Index Funds - Are They Really Diversified?

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"If everybody indexed, the major stock markets would be total chaos. There would be no price discovery... If Vanguard, BlackRock, and State Street continue to grow as they have, they will eventually own more than half of all the stocks in the United States. I do not believe that such concentration would serve the national interest."[1]

-Jack Bogel

Not long ago, I had the opportunity to speak to an advisor and a mutual client. It was a casual conversation that covered everything from family and summer plans to a healthy dose of investing and business.

As the discussion turned to investments, our client remarked that he appreciated—perhaps more accurately, valued—index funds, particularly ETFs, because of their simplicity, low cost, and broad diversification. He went on to explain that owning an investment such as the S&P 500 makes him feel safer because his money is spread across 500 different companies. After all, one of the oldest investing principles is, “Don’t put all your eggs in one basket.”

On the surface, his statement is true. If you purchase an S&P 500 index fund, you own a piece of 500 companies. What many investors may not realize, however, is that roughly 50% of their investment is concentrated in just 20 stocks. The same phenomenon exists in other popular indexes. For the widely held QQQs, the Nasdaq-100 ETF (QQQ) owns 100 stocks, yet more than 30% of the portfolio is invested in only three companies, while approximately 50% is concentrated in just 10 names.

This raises an important question: How many investors truly understand what they own when deciding to buy index investments? To be clear, owning an index fund is still generally less risky than concentrating your portfolio in one or two individual stocks. However, many of today’s most popular index funds are more concentrated than they have been in decades. Their increasingly top-heavy nature means investors are likely carrying more risk than they realize.

In this quarter’s Market Insights, “Index Funds: Are You Really Diversified?”, we’ll examine what has caused this growing concentration, explore alternative indexing methodologies and their respective advantages and disadvantages, and discuss the risks of concentration at a time when market valuations remain near historic highs.

Index Weighting

It's understandable why many investors assume an index made up of 500 companies would simply be split evenly among all 500 names. Honestly, that seems like the simplest and most straightforward approach—and, as it turns out, it's actually one of the alternatives, called equal weighting (we'll get to that later).

Afterall, why complicate things? Buy 500 companies and own 1/500th of each. Easy peasy, lemon squeezy.
Well, way back in 1957, when S&P created the index, the dominant market benchmark was the Dow Jones Industrial Average. It was flawed then and, in my opinion, remains flawed today. The fact that it still survives is probably due more to nostalgia than merit.

The Dow consists of just 30 companies. Surprisingly, that's not even its biggest problem. The real issue is how those companies are weighted. The Dow uses share price to determine each company's importance in the index. The higher the stock price, the larger the weighting.
Now, don't confuse share price with company size or market capitalization. A company can have a high share price and still be relatively small if it has few shares outstanding. Likewise, a company can be worth hundreds of billions of dollars and have a lower share price because it has more shares outstanding or has split its stock over the years.

In fact, stock splits—a common practice used to keep shares affordable for investors—actually reduce a company's weighting in the Dow. From S&P's perspective, there wasn't much economic logic behind this approach. Share price alone doesn't tell us much about a company's size, economic significance, or impact on the broader economy.

In 1957, S&P launched the S&P 500. The goal was to create a broader, more representative barometer of the U.S. economy. Instead of 30 companies, the index included 500. Today, those 500 companies represent roughly 80% of the total value of the U.S. stock market.

But S&P didn't stop there. Rather than using price weighting like the Dow or equal weighting across all 500 companies, they chose market-cap weighting. In simple terms, larger companies would receive larger weights in the index. The reasoning was pretty straightforward. Larger

[1] Yahoo Finance Jack Bogle envisions 'chaos, catastrophe' in markets if everyone were to index, The Wall Street Journal Bogel Sounds Warning on Index Funds

companies generally have a larger economic footprint. Take FedEx and XPO as an example. FedEx has a market capitalization of roughly $87 billion and employs about 500,000 people worldwide. XPO, one of its competitors, has a market value of less than half that and employs roughly 37,000 people. Which company likely has the greater economic impact? FedEx, of course. Market-cap weighting reflects that reality.

Beyond creating a more representative snapshot of the economy, market-cap weighting offered another important advantage. Now allow me to get a little academic for a moment. If every investor in the world were passive, market-cap weighting is the only way all investor dollars could be allocated and all available shares owned without creating shortages or leftovers. Put differently, it's the only portfolio that can truly be "set it and forget it." The point, a cap weighted index should be viewed as the passive alternative for investors to compare their active portfolios. Remember, index funds didn't really become available to everyday investors until Jack Bogle and Vanguard launched the first S&P 500 index fund in the 1970s. By then, the S&P 500 had evolved from a market barometer into an investable benchmark—one that investors could own directly instead of relying solely on active management.

Now, let me spend a second on the concept of cap weighting as the only true self adjusting, passive portfolio for all investors. If you aggregate every investor dollar in the world, the collective portfolio is a market cap weighted portfolio with every share owned by someone. In any other methodology, this attribute fails to exist. Let me provide an example. Let’s say the world capital markets consist of only two stocks (A&B) and you are the only investor. Company A is worth $70 billion and has 70 shares outstanding. Company B is worth $30 billion and has 30 shares outstanding. Together, the total market value is $100 billion.

A market-cap-weighted investor with $100 billion would own all 70 shares of Company A and all 30 shares of Company B. The portfolio naturally becomes 70% Company A and 30% Company B. Every share is owned. Nothing is left over. The math works perfectly.

Similarly and conveniently, the portfolio adjusts automatically. If Company A's stock rises while Company B falls, Company A's market value—and therefore its weight in the index—increases automatically. No rebalancing required.

Now let's try equal weighting. To create a 50/50 portfolio, we'd need $50 billion invested in each company. But Company A is worth $70 billion and Company B is worth only $30 billion. Suddenly, we have a problem. There aren't enough shares of Company B to absorb the extra money, while some of Company A's shares would go unowned.

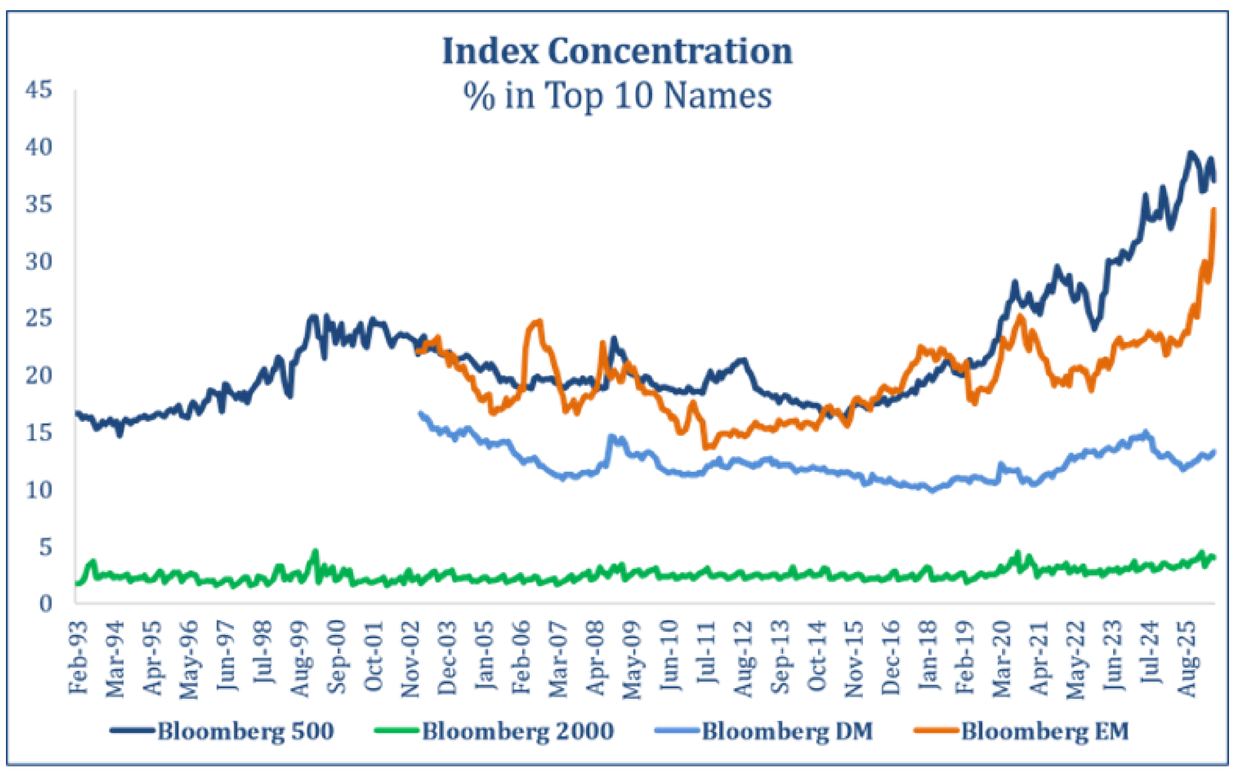
To account for this, the world needs an active, non-cap weighted investor. Equal weighting, along with any measure other than cap weighting fails the test of providing one, self-adjusting passive portfolio that all investors could theoretically own without any shares left over or without a shortfall.

Top Heavy or Efficient Market?

Now that we've covered the primary benefits of market-cap weighting, let's get to its primary disadvantage—which also happens to be the uncomfortable reality of the moment. Occasionally, market-cap weighting becomes the victim of its own success. When one or a handful of companies grow much faster than everyone else and become disproportionately larger than the rest of the market, the index naturally becomes top-heavy. Larger and larger weights get assigned to fewer and fewer companies. What starts as a broadly diversified portfolio can slowly become much more concentrated than investors realize. We've seen this before. It happened during the internet bubble, and it's happening again today. I mentioned in the introduction that the top 20 names in the S&P 500 account for roughly 50% of the portfolio. Expanding on that, the top 10 represent approximately 37% of the index, while the top five make up about 25%. Think about that for a second. One quarter of the entire S&P 500 is concentrated in just five companies.

Now, concentration within passive investments isn't unique to the U.S. market and can be seen in Chart 1. There are a couple of takeaways worth highlighting. First, the U.S. and emerging markets are two peas in the proverbial pod when it comes to concentration. Both have benefited from the same source of success—and concentration—the AI revolution. For emerging markets, much of that concentration comes from South Korea, where Samsung and SK Hynix have become major beneficiaries of AI-related demand. Even if you remove South Korea from the equation, the concentration story doesn't disappear entirely, as Taiwan Semiconductor would still represent a sizable position. Beyond those names, however, the top holdings are reasonably diversified. Keep that in mind, because not all emerging market indices are created equal.

Chart 1



Data Source: Bloomberg, ICM

Looking at developed international markets and U.S. small-cap stocks, it's clear that concentration hasn't impacted those areas to the same extent. The likely culprit—or perhaps the likely absence—is the lack of dominant AI-related giants within those index definitions.

The second takeaway is perhaps the more important one: concentration levels across many major markets are higher today than they have ever been. While the reasons may differ from market to market, the result is the same - a growing percentage of index performance is being driven by a shrinking number of very dominant companies. For now, let's simply recognize this as the one fatal flaw of a self-adjusting market-cap-weighted index. During periods of excitement, innovation, and rapidly rising stock prices, the biggest winners automatically become larger portions of the portfolio. Sometimes that's perfectly justified. Other times it isn't. The challenge is that nobody knows the answer in real time. High valuations and bubble periods may or may not reflect the reality of the day, but they unquestionably increase concentration and expose investors to greater risk if enthusiasm eventually gives way to disappointment. When that happens, investors often discover that their "diversified" portfolio wasn't quite as diversified as they thought.

High Valuations & Index Concentration, Same Problem?

Concentration, under any circumstances, is less than desirable. After all, it's the anti-diversification story and eschews many of the benefits diversification provides. Diversification is, of course, the classic "don't put all your eggs in one basket" story. But it's much more than that.

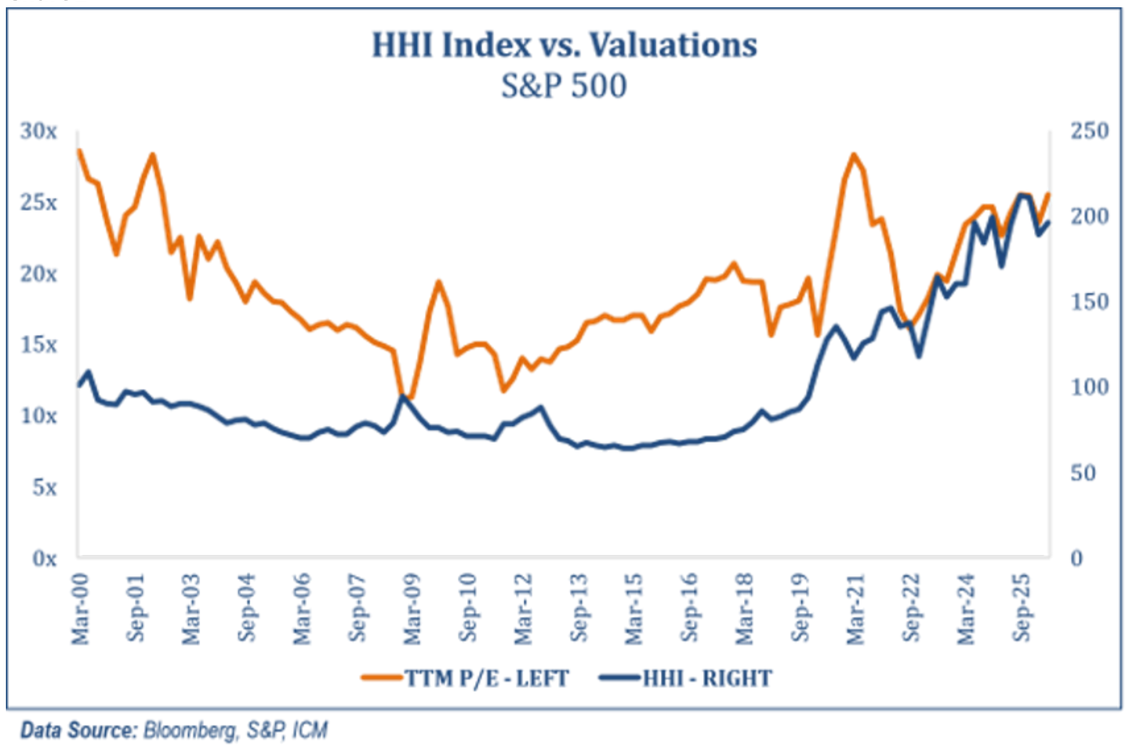
Risk in investing can generally be thought of as either systematic or non-systematic. Non-systematic risk is stock-specific risk - the risk associated with an individual company. The good news is that this type of risk can largely be diversified away. More importantly, there is no specific risk premium that accrues to investors simply for holding concentrated stock positions. If there is no compensation to be had for taking the extra risk associated with concentration, why take it?

Additionally, combining assets that don't move in lockstep can reduce overall portfolio risk. If assets respond differently under various market conditions, the combination of two individually risky assets can actually produce a portfolio that is less risky than either component on its own. That's the diversification benefit.

Now, all of the benefits I've mentioned are well known and well documented. To us, though, the issue runs much deeper than uncompensated risk or the risk reduction that comes from combining non-correlated assets. The issue here is holding concentrated risk in the presence of high valuations.

While we can debate the transformative nature of AI and the societal benefits it may ultimately bring, the fact remains that AI and its adjacent industries have grown to consume a very large share of an already expensive U.S. stock market. This relationship can be seen in Chart 2.

Chart 2



Data Source: *Bloomberg, S&P, ICM*

HHI Index: *The Herfindahl-Hirschman Index (HHI) is a commonly used measure of concentration that is calculated by summing the squares of the weights of the individual holdings in a portfolio or market. Higher HHI values indicate greater concentration.*

As valuations have climbed within the U.S. market, so too has the level of concentration within the index. At the moment, U.S. large-cap stocks trade at valuation levels at or near their all-time highs. From here, achieving even a modest mid-single-digit return over the next decade becomes increasingly difficult. At the same time, the probability of a drawdown of 20% or more over a two-to-three-year horizon rises to roughly to a one in three probability, still somewhat low. The problem is that it is five times more likely to occur from peak valuations than from almost any other valuation level.

In these environments, the high-flying leaders of the AI revolution could find themselves in a precarious position, particularly if the private-equity-infused capital spending boom begins to dry up. This leaves many investors in traditional cap-weighted index funds directly in the crosshairs, often without fully realizing the degree of concentration they own.

Now, what about emerging markets, which are also depicted in Chart 1? Well, it's the same horse, just a slightly different color. First, as I mentioned earlier, the index you choose when selecting a fund or ETF matters greatly. Most of the concentration within traditional emerging market indices is the result of their allocations to South Korea and Taiwan, both of which have become major hubs for AI-related businesses. While traditional cap-weighted emerging market indices carry heavy weights to these countries for many of the same reasons the U.S. market has become concentrated, other, more value-oriented indices don't carry the same concentration levels.

The second issue within emerging markets is valuation. Broadly speaking, emerging markets remain inexpensive, especially when compared to the U.S. While the AI hubs share some of the same frothy characteristics found in domestic markets, much of the remaining emerging world

continues to trade at low double-digit—and in some cases single-digit—valuations.

This creates an opportunity within emerging markets. With careful index selection, investors may be able to sidestep both the concentration levels and the elevated valuations that currently plague much of the U.S. large-cap market.

Alternative Weighting

Now, let's spend a minute on some of the alternative weighting methodologies, specifically equal weighting and fundamental weighting.

Equal weighting is by far the most effective at solving the concentration issue. In fact, the top 10 names represent just 4.7% of the portfolio. That's a dramatic improvement over the traditional cap-weighted S&P 500. Of course, nothing is free. Equal weighting introduces the same issue we highlighted earlier with Company B. By definition, it forces more dollars into the smaller constituents within the opportunity set, in this case the S&P 500. Since we're dealing with a universe of predominantly mid- and large-cap companies, equal weighting lowers the overall market capitalization of the portfolio and introduces a meaningful mid-cap bias relative to the cap-weighted index. Now, I'm not suggesting that's either good or bad, provided it's done knowingly. In fact, equal weighting will typically outperform cap weighting when small- and mid-cap stocks outperform large-cap stocks. More broadly, any weighting methodology other than market-cap weighting introduces some degree of a size bet, or what we might call a market-cap bias. Equal weighting simply makes that bias more obvious.

The same concept applies to fundamental weighting. Now, let's spend a second or two on that approach. There are a number of ways to construct a fundamentally weighted index. For purposes of discussion, let's use revenue weighting as an example because, in my opinion, it has the strongest economic rationale within the fundamental weighting family.

While companies with higher revenues generally tend to have larger market capitalizations, the relationship isn't perfect. As a result, a revenue-weighted index typically ends up with a lower average market capitalization and a more value-oriented profile than a traditional cap-weighted index.

What about concentration? A revenue-weighted approach allocates roughly 23% to its top 10 holdings. That's a meaningful improvement over market-cap weighting, though not nearly as diversified as equal weighting. It also helps reduce concentration at the sector level. For example, a revenue-weighted index might allocate approximately 19% to healthcare and just 15% to information technology, compared to roughly 38% in technology for the traditional S&P 500.

As we've just discussed, alternative weighting methodologies do help solve the concentration issue, but each comes with its own tradeoffs. With equal weighting, investors gain broader diversification, but do so by accepting a smaller market-cap profile and greater exposure to mid-sized companies. With revenue weighting, diversification improves relative to a cap-weighted index, though not to the extent of equal weighting. In exchange, investors inherit a value bias that, if desired, could be obtained more directly through a dedicated value strategy.

The important takeaway is that every weighting methodology solves one problem by introducing another. There is no perfect solution. The goal isn't necessarily to find the "best" index, but rather to understand the bets you're making and whether those bets align with your investment objectives.

Conclusion

Over the past few pages, I've covered, in some detail, the various index construction methodologies along with their respective pros and cons.

Cap-weighted indices are a perfectly valid approach and, in many ways, are the most representative of a true passive market barometer - one that is investable by all market participants. However, they do suffer from one fatal flaw, and it's the very issue we're seeing today. During periods when a sector or a handful of companies grow exponentially faster than the rest of the market, cap-weighted indices can become increasingly top-heavy. Today, we're seeing exactly that with AI and AI-adjacent companies.

Alternative weighting methodologies can help solve the concentration issue, but they come with limitations of their own. Equal weighting is by far the least concentrated approach, but it does so by allocating more capital to the smaller companies within the index. Again, that's not necessarily a criticism if it's done knowingly. However, it also fails as a true market barometer in the sense that it cannot serve as the one self-adjusting portfolio that all investors can collectively own without creating imbalances in the market. Revenue weighting has some economic merit and, in my opinion, is one of the more sensible approaches within the fundamental weighting family. However, it too has limitations. While it is less concentrated than a cap-weighted index, it also introduces a value tilt. Investors seeking that exposure can obtain it more directly by selecting a dedicated value strategy.

Last but not least, we discussed what I believe is the primary issue of the day: investors who assume they are broadly diversified while unknowingly having roughly 50% of their investment dollars concentrated in just 20 stocks within the S&P 500, many of which are tied directly or indirectly to the AI theme. In the presence of historically high valuations, that concentration could prove costly should today's enthusiasm ultimately give way to disappointment.

As a final thought to our advisor partners and clients, I would offer the following:

Perhaps more important than anything else you do in investing, know what you own. Knowing what you own allows you to make informed decisions. It allows you to course-correct before something happens if a risk no longer aligns with your objectives. Just as importantly, it allows you to stay the course with confidence when you've intentionally chosen a particular investment strategy and understand the risks that come with it.

Being surprised because of a misunderstanding, a false assumption, or simply not knowing what sits beneath the surface of a portfolio can lead to poor investor behavior at precisely the wrong time.

As always, thank you for your trust and confidence.

All data as of 6/30/2026 unless otherwise noted.

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