns.

Why not? Because stock returns are not go-

verned by natural laws; they are driven by the actions of human beings, who are often irrational and driven by emotions. Unlike natural events that follow predictable patterns, stock prices are the result of complex human behaviours – fear, greed, speculation, optimism, and panic.

This emotional backdrop means that stock prices can shoot up dramatically when crowds get carried away but can only drop to a limit of -100 per cent (when a stock loses all its value). This is what creates a positive skew in stock returns.

In simple terms, while the downside for any stock is capped at a 100 per cent loss, the upside is theoretically unlimited. An investor might lose all their money on one stock, but another stock could skyrocket, gaining 200 per cent, 500 per cent, or even more.

It is this asymmetry in returns – the fact that the gains can far exceed the losses – that generates positive skew. This skew, combined with the magic of multi-period compounding, explains much of the long-term value of investing in stocks.

Learn to tolerate tail events

If you examine stock return distributions, you'll notice that the long-term value from investing in the market comes primarily from tail events. These are the rare but extreme outcomes that occur at both ends of the distribution.

The long, positive tail is what produces the outsized returns that more than make up for the smaller, frequent losses. For stocks to have generated the high returns we've seen historically, the large positive tail events must have outweighed the large negative ones.

Ultimate goal

This might sound counterintuitive at first, especially when traditional portfolio management strategies focus on eliminating volatility. Portfolio construction discussions often centre around how to smooth out the ride by reducing exposure to extreme events, both positive and negative.

The goal is to create a more-predictable and less-volatile return stream, which can feel safer for investors. However, in avoiding those unnerving tail events, investors eliminate both the big losses and the big gains. This reduces positive skew and, as a result, dramatically reduces overall returns.

Hidden cost of managed equity

A typical “managed equity” strategy eliminates all stock losses (no returns less than zero) while capping upside returns. For example, a well-known investment company offers a managed S&P 500 fund that avoids all annual losses while limiting returns to less than 7 per cent.

Since it is virtually impossible to predict daily returns, this return feat is accomplished by simply holding a zero cost S&P 500 options collar.

Continued on Page 19