Nasdaq-100 Equal Weighted™ Index: Tactical Complement to the Nasdaq-100®

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The Nasdaq-100 Equal-Weighted Index (NDXE™) was launched to offer investors an equal-weighted alternative to tracking the same innovation-driven companies that are part of the Nasdaq-100 (NDX®), but with much lower levels of concentration on a sector, size, or individual company basis. The index functions as a tactical complement to the Nasdaq-100, and is particularly useful as a means of maintaining meaningful exposure to the same fundamental drivers that have propelled the Nasdaq-100 higher, but with less concentration risk.

Reasons to consider NDXE:

- Only ~7% exposure to the “Magnificent Seven” stocks, vs. ~39% for NDX (as of December 31, 2023)
- Only ~41% exposure to the Technology sector (based on ICB Industry) vs. ~58% for NDX
- Only $191B weighted average market cap vs. $834B for NDX
- Market leadership is never guaranteed: of today’s 10 largest NDX companies, only Microsoft was ranked in the top 10 at the turn of the century:

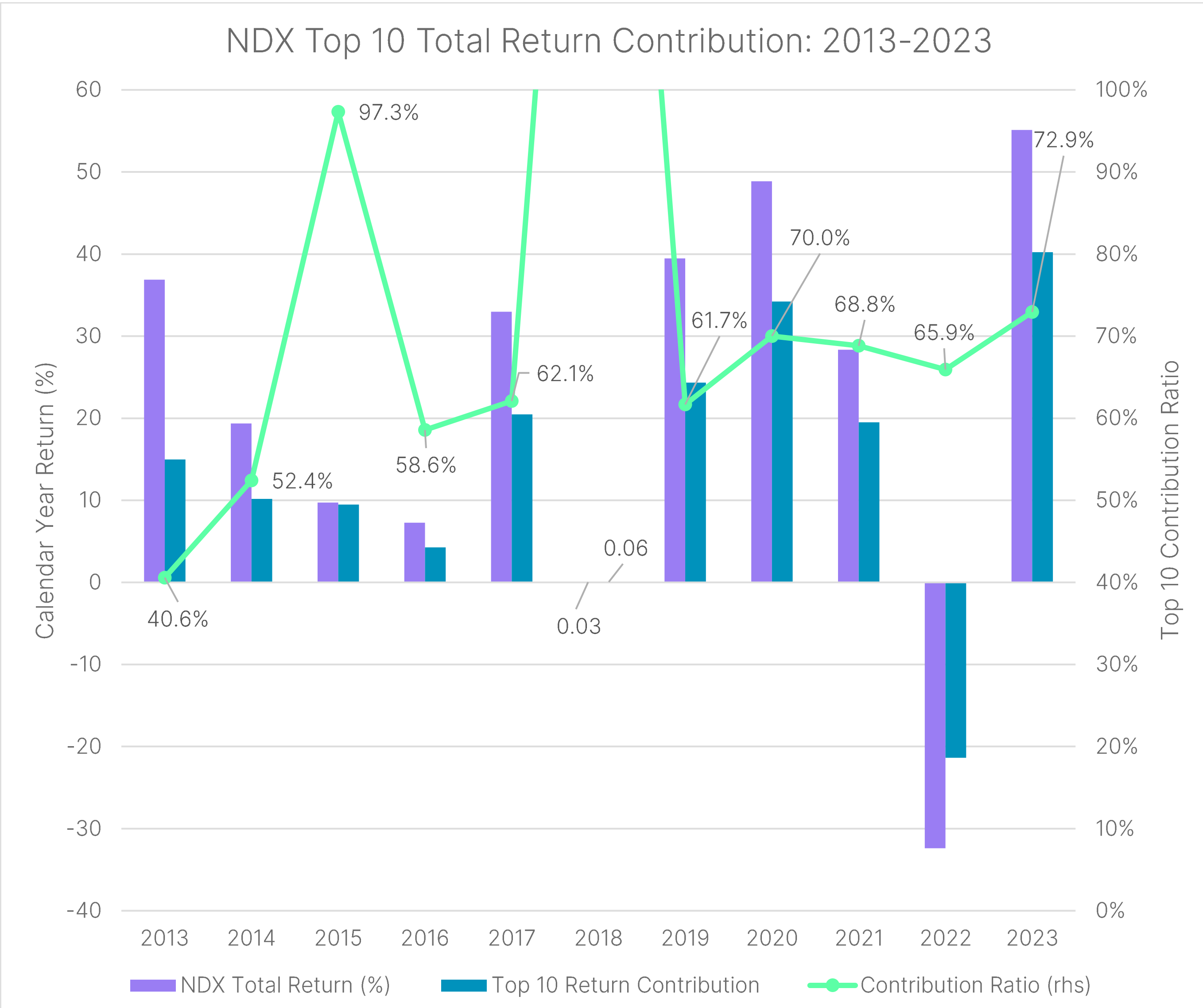
NDX Top 10	December 31, 1999	NDX Top 10	December 31, 2023
Market Cap ($B)	Company Name	Market Cap ($B)	Company Name
$602.4	Microsoft Corporation	$2,994.4	Apple Inc.
$366.5	Cisco Systems, Inc.	$2,794.8	Microsoft Corporation
$275.0	Intel Corporation	$1,633.5	Alphabet Inc.
$159.5	Oracle Corporation	$1,570.2	Amazon.com, Inc.
$150.6	WorldCom Inc.	$1,223.2	NVIDIA Corporation
$130.8	Dell Inc.	$789.9	Tesla, Inc.
$125.5	Ericsson	$785.7	Meta Platforms Inc.
$121.8	Sun Microsystems	$522.6	Broadcom Inc.
$116.2	QUALCOMM, Inc.	$292.9	Costco Wholesale Corporation
$113.9	Altaba, Inc. (f/k/a Yahoo!)	$271.6	Adobe Inc.

Nasdaq-100 Return Concentration: 2023 vs. Historical Record

NDX experienced an extraordinary run-up in 2023, up 53.8% on a price-return basis. Driven by eye-popping returns across its largest constituents – the “Magnificent Seven” of Apple, Microsoft, Alphabet, Amazon, Meta Platforms, Tesla, and Nvidia, which as a group gained 111.6% on average for the year – the index has once again attained valuations last seen prior to the bear market in 2022. NDXE saw much more muted gains, up only 32.6%.

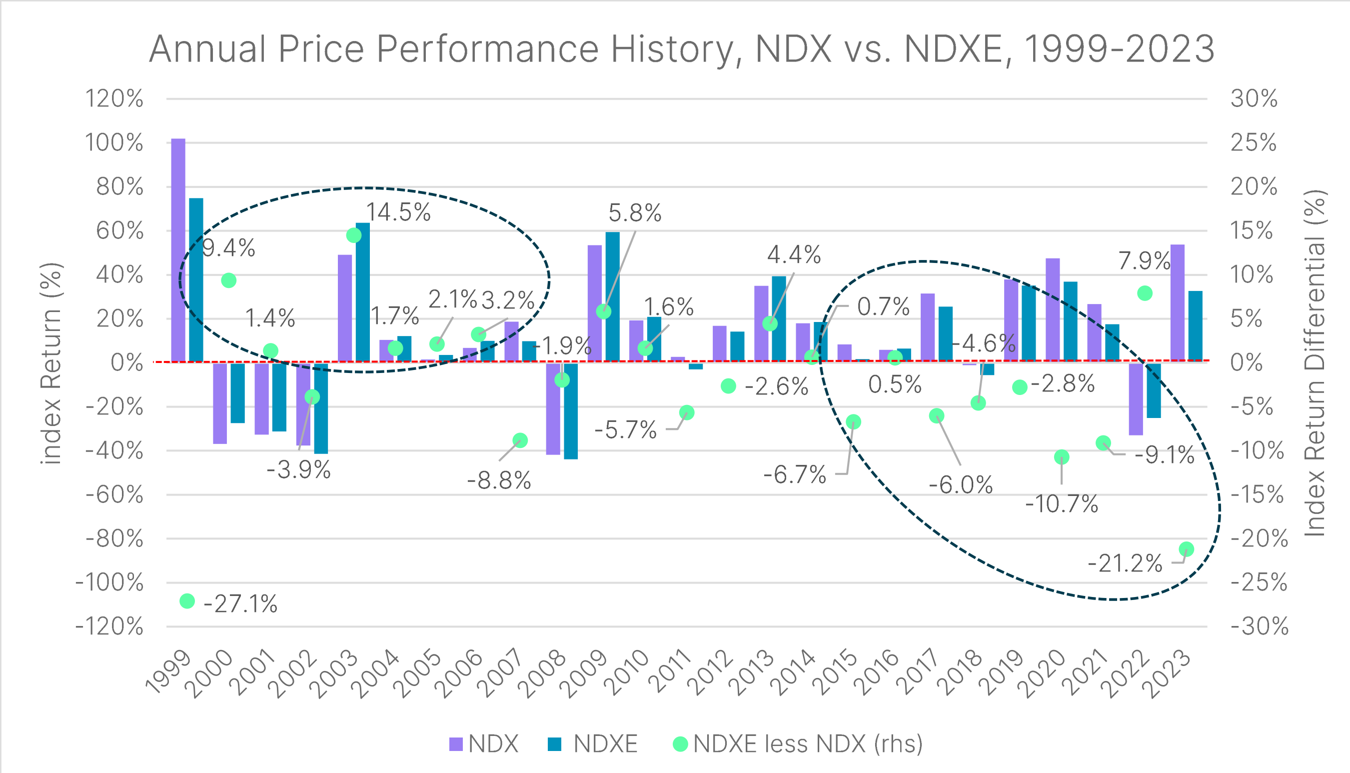
Since the Magnificent Seven is a fairly recent grouping preference by the investment community – and there have been multiple iterations of FANG/FAANG/FANGMA over the past decade – it may be simplest to consider an analysis of the top 10 largest index constituents (company-level), by weight, over each of the past 10 years to put

2023's performance concentration in perspective. Specifically, the top 10 highest-weighted companies in the Nasdaq-100 (based on average weights throughout the year) contributed 40.2% of the index's 55.1% total return, for a contribution ratio of 72.9%. This is indeed higher than any year in the past decade except 2015, when the top 10 contributed 97.3% of that year's 9.7% index-level total return. On average, over the decade preceding 2023, the top 10 NDX weights contributed only 64.2% of the index's returns. (We are excluding consideration of 2018, during which the index returned 0.03%). This was, in turn, notably higher than the top 10's cumulative contribution ratio of 56.0% observed from 2002-2012. The trend for NDX has thus been towards steadily higher performance concentration throughout much of the 21st century.



NDX/NDXE Performance Gap: 2023 vs. Historical Record

2023 witnessed the largest outperformance of NDX vs. NDXE since 1999, when the two indexes gained 102.0% and 74.9%, respectively. Following that historic year, NDXE went on to outperform NDX six out of the next seven years, including in 2003 when it was up 63.6% vs. 49.1% -- the first year of positive returns for either index since 1999. NDXE also outperformed NDX by approximately 8% in 2022's bear market, and may yet again be primed for a period of outperformance as valuations across the rest of the indexes' constituents either catch up to the Magnificent Seven, or vice versa.

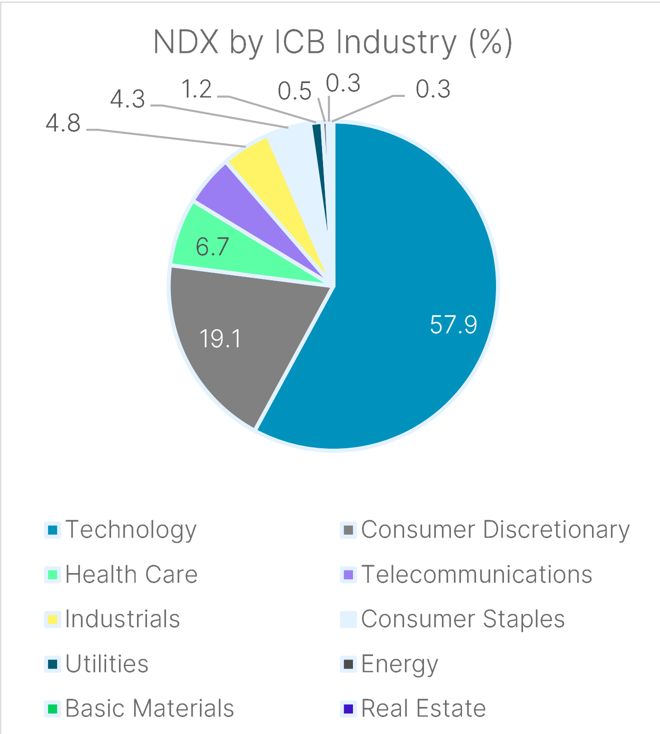


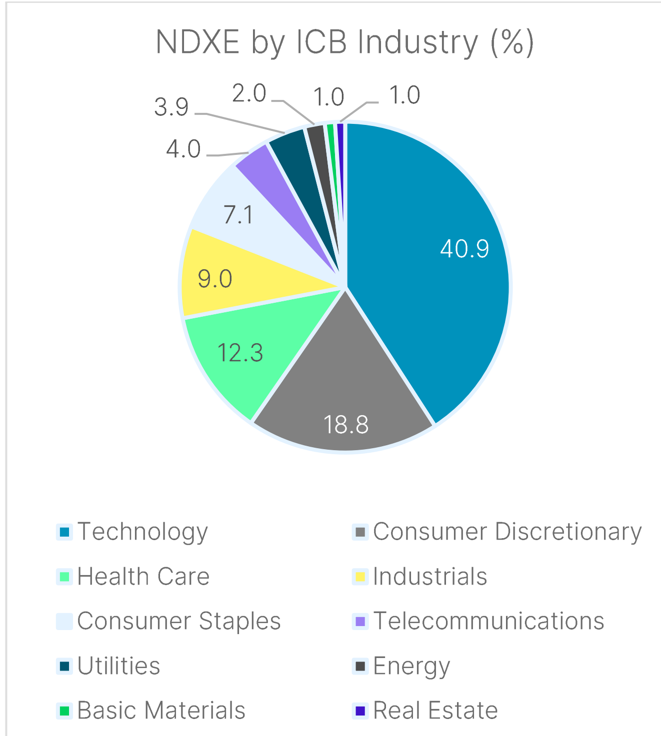
NDXE's equal-weighting approach means that there is less of an implicit bet on mega-cap firms in general. Instead of a weighted-average market cap of $834Bn for NDX, NDXE's average market cap of $191Bn reflects a 77% reduction in the index's typical constituent size. If Microsoft, Amazon, Alphabet or Apple (currently weighted between 5-10% each in NDX) were to experience a particularly bad day or month or year (down 50%, for example), the impact of a loss is muted by approximately 80-90%, reducing total portfolio drag. Indeed, this is what we observed in 2022 as the biggest NDX constituents entered bear markets and disproportionately drove losses in the index. Of the NDX's 32.4% total-return loss for the year, the seven largest constituents were all ranked at the very bottom in terms of return contribution, down by 46% on average and contributing a loss of 21% -- or nearly two-thirds of the overall index total, despite averaging just under half of the index weight. In stark contrast, these names contributed only 3.3% of the 24.3% loss in NDXE, or roughly one-seventh of the overall index total return. On average, the negative return contribution for these seven constituents was 83% lower in NDXE vs. NDX, doubtless helping drive an outperformance by the equal-weighted version of 8.1% in 2022 (7.9% in on a price return basis).

Company Name	Average NDX Weight, FY'22	Total Return, FY'22	NDX Return Contribution	NDXE Return Contribution	Reduction in Return Contribution
Amazon	6.6%	-50%	-3.6%	-0.5%	86%
Tesla	4.1%	-65%	-3.4%	-0.7%	78%
Apple	12.9%	-26%	-3.3%	-0.3%	92%
Meta Platforms	3.2%	-64%	-3.0%	-0.8%	73%
Microsoft	10.4%	-28%	-2.7%	-0.3%	90%
NVIDIA	3.3%	-50%	-2.0%	-0.5%	77%
Alphabet	7.3%	-39%	-2.9%	-0.2%	86%
Total/Average	47.7%	-46%	-21.0%	-3.3%	83%

NDX vs. NDXE: Sector (ICB Industry) Exposure Differentials

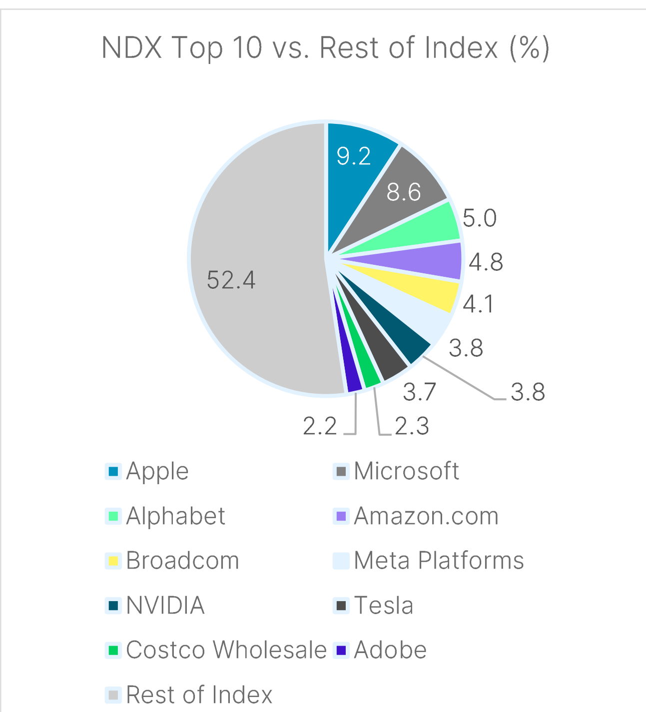
As of December 31, 2023, NDXE's exposure to the Tech sector (per ICB Industry) is approximately 17 percentage points lower than NDX, with the bulk of the difference made up by increased exposures to Health Care, Industrials, and Consumer Staples:

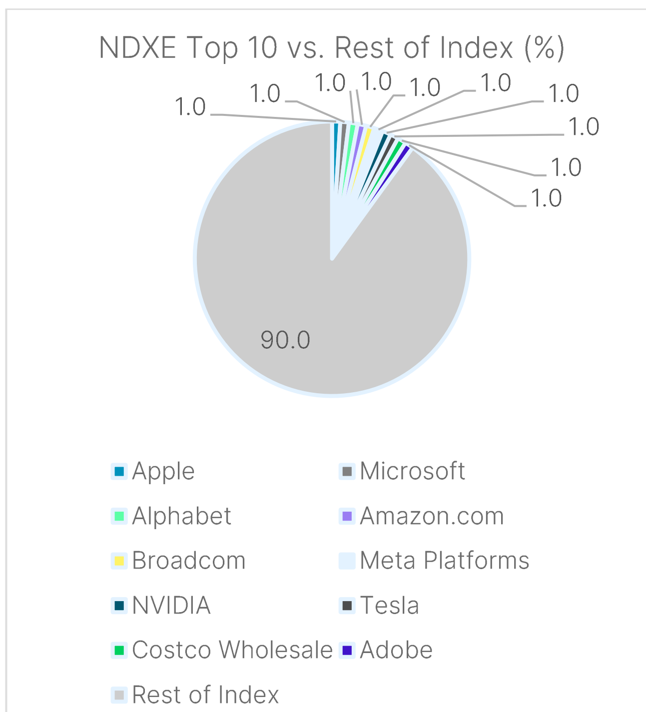




NDX vs. NDXE: Top 10 Concentration

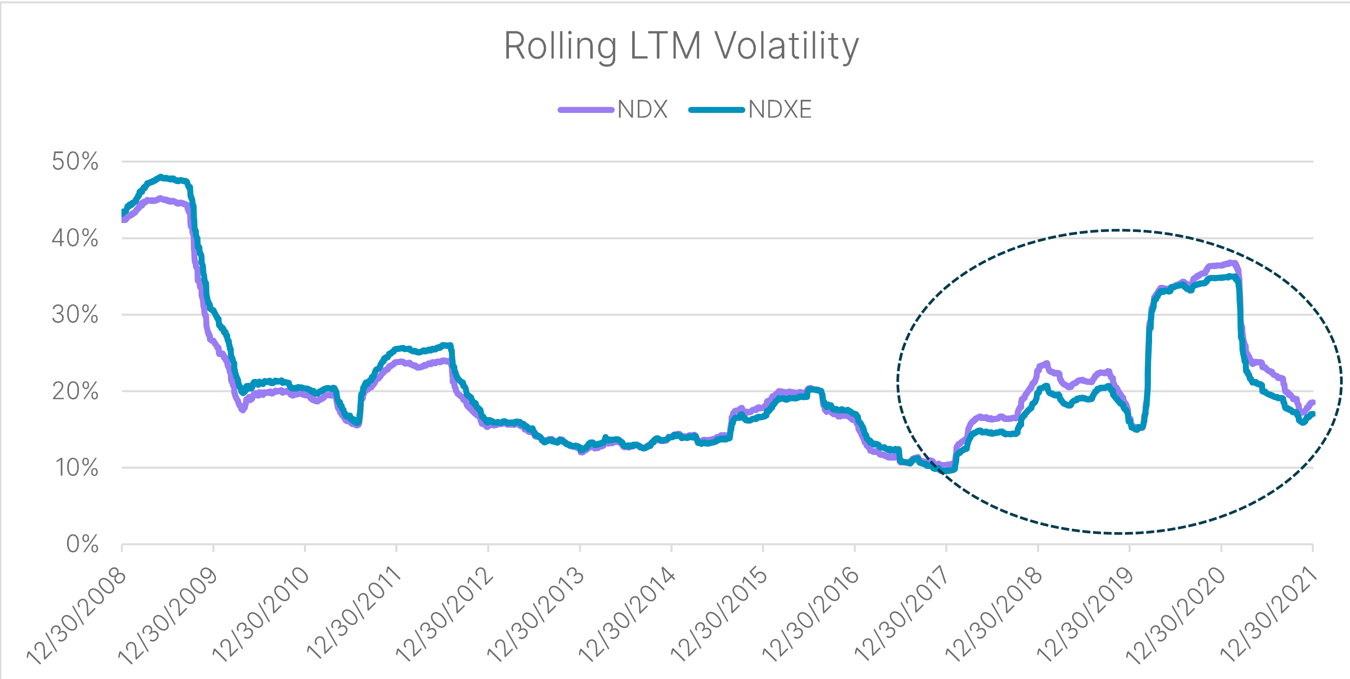
NDXE's concentration in its top 10 constituent companies is only 10% of index weight vs. nearly 48% for NDX:



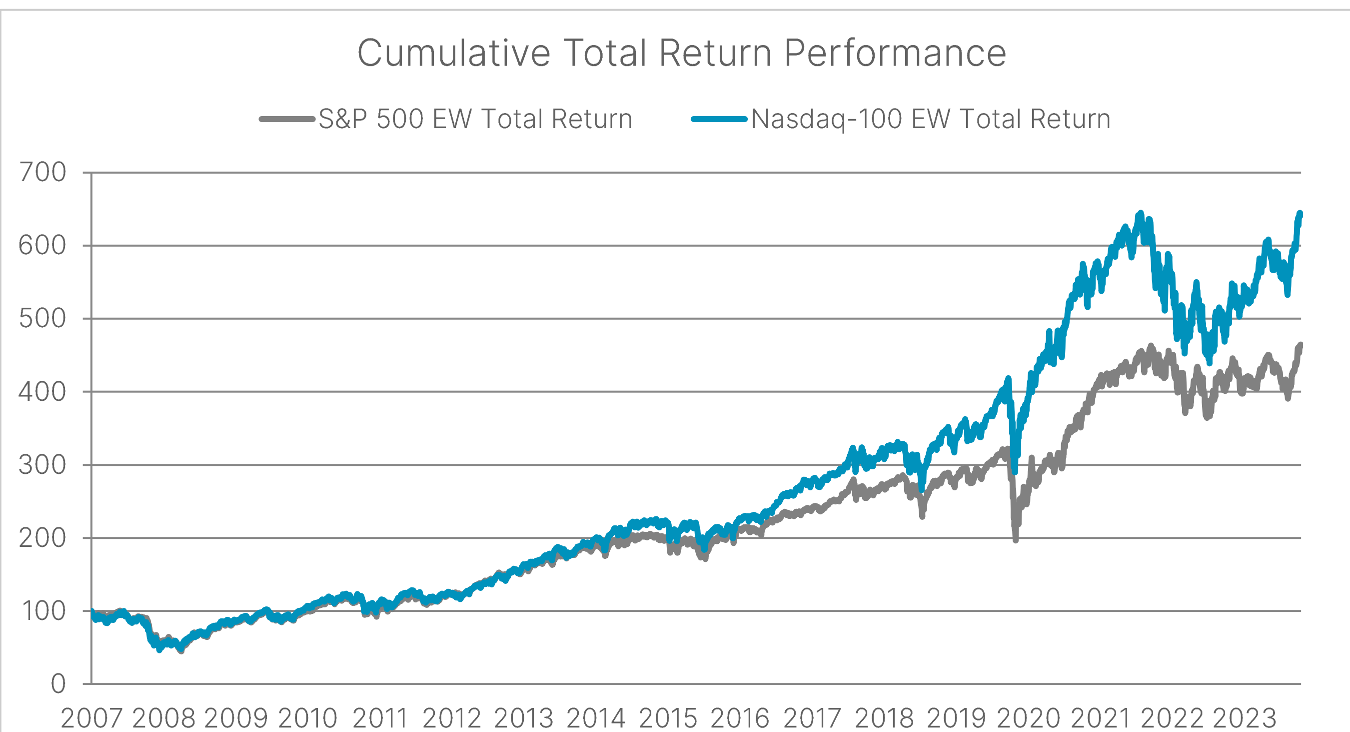


NDX vs. NDXE: Volatility Differentials Swinging in Favor of Equal-Weight

NDXE's lower single-stock concentration and more diversified sector exposures – which tend to be towards lower beta, more defensive/value-oriented areas such as Health Care, Industrials, and Consumer Staples – have led to consistently lower volatility over the past seven years: 23.0% annualized vs. 24.6% for NDX (based on daily returns from December 31, 2016 – December 31, 2023).



NDXE vs. S&P 500 Equal Weight: Outperformance Mirrors NDX vs. S&P 500



Compared to the S&P 500 Equal-Weighted Index, the Nasdaq-100 Equal Weighted Index has delivered impressive outperformance over an extended time horizon, up 542% on a total-return basis from December 31, 2007 – December 31, 2023 vs. only 363% for its competitor benchmark. On an annualized basis, that translates to nearly 230 bps of outperformance each year (12.3% vs. 10.0%).

NDXE Can Offer Investors a Tactical, Complementary Tool to Manage NDX Exposure

While betting against the Nasdaq-100 has not proven to be an enduring strategy for much of the 21st century, the index is very much prone to swings in performance and valuations that are driven by its largest constituents. Investors who recognize the benefits of tracking the index for its fundamental strength and exposure to innovation-driven growth can always look to its equal-weighted version as a tactical tool for navigating market fluctuations. For investors concerned about excessive concentration in the Nasdaq-100's largest constituents or the Tech sector more broadly, NDXE offers a complementary tracking tool that can be used to tactically to manage exposure risk while continuing to deliver similar performance much of the time.

Products currently tracking NDXE include the First Trust Nasdaq-100 Equal Weighted ETF (Nasdaq: QQEW), the Direxion Nasdaq-100 Equal Weighted Shares ETF (Nasdaq: QQQE), the Invesco Nasdaq-100 Equal Weight UCITS ETF (London: IEWQ), the Invesco NASDAQ 100 Equal Weight Index ETF – CAD / CAD Hedged ETF (Canada: QQEQ / QQEQ.F), and the Betashares Nasdaq 100 Equal Weight ETF (Australia: QNDQ).

Sources: Nasdaq Global Indexes, FactSet, Bloomberg.