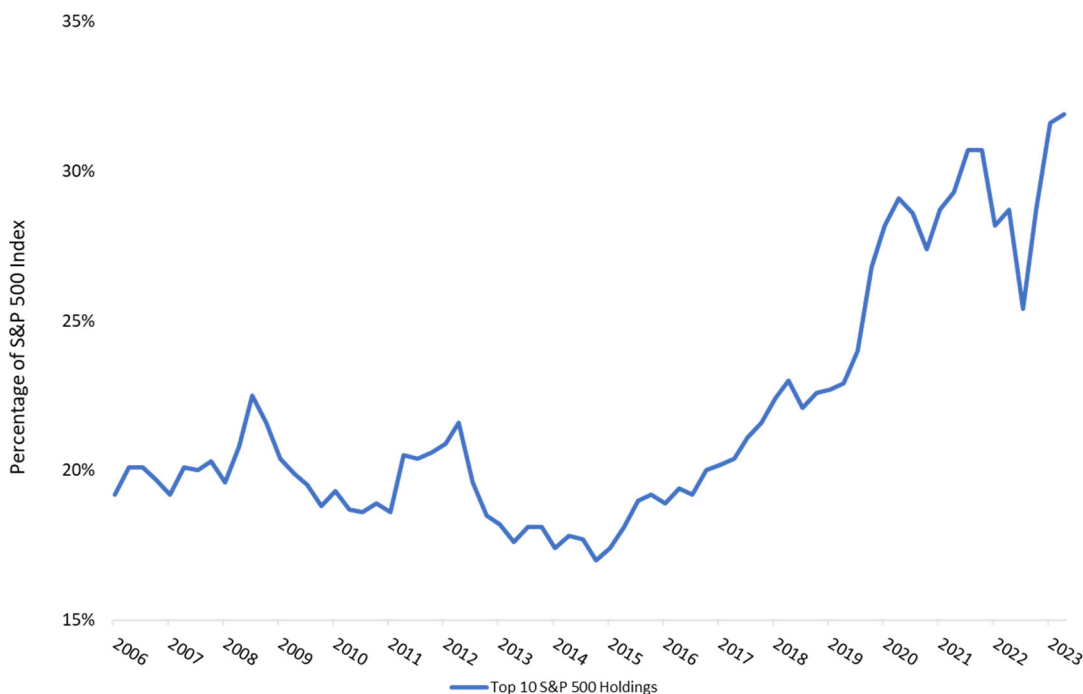


Index concentration is one of the hottest topics today with much of the commentary surrounding the “magnificent seven”. At a high level, the discussion around concentration tends to be one of active vs passive investment management. The case for going passive tends to focus more on the challenge of active management to add value in such a market while the case for active tends to focus more on the risks of cap weighted methodologies if/when the top performers slow down or revert. Secondly there are questions around growth vs value and large cap vs small cap. The backdrop to these questions is Artificial Intelligence (AI), which is widely considered to be the driving factor behind the outsized performance of the top tech names in the market. As a result, much of the active/passive, large cap / small cap and growth / value debates surround AI and whether the “the market”, i.e., the collective thoughts of all investors, have priced AI correctly (timing, magnitude, and company). Since we have no greater insight into the future of AI than anyone else in the market, we’ll instead focus on the implications of market concentration on portfolio construction.

Concentration, by almost any measure is at record levels. Here is one example going back to the mid 2000’s. Intuitively, it makes sense that with such elevated levels of concentration, the way a manager handles the largest stocks will define their relative performance vs the market index. For example, a manager who has excluded or underweighted the “magnificent seven” will likely show underperformance this past year relative to the S&P 500 or a representative growth index.

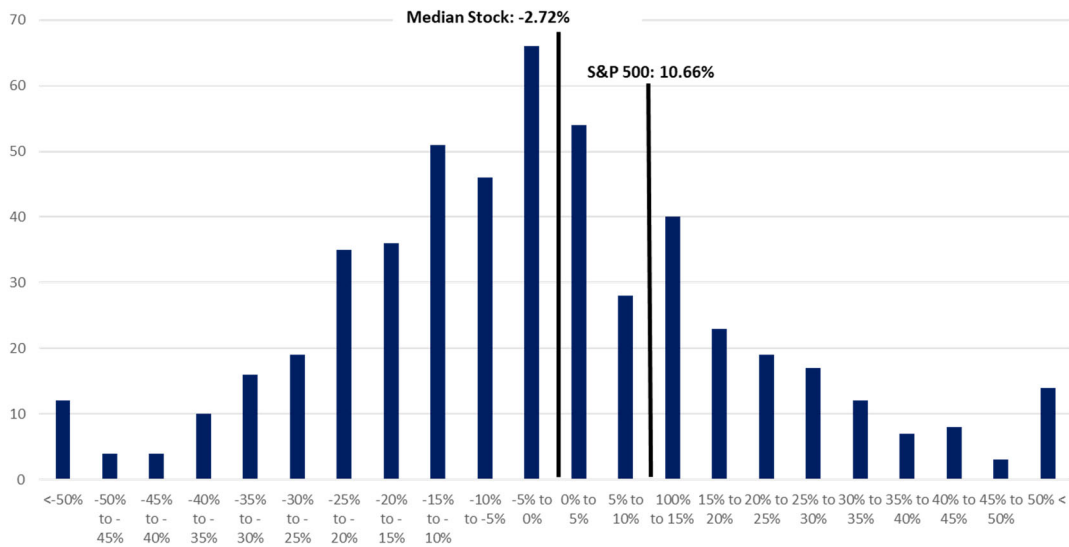
Concentration in S&P 500 Index



Source: Bloomberg. Used Vanguard Institutional Index Fund as a proxy for S&P 500 Index. Data as of 9/30.

This year in particular has seen the largest stocks overwhelmingly drive the performance of the “market”. For example, while the S&P 500 is up 10.66%, the median stock is down -2.72. Further, only 28% of constituents have outperformed the S&P 500 so far this year.

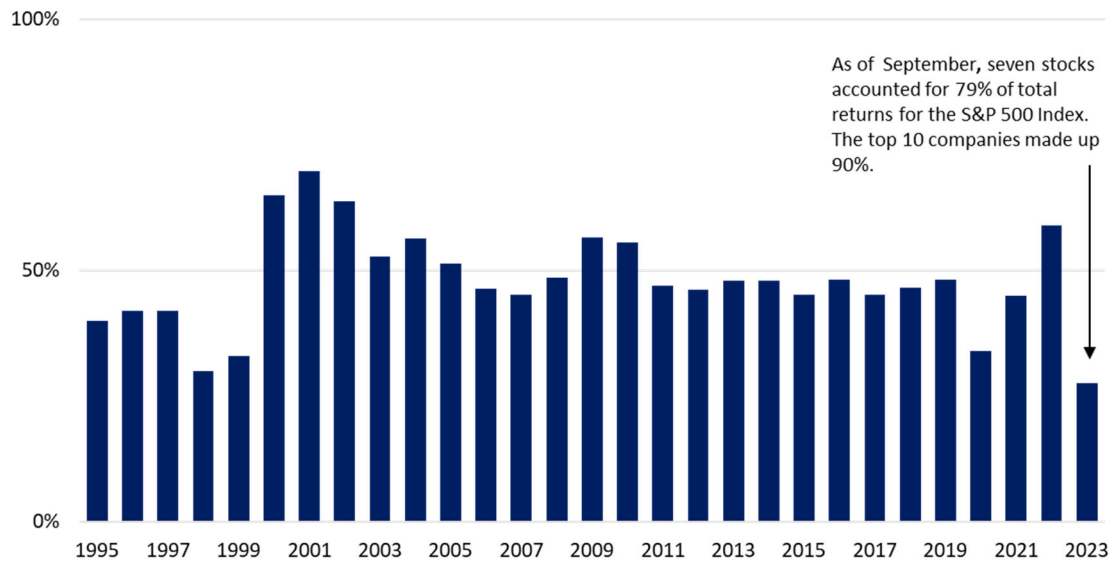
Performance of S&P 500 Constituents



Source: Bloomberg. Data as of 10/31/2023

This year has been starkly different from the last 20 years where we saw a more even distribution among out and under performers. Outside of 2020 where 34% of stocks outperformed the S&P 500 Index, we have to go back to the late 1990's to find another period with such narrow leadership.

Percentage of Stocks Outperforming the S&P 500 Index



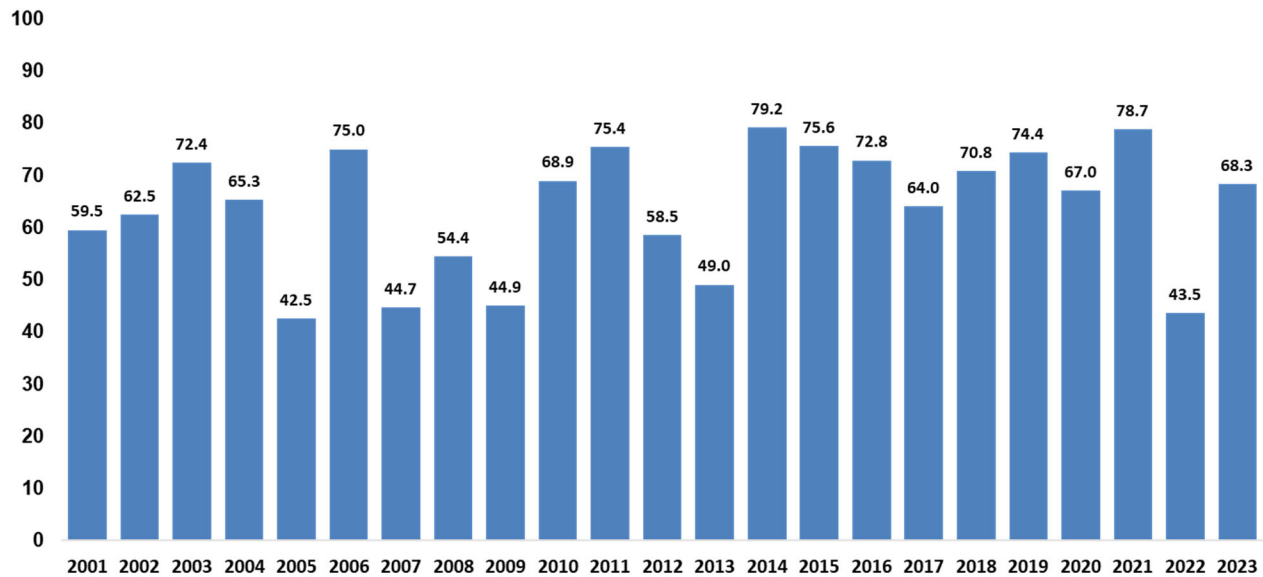
Source: Bloomberg. Data as of 9/30/2023

The implication is that it's challenging today for active but could be a "stock pickers market" going forward as concentration (potentially) reverts to average levels. This of course assumes that reversion of concentration would be driven by underperformance of those same top 5-10 names. To be clear, no one knows what will happen going forward. But if we look at the historical performance of active managers across different regimes of concentration and individual stock performance, we get some interesting insights.

So far this year, 68% of active large cap managers have underperformed the S&P 500. In 2022, 44% underperformed; in 2021, 79% underperformed; and in 2020, 67% underperformed. Concentration has been high since 2020 as the first chart above illustrates. Further, in 2022, more than 50% of stocks outperformed the index, while just under half outperformed in 2021, despite high concentration numbers. Interestingly, in the years where concentration was lowest, 2013-2015, relative performance numbers for

active managers were similar (49%, 79% and 76% respectively underperformed). In these years, we saw about 50% of constituents outperform the index.

Percent of Large Cap US Managers Underperforming S&P 500 Index



Source: LCG Associates and Morningstar. Data as of 9/30/2023

At a high level then, neither the level of concentration, nor the number of stocks outperforming the index should lead to a conclusion that an investor or allocator should just change the active/passive mix in a portfolio. In fact, as we've seen throughout history, broad brush statements such as "it's a stock pickers market", masks the fact that to be successful, a manager must get the name right, the timing right and the magnitude of investment right. And for an allocator, there's the added risks of selecting the right manager and timing the investment in that manager correctly. It's also not as simple as throwing up our hands and defaulting to passive in large cap US equities. In reality, there is much more nuance behind the decision to go active or passive in large cap US equities, or as in any market.

The question of course is what we should do, if anything. It's likely not as simple as using the S&P 500 Equal Weight index to mitigate the risk of the "magnificent seven" reversing course. It's also not as simple as going all active or all passive across client portfolios. Finally, there are secondary questions regarding factor tilts (intended or unintended), regional tilts and asset class tilts. Because of the many considerations involved with improving the chances for outperformance, success ultimately comes down to manager selection and identifying the key attributes that enhance the ability to generate and deliver outperformance net of all fees. The decision to do something also depends on whether the current portfolio is constructed to align with the asset owners' short and long-term goals. If the answer is yes, then the discussion around the impact of index concentration should be nothing more than an interesting academic debate.

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