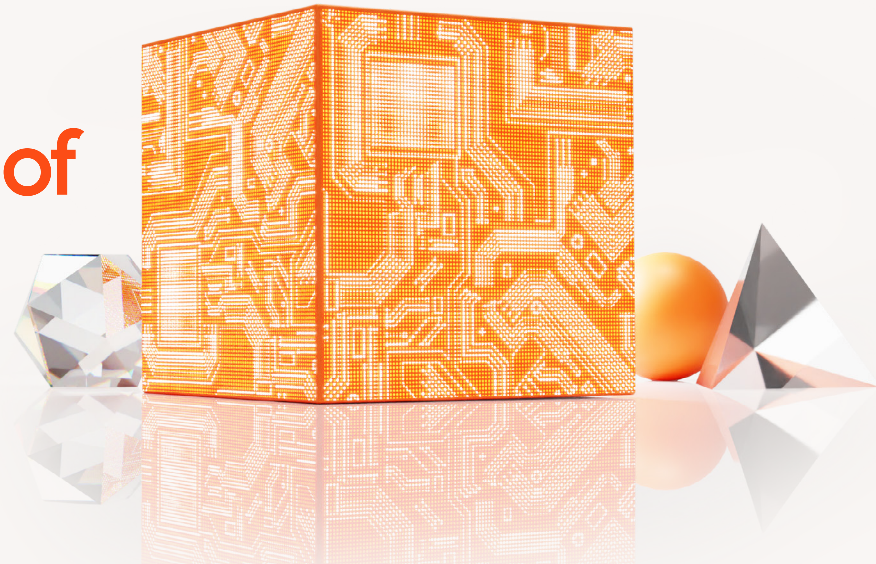
betashares

Nasdaq

Invest in the global leaders of the Nasdaq



ASX: NDQ

Betashares Nasdaq 100 ETF

The Nasdaq-100® (NDX®) was launched on January 31, 1985 to track 100 of the largest non-financial companies listed on the Nasdaq Stock Market®. NDX has become the leading index of companies at the forefront of the 'new economy', home to revolutionary companies such as Amazon, Apple, Google, and Nvidia – household names that continue to change the way we live.

Australian investors can invest in the top 100 companies of the Nasdaq via Betashares Nasdaq 100 ETF (ASX: NDQ). NDQ aims to track the performance of NDX (before fees and expenses). As of June 2024, NDQ has over $4 billion in assets under management, invested on behalf of more than 200,000 investors. With its strong focus on technology and adjacent sectors in the new economy, NDQ provides diversified exposure to a high-growth potential sector that is under-represented in the Australian sharemarket.

For investors who want exposure to the Nasdaq-100, and are looking to minimise the impact of currency fluctuations on investment returns, Betashares offers the Betashares Nasdaq 100 Currency Hedged ETF (HNDQ). HNDQ obtains its investment exposure by investing in NDQ, with the foreign currency exposure hedged back to the Australian dollar.

The following discussion of NDX was written by Mark Marex, CFA, Senior Director, Nasdaq Index Research & Development.

Although some of the discussion focuses on past performance of NDX and other indices, it is important to bear in mind that past performance is not indicative of future performance.

Nasdaq-100 Index®
Leader in Innovation, and a Benchmark for the 21st Century

The Nasdaq-100® (NDX®) was launched on January 31, 1985 to track 100 of the largest, domestic and international, non-financial companies listed on the Nasdaq Stock Market®. Because it is inextricably tied to the history and identity of Nasdaq as an exchange – which launched in 1971 as the world's first fully electronic stock market – the Nasdaq-100 offers a truly unique exposure compared to other broad benchmarks of US large cap and/or growth equities.

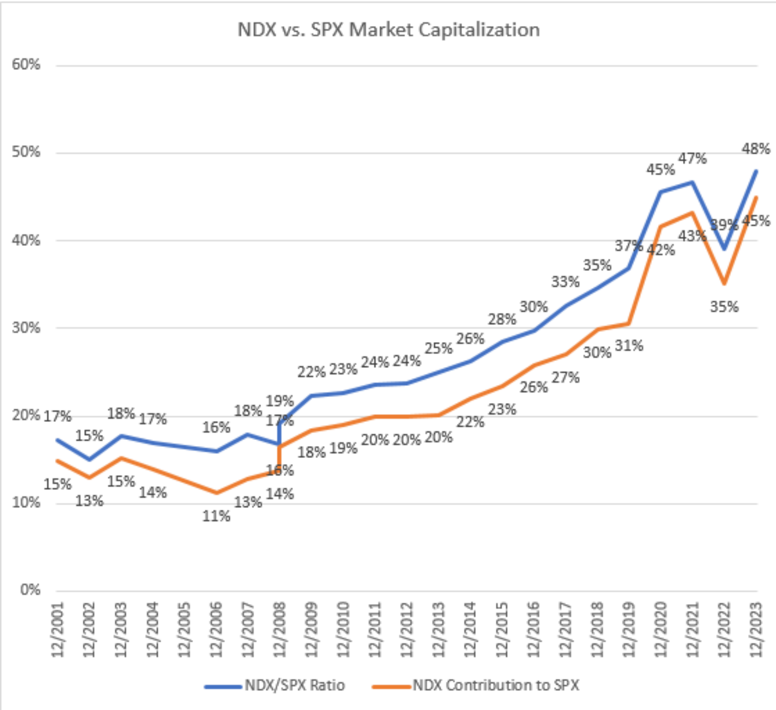
Reasons to consider NDX:

- NDX has outperformed the S&P 500 Index for 12 of the past 15 calendar years, including by approximately 30% each in 2023/2020/2009
- On a cumulative basis from 2008-2023, NDX has outperformed the S&P 500 Index, which has similar volatility, by 2.4x, the S&P 500 Growth Index by 1.9x, and the Russell 1000 Growth Index by 1.6x
- Over the same timeframe, NDX has achieved similar returns to the standalone Technology sector, while providing ~2x the diversification (58% Tech exposure per ICB / 50% per S&P GICS as of December 31, 2023)
- Consistent exposure of ~80-85% to the top 3 "new economy" sectors (Tech + Consumer Discretionary + Health Care) that are driving overall economic growth in the 21st century
- At the forefront of innovation, NDX companies consistently lead in R&D spending, disruptive tech patent filings, and patent valuation growth vs. rest of US & Global ex-US equities
- Innovation focus has led to outstanding fundamental growth in the 21st century (~6x more growth in earnings vs. S&P 500 since 2003; ~4x more growth in revenues)

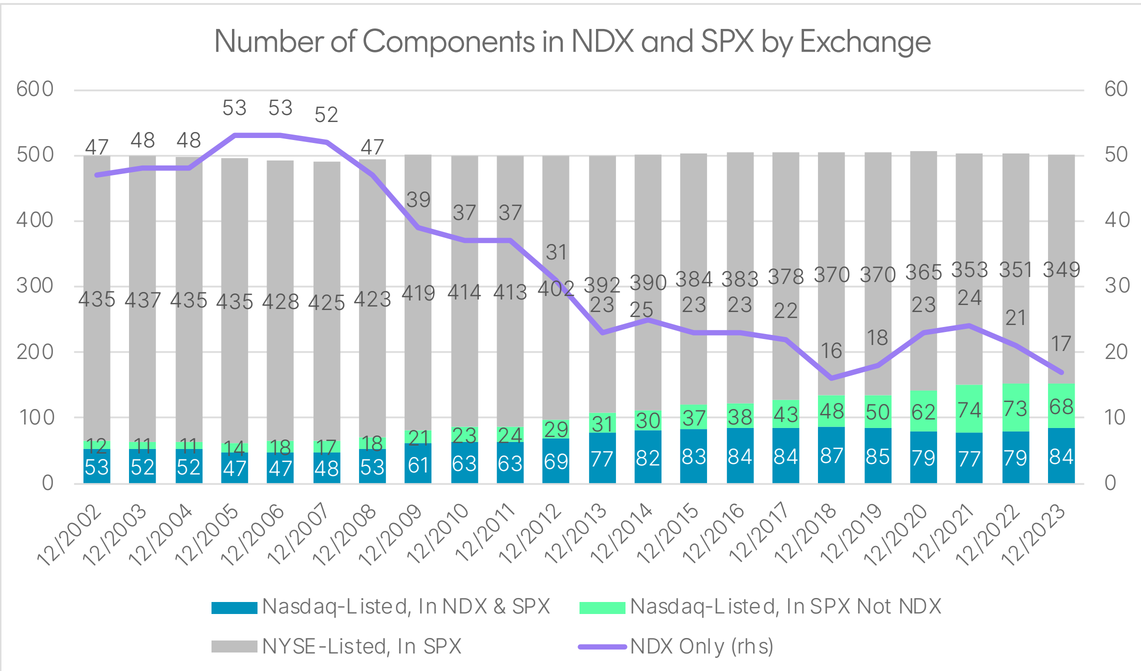
Note: Past performance returns cited above are not indicative of future performance.

Nasdaq-100's Evolution into a Core Portfolio Holding

Over the course of the 21st century, the ratio of the aggregate market cap of the Nasdaq-100 (NDX) vs. the S&P 500 (SPX) has grown from the low-to-mid teens to nearly 50%. This has been a combination of an increase in the number of Nasdaq-100 companies being included in the S&P 500 (rising from around 50 initially to more than 80 in recent years), and the substantial growth in the individual market caps of many of those companies. The Nasdaq-100 is now no longer a small part of the US equity market; it is also more of a true large-cap index than the S&P 500, with an average market cap of ~$200B vs. ~$80B as of year-end 2023. On a median basis, NDX companies are still nearly twice as large, $59B vs. $33B.

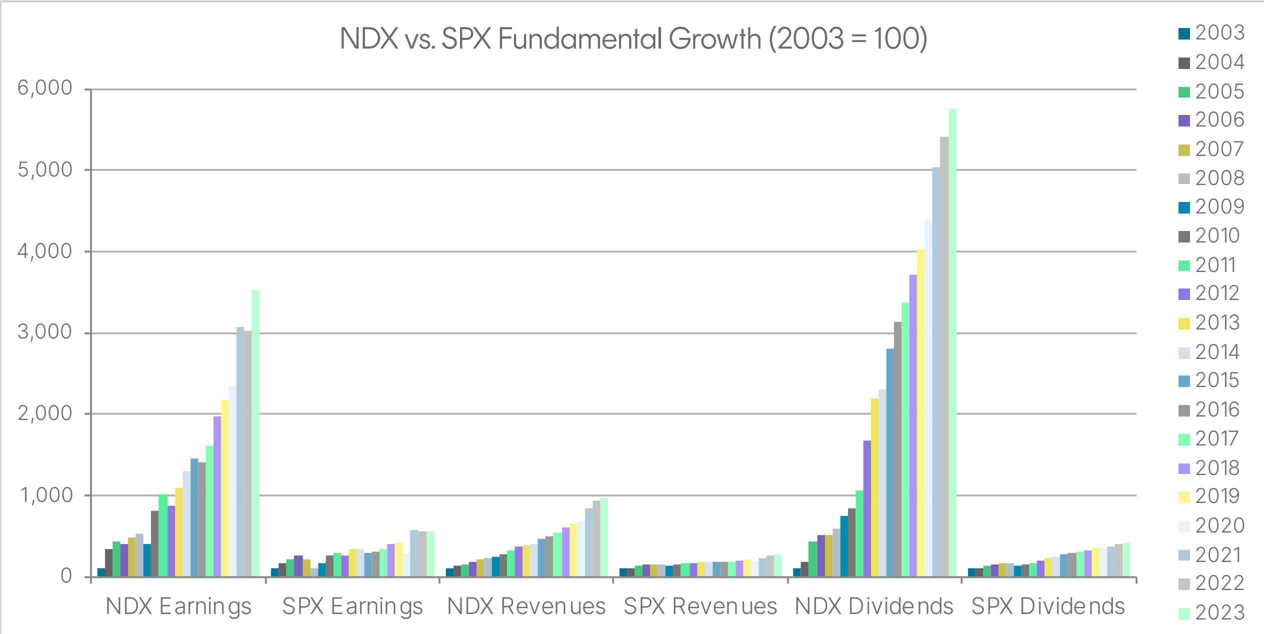


'NDX/SPX Ratio' reflects NDX's market capitalisation as a percentage of SPX's market capitalisation. 'NDX Contribution to SPX' reflects the market capitalisation of NDX companies in SPX as a percentage of SPX's market capitalisation.



Fundamental Strength as a Basis for Outperformance

Over the past two decades, NDX has grown its earnings by a factor of ~35x vs. only ~6x for SPX; its revenues by ~10x vs. only ~3x for SPX; and dividends by ~58x vs. only ~4x for SPX. On a compound annual growth basis (CAGR), this translates into annualised earnings growth of 19.5% vs. 9.0%; revenue growth of 12.0% vs. 5.1%; and dividend growth of 22.5% vs. 7.5%. These wide disparities in fundamental growth rates have been observed despite the steadily increasing overlap between the two indexes, indicating that the majority of topline and bottom-line growth occuring across the US large cap equity space has been driven by Nasdaq-100 companies.



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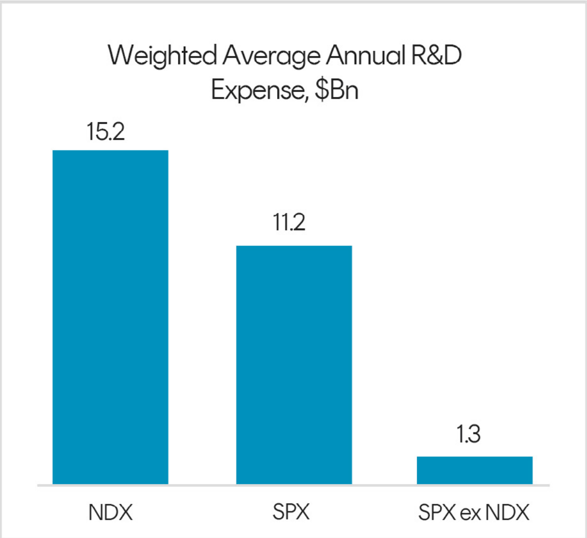
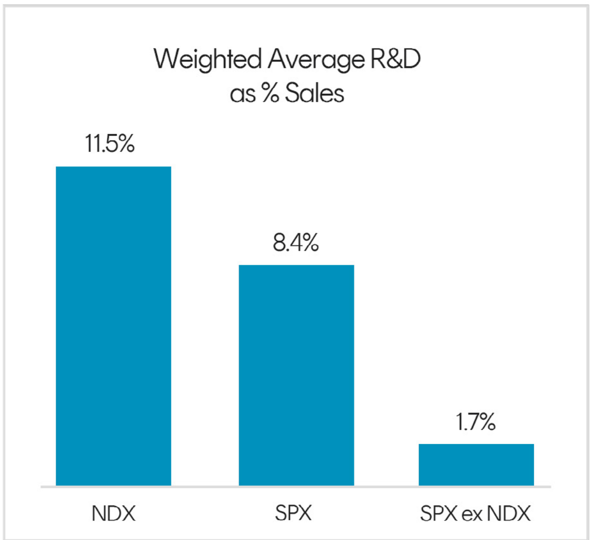
Innovation Drives Growth in the Modern Economy

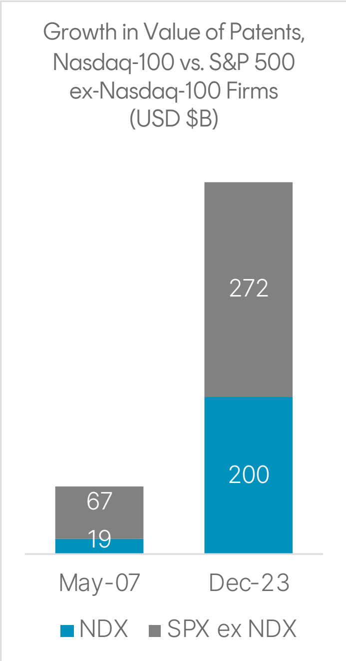
The largest, most successful companies of the 21st century (Nasdaq-listed Alphabet, Amazon, Apple, Meta Platforms, Microsoft, NVIDIA & Tesla) are perennial leaders in driving innovation within their respective domains. In order to explain the accelerated fundamental growth of the Nasdaq-100 over the past two decades – and ultimately its outperformance record – we can quantify the innovation taking place within the index and compare it against other companies in the US and globally. The easiest approach is analysing research & development (R&D) expenses, which are provided in company financial statements. Compared to the S&P 500, Nasdaq-100 companies spend ~1.4x more in R&D on a weighted average basis ($15.2B vs. $11.2B in 2023). However, compared to the portion of the S&P 500 that does not overlap with the Nasdaq-100, NDX companies spent ~11.4x times as much on average. Even when normalising R&D as a percentage of company sales, the gap is still vast: on a weighted average basis, NDX companies reinvested ~7x as much of their topline revenues back into R&D in 2023 (11.5%), compared with the ~420 companies in the S&P 500 that do not overlap (1.7% for SPX ex NDX).

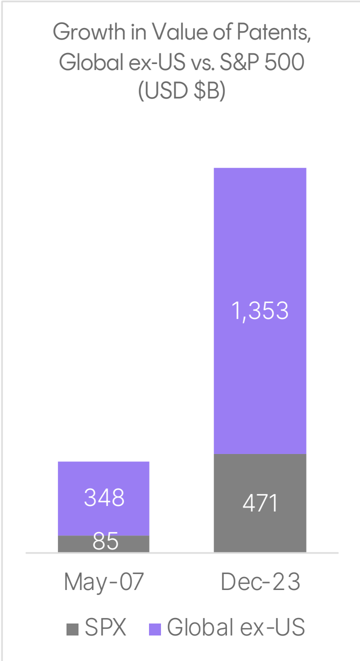


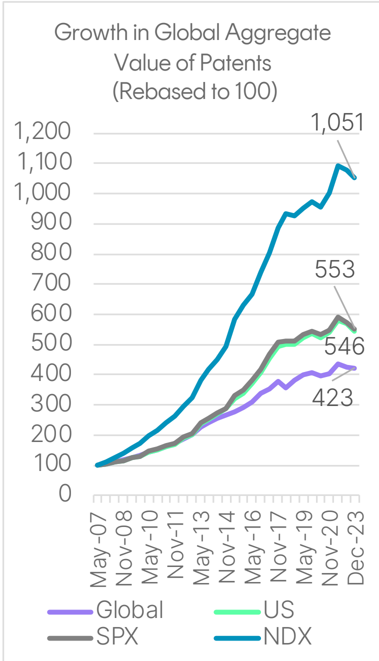


We can quantify this even further with alternative datasets on patent valuations and patent filings. In terms of patent portfolio valuations, NDX companies have seen an increase of 951% since the earliest date of our dataset in 2007, vs. only 453% growth in SPX; again, after stripping out the overlapping companies, the discrepancy grows with SPX ex NDX companies increasing their patent valuations by only 307%. This rate is in-line with the global growth rate of patent values ex-US (289%); in other words, the overwhelming driver of the US' outperformance vs. global in terms of patent valuation growth over the past decade and a half has been Nasdaq-100 companies. Without them, patent valuation growth in the US would closely resemble the rest of the world.

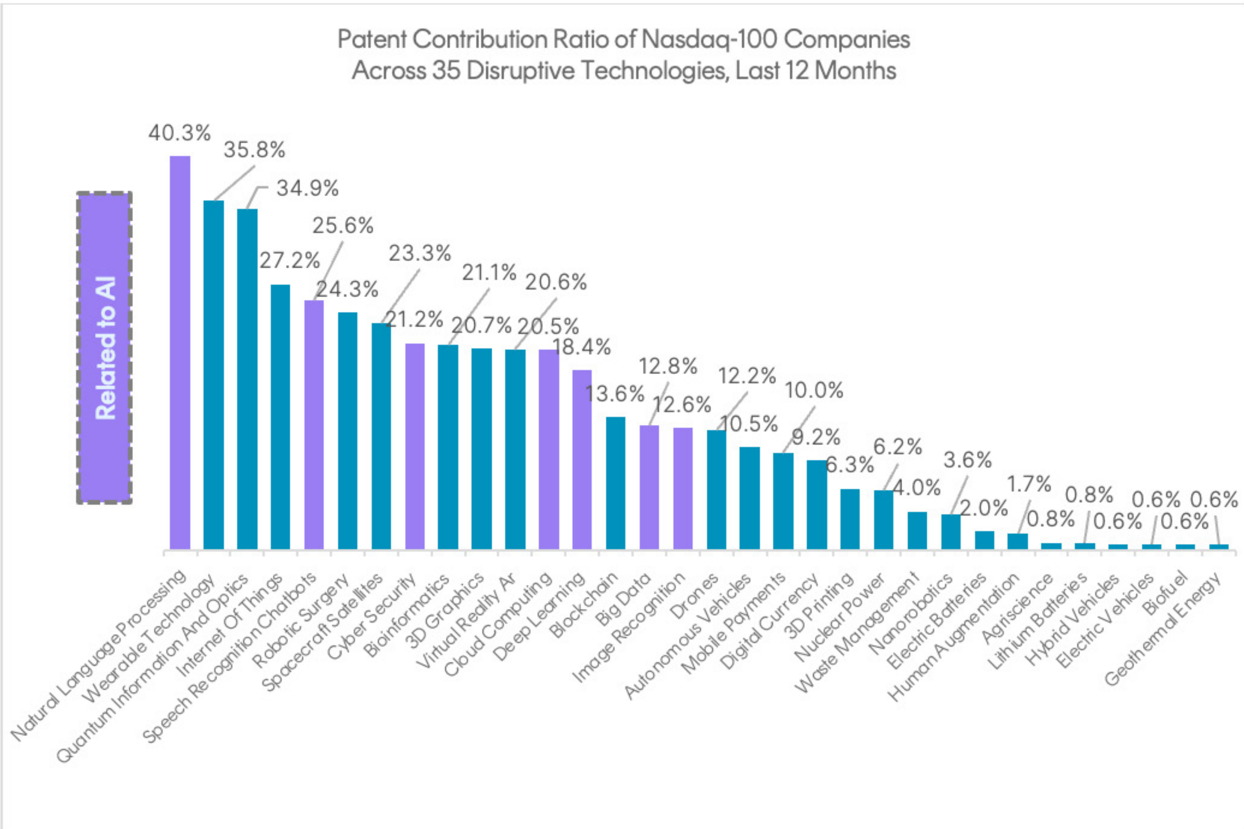
There is yet one more patent-related dataset that informs the breadth and depth of innovation taking place within the Nasdaq-100. Nasdaq's own dataset of rolling 12-month global patent filings identifies 35 specific disruptive technologies that a patent may be related to, many of which – such as Natural Language Processing (NLP), Speech Recognition, Cloud Computing and Deep Learning – play a vital role in the advancement of Artificial Intelligence. This dataset has consistently shown that Nasdaq-100 companies overachieve in terms of their share of patents filed relating to many of these technologies. In the most recent 12-month window of data as of November 2023, for example, Nasdaq-100 companies contributed 40% of all patents filed relating to NLP, among ~20,000 publicly traded companies globally.







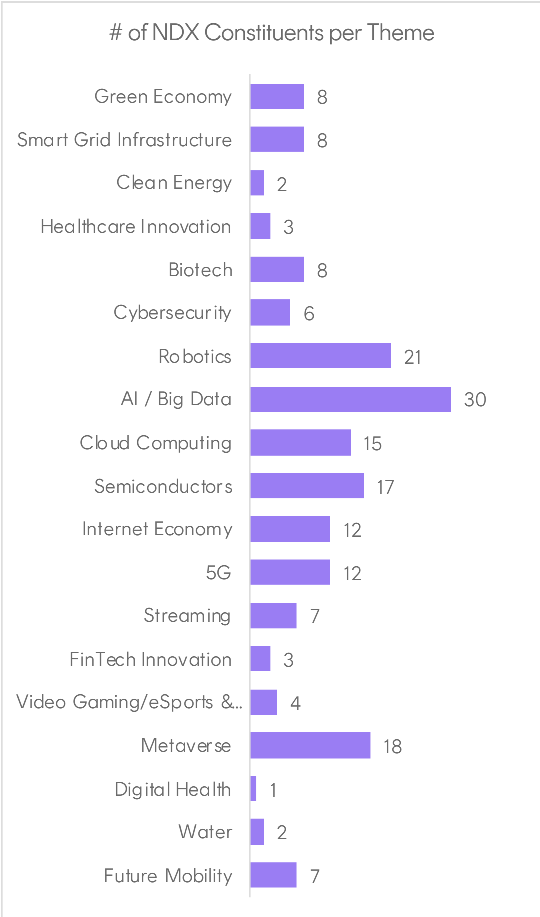
Source: Nasdaq Index Research, IPR Strategies Patent Valuation Estimates. Data as of December 31, 2023.

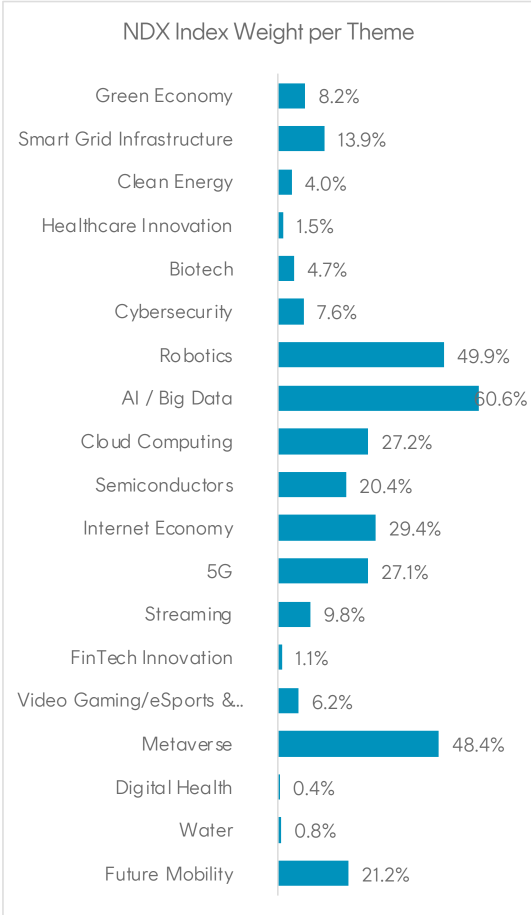


Source: Nasdaq AI, IFI CLAIMS Patent Services. Data as of November 30, 2023.

Nasdaq-100 Thematic Exposures

Reinforcing the idea that NDX provides significant exposure to some of today's most important innovation-oriented investment themes is the simple analysis of the index's overlap with various thematic indexes that Nasdaq (or, in a few cases, competitor index providers) maintains to provide more targeted one-off exposure. As of December 31, 2023, 30 of the index's constituents were also featured in one or more of Nasdaq's AI indexes, representing 60.6% of NDX index weight. Other areas of substantial exposure include Semiconductors (17 constituents, 20.4% of index weight), Cloud Computing (15 constituents, 27.2% of index weight) and Internet Economy (12 constituents, 29.4% of index weight). In essence, the Nasdaq-100 can function as a kind of "multi-thematic" benchmark for investors who are looking to track multiple themes that are accelerating the modern economy.





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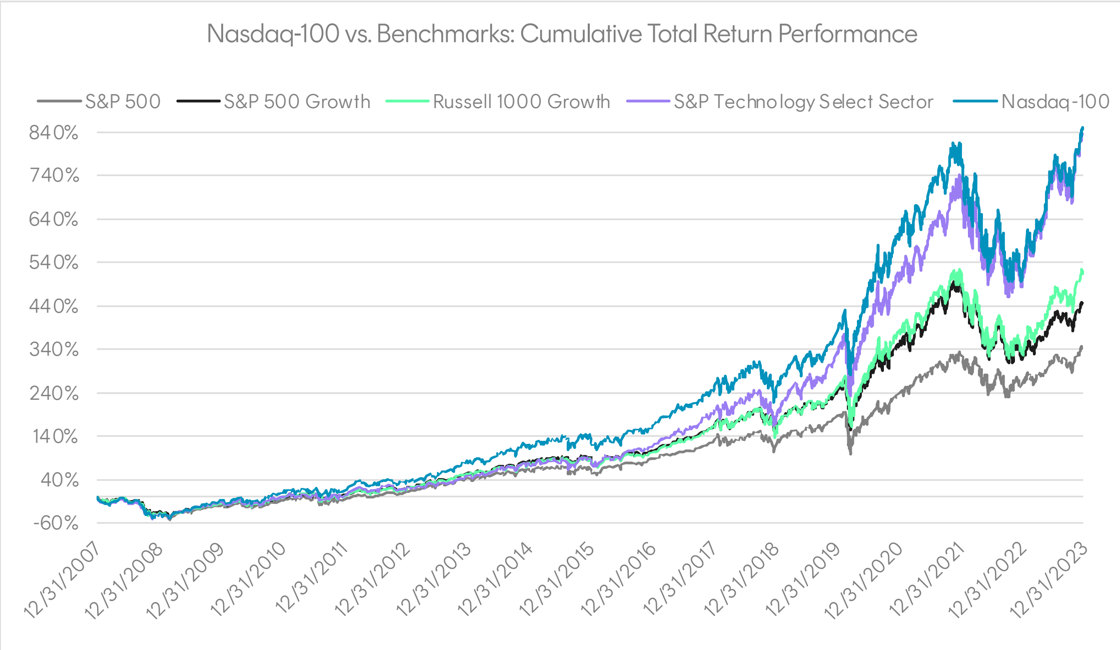
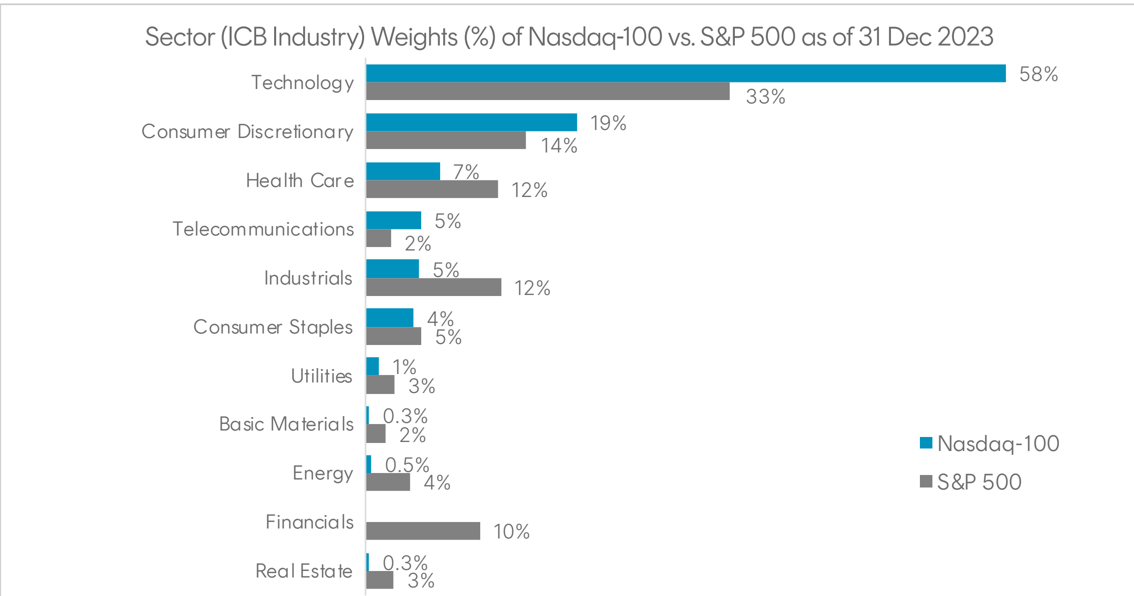
NDX vs. Benchmarks
Substantial, Long-Term Outperformance

Compared to the S&P 500 Index, the Nasdaq-100 Index has delivered impressive outperformance over an extended time horizon, up 847% on a total-return basis from December 31, 2007 – December 31, 2023, vs. only 348% for its competitor benchmark. On an annualised basis, that translates to more than 500 bps of outperformance each year (15.1% vs. 9.8%). Over the same timeframe, leading US large cap growth benchmarks such as the Russell 1000 Growth and the S&P 500 Growth also produced substantially lower returns, up 522% and 449%, respectively. Despite Tech sector exposure of only 50-60%, the Nasdaq-100 generated returns in line with the S&P Tech Select Sector Index. As of year-end 2023, sector exposures (per ICB Industry) were 58% Tech, 19% Consumer Discretionary (includes Amazon/Tesla/Netflix), and 7% Health Care for a combined 84% exposure to “New Economy” sectors, vs. only 59% for the S&P 500.



Past performance is not indicative of future performance. Returns shown are index returns and do not take into account ETF management fees and costs. You cannot invest directly in an index. Performance is shown in USD and therefore does not reflect performance in AUD terms, which would be affected by movements in the AUD/USD exchange rate.



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Summary
Nasdaq-100 as a Benchmark for the 21st Century

The Nasdaq-100's disproportionate focus on innovation-driven, forward-thinking companies is inextricably tied to Nasdaq's history as an exchange dating back to 1971; the vast majority of the index's exposure is thus to companies that have come of age fairly recently, relative to the history of IPOs in the US and globally. Beyond that, Nasdaq has earned its reputation as a destination exchange for companies operating in the "new economy" sectors of Technology, Consumer Discretionary, and Health Care. Over the years, it has steadily grown its share of IPOs in the US, as more and more companies have leveraged an IPO on Nasdaq to signal their strategic focus on innovation to their investors.

The Nasdaq-100 has evolved over the course of the 21st century to represent a substantial portion of the overall US equity market, now nearly 50% of its market capitalisation as of year-end 2023. It has grown its revenues and earnings at a rate more than double the US large cap space. As a result, it has more than doubled the performance of the S&P 500 over a long time horizon of 16 years, while also significantly outperforming leading US large cap growth benchmarks. Nasdaq-100 companies often place innovation at the forefront of their growth strategy, historically spending 7-11x as much on R&D (depending on the measure used) vs. other US large caps. The result has been a steady advantage in their ability to uncover, accelerate, and leverage many of the crucial innovations that are driving the 21st century modern economy forward.

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Methodology Overview

The index begins with the universe of all companies, both domestic and foreign, that are listed on the Nasdaq Stock Market® (issuer of the security's primary US listing must exclusively be listed on the Nasdaq Global Select Market® or Nasdaq Global Market® exchanges). The index then removes all companies classified as Financials from eligibility according to the Industry Classification Benchmark (ICB), as well as companies organised as Real Estate Investment Trusts (REITs). ADRs are permitted in addition to common stocks, ordinary shares, and tracking stocks. There is no market capitalisation or float eligibility criterion. Each security must have a minimum average daily trading volume of 200,000 shares, and must have traded for at least three full calendar months (not including the month of initial listing), on an eligible exchange, using a reference date of October month-end.

At each annual Index Reconstitution in December, constituents are ranked by market capitalisation and are considered for inclusion based on the following order of criteria:

- The top 75 ranked Issuers will be selected for inclusion in the Index.
- Any other Issuers that were already members of the Index as of the Reconstitution reference date and are ranked within the top 100 are also selected for inclusion in the Index.
- In the event that fewer than 100 issuers pass the first two criteria, the remaining positions will first be filled, in rank order, by issuers currently in the index ranked in positions 101-125 that were ranked in the top 100 at the previous Reconstitution or replacement-or spin-off-issuers added since the previous reconstitution.
- In the event that fewer than 100 issuers pass the three criteria, the remaining positions will be filled, in rank order, by any issuers ranked in the top 100 that were not already members of the Index as of the Reference Date (October month-end).

The index is a modified market capitalisation-weighted index that is rebalanced quarterly in March, June, September, and December. Initial weights are determined by dividing each Index Security's market capitalisation by the aggregate market capitalisation of all Index Securities. Separate weight adjustment processes are applied on a quarterly basis in March, June and September vs. annually in December when the index reconstitutes. On a quarterly basis, individual issuers are capped at 20% if any one exceeds 24%. If the aggregate weight of issuers with weights exceeding 4.5% remains below 48%, no further adjustment is needed; if it exceeds 48%, that group of issuers is capped at 40%. On an annual basis, individual issuers are capped at 14% if any one exceeds 15%. If the aggregate weight of the five largest market cap securities remains below 40%, no further adjustment is needed; if it exceeds 40%, that group of securities is capped at 38.5%; all others are capped at the lesser of 4.4% each or the final index weight of the 5th-ranked index security.

In addition, a Special Rebalance may be conducted at any time based on the weighting restrictions described in the Index Rebalance Procedure if it is determined to be necessary to maintain the integrity of the Index. Also, if an issuer of an index security has an adjusted market capitalisation below 0.10% of the aggregate adjusted market capitalisation of the Index for two consecutive month ends, it will be removed from the Index and replaced as soon as practicable.

Chart sources: Nasdaq Global Indexes, FactSet, Bloomberg, Nasdaq AI Team, IPR Strategies