# Market Concentration, Dispersion, and the Active-Passive Debate

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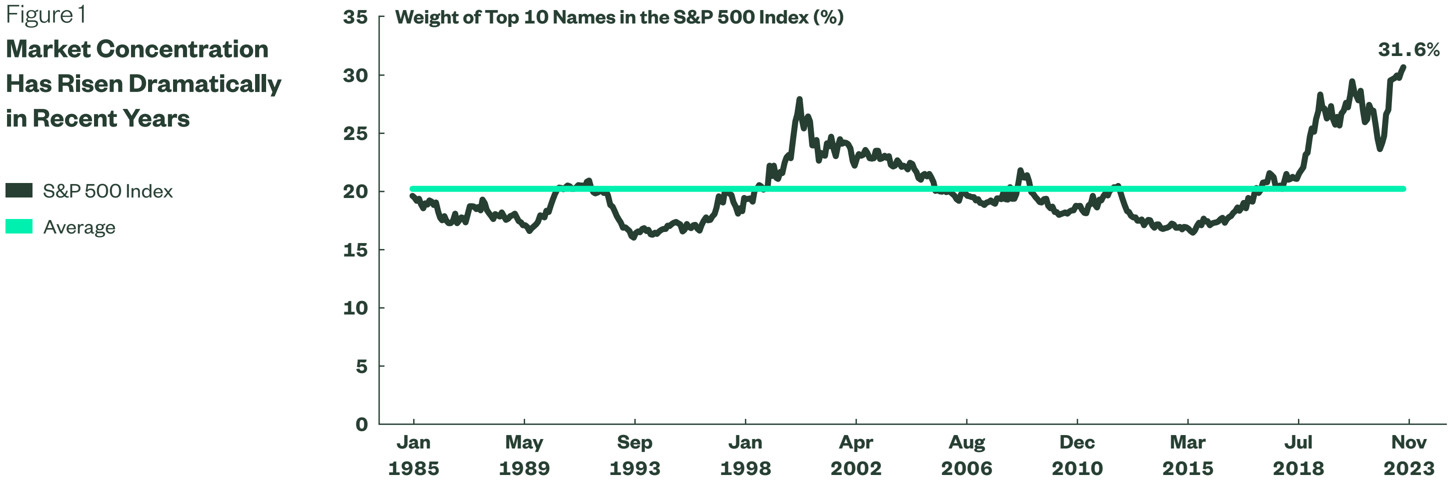
Market concentration has risen steeply post the COVID-19 pandemic. In 2023, the "Magnificent Seven"— the largest seven stocks in the S&P 500 Index[1] — accounted for more than 62% of the S&P 500 Index gains.[2] While the focus has been on whether another tech bubble is inflating, there's an even more direct question resulting from such a concentrated rally. In this piece, we discuss the implications of higher concentration on active and passive management styles.

In the past, higher concentration has usually been accompanied by lower return dispersion, which has generally benefited index investing over active management. However, we believe certain future growth scenarios could push the pendulum in a new direction, one with concentration lower, dispersion higher, and better conditions for active managers. That said, a regionally-specific approach is warranted.

## Implications of Higher Concentration for Equity Portfolios

With the startling rise in US equity market concentration in recent years (Figure 1), market participants are taking a closer look at implications for different investment styles.

Figure 1
**Market Concentration Has Risen Dramatically in Recent Years**




Source: FactSet, S&P 500, State Street Global Advisors, as of November 2023.

We can point to several ways that higher concentration impacts equity portfolios:

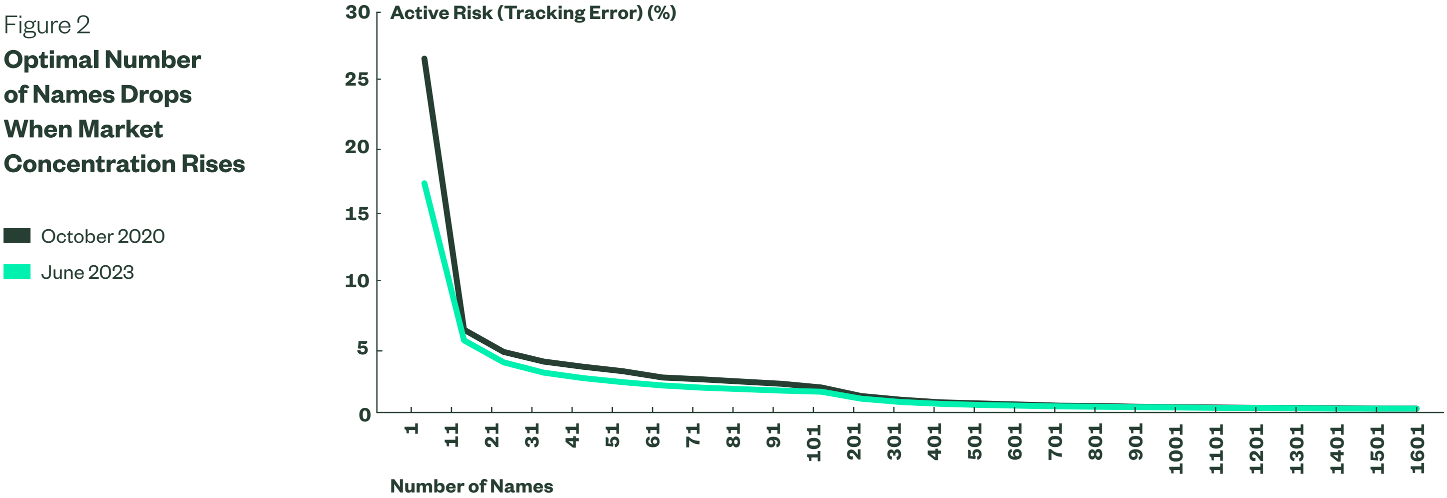
- **Lower market breadth and lower dispersion both reduce the ability for active managers to express their views.**[3] The conventional wisdom is that market concentration generally benefits index investing over active management for this reason. We discuss this more in the next section.

- **Higher tracking error.** Active weights and active share will generally increase if the investment process stays the same. For example, stock pickers will need to take bigger bets when market concentration rises, all else equal. And for systematic quant strategies, unless there is an explicit constraint or target for tracking error, the active bets in the portfolio will also generally increase. So, even as markets become riskier in the absolute sense that a "momentum crash" becomes more likely, the active risk investors are assuming relative to benchmarks also rises.

- **Altered Distribution of Bets.** A rise in market concentration will also impact the way active bets are distributed (across sectors and countries for example); the volatility of returns; and the ratio of idiosyncratic to systematic risk. But unlike tracking error, the exact impact and the direction of these effects are uncertain.

- **Lower Number of Names for Systematic Strategies.** The number of names for systematically constructed strategies will generally fall. For instance, in Figure 2, we show the relationship between tracking error and the number of names for hypothetical portfolios constructed during higher and lower market concentration periods, 2023 and 2020, respectively. The "optimal" number of names is the point around which risk falls dramatically. This threshold was lower in June 2023 (higher concentration risk) versus October 2020 (lower).

Figure 2
**Optimal Number of Names Drops When Market Concentration Rises**




Source: State Street Global Advisors, as of October 20, 2023. The portfolio is constructed using a maximum number of names constraint; please see Bender and Sun (2023) for additional detail.

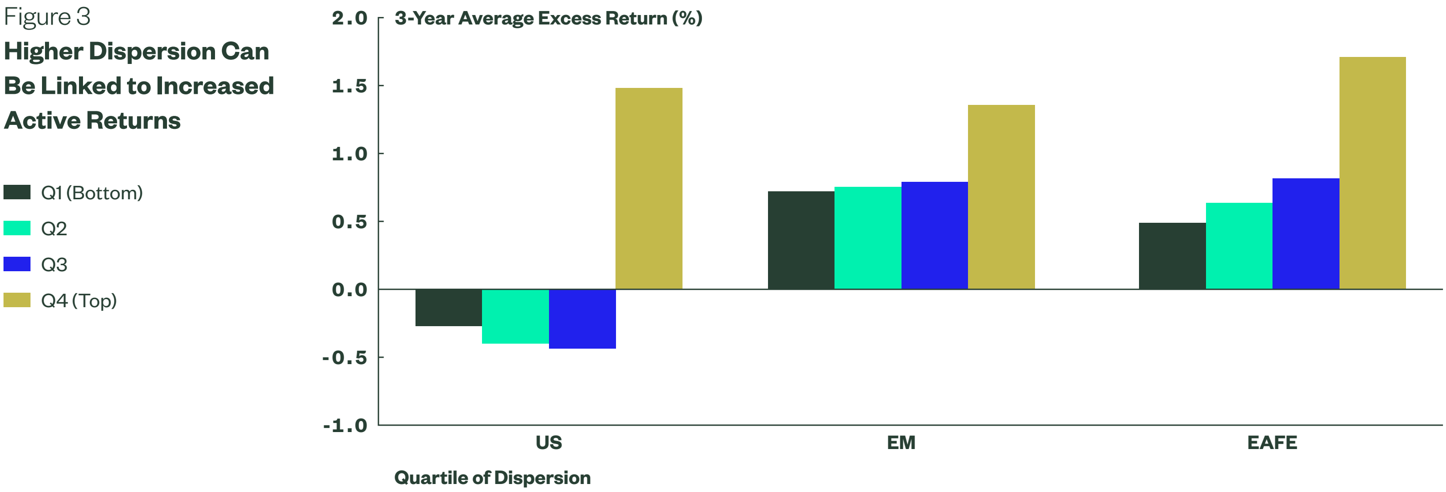
## A Closer Look: Higher Dispersion Is Helpful for Skillful Active Managers

Higher dispersion is helpful for skillful active managers because their active share is more likely to translate into alpha. In this section, we show a clear relationship between dispersion and active returns.

We have defined return dispersion as the cross-sectional variability in returns across all index constituents. If return dispersion between stocks is low, active managers will have a hard time picking stocks. This can be easily visualized through a hypothetical investing environment with zero return variability, i.e., with zero return dispersion amongst the index constituents. In such a case, active managers would be guaranteed to underperform the index by their fee.

To see how this plays out in reality, we have looked at the historically observed excess performance of median active managers against the prevailing return dispersion, by quartile. Our study suggests that active manager alpha generally increases as we move from the lowest dispersion quartile (Q1) to the highest (Q4), as shown in Figure 3 below. This trend is particularly strong in the non-US developed markets; however, the trend is less clear in the US market, where we think that the dispersion advantage was more than offset by unfavorable market efficiency and increased concentration. However, across all regions, the highest-dispersion quartile shows far stronger median manager alpha versus the other quartiles.

Figure 3
**Higher Dispersion Can Be Linked to Increased Active Returns**

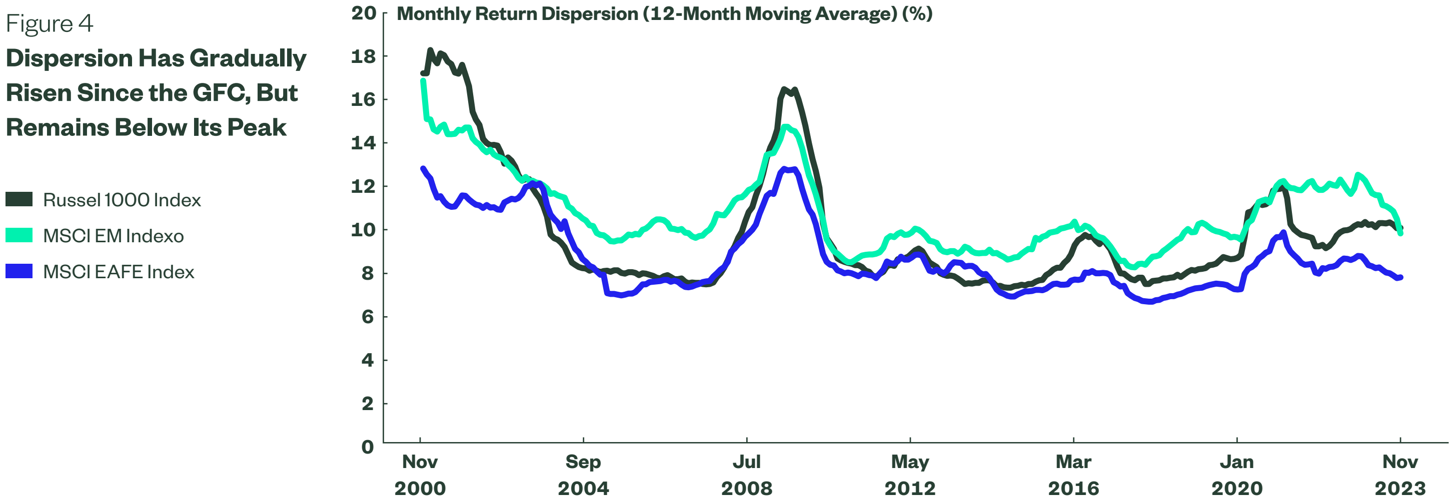



Source: eVestment, FactSet, State Street Global Advisors, from December 31, 1999 to September 30, 2023. Net of fee 3 year rolling excess returns are plotted against the cross-sectional monthly return dispersion. Q1 = lowest dispersion quartile; Q4 = highest dispersion quartile.

## Looking Forward: A Potential Change in the Concentration Trend

Dispersion declined across the major markets in the post GFC period, as accommodative central bank policies (a.k.a. Quantitative Easing) relegated fundamentals across the globe. As shown in Figure 4, dispersion has been steadily rising since the GFC, albeit at a subdued rate.

Figure 4
**Dispersion Has Gradually Risen Since the GFC, But Remains Below Its Peak**




Source: FactSet, State Street Global Advisors, as of November 30, 2023. Dispersion is defined as the equal-weighted cross-sectional variability in monthly returns across all index constituents.

However, we believe now might be the time for market concentration to start falling if either of the following two scenarios play out: First, we could see a stasis of higher rates in response to sticky inflation, which could shuffle market leadership. Or, we could experience an immaculate "soft landing" scenario, in which growth stays strong while rates fall. In this scenario, also not our base case, smaller names return to favour. Both such occurrences are likely to push concentration lower, and dispersion higher, leading to better conditions for active managers.

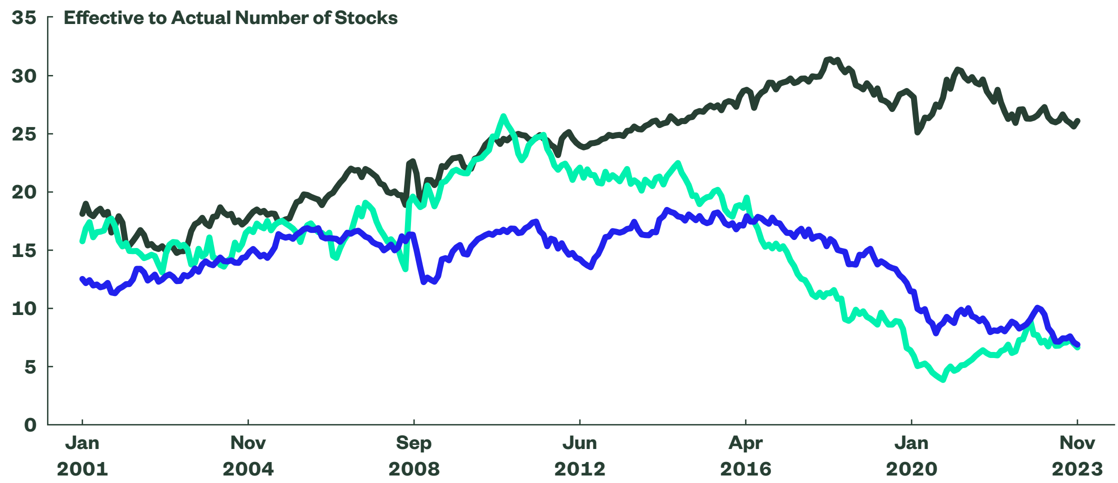
## Investment Implications: A Regional Approach

It is important to note that not all regions obey the same "rules" with respect to dispersion and active/passive returns . Historically, some segments have seen much higher percentages of funds outperforming their benchmarks, such as US Mid-Cap Growth and UK Equity active managers. At the same time, we have seen lower levels of market concentration and higher levels of dispersion in those same regions. The data shows distinct differences in concentration implications across regions.

For instance, in Figure 5, we contrast the ratio of the 'effective' to actual number of stocks for the Russell 1000 Index, versus the MSCI Europe, Australasia and the Far East (EAFE) and Emerging Market (EM) Indices.4 By this measure, market concentration has fallen in the MSCI EAFE Index versus the Russell 1000 Index since the start of the period. Emerging markets have seen this measure at times be much higher (2008–2014), and at times lower than recently.

Figure 5
**Market Concentration Varies Across Regions**

MSCI EAFE Index
MSCI EM Indexo
Russel 1000 Index




Source: FactSet, State Street Global Advisors, as of November 30, 2023. Effective number of stocks are calculated as the inverse of Herfindahl-Hirchman Index (HHI).

We offer the following investment perspective across regions (summarized in Figure 6 below):

- **US Equity** The US equity market is arguably the most efficient equity market in the world, so active managers have less room to exploit inefficiencies — even without considering variations in concentration risk. Today's high level of index concentration in the US leaves even less latitude for active managers to express their convictions. That said, return dispersion has started to pick up. Therefore, we recommend investors focus on index investing, but maintain a balanced approach.

- **Non-US Developed Market Equity** The issuer opportunity set is arguably bigger outside of the US given lower relative efficiencies and lower concentration levels in the market. Return dispersion is lower versus US markets, but has moved up slowly, to the advantage of skilled active managers. In this region, we recommend investors maintain a balanced allocation of active and indexing.

- **EM Equity** Low market efficiency, combined with high and rising dispersion levels, create operating conditions that are best for the active managers. Market concentration levels, albeit high, have declined from the peaks seen in 2020. We recommend investors maintain a balanced approach with a focus on active investing.

Figure 6
**Illustrating a Regionally Differentiated Approach to Active vs Passive Allocations**

| Region | Market Efficiency | Market Concentration | Dispersion Trend | Recommendation |
|---|---|---|---|---|
| **US Equity** | High | High | Low and Rising | Primarily Indexing. Active can help navigating uncertain times. |
| **Non-US DM Equity** | Medium to High | Low | Low and Rising | Combine Indexing and Active. |
| **EM Equity** | Low to Medium | High | High and Rising | Primarily Active. |

Source: State Street Global Advisors, as of November 30, 2023.

These differences suggest that investors must be thoughtful when managing concentration risk, as no one approach will fit all. Regional differentiation in strategy is warranted. Going forward, we believe that emerging markets (especially EM Small Cap) offer the best opportunity for active managers. In contrast, the US will continue to be challenging for active management.

## The Bottom Line

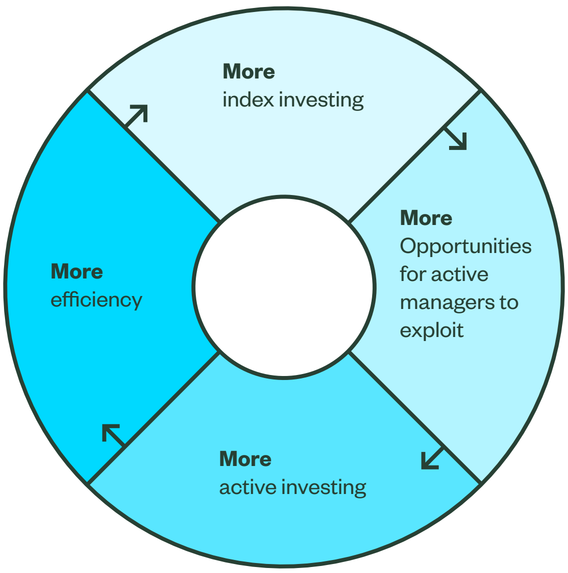
Rising market concentration in the US has sparked robust debate this year. Key takeaways for asset owners and allocators include:

- Increasing market concentration generally leads to higher tracking error for active portfolios.
- Rising concentration generally benefits index investing over active management since higher concentration usually means lower market breadth and less ability for active managers to express their views.
- Higher dispersion is helpful for skillful active managers, as it means their active share is more likely to translate into alpha. In this piece, we show a clear relationship between higher dispersion and higher active returns.

Post-GFC the median active manager has struggled to add value after fees, which may have accelerated the shift of investors into indexed equities. The success of index investing has also had the effect of weeding out underperforming active managers and compressing active management fees, which are both good outcomes for investors.

We believe now might be the time for market concentration to fall and for active managers to be placed in a better operating backdrop. However, we stress that improving conditions for active management by no means imply that indexing should be abandoned. There is a natural see-saw between conditions that favor active versus passive management. As capital flows into index portfolios, the likelier it is that mispricing will arise for active managers to exploit. That, in turn, generally attracts flows back into active strategies. More active management then can lead to more efficiency, and hence incentivizes investors for passive products (Figure 7). A combination of active and index investing offers the best diversified approach in our opinion.

Figure 7
**Preferences for Active Management May Ebb and Flow**




Source: State Street Global Advisors, as of January 15, 2024.

In addition, not all regions are alike in the ways that market concentration impacts various investment styles. Therefore, regional differentiation is warranted when determining investment decisions.

## References

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## Endnotes

1 The Magnificent Seven is a term for a group of stocks that are helping to steer progress in transformative technology. The stocks are: Apple, Microsoft, Alphabet, Amazon, Nvidia, Meta Platforms, and Tesla.

2 Morningstar, as of January 9, 2024.

3 Examples of past papers on this topic include de Silva et al. (2001), Edwards and Lazarra (2013), and Chan et al. (2020).

4 The 'effective' number of stocks is calculated as the inverse of the Herfindahl-Hirschman index, and a higher ratio of effective to actual stocks indicates an index which is relatively less concentrated.

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* Pensions & Investments Research Center, as of December 31, 2022.
† This figure is presented as of December 31, 2023 and includes approximately $64.44 billion USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

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