The Nasdaq Technology Dividend™ Index: A Great Complement to Traditional Dividend Portfolios

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The Technology sector has seen a seismic shift over the past decade, characterized by new technologies, a maturation of business models and strong fundamentals. The shift to the cloud, the proliferation of software-as-a-service subscription-based models, and the emergence of new disruptive technologies such as artificial intelligence, augmented reality, virtual reality, blockchain, and 3D printing has led to an acceleration in earnings, cash flow, and dividends for the sector. The societal impact cannot be understated either, with AI alone expected to contribute roughly $15 trillion to global output by 2030, which is more than the current output of China and India combined[1].

The Technology sector's relative resilience over recent years further underscores how critical it has become to the overall economy. As a case in point, it has shown remarkable resilience in the face of material adverse shocks such as the Covid-19 pandemic. Post pandemic, in 2022, it saw considerable declines due to the pressure from macroeconomic headwinds. These declines reversed quickly in 2023 with the sector outperforming yet again, led by a new secular growth driver in AI.

In recent years, the Tech sector has offered attractive dividends without sacrificing growth, making it attractive as a dividend play. Traditionally, income-oriented investors favored sectors such as Utilities and Consumer Staples as dividend plays, while largely overlooking growth sectors such as Technology. This perception has now changed.

While AI dominated the narrative in 2023, there are other parts of the market that are beginning to look appealing as investors factor in recent developments. With the Federal Reserve likely to cut rates later this year, there is a possibility for US Treasury yields, which reached a 17-year record high in October 2023, to head lower in 2024 and beyond. This, in turn, may encourage investors to look at dividend-paying stocks for income. As the much-talked about 'soft landing' becomes more of a reality, the market rally is likely to broaden beyond AI and growth stocks. Dividend-paying stocks, which were overlooked this year, might become more appealing.

As a result of the developments outlined above, a strong case for investing in Technology Dividends has emerged. Additionally, the dividend-paying subset of the Tech sector has demonstrated strong cumulative dividend growth, strong fundamentals, and generated strong returns over the last ten years, strengthening the overall investment case.

Launched on June 20th 2012, the Nasdaq Technology Dividend Index (NQ96DIVUS™) currently offers investors exposure to 86 Technology and Telecommunications companies that pay a regular dividend, with a maximum cap of 100 companies. The top 100 eligible securities with the highest dividend per share over the previous 12 months are included in the index. Unlike other competing index products that screen based on

[1] https://www.pwc.com/gx/en/issues/data-and-analytics/publications/artificial-intelligence-study.html

yield, this index screens based on dollar value of dividends. The index is a modified dividend-value weighted index, with sector weights set at 80% for Technology and 20% for Telecommunications. Additionally, all securities' initial weights are determined by each security's trailing 12-month dividend value divided by the sum of all index securities' trailing 12-month dividend values. The final weights for securities in the Technology sector are arrived at after a two-stage weight adjustment process, while the securities in the Telecom sector undergo a one-stage weight adjustment. NQ96DIVUS serves as the underlying index for the First Trust Nasdaq Technology Dividend Index ETF (Nasdaq: TDIV) and The First Trust – FT Cboe Vest Technology Dividend Target Income ETF (Nasdaq: TDVI).

The Technology Sector as a Dividend Play

Consistent with the findings of our previous study on cumulative dividend growth, the Technology sector continues to demonstrate the highest cumulative dividend growth of all sectors[2]. For the period 2013-2023 (which includes activity through 29th December 2023), the Technology subset of the Nasdaq US Benchmark™ Index (NQUSB™) has registered cumulative dividend growth of 275.7%, far greater than other sectors of the index. It is followed by Real Estate, which registered cumulative dividend growth of 92.3% and Financials, which registered cumulative dividend growth of 64.0%.

The Technology sector was a top three performer in terms of the growth rate of dividends for seven out of the ten years studied. It was the top performer for two years, the second-best performer for three years and the third-best performer for two years. While other sectors have seen dividend growth fluctuate over the years, the Technology sector has shown remarkable consistency over the same period. It compares particularly favorably with sectors such as Energy, which had an unfavorable decade, barring the year 2022 when a reshaping of the energy markets resulted in a surge in profits and a record amount of dividend payouts.

Investors are likely to be particularly encouraged that the Technology sector continues to demonstrate the highest dividend growth among its peers, even after factoring in the Covid-19 period during which companies across the world were forced to cut or suspend dividends to preserve cash. Technology has now emerged from two crises, including the Great Financial Crisis and the Covid-19 pandemic, as the sector with the highest cumulative dividend growth.

Table 1: Cumulative Dividend Growth of NQUSB by ICB Industry Classification for the 10-year period ending December 29th 2023

ICB Industry	Cumulative Dividend Growth (2013-2023) (%)
Technology	275.7%
Real Estate	92.3%
Financials	64.0%
Health Care	58.0%
Consumer Discretionary	37.7%
Basic Materials	23.7%
Utilities	21.3%
Consumer Staples	-12.6%

[2] https://indexes.nasdaqomx.com/docs/NQ96DIVUS_Research.pdf

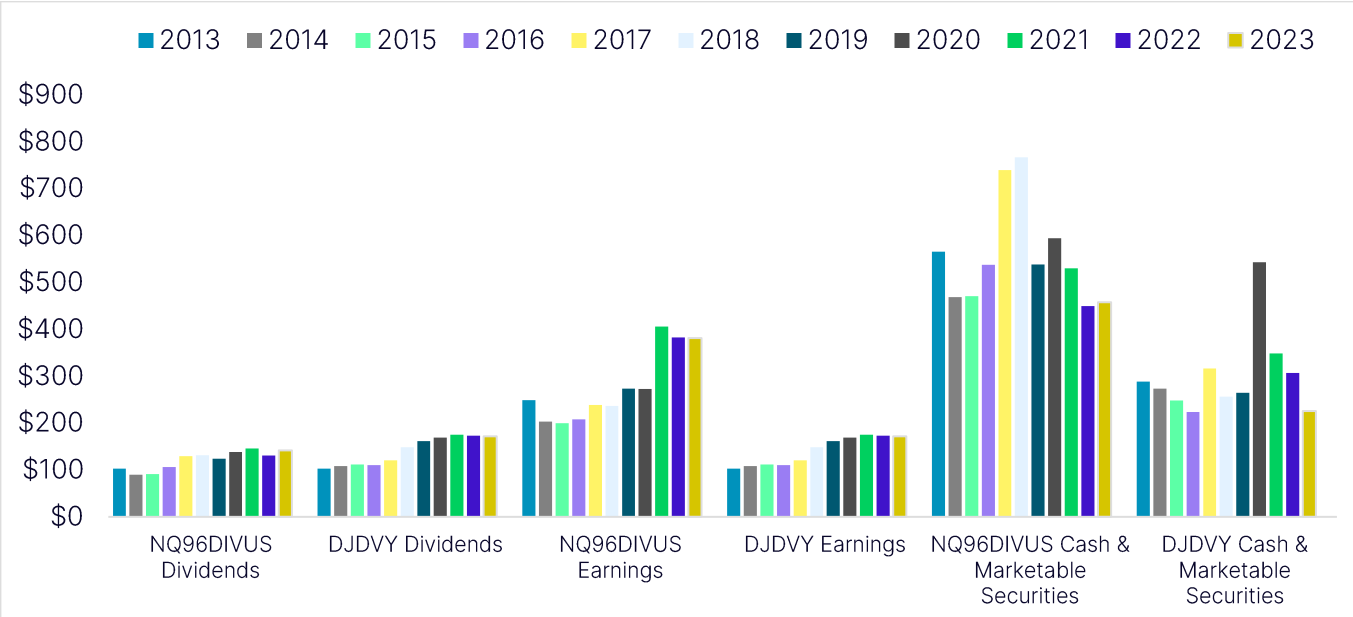
Industrials	-19.3%
Energy	-26.6%
Telecommunications	-48.2%

Table 2: Cash and Debt Balances of NQUSB by ICB Industry Classification, as of December 29th 2023

ICB Industry	No. of Companies	Cash ($Billion)	Debt ($Billion)	Cash-to-Debt
Technology	320	397.8	1,007.0	0.40
Health Care	492	298.2	1,043.3	0.29
Basic Materials	91	60.2	226.1	0.27
Industrials	456	368.6	1,386.5	0.27
Consumer Discretionary	438	480.1	2,065.6	0.23
Energy	143	114.4	494.7	0.23
Consumer Staples	108	89.9	617.2	0.15
Financials	503	404.5	5,180.4	0.08
Real Estate	167	54.6	699.4	0.08
Telecommunications	61	55.1	819.1	0.07
Utilities	78	26.4	1,005.9	0.03
Total	2857	2,349.8	14,545.1	

Among ICB industries, Technology has the most favorable cash-to-debt ratio of 0.40, with cash balances of $397.8 billion, the third-best among all 11 industries. Many of the companies are well-positioned to not only maintain, but to likely grow their dividends going forward, given the buildup in cash balances over the last decade. All other industries have cash-to-debt ratios of 0.29 and below as of year-end 2023.

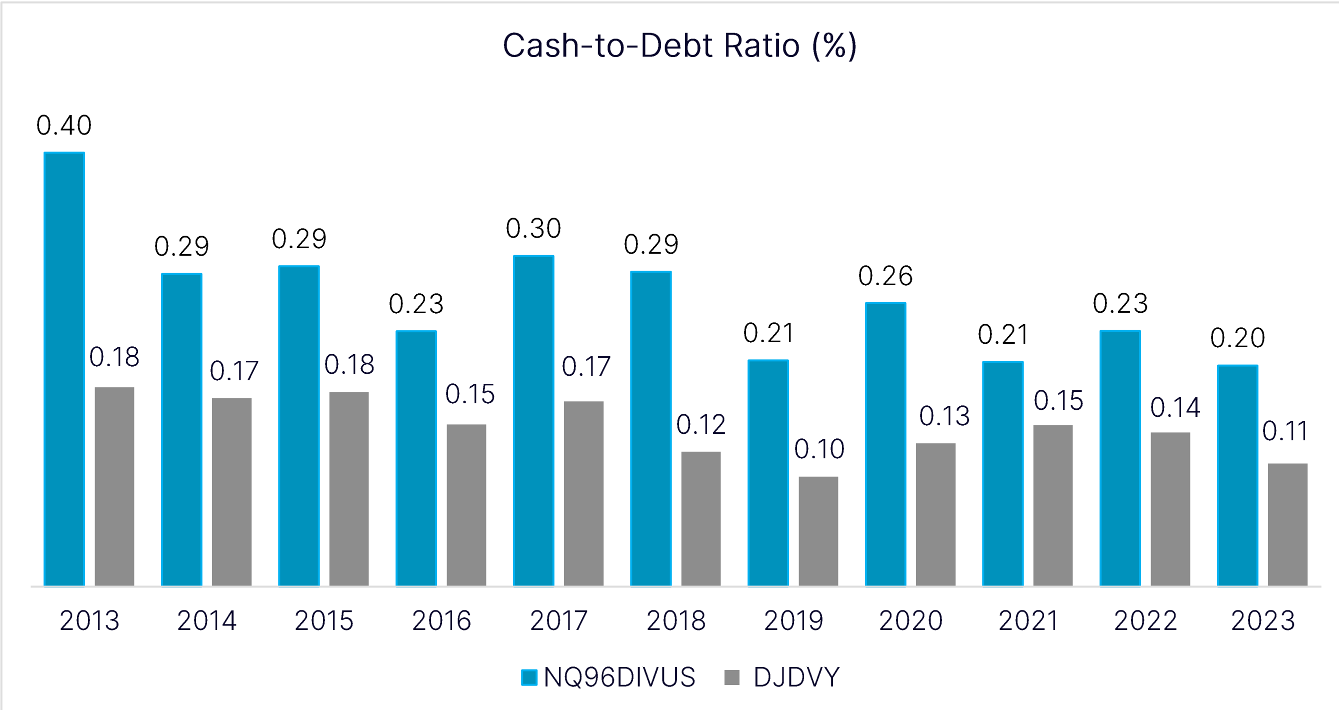
Index Fundamentals of NQ96DIVUS and DJDVY, 2013-2013, $ Billions



The table above shows the fundamental metrics of NQ96DIVUS and the Dow Jones Select Dividend Index (DJDVY) for the years 2013-2023. During this period, the Nasdaq Technology Dividend Index (NQ96DIVUS) compared favorably with DJDVY on two of three fundamental metrics, including earnings, and cash & marketable securities. For the year 2023, the fundamental metrics are recalculated to reflect the constituents as of March 28th 2024.

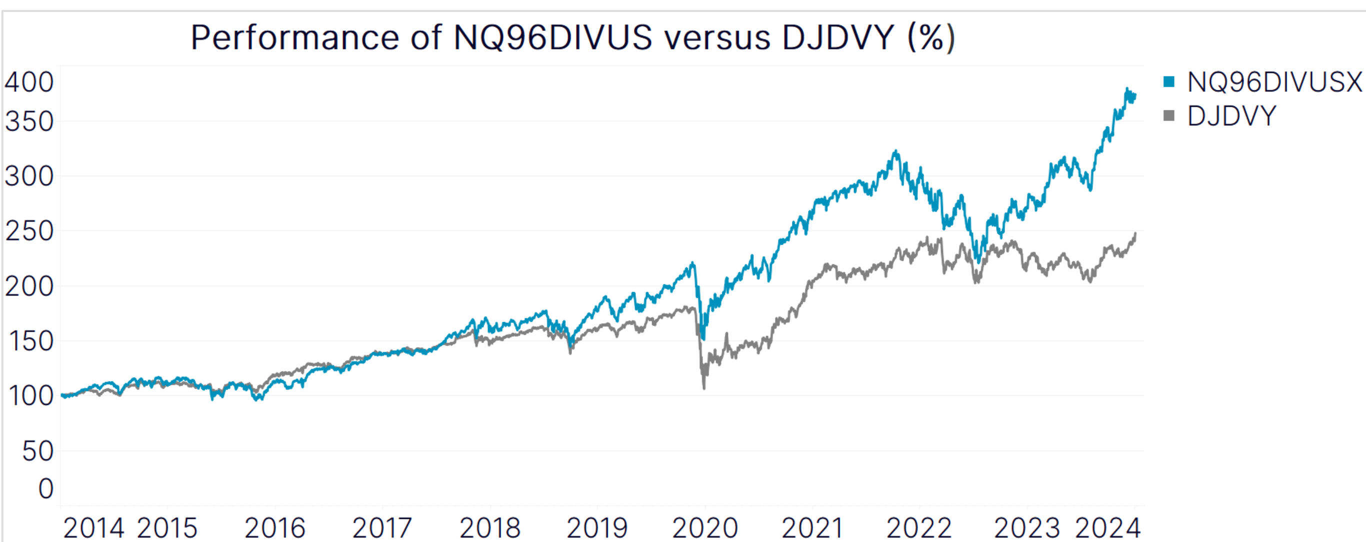
DJDVY generated aggregate dividends that were modestly greater than NQ96DIVUS in ten out of the last eleven calendar years, with 2017 being an exception. During the same period, aggregate earnings of NQ96DIVUS companies have exceeded those of DJDVY by a factor of approximately two times, on average, over the course of eleven years. This suggests considerably higher capacity for future dividend growth. Taking just one example, Meta Platforms recently surprised the market with its announcement to pay a per share dividend of 50 cents, joining peers Apple, Microsoft, Oracle which have regular payouts. Other technology companies that have not paid a dividend in the past could potentially take cue from Meta to do the same. These developments could narrow the gap between aggregate dividends of both indexes. In terms of cash and marketable securities, NQ96DIVUS also compares favorably with DJDVY across all eleven years, with 2017 and 2018 being particularly favorable. With the maturation of business models, the constituents of the NQ96DIVUS Index have generated earnings and cash balances higher than that of the constituents of the DJDVY Index. Given that there are new secular growth drivers by way of AI, it is quite plausible that we continue to see an improvement in fundamentals.

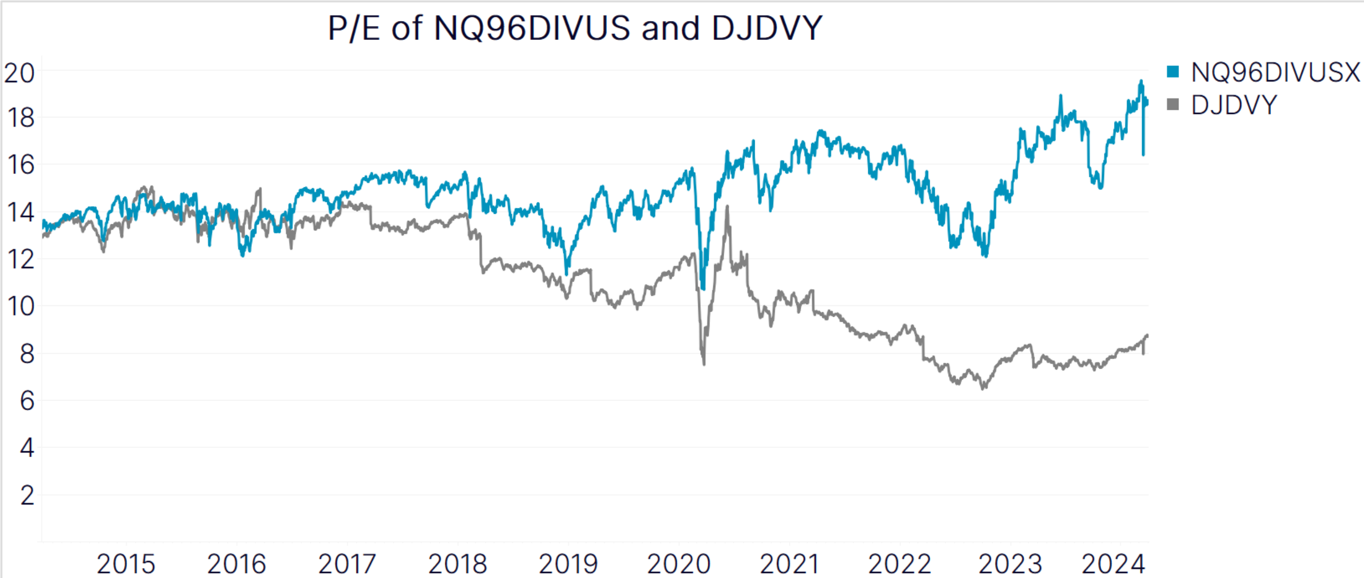
Cash/Debt Ratio of NQ96DIVUS and DJDVY



As seen in the chart above, NQ96DIVUS has consistently generated a higher cash-debt ratio than that of the Dow Jones Select Dividend Index (DJDVY) for the period December 31st 2013 – December 29th 2023. With a more favorable cash-debt ratio, the constituents of NQ96DIVUS remain better positioned to pay out dividends on a go-forward basis.

Index Total Return Performance and P/E of NQ96DIVUS vs. DJDVY





For the ten-year period from March 31st 2014 – March 28th 2024, the NQ96DIVUS Index generated total returns of 274.3%, approximately 126 percentage points greater than that of a competitor dividend index, the Dow Jones Select Dividend Index (DJDVY). This period has witnessed the Technology sector surprise to the upside as a source of dividend growth, and investors have amply rewarded the companies as such. Currently, investors continue to grapple with a restrictive monetary policy environment with the likelihood that dividends will contribute a larger portion of an investor's total return from equities than capital appreciation[3].

The NQ96DIVUS Index has largely traded at a P/E above that of DJDVY for the period March 31st 2014 through March 28th 2024. This suggests that investor sentiment towards companies that make up the index has been more optimistic, as reflected in the elevated P/E. Investors have likely been willing to pay a premium for the index due to its tilt towards Technology, which has had stronger fundamental underpinnings and a higher growth rate of dividends versus other sectors with high dividend yields that figure prominently in DJDVY.

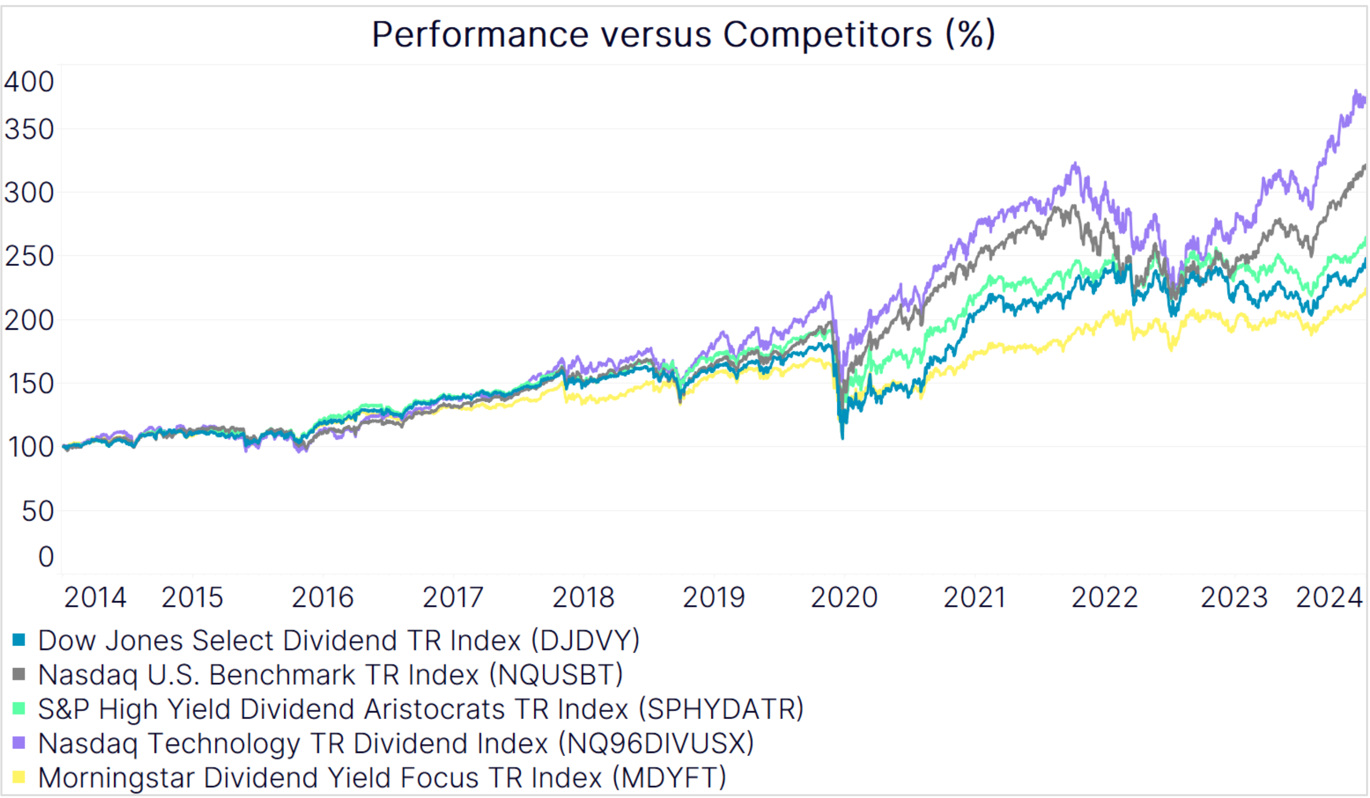
Table 3: Index Fundamentals of Dividend Indexes as of December 29th 2023

	NASDAQ TECHNOLOGY TR DIVIDEND INDEX™ (NQ96DIVUSX™)	DOW JONES SELECT DIVIDEND TR INDEX (DJDVY)	MORNINGSTAR DIVIDEND YIELD FOCUS TR INDEX (MDYFT)	S&P HIGH YIELD DIVIDEND ARISTOCRATS TR INDEX (SPHYDATR)
Average 1-Year Dividend Growth	8.0%	5.4%	-1.8%	8.3%
Average Market Cap (Billions)	$121.2	$42.2	$69.7	$55.0
Average 3-Year EPS Growth	51.1%	24.4%	168.7%	47.2%
Average Payout Ratio	33.1%	71.3%	96.5%	54.9%

[3] https://www.tlcadvisory.com/the-decade-of-the-dividend/

As seen in the table above, the Nasdaq Technology Dividend Index (NQ96DIVUS) compares favorably on all but one metric with other dividend-paying indexes. Its average 1-year dividend growth rate of 8.0% is almost in line with SPHYDATR, and compares favorably with the two other competing dividend indexes. Its average market cap of $121.2 billion is higher than that of other dividend-paying indexes. Its average 3-year EPS growth compares favorably with two of three competing indexes. While its average payout ratio does not compare favorably with competing dividend-paying indexes, its capacity to grow future dividends does. With AI likely to boost earnings in the near-term, the technology sector is well-positioned to grow its dividend payout. Note that the fundamental metrics above are calculated to reflect index constituents as of March 28th 2024.

10-Year Performance of Dividend Indexes



For the time period March 31st 2014 – March 28th 2024, the Nasdaq Technology Total Return Dividend Index (NQ96DIVUSX) generated cumulative returns of 274.3%, higher than competitor benchmarks, including the Dow Jones Select Dividend Index (DJDVY), the S&P High Yield Dividend Aristocrats TR Index (SPHYDATR), and the Morningstar Dividend Yield Focus TR Index (MDYFT) which have generated cumulative returns of 148.0%, 164.6% and 124.4% respectively.

During this period, investors largely favored fast-growing technology companies, which benefitted from ultra-low interest rates, higher demand from the Covid-19 pandemic, and more recently, a surge in AI adoption. Other competitor dividend-paying indexes are tilted less heavily towards technology, with less than 6% of the aggregate index weight allocated towards the sector across each of the three competitor products highlighted. As such, they did not benefit to the same degree as NQ96DIVUS from the sector's multiple drivers of outperformance.

Table 4: Annual Returns & Volatility of Dividend Indexes

Return	NQUSBT	NQ96DIVUSX	DJDVY	SPHYDATR	MDYFT
2013	26.5%	23.9%	23.0%	22.6%	17.6%
2014	12.5%	16.3%	15.4%	14.3%	12.8%
2015	0.5%	-5.4%	-1.6%	-0.4%	-0.2%
2016	13.0%	20.4%	22.0%	20.7%	15.9%
2017	21.4%	22.7%	15.4%	16.3%	13.5%
2018	-5.4%	-2.5%	-5.9%	-2.4%	-2.8%
2019	31.2%	34.3%	23.1%	23.9%	20.4%
2020	21.3%	18.1%	-4.6%	2.1%	-6.4%
2021	25.9%	30.4%	32.2%	25.8%	19.5%
2022	-19.7%	-21.8%	2.3%	-0.2%	7.2%
2023	26.4%	33.9%	1.5%	2.8%	1.9%
Volatility	**NQUSBT**	**NQ96DIVUSX**	**DJDVY**	**SPHYDATR**	**MDYFT**
2013	11.1%	11.4%	10.7%	10.9%	9.8%
2014	11.7%	12.2%	10.2%	10.0%	9.4%
2015	15.4%	17.1%	13.8%	14.0%	14.2%
2016	13.5%	16.0%	12.1%	12.1%	11.1%
2017	7.0%	9.1%	7.1%	7.0%	6.1%
2018	17.0%	19.3%	13.0%	13.6%	14.0%
2019	12.7%	16.3%	11.3%	11.5%	10.7%
2020	34.9%	36.5%	39.9%	37.6%	34.5%
2021	13.7%	15.6%	15.3%	13.6%	11.7%
2022	25.0%	26.6%	19.1%	18.7%	17.2%
2023	13.6%	16.4%	14.8%	13.5%	11.9%

The Nasdaq Technology Total Return Dividend Index (NQ96DIVUSX) has often generated impressive annual returns, especially on a relative basis compared to other dividend indexes, for the period 2013-2023. It outperformed all other competing indexes six out of the eleven years studied, and was the second-best performer in two other years. Its average return for the period 2013-2023 was 15.5%, which was the highest of all competing dividend indexes. This impressive profile of relative outperformance and high average returns points to the strength of the technology-dividend strategy over a ten-year period which was characterized largely by low interest rates and tectonic shifts in the technology environment with the massive shift to the cloud and recent surge in AI adoption. While the returns of the total return index have on average exceeded those of other dividend indexes, it has been slightly more volatile.

Table 5: Correlation of Dividend Indexes with NQUSBT

Correlation to NQUSBT	NQ96DIVUSX	DJDVY	SPHYDATR	MDYFT
Full Period (2013-2023)	0.93	0.86	0.89	0.92

It is marginally more highly correlated with NQUSBT when compared with other dividend-paying strategies.

Table 6: Top 10 Components by Weight

Symbol	Company Name	Closing Price ($)	Market Value ($Billion)	Index Weight (%)	Yield (%)
IBM	IBM	191.7	175.1	8.1	3.5%
AVGO	Broadcom	417.3	614.2	8.0	1.4%
MSFT	Microsoft	173.7	3,126.1	7.9	0.6%
AAPL	Apple	1237.2	2,648.0	7.4	0.5%
TXN	Texas Instruments	169.2	158.4	6.9	2.9%
ORCL	Oracle	127.8	345.2	4.4	1.1%
QCOM	QUALCOMM	166.9	188.9	4.2	1.8%
TSM	Taiwan Semiconductor Manufacturing	136.6	623.2	3.3	1.2%
ADI	Analog Devices	191.2	98.1	2.8	1.7%
VZ	Verizon Communications	17.3	176.4	2.0	6.3%

The above table shows the top 10 constituents by weight, as of March 28th 2024. The top 10 companies of the index provide an indication of the breadth and depth of expertise of technology companies. It includes the likes of technology heavy-weights such as Microsoft and Apple; global semiconductor companies such as Texas Instruments, Qualcomm, Analog Devices, Broadcom, and Taiwan Semiconductor Manufacturing; and Verizon, a multinational telecommunications conglomerate. These companies are powering the next generation of technology innovation.

Table 7: Industry Weights of Dividend Indexes

Industry	NQ96DIVUS	DJDVY	MDYFT	SPHYDATR
Technology	80.8%	3.0%	5.5%	5.6%
Health Care	0.0%	3.5%	16.6%	6.9%
Energy	0.0%	5.1%	27.2%	3.5%
Consumer Discretionary	0.0%	9.7%	0.6%	7.2%
Consumer Staples	0.0%	10.2%	17.7%	15.9%
Utilities	0.0%	27.3%	8.5%	18.0%
Industrials	0.0%	5.1%	2.6%	23.4%
Financials	0.0%	26.3%	6.9%	10.8%
Basic Materials	0.0%	6.0%	2.5%	4.7%
Telecommunications	19.2%	3.8%	11.5%	0.0%
Real Estate	0.0%	0.0%	0.0%	4.1%

The above table shows the industry weights of dividend indexes, as of March 28th 2024. The Nasdaq Technology Dividend Index (NQ96DIVUS) is tilted heavily towards Technology with an index weight of 80.8%, followed by Telecommunications with an index weight of 19.2%. This contrasts with the other dividend indexes which have a value bias, are tilted less heavily towards Technology, and screen primarily based on dividend yield.

For example, the Dow Jones Select Dividend TR Index (DJDVY) is tilted heavily towards Utilities and Financials with an index weight of 27.3% and 26.3%, respectively, while the Morningstar Dividend Yield Focus TR Index (MDYFT) is tilted heavily towards Energy and Consumer Staples with an index weight of 27.2% and 17.7%, respectively, and the S&P High Yield Dividend Aristocrats TR Index (SPHYDATR) is tilted towards Industrials and Utilities with an index weight of 23.4% and 18.0%, respectively. What is likely encouraging for investors is that the Technology sector offers attractive growth in dividends versus other traditionally high-dividend paying sectors, and is well-positioned to grow dividends even faster than over the past decade.

Conclusion

The Nasdaq Technology Dividend Index offers compelling opportunities for investors looking to get exposure to dividend-paying technology companies, many of which have offered strong returns over the past decade. As demonstrated above, the index offers market-leading cumulative dividend growth, healthy cash-debt ratios, and strength in other fundamental metrics such as earnings. The dividend-paying areas of the market have begun to look appealing once again, after a period of relative quiet. With a new secular driver by way of AI, earnings for the Technology sector are likely to get a tailwind, which in turn, is likely to boost dividends. Investors who have been underweight dividend-paying Tech companies in their dividend portfolios might be encouraged to invest in products tracking the Nasdaq Technology Dividend Index (NQ96DIVUS), including the First Trust Nasdaq Technology Dividend Index Fund (Nasdaq: TDIV) and First Trust – FT Cboe Vest Technology Dividend Target Income ETF (Nasdaq: TDVI).

Sources: Nasdaq Global Indexes, FactSet, Bloomberg