HOW TO INCREASE DIVERSIFICATION IN PORTFOLIOS WHEN MARKET CAP INDEXES FAIL

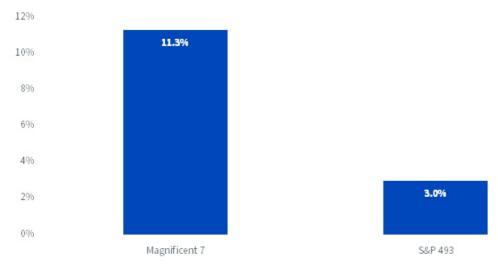
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After a dismal 2022, equity markets have rebounded quite strongly in 2023, lifted by <u>art ificial intelligence</u>, the slowdown of interest <u>rate hikes</u> and improving <u>inflation</u> prints. However, this rebound has surprised by its lack of breadth. The overconcentration of <u>market cap-weighted</u> stock indexes around the world, particularly in the U.S., has been a persistent issue for the last few years but 2023 stands out for its acuteness.

The S&P 500 Has Been Living and Dying by the Magnificent 7

The negative performance of equity markets in 2022 was already driven mostly by tech stocks. The negative impact of increasing interest rates, slowing growth and reduced IT spending on tech stocks and, in particular, on Apple, Microsoft, Amazon, Alphabet, Meta, Nvidia and Tesla, impacted market performance. With the $\underline{S\&P}$ 500 down 18.1%, those seven stocks combined contributed around -11%.1 In 2023, the concentration of returns is even more acute, at 11.3% of the $14.3\%^2$ performance of the S&P 500.

Figure 1: Contribution of the Magnificent 7 Year-to-Date in the S&P 500



Sources: WisdomTree, Bloomberg, 12/31/22-8/15/23. Past performance is not indicative of future results.

This year, the concentration was so acute that Nasdaq had to perform an exception rebalancing in July to reallocate some of the weight in the <u>Nasdaq 100</u> away from these stocks.

Index Concentration: A Long Time in the Making

Looking at the top holdings in an index gives a good idea of its concentration. However, a more systematic way to assess this concentration across different indexes is to



compare the "effective number of stocks" in the index compared to the full number of stocks in the index. The effective number of stocks quantifies how many independent stocks would provide the same level of diversification as the index and is calculated as

$$Breadth = \frac{1}{\sum_{1}^{n} w_i^2}$$

where

n is the number of stocks in the index w is the weight of each stock in the index Concentration is then derived as

$$Concentration = 1 - \frac{Breadth}{n}$$

Figure 2 exhibits the concentration of the S&P 500 over time since the early 90s. We note that the concentration is around its all-time high. It is also worth mentioning that the last time the concentration was this acute (a bit less acute to be fair), was in March 2000, on the eve of the dot-com crash.

In August 2023, the concentration was 87.7%, meaning that the effective number of stocks in the S&P 500 is just 61.

Figure 2: Concentration of the S&P 500 over Time



Sources: WisdomTree, FactSet, Bloomberg, 12/31/89 -8/31/23. Past performance is not indicative of future results.

Reduce Concentration in Investors' Portfolios-Fundamental or Thematic Weighting

This level of concentration in market cap-weighted equity indexes is worrying on many levels. But at a basic level, it means that Investors are under-diversified when investing in indexes with market cap-weighting. This could lead to a heightened level of hidden risk/volatility in a portfolio.

When it comes to dealing with this concentration, one often-mentioned solution is equalweighted indexes. While this does, of course, address the concentration issue, we think it is not the only answer.

Fundamentally driven or thematic indexes can also reduce the concentration in a way that investors need. Figure 3 highlights the concentration and weight of the Magnificent 7 in:



- Market cap-weighted indexes: S&P 500/Russell 2000
- Fundamentally weighted large-cap indexes: WisdomTree U.S. Quality Dividend Growth Index and WisdomTree U.S. Multifactor index
- Fundamentally weighted small-cap indexes: <u>WisdomTree U.S. Small Cap Quality Dividend</u> Growth Index and WisdomTree U.S. MidCap Dividend Index
- WisdomTree thematic Indexes

Figure 3: Concentration and Magnificent 7 Weights in Different Indexes



Sources: WisdomTree, FactSet, Bloomberg, as of 8/31/23. Past performance is not indicative of future results.

Clearly, fundamentally weighted indexes exhibit reduced concentration and reduced allocation to the Magnificent 7. In the small-cap space, the concentration in the Magnificent 7 is not an issue, of course, but we still observe that fundamentally weighted indexes have lower concentration than the Russell 2000. Thematic indexes exhibit even lower concentration, leading to very powerful diversification properties.

By selecting only high profitability, dividend growing companies and weighting by cash dividend paid, the WisdomTree Quality Dividend Growth Indexes exhibit a lower concentration and smaller allocations to the Magnificent 7 compared to the S&P 500 or the Russell 2000.

Similarly, the concentration in all the thematic indexes highlighted in figure 3 is extremely low, with the BVP Nasdaq Emerging Cloud index, for example, exhibiting a concentration of 1%. Also two of the thematic indexes do not invest at all in the Magnificent 7, leading to very high differentiation.

Diversification offers one of the best ways to improve overall investment outcomes. Over the last decades, investors used products tracking broad equity indexes, which are typically market cap-weighted, as a tool to increase diversification in their portfolios. Unfortunately, over-concentration has rendered this tool blunter and less efficient. As an alternative, investors can turn toward other strategies such as fundamentally weighted strategies or thematic strategies to increase the diversification in their portfolios.



¹ Sources: WisdomTree, Bloomberg, 12/31/21-12/31/22.

² Sources: WisdomTree, Bloomberg, 12/31/22-9/15/23.

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DEFINITIONS

Artificial intelligence: machine analysis and decision-making.

Rate Hike : refers to an increase in the policy rate set by a central bank. In the
U.S., this generally refers to the Federal Funds Target Rate.

Inflation : Characterized by rising price levels.

<u>Market capitalization-weighting</u>: Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market <math>cap.

<u>S&P 500 Index</u>: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee designed to represent the performance of the leading industries in the United States economy.

<u>Nasdaq 100 Index</u>: Includes 100 of the largest domestic and international non-financial companies listed on The Nasdaq Stock Market based on market capitalization. The Index reflects companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain securities of financial companies, including investment companies.

<u>Volatility</u>: A measure of the dispersion of actual returns around a particular average level. .

<u>Russell 2000 Index</u>: Measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

BVP Nasdaq Emerging Cloud Index : designed to track the performance of emerging public companies primarily involved in providing cloud software to their customers.

