

Exploring the U.S. Mega-Cap Landscape

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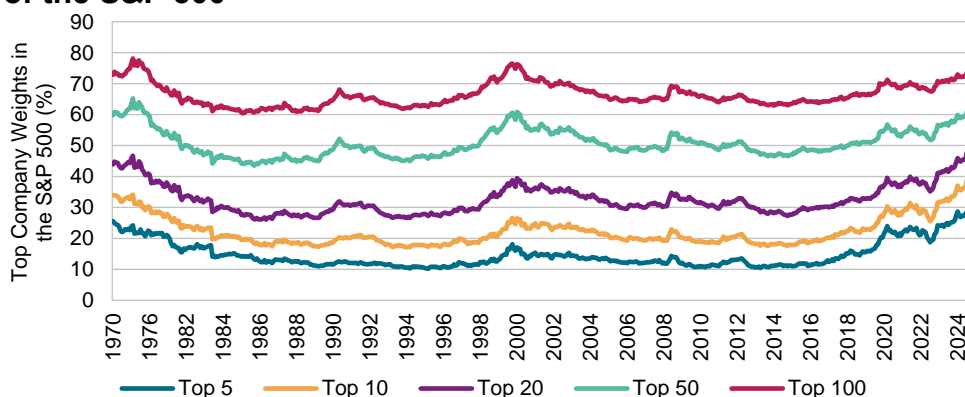
U.S. Equity Indices

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Introduction

In today's rapidly evolving equity market landscape, mega-cap stocks are not only influential—but they have become a defining force shaping performance and strategic direction. Over the past few years, the largest companies in the **S&P 500®** have reached notably elevated levels of market dominance. Exhibit 1 shows that the cumulative weights of the largest 5, 10 and 20 companies have reached their highest points since 1970, underscoring their significant impact on market dynamics.

Exhibit 1: Mega-Cap Companies Made Up a Significant Portion of the S&P 500



Source: S&P Dow Jones Indices LLC. Data from March 31, 1970, to Feb. 28, 2025. Index performance based on monthly total return in USD. The top 10, 20, 50 and 100 companies of S&P 500 do not necessarily have the same constituents of S&P 500 Top 10 Index, S&P 500 Top 20 Index, S&P 500 Top 50 and S&P 100. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Recognizing this trend, market participants have adopted varied strategies; some are targeting mega caps, whereas others are seeking diversification. S&P DJI has also introduced additional mega-cap indices in recent years, expanding the existing suite to provide benchmarks for those looking into these heavyweight market leaders.

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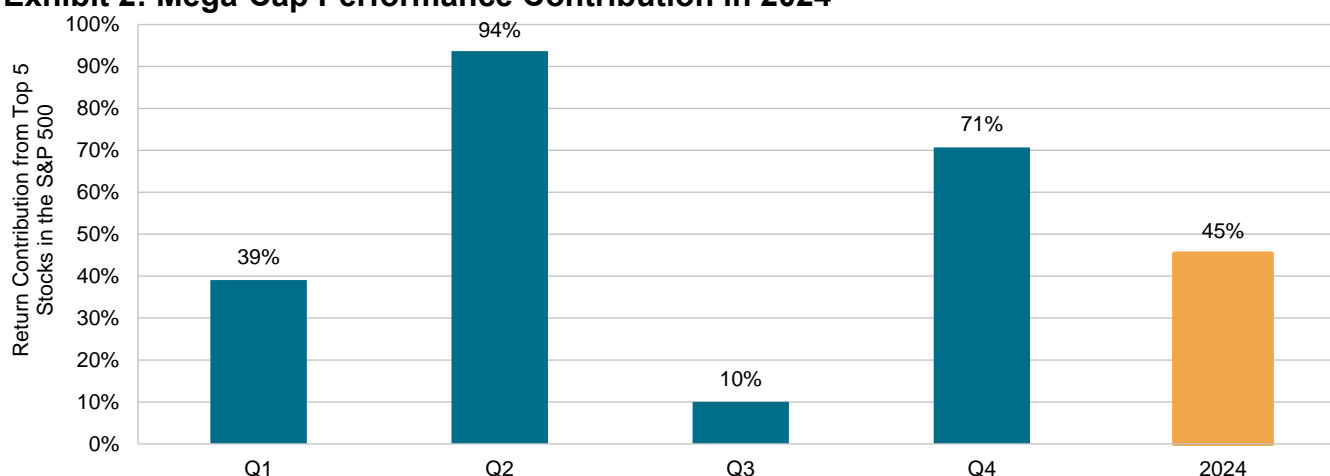
This paper aims to dive deep into the following areas to highlight key trends and insights.¹

- **Index construction of S&P DJI mega-cap indices:** We outline the methodology behind the index construction, and we examine sector weighting and foreign revenue exposure of these indices.
- **Historical and relative performance:** Analyzing S&P DJI mega-cap indices' historical risk/performance characteristics and comparing their relative performance to counterparts.
- **Strategies for outperformance and diversification:** Finally, we will highlight how equal weight or other barbell strategies could outperform a mega-cap index or help achieve diversification.

Mega-Cap Indices

As of Dec. 31, 2024, the float-adjusted market capitalization (FMC) of the [S&P Total Market Index](#) (TMI) was USD 57.1 trillion, with The 500™ representing more than 87% of the index weight. Among the mega-cap indices, the [S&P 500 Top 10 Index](#), [S&P 500 Top 20 Index](#), [S&P 500 Top 50](#) and [S&P 100](#) accounted for 32.8%, 41.4%, 52.7% and 61.4% of the S&P TMI, respectively. Considering that the S&P TMI includes around 4,000 constituents, these proportions are substantial. Exhibit 2 further demonstrates that the largest stocks not only made up the lion's share of the index weight but also contributed significantly to the performance of The 500 in 2024, except for a reversal to smaller caps in the third quarter.²

Exhibit 2: Mega-Cap Performance Contribution in 2024



Source: S&P Dow Jones Indices LLC, FactSet. Data as of Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

¹ For more resources from S&P DJI on mega-cap indices, please see:
Wang, Fei. "[Introducing the S&P 500 Top 20 Select Indices](#)." Indexology® Blog | S&P Dow Jones Indices LLC. Nov. 25, 2024.
Wang, Fei. "[The S&P 500 Top 20 Select Indices: A Deep Dive into Mega-Cap Performance](#)." Indexology Blog | S&P Dow Jones Indices LLC. Nov. 25, 2024.
Preston, Hamish. "[Effectively Measuring Mega Caps: The S&P 500 Top 50](#)." S&P Dow Jones Indices LLC. Aug. 31, 2021.

² Ganti, Anu, et. al. "[SPIVA U.S. Scorecard Year-End 2024](#)." S&P Dow Jones Indices LLC. March 4, 2025.

The construction of our mega-cap indices follows a transparent and systematic approach to include the most significant companies by market capitalization.³

- Generally, the largest N companies from The 500 (i.e., the largest 10 for the S&P 500 Top 10 Index, the largest 20 for the S&P 500 Top 20 Index and the largest 50 for the S&P 500 Top 50) are selected at each annual reconstitution, based on their FMC.
- The selection is subject to a $\pm 10\%$ selection buffer to minimize turnover.
- At each reconstitution, the index weights the constituents by FMC.
- Constituents dropped from The 500 are concurrently dropped in the mega-cap indices and are not replaced until the next annual reconstitution.

In addition to standard indices in USD, different currency and capped versions are available, catering to the needs of various market participants.

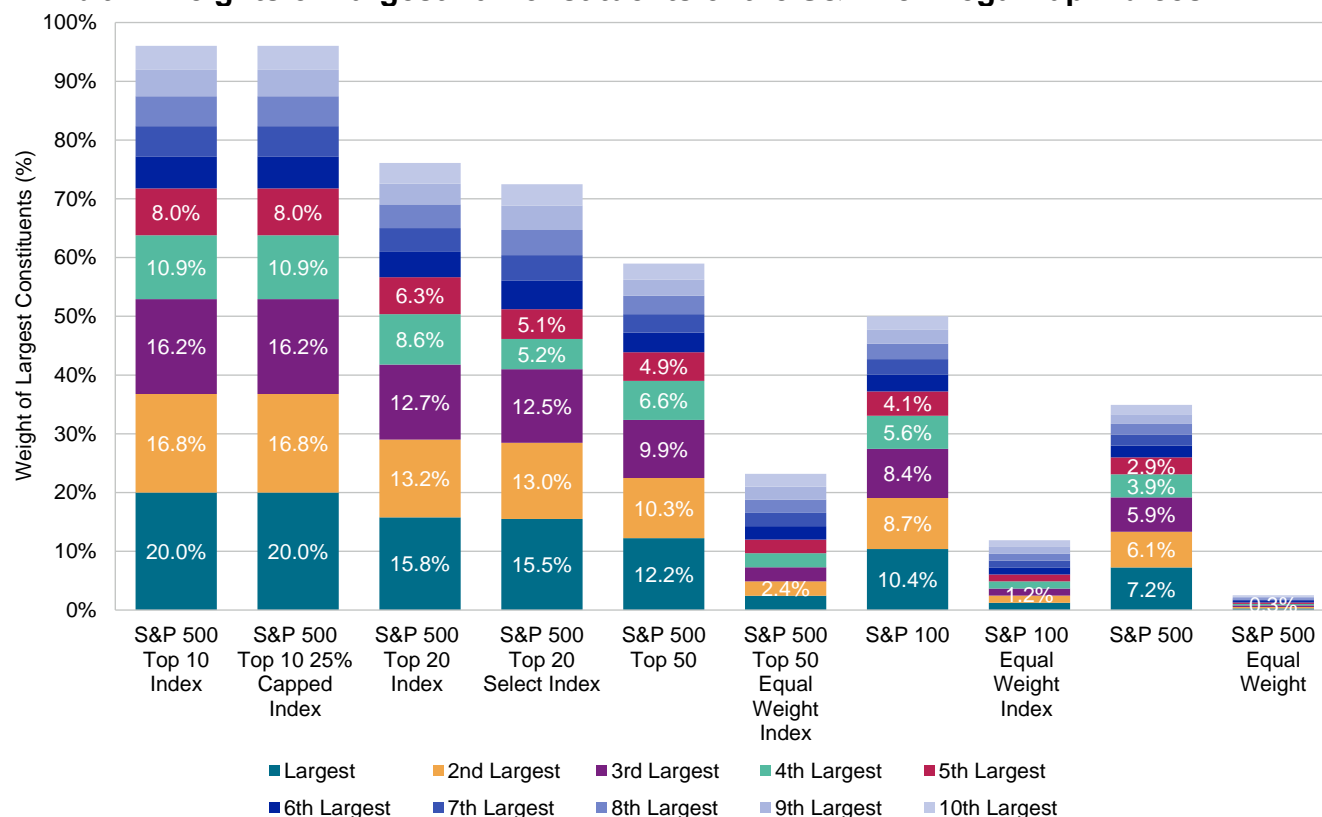
Exhibit 3: Overview of S&P DJI Mega-Cap Index Offerings

Number of Companies	Index	Currency	Launch Date (USD Version)
10	S&P 500 Top 10 Index	USD, EUR, ILS, TTM JPY	July 14, 2023
	S&P 500 Top 10 25% Capped Index	USD	April 26, 2024
20	S&P 500 Top 20 Index	USD, EUR	Aug. 1, 2024
	S&P 500 Top 20 Select Uncapped Index*	USD	Aug. 19, 2024
	S&P 500 Top 20 Select Index*	USD, TTM JPY	Aug. 19, 2024
	S&P 500 Top 20 Select 35/20 Capped Index*	USD, EUR, GBP	Aug. 19, 2024
50 (Top Decile)	S&P 500 Top 50	USD, EUR	Nov. 30, 2015
	S&P 500 Top 50 Equal Weight Index	USD	Aug. 25, 2009
100 (Top Quintile)	S&P 100 [^]	USD, CAD, CAD Hedged, GBP, ILS, ILS Hedged, JPY, EUR, EUR Hedged	June 15, 1983
	S&P 100 Equal Weight Index	USD, EUR	Aug. 25, 2009

Source: S&P Dow Jones Indices LLC, [S&P U.S. Indices Methodology](#). Data as of Feb. 28, 2025. *Indices use a quarterly reconstitution with no company selection buffers. The [S&P 500 Top 20 Select Index](#), the [S&P 500 Top 20 Select 35/20 Capped Index](#) and the [S&P 500 Top 20 Select Uncapped Index](#) are subject to different capping mechanisms, which are designed with various diversification requirements in mind (e.g., U.S. Internal Revenue Code and Investment Company Act of 1940, and European UCITS diversification rules under the Directive 2009/65/EC). [^]S&P 100 constituent selection is at the discretion of the Index Committee. The largest companies in the S&P 500 that have listed options and sector balance are considered for index inclusion. Table is provided for illustrative purposes.

Exhibit 4 puts a more granular lens on the recent weights of the largest constituents in the mega-cap indices. As anticipated, the FMC mega-cap indices are heavily weighted toward the largest constituents due to their market outperformance. The cumulative weights of even the largest five constituents make up around half of the index weights, from the S&P 500 Top 10 Index to the S&P 500 Top 50. Specifically, the combined weights of the largest 5 constituents in the S&P 500 Top 20 Index was 57%, while the largest 10 constituents reached 76%.

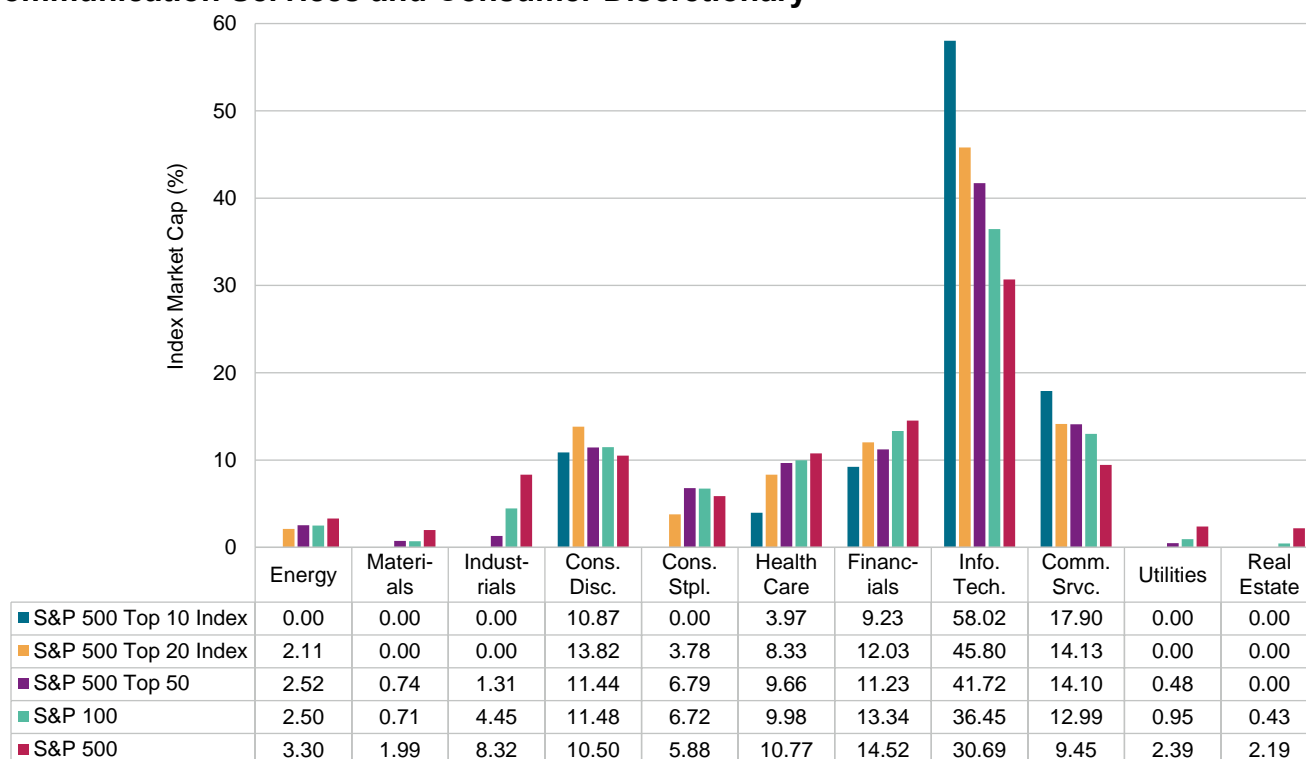
³ Please see details in [S&P U.S. Indices Methodology](#).

Exhibit 4: Weights of Largest 10 Constituents of the S&P DJI Mega-Cap Indices

Source: S&P Dow Jones Indices LLC. Data as of Feb. 28, 2025. Companies with multiple share classes as treated as individual constituents within the index. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

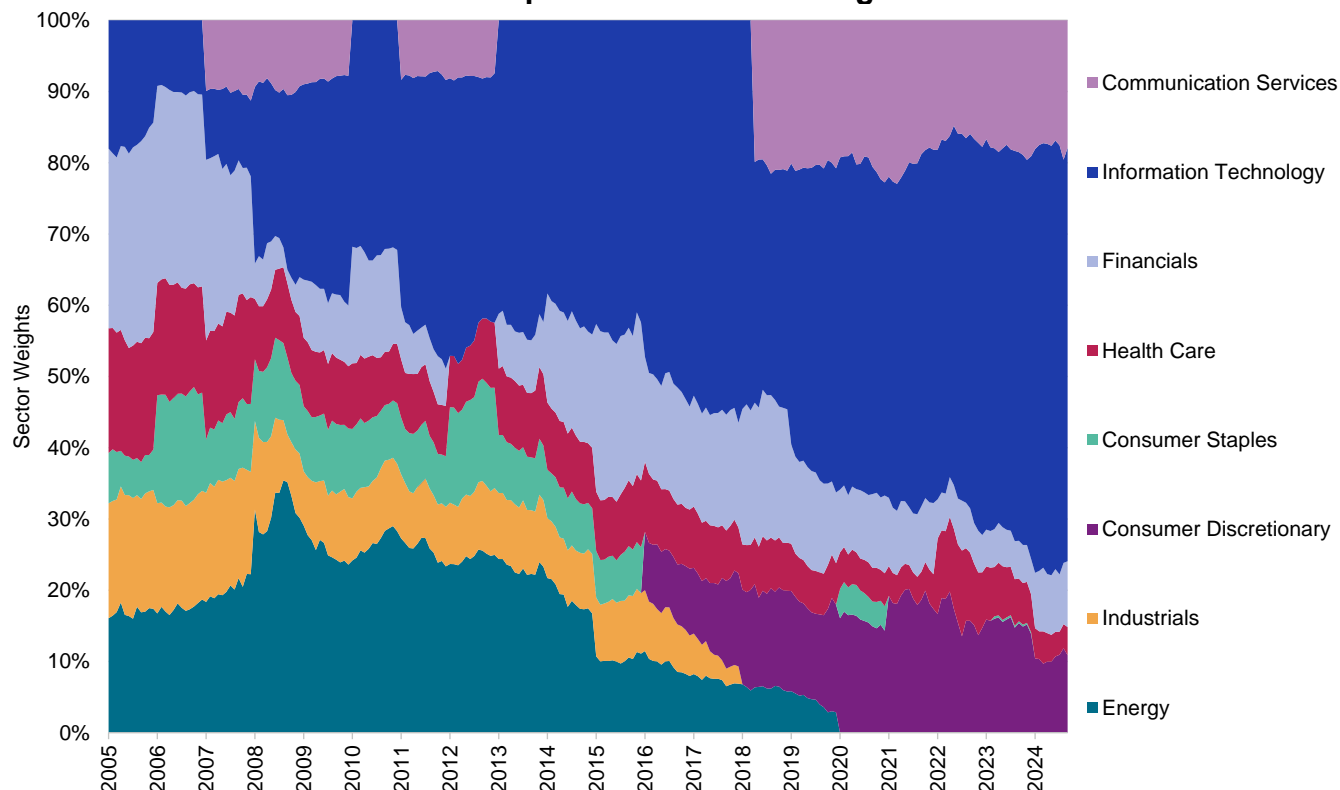
Furthermore, the outperformance of the largest companies led to sizable representations of certain sectors in recent years. The sector distribution of the “Magnificent 7,” which refers to the group of seven mega-cap stocks whose recent performance has had a significant influence on the markets, unsurprisingly coincides with the latest sector concentration of the mega-cap indices: Apple, Microsoft and Nvidia reside in the Information Technology sector, Meta and Alphabet belong to the Communication Services sector, and Amazon and Tesla are part of the Consumer Discretionary sector.

Exhibit 5: The Recent Best-Performing Sectors: Information Technology, Communication Services and Consumer Discretionary



Source: S&P Dow Jones Indices LLC. Chart based on Global Industry Classification Standard (GICS®) sector weights as of Feb. 28, 2025. Past performance is no guarantee of future results. Chart and table are provided for illustrative purposes.

However, sector weighting is not static, and Exhibit 6 illustrates an example of the evolution of mega-cap sector weights. Back in 2005, the S&P 500 Top 10 Index had a more balanced distribution of sector weights: Financials held the largest weight at around 25%, while Information Technology, Health Care, Industrials and Energy each accounted for approximately 17% of the index weight. Over time, however, the sector composition changed dramatically—Energy, Industrials and Consumer Staples sectors have disappeared from the S&P 500 Top 10 Index, whereas Information Technology has significantly increased its representation.

Exhibit 6: Evolution of S&P 500 Top 10 Index Sector Weights

Source: S&P Dow Jones Indices LLC. Data from June 30, 2005, to Feb. 28, 2025. Chart is based on month-end GICS sector weights. Real Estate became a standalone sector in September 2016. Telecommunication Services was renamed Communication Services in September 2018. The S&P 500 Top 10 Index was launched on July 14, 2023. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 7 reinforces this evolution by showing the largest five companies in The 500 from 1970 to 2025.⁴ It highlights significant market trends and shifts in the preferences of market participants over the decades, as well as the growing prominence of technology-driven companies in recent years.

⁴ Preston, Hamish. "[Celebrating 64 Years of the S&P 500](#)." Indexology Blog | S&P Dow Jones Indices. March 5, 2021.

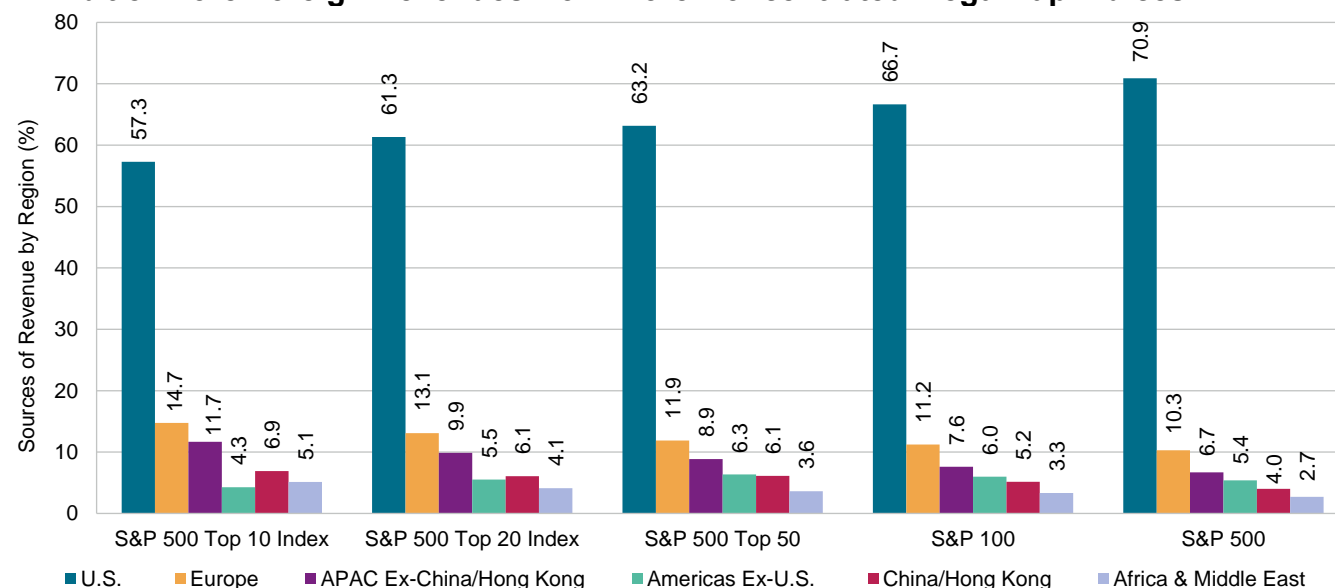
Exhibit 7: The S&P 500 Reflecting Mega-Cap Sector Trends

Year	Top Five Largest Companies in the S&P 500				
1970	IBM	AT&T	GENERAL MOTORS	STD. OIL OF N.J.	EASTMAN KODAK
1980	IBM	AT&T	EXXON CORP	St'd. Oil, Indiana	SCHLUMBERGER LTD.
1990	IBM	Exxon Mobil Corp.	General Electric	Philip Morris	Royal Dutch Petroleum
2000	General Electric	Exxon Mobil Corp.	Pfizer, Inc.	Cisco Systems	Citigroup Inc.
2010	Exxon Mobil Corp	Apple Inc.	Microsoft Corp	General Electric Co	Chevron Corp
2020	Apple Inc.	Microsoft Corp	Amazon.com Inc	Alphabet Inc	Facebook Inc
2025	Apple Inc.	Nvidia Corp	Microsoft Corp	Amazon.com Inc	Alphabet Inc

Source: S&P Dow Jones Indices LLC. Data based on year-end index weights from 1970 to 2020 at 10-year intervals and the latest month-end index weights as of Feb. 28, 2025. The name of the company reflects its historical name at the time, regardless of name changes and/or M&A activities later on. Royal Dutch Petroleum is based in the Netherlands; its inclusion in the S&P 500 was before the changing rules of domicile requirements. Table is provided for illustrative purposes.

Many mega-cap companies, though domiciled in the U.S., generate a considerable portion of their revenues from international markets. Approximately 30% of S&P 500 revenues come from outside the U.S., with even higher percentages for the mega-cap indices. Our research also shows that U.S. companies with greater foreign revenue exposure outperformed their domestic counterparts in recent years.⁵ This trend reflects the importance of global markets in driving growth and profitability for large corporations as they navigate the shifting landscape and consumer demands worldwide.

Exhibit 8: More Foreign Revenues from More Concentrated Mega-Cap Indices



Source: S&P Dow Jones Indices LLC, FactSet. Data as of Feb. 28, 2025. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

⁵ Ganti, Anu. "[Locally Sourced but Globally Minded](#)." Indexology Blog | S&P Dow Jones Indices. Feb. 4, 2025

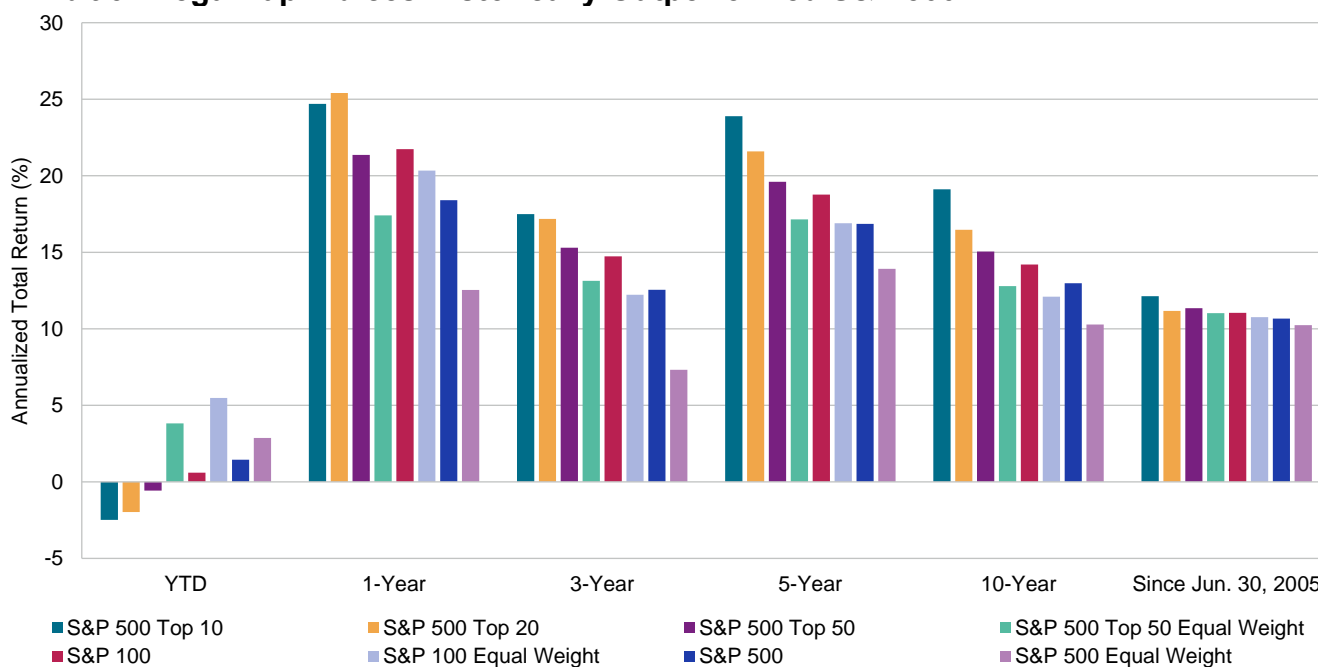
While the ongoing development of Artificial Intelligence could further propel growth and innovation in the Information Technology sector, predicting the future remains challenging. Our mega-cap indices will continue to reflect the evolving market trends.

Historical and Relative Performance

In early 2025, many mega-cap companies experienced performance challenges compared to the broader U.S. market. These difficulties included uncertainties stemming from the new government administration and its policies, as well as competitive pressures from technological advancements outside the U.S. Given their significant presence in the equity market, the underperformance of these companies in return adversely affected the overall market performance as well.

Despite these headwinds, S&P DJI mega-cap indices typically outperformed The 500 over different time horizons—the more concentrated the index, the greater the outperformance. However, the concentration also generally came with an increased level of annualized volatility. The trend suggests that while mega-cap stocks may face short-term challenges, their historical long-term growth trend remained significant.

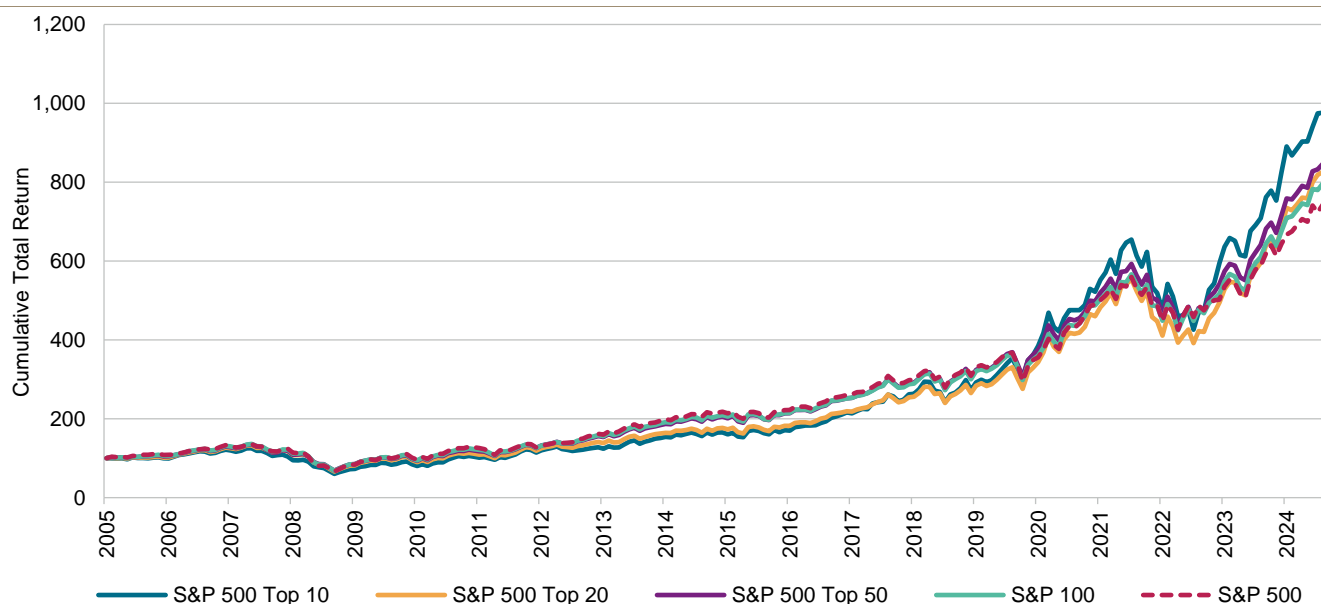
Exhibit 9: Mega-Cap Indices Historically Outperformed S&P 500



Source: S&P Dow Jones Indices LLC. Data from June 30, 2005, to Feb. 28, 2025. Index performance based on monthly total return in USD. YTD data is not annualized. The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on Aug. 1, 2024. The S&P 500 Top 50 was launched on Nov. 30, 2015. The S&P 500 Top 50 Equal Weight Index was launched on Aug. 25, 2009. The S&P 100 Equal Weight Index was launched on Aug. 25, 2009. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 10: Mega-Cap Indices Significantly Outperformed the S&P 500 after 2020

Metric	S&P 500 Top 10	S&P 500 Top 20	S&P 500 Top 50	S&P 100	S&P 500
Annualized Return (%)	12.13	11.17	11.35	11.04	10.67
Annualized Volatility (%)	16.86	15.70	14.89	14.86	15.09
Risk-Adjusted Return	0.72	0.71	0.76	0.74	0.71
Tracking Error (%)	7.93	5.27	3.46	2.13	-



Source: S&P Dow Jones Indices LLC. Data from June 30, 2005, to Feb. 28, 2025. Index performance based on monthly total return in USD. Index levels rebased to 100 on June 30, 2005. The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on Aug. 1, 2024. The S&P 500 Top 50 was launched on Nov. 30, 2015. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart and table are provided for illustrative purposes and reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Over the 19 calendar years from 2006 to 2024, S&P DJI mega-cap indices generally outperformed The 500 around 60% of the time. The annualized performance margin ranged between 1% and 3%. When evaluating cumulative returns, the S&P DJI mega-cap indices outperformed The 500 by an average of 150%.

Exhibit 11: Mega-Cap Indices Annualized Returns vs. S&P 500

Year	S&P 500 Top 10	S&P 500 Top 20	S&P 500 Top 50	S&P 100	S&P 500	S&P 500 Top 10 over S&P 500	S&P 500 Top 20 over S&P 500	S&P 500 Top 50 over S&P 500	S&P 100 over S&P 500
2006	16.90	18.77	18.22	18.47	15.79	1.10	2.97	2.42	2.67
2007	1.07	5.37	5.40	6.12	5.49	-4.42	-0.12	-0.10	0.63
2008	-36.90	-35.02	-34.03	-35.31	-37.00	0.10	1.98	2.97	1.69
2009	16.49	20.23	19.95	22.29	26.46	-9.98	-6.24	-6.51	-4.17
2010	10.63	7.55	10.91	12.51	15.06	-4.44	-7.52	-4.15	-2.56
2011	9.09	4.00	4.86	3.18	2.11	6.97	1.89	2.75	1.07
2012	12.24	14.43	15.95	16.05	16.00	-3.77	-1.57	-0.06	0.05
2013	22.51	23.74	29.09	30.39	32.39	-9.88	-8.64	-3.30	-1.99
2014	11.37	9.29	12.25	12.74	13.69	-2.32	-4.40	-1.44	-0.95
2015	4.67	3.91	4.21	2.64	1.38	3.29	2.53	2.83	1.25
2016	11.92	12.55	11.29	11.37	11.96	-0.04	0.59	-0.67	-0.59
2017	28.54	23.08	23.28	21.96	21.83	6.71	1.25	1.45	0.13
2018	-0.60	-2.64	-3.35	-3.87	-4.38	3.79	1.75	1.03	0.51
2019	40.82	35.12	32.51	32.21	31.49	9.33	3.64	1.03	0.73
2020	39.64	28.76	24.46	21.52	18.40	21.25	10.36	6.06	3.13
2021	37.62	32.56	30.79	29.36	28.71	8.91	3.85	2.08	0.66
2022	-34.94	-29.25	-24.11	-20.87	-18.11	-16.83	-11.14	-6.00	-2.75
2023	62.30	47.37	38.31	32.93	26.29	36.01	21.08	12.03	6.64
2024	40.99	41.78	33.80	30.95	25.02	15.97	16.76	8.78	5.93
Average (Calendar Year)	15.49	13.77	13.36	12.88	12.24	3.25	1.53	1.12	0.63
S&P Mega-Cap Outperformance versus S&P 500	11	12	11	13	-	58%	63%	58%	68%

Source: S&P Dow Jones Indices LLC. Data from June 30, 2005, to Feb. 28, 2025. Index performance based on monthly total return in USD. The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on Aug. 1, 2024. The S&P 500 Top 50 was launched on Nov. 30, 2015. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Besides the S&P DJI mega-cap indices, there are other indices designed to represent the performance of U.S. mega-cap equities, such as the Russell Top 50 Mega Cap,⁶ Russell Top 50 RIC Capped Index,⁷ CRSP US Mega Cap Index⁸ and MSCI USA Mega Cap Select Index.⁹ The introduction of many of these indices in recent years reflects a growing interest in the mega-cap segment.

⁶ <https://research.ftserussell.com/Analytics/FactSheets/Home/DownloadSingleIssue?issueName=US5017USD&isManual=True>

⁷ <https://research.ftserussell.com/Analytics/FactSheets/Home/DownloadSingleIssue?issueName=RLARGERC&isManual=False>

⁸ <https://www.crsp.org/indexes/crsp-us-mega-cap-index/>

⁹ <https://www.msci.com/documents/10199/a8186653-b32c-9963-4e5a-e6f9145aac35>

Exhibit 12: Summary of Key Index Construction Differences

S&P DJI Indices					
Metric	S&P 500 Top 10 Index	S&P 500 Top 20 Index	S&P 500 Top 20 Select Index	S&P 500 Top 50	S&P 100
Number of Companies	10	20	20	50	100
% of Total Market Cap	~30% of S&P TMI	~40% of S&P TMI	~40% of S&P TMI	~50% of S&P TMI	~60% of S&P TMI
Rebalance Frequency	Annually	Annually	Quarterly	Annually	Ad-hoc at the discretion committee
Weighting	FMC	FMC	FMC with RIC diversification capping in consideration	FMC	FMC
Launch Date (USD Version)	July 14, 2023	Aug. 1, 2024	Aug. 19, 2024	Nov. 30, 2015	June 15, 1983
Non-S&P DJI Indices					
Metric	Russell Top 50 Mega Cap Index	Russell Top 50 RIC Capped Index	CRSP US Mega Cap Index	MSCI USA Mega Cap Select Index	
Number of Companies	~50	~50	195 (as of Dec. 31, 2024)	39 (as of Feb. 28, 2025)	
% of Total Market Cap	~45% of Russell 3000	~45% of Russell 3000	~70% of investable equity market cap	~50% of MSCI USA	
Rebalance Frequency	Annually	Annually	Quarterly	Quarterly	
Weighting	FMC	FMC with RIC diversification capping in consideration	FMC	FMC with capping as per MSCI 20/35 Indexes methodology	
Launch Date (USD Version)	Jan. 1, 2005	April 3, 2024	April 1, 2011	July 16, 2024	

Source: S&P Dow Jones Indices LLC (S&P U.S. Indices Methodology), FTSE Russell ([Russell US Equity Indices Ground Rules, Capping Methodology](#)), CRSP ([CRSP Market Indexes Methodology](#)) and MSCI ([MSCI USA Mega Cap Select Index Methodology](#)). Table is provided for illustrative purposes.

Most S&P DJI mega-cap indices exhibited similar historical performance and volatility over time compared to other counterparts. Notably, the S&P 500 Top 10 Index and S&P 500 Top 20 Index posted higher annualized returns, with greater risk-adjusted returns in the long run despite having higher annualized volatility (see Exhibit 13). In contrast, the CRSP US Mega Cap Index generally underperformed its peers, potentially due to its inclusion of a larger number of companies, which may have affected its overall performance.

Exhibit 13: Most Mega-Cap Indices Posted Similar Performance

Period	S&P 500 Top 10 Index	S&P 500 Top 20 Index	S&P 500 Top 50	S&P 100 Index	Russell Top 50 Mega Cap Index	CRSP US Mega Cap Index	MSCI USA Mega Cap Select Index
Annualized Return (%)							
YTD	-2.48	-1.97	-0.57	0.60	-0.50	1.30	-1.20
1-Year	24.70	25.40	21.36	21.74	22.09	19.53	22.46
3-Year	17.50	17.18	15.30	14.74	15.46	13.56	16.35
5-Year	23.90	21.59	19.60	18.77	19.94	17.61	20.00
10-Year	19.11	16.47	15.04	14.20	15.18	13.62	15.53
Annualized Volatility (%)							
3-Year	22.65	19.62	17.94	17.16	17.97	16.88	18.22
5-Year	22.42	19.93	18.36	17.68	18.57	17.75	18.97
10-Year	18.93	16.94	15.75	15.33	15.88	15.25	16.21
Risk-Adjusted Return							
3-Year	0.77	0.88	0.85	0.86	0.86	0.80	0.90
5-Year	1.07	1.08	1.07	1.06	1.07	0.99	1.05
10-Year	1.01	0.97	0.96	0.93	0.96	0.89	0.96

Source: S&P Dow Jones Indices LLC, FTSE Russell, CRSP, [MSCI](#). Data from June 30, 2005, to Feb. 28, 2025. Index performance based on monthly total return in USD. YTD returns are not annualized. The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on Aug. 1, 2024. The S&P 500 Top 50 was launched on Nov. 30, 2015. The CRSP US Mega Cap Index was launched on April 1, 2011. The MSCI USA Mega Cap Select Index was launched on July 16, 2024. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Outperformance and Diversification

The increasing influence of the very largest companies has led many market participants to adopt a more focused strategy in mega caps, while raising concerns about the concentration of U.S. equities.

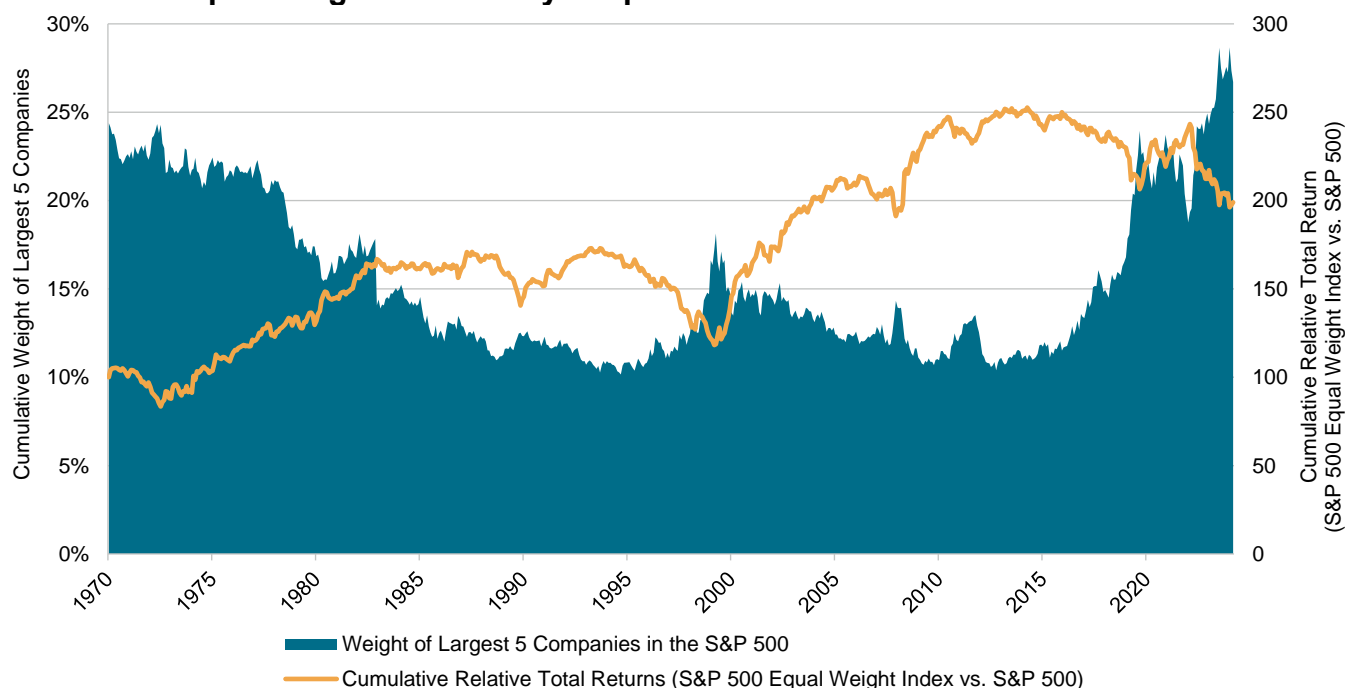
But is it possible that these concerns are overstated? Our recent findings showed that, despite a declining correlation between the largest 10 stocks and a capitalization-weighted combination of the remaining 490 companies since 2023, the correlation between the S&P 500 Top 10 Index and The 500 has remained relatively stable. This suggests that the largest companies have not exerted an atypical level of influence over the market.¹⁰

Moreover, the widening performance gap and increasing dispersion among stocks present potential diversification opportunities. The [S&P 500 Equal Weight Index](#), for instance, has

¹⁰ Edwards, Tim. "[Shifting Tides: Concentration, Dispersion and the S&P 500 Risk Landscape](#)." Indexology Blog | S&P Dow Jones Indices. Jan. 8, 2025.

historically outperformed The 500 following periods of heightened concentration.¹¹ By diversifying weight across S&P 500 stocks, it mitigates the risks associated with market dominance, which has historically enhanced overall returns.

Exhibit 14: Equal Weight Historically Outperformed as Concentration Subsid



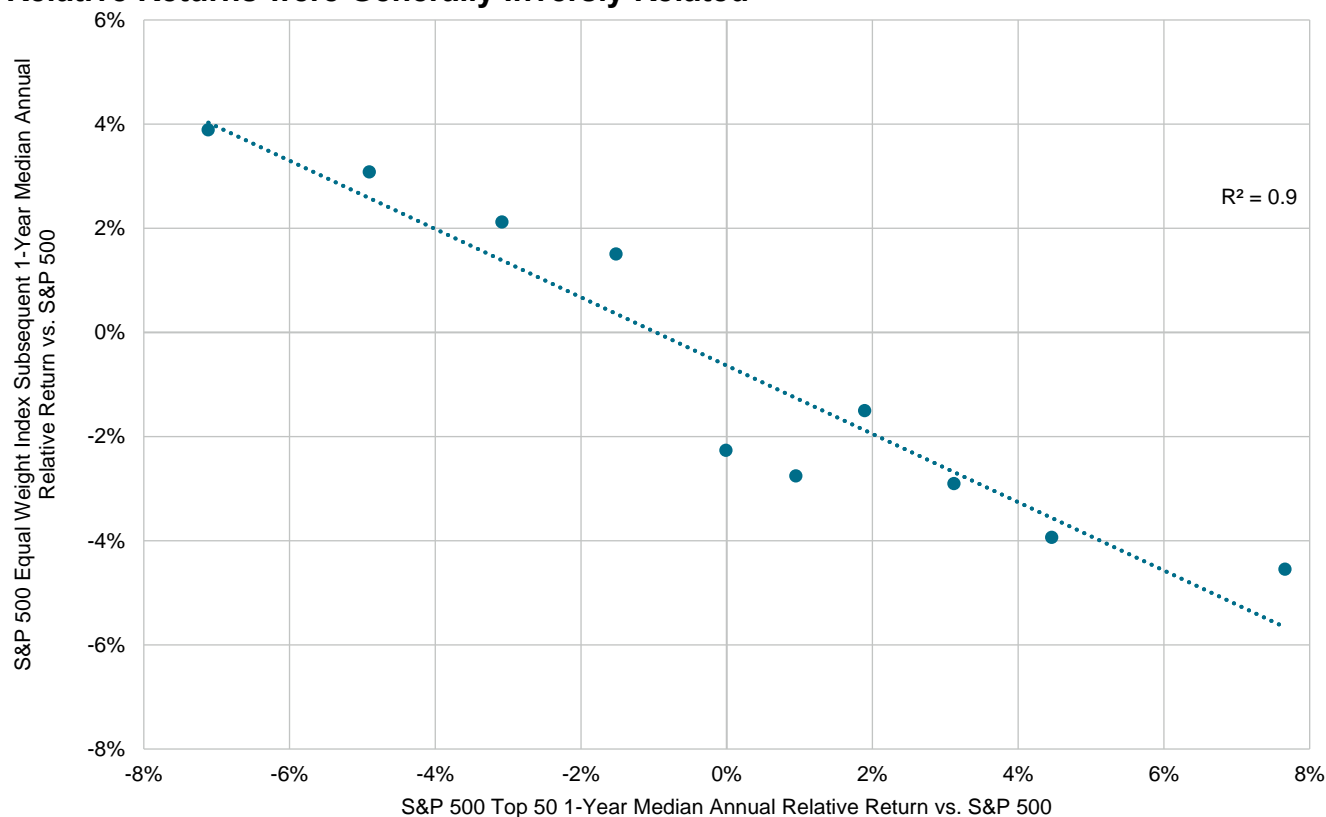
Source: S&P Dow Jones Indices LLC. Chart shows cumulative relative returns for the S&P 500 Equal Weight Index versus the S&P 500, based on monthly total returns between December 1970 and February 2025. Cumulative weight of largest five S&P 500 companies based on month-end constituents. The S&P 500 Equal Weight Index was launched on Jan. 8, 2003. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

We can also observe the inverse relationship through the relative performance of mega caps compared to that of the S&P 500 Equal Weight Index in the following year. For example, Exhibit 15 demonstrates the relationship between the relative 12-month performance of the S&P 500 Top 50 versus The 500 (x-axis) and the subsequent 12-month relative performance of the S&P 500 Equal Weight Index (y-axis). The relative returns are ranked and divided into deciles: the lower (higher) the decile of the S&P 500 Top 50 months tended to be followed by S&P 500 Equal Weight Index outperformance (underperformance) in the next year.¹² This pattern is consistent with our past research, suggesting turning points after extremes in mega-cap performance.

¹¹ Edwards, Tim et. Al. "[Worth the Weight](#)." S&P Dow Jones Indices. July 2024.

¹² Ganti, Anu. "[An Elevating Effect on Equal Weight?](#)" Indexology Blog | S&P Dow Jones Indices. Nov. 20, 2023.

Exhibit 15: S&P 500 Top 50 and Subsequent Year S&P 500 Equal Weight Index Annual Relative Returns were Generally Inversely Related

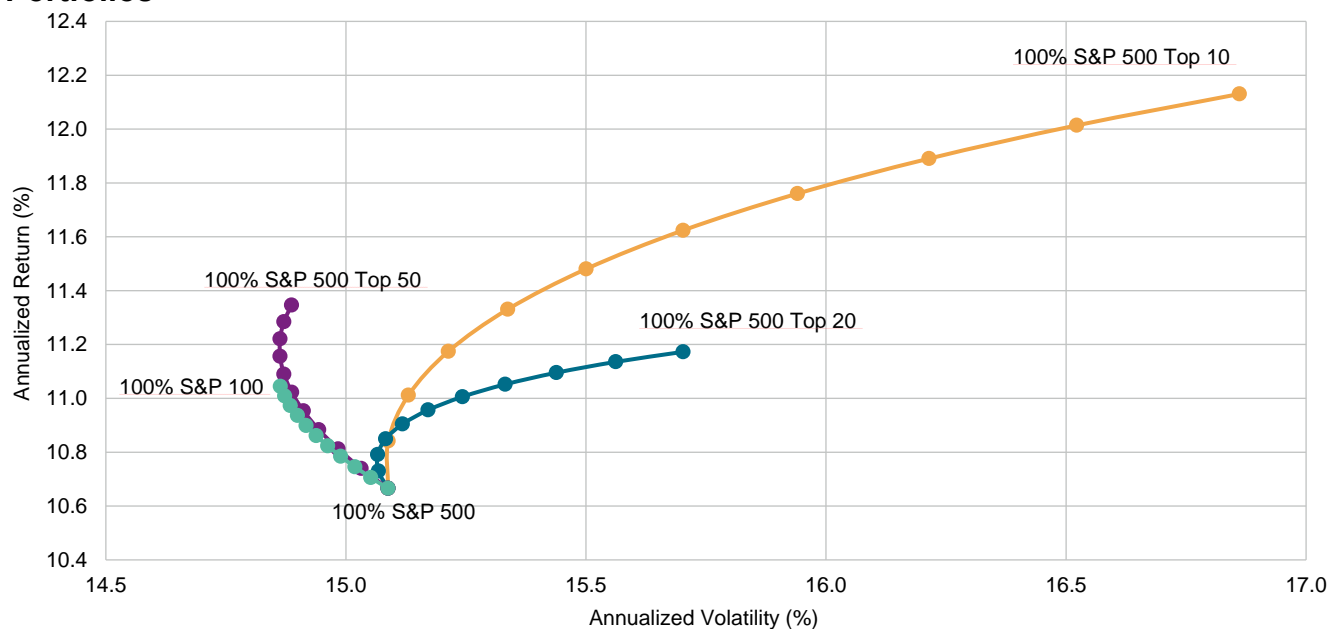


Source: S&P Dow Jones Indices LLC. Data from October 1993 to February 2025. Index performance based on monthly total return in USD. The S&P 500 Equal Weight Index was launched on Jan. 8, 2003. The S&P 500 Top 50 was launched on Nov. 30, 2015. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

On the other hand, a barbell approach by incorporating various size strategies is a potential strategy for diversification. Exhibits 16a and 16b showcase the historical risk/performance profiles of hypothetical blended indices created from various combinations of S&P DJI mega-cap indices, the S&P 500 Equal Weight Index and [S&P Composite 1500®](#) component indices. These hypothetical blended portfolios are adjusted in 10% increments (e.g., 0% S&P 500 Top 10 Index & 100% S&P 500, 10% S&P 500 Top 10 Index & 90% S&P 500, 20% S&P 500 Top 10 Index & 80% S&P 500, etc.), assuming a monthly fixed weight rebalance.

Between 2005 and 2025, the hypothetical strategies that blended S&P DJI mega-cap indices with The 500 showed lower volatility and improved returns. However, the necessary weighting to achieve optimal performance was significantly lower for more concentrated mega-cap indices, as increased volatility eventually outweighed the performance generated.

Exhibit 16a: Risk/Performance of Hypothetical S&P DJI Mega-Cap Indices & S&P 500 Portfolios

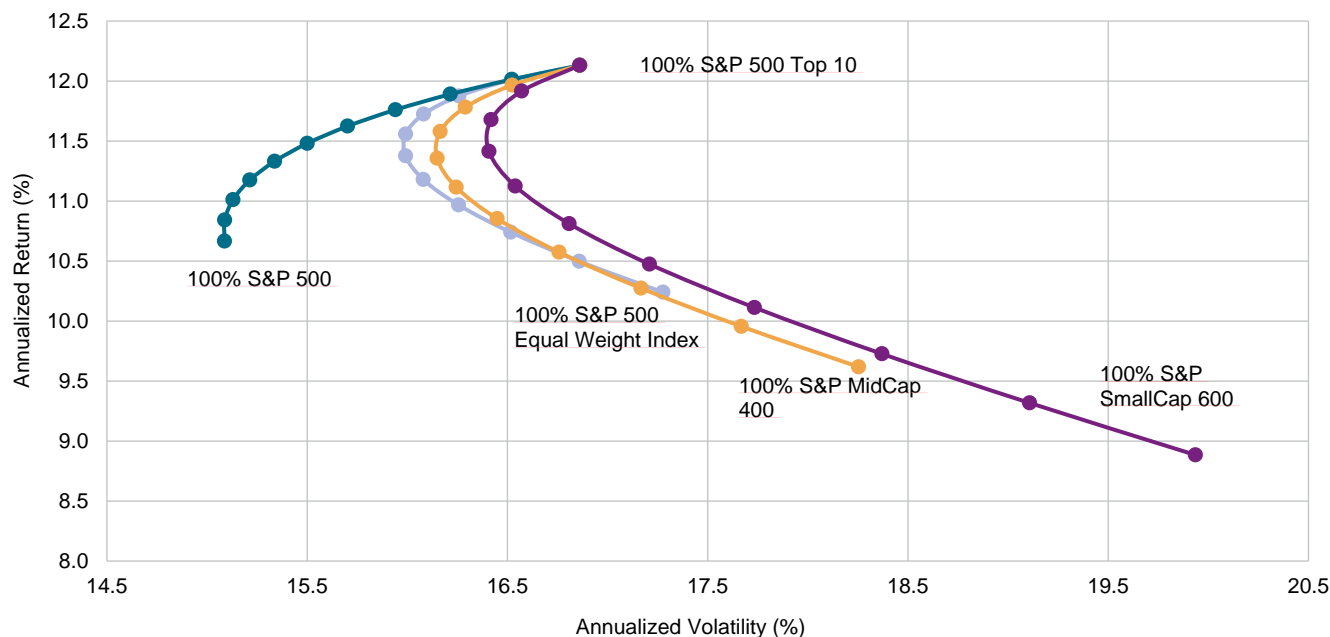


The portfolios shown are hypothetical.

Source: S&P Dow Jones Indices LLC. Data from June 30, 2005, to Feb. 28, 2025. Index performance based on monthly total return in USD. The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on Aug. 1, 2024. The S&P 500 Top 50 was launched on Nov. 30, 2015. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

We also created hypothetical strategies that combined other U.S. equities indices, such as the S&P 500 Top 10 Index, the S&P Equal Weight Index or the S&P 1500[®] component indices, as shown in Exhibit 16b. Blending mega-cap indices with smaller-sized indices offered enhanced diversification properties compared with either in isolation.

Exhibit 15b: Risk/Performance Profiles of Hypothetical S&P 500 Top 10 Index & S&P DJI Indices Portfolios



Performance Disclosure/Back-Tested Data

The S&P 500 Top 10 Index was launched on July 14, 2023. The S&P 500 Top 20 Index was launched on August 1, 2024. The S&P 500 Top 50 Index was launched on November 30, 2015. The S&P 500 Top 50 Equal Weight Index was launched on August 25, 2009. The S&P 500 Equal Weight Index was launched on January 8, 2003. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Complete index methodology details are available at www.spglobal.com/spdji. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the [FAQ](#). The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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