The Future of Dividend Investing

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Executive Summary

The Nasdaq US High Equity Income Index (NQUSHEIT) is one of the new developments of modern dividend investment strategies available for investors. It is based on a rigorously designed three-step fundamental screening process to ensure the index only includes the ideal candidates with reasonable dividend yields, reliable dividend paying strategies and sufficient liquidity. NQUSHEIT is rebalanced semi-annually on six laddered sub portfolios to minimize the turnover and maximize the allocation to mispriced deep yield opportunities. Finally, stocks within every ladder are weighted by the dividend safeness measure to maximize the likelihood of receiving future dividend payments.

NQUSHEIT's robust product design has resulted in strong historical and live performance and has made the index more favorable than the two other popular dividend benchmarks, namely, the Dow Jones U.S. Select Dividend Index (DJDVY) and the S&P 500 Dividend Aristocrats Index (SPDAUDT). Looking forward, lower dividend yield products may face tougher challenges because of the rising interest rates. Given its favorable yield level and rigorous product design, NQUSHEIT will continue to be resilient in a rate neutralized world.

The Three Pillars of a Good Dividend Investment

Holding dividend paying stocks is a time-tested investment strategy popular among investors. Investors love dividends because of the stable income stream and downside protection they offer. Here we summarize some of the main characteristics that should define any good dividend investment strategy.

1. Paying a reasonable dividend yield

Investors should search for good dividend products beyond just high yield. Some investment products can achieve the high double digit yields through the use of derivative contracts or over-borrowing. This type of high yield product is vulnerable to sharp interest rate changes. Another reason stocks could pay a high dividend is because they are cheap. Investors need to be very selective in accessing these deep value opportunities. Some stocks are oversold just because of temporary supply/demand issues and can be restored to their normal trends over time. But as today's equity market is so efficient, investors find it more and more difficult to pick the winners.

2. Having a reliable dividend paying strategy

Sometimes companies like to issue special dividends to distribute earnings from extraordinary profits, normally as the one-time capital gain from a divestment. But a good dividend strategy shouldn't take those special dividends into account. They should, instead, focus on the long term trend of dividend paying history and the predictability of future dividend payment.

A company with a disciplined dividend strategy should prudently increase its dividend payments year over year. It should also have a very resilient, financial balance sheet to support the long term cash distribution strategy. As we will discuss in the next section, Nasdaq is using dividend history as well as fundamental analysis to gauge the reliability of future dividend payments.

3. Building a liquid diversified portfolio

Last but not least, investors should consider building a diversified portfolio to minimize idiosyncratic risk. Portfolios should not be overly concentrated in one sector since some sectors can be vulnerable to sudden economic trend shifts, such as the drop of crude for Energy or the rise of interest rates for Real Estate, etc.

Dividend investors, while desiring to hold their portfolio for the long term, should still be concerned with the liquidity of their portfolio. Liquidity matters when investors need to sell part of the portfolio to match their extra needs for interim cash flows. It also matters when investors don't unwind their portfolio but, as a systematic procedure, rebalance. Holding too many illiquid stocks and having a high turnover portfolio can both compromise the benefit of dividend investing.

Nasdaq US High Equity Income Index (NQUSHEIT)

The Nasdaq US High Equity Income Index (NQUSHEIT), launched in January 11, 2016, is one of the new developments in modern dividend investing, which is now available to investors.

NQUSHEIT is based on a rigorously designed three-step fundamental screening process to check dividend, quality and liquidity. The three-step process helps ensure that we only include the ideal dividend candidates with reasonable dividend yields, reliable dividend paying strategies and sufficient liquidity. Hence the three pillar requirements for good dividend investment are all fulfilled.

In the final step of portfolio construction, NQUSHEIT creates six equally weighted dividend ladders and rotationally rebalances every ladder on a semi-annual basis in order to minimize the turnover and maximize the allocation to mispriced deep yield opportunities. In addition to that, within every ladder, qualified dividend stocks are weighted by the Plowback Ratio, a measure of dividend safeness. Hence the likelihood of receiving expected future dividend payment is maximized.

We've outlined the details of the index methodology:

1. Liquidity Screen

Trading Volume - have a five-day rolling average daily dollar trading volume over each of the last 60 trading days greater than $2,500,000.

Market Capitalization - be a top 2000 stock as measured by market capitalization of the stocks that pass the average daily dollar trading volume screen.

2. Dividend Screen

Dividend Yield - have a minimum trailing 12 month dividend yield greater than 1.5 times the median yield of the dividend paying universe.

Dividend Growth - have positive dividend growth over the last three years or have initiated a dividend.

3. Quality Screen

ROA - exclude stocks in the bottom quintile by return on assets.

Leverage - exclude stocks with long term debt to assets greater than 75%.

Payout - exclude stocks with a three-year dividend payout ratio greater than 90%.

FCF - exclude stocks with negative free cash flow.

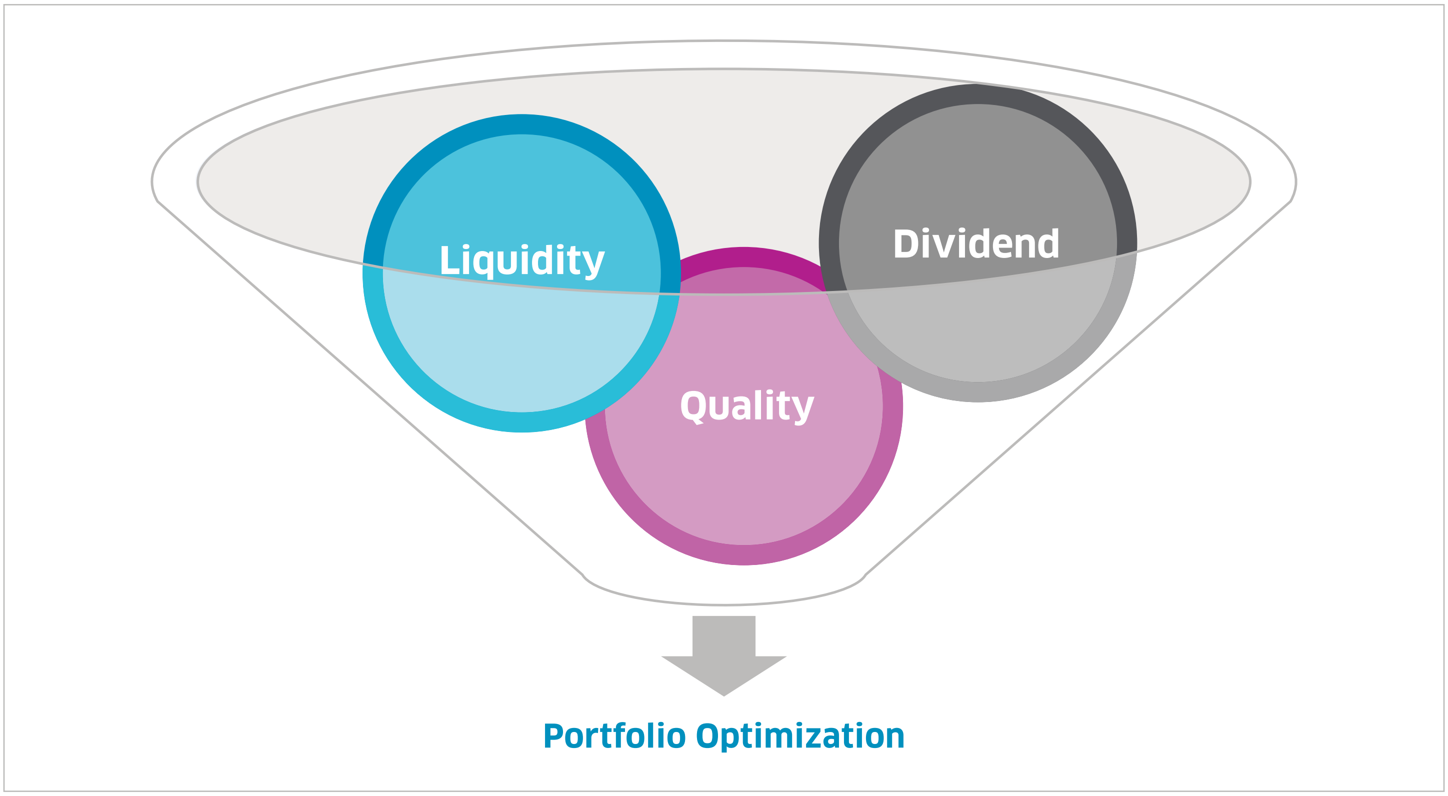
4. Portfolio Optimization

Laddered Portfolio - the Index is comprised of six equally weighted sub-portfolios, each of which is rebalanced and reconstituted on a semi-annual basis.

Dividend Safeness Weighting – within every ladder, the security is weighted by the Plowback Ratio[1], which assigns more weights to securities that have higher confidences in maintaining future dividend payments.

1 Plowback Ratio, also known as Retention Ratio, measures how much earnings are retained after the dividends are paid out. The higher the Plowback Ratio, the safer the future dividends are.

The Methodology of the Nasdaq US High Equity Income Index



Comparison with Other Dividend Indexes

In this section, we compare the Nasdaq US High Equity Income Index with two other dividend benchmarks available on the market, namely, the Dow Jones U.S. Select Dividend Index (DJDVY) and the S&P 500 Dividend Aristocrats Index (SPDAUDT).

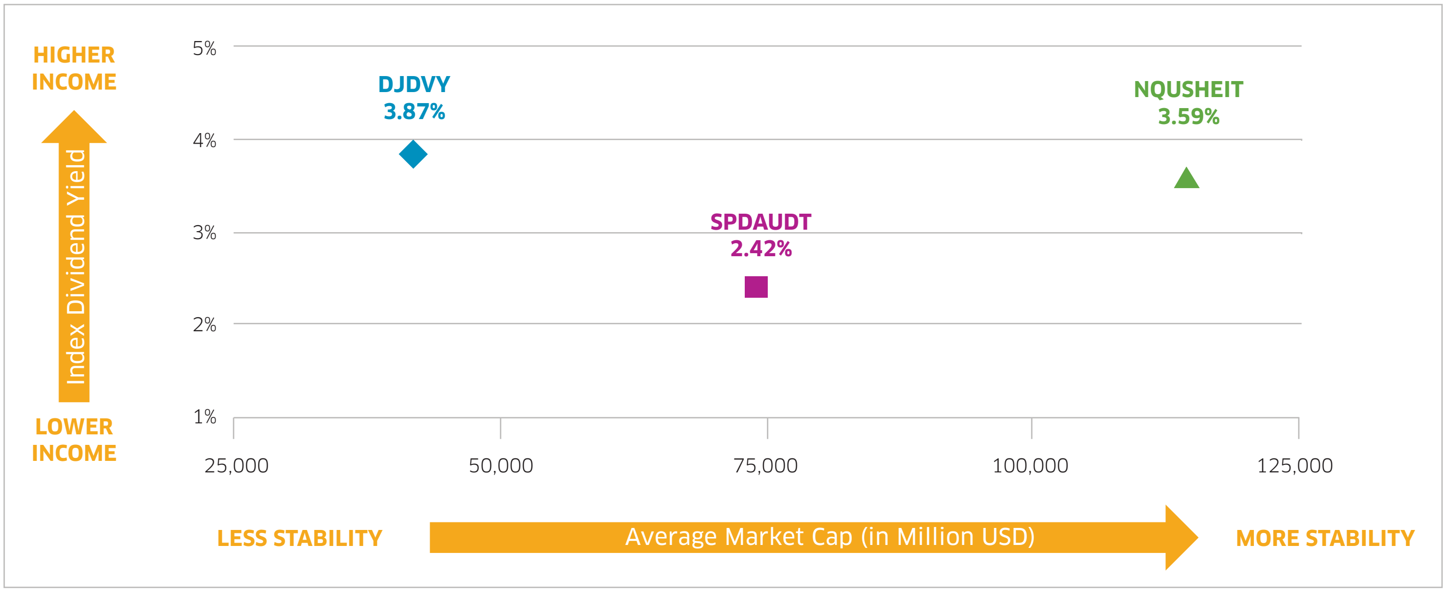
Unlike the Nasdaq US High Equity Income Index (NQUSHEIT) which was launched less than three years ago, the Dow Jones U.S. Select Dividend Index (DJDVY) and the S&P 500 dividend Aristocrats Index (SPDAUDT) were both launched more than a decade ago and have attracted large investments via ETF vehicles. While all three are regarded as popular dividend strategies, there are non-negligible characteristic differences among the indexes.

Style Difference

The first thing we notice is the style difference. The Dow Jones U.S. Select Dividend Index (DJDVY) and the Nasdaq US High Equity Income Index (NQUSHEIT) have marketed their products as High Yield / High Income, while the S&P 500 dividend Aristocrats Index (SPDAUDT) has emphasized their selection of long term consecutive years of dividend growth. There is no doubt in the delivery on this, as the S&P 500 Dividend Aristocrats Index (SPDAUDT) only had a yield of 2.42%, while Nasdaq US High Equity Income Index (NQUSHEIT) and Dow Jones U.S. Select Dividend Index (DJDVY) had yields of 3.59% and 3.87%, respectively.

High yield products normally weight more on smaller caps, as did the Dow Jones U.S. Select Dividend Index (DJDVY), which applies a Dividend Yield Weighting mechanism. However, the Nasdaq US High Equity Income Index (NQUSHEIT) is different. NQUSHEIT is weighted by the Plowback Ratio, which assigns more weights to securities that have higher confidences in maintaining future dividend payments. In addition, NQUSHEIT applied four fundamental screens, ROA, Leverage, Payout, FCF, in additional to the Dividend Yield and Dividend Growth screens. The six screens work well together to make sure that the included stocks not only have sufficient yields but also high quality. We can see that the unique fundamental screening and portfolio modelling process has made NQUSHEIT's average market cap the largest among the three. It's also safe to say that NQUSHEIT represents the best quality dividend portfolio among our comparison.

NQUSHEIT is Better Positioned with Higher Income and More Stability



Source: Nasdaq, Standard & Poors data as of July 31, 2018

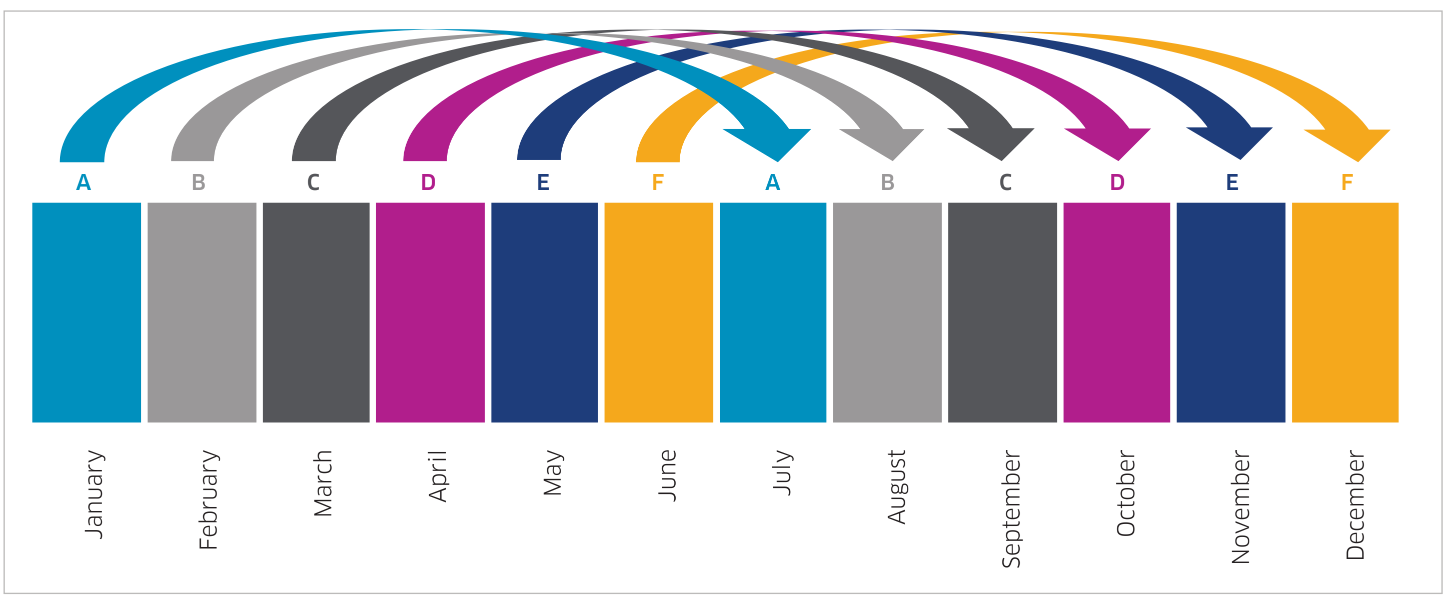
Portfolio Structure

The Dow Jones U.S. Select Dividend Index (DJDVY) is rebalanced annually in March and the S&P 500 dividend Aristocrats Index (SPDAUDT) rebalancing is more frequent - quarterly in January, April, July and October.

It's difficult to say which approach is better. That's because the impact of portfolio rebalancing to performance is two-fold and mutually contradictory. Passive investors believe the market is efficient and there's no need to trade too often. Hence, rebalancing less frequently has the benefit to save on transaction costs. On the flip side, active investors see that good valuation opportunities can go quickly. Hence rebalancing more frequently has the benefit to capture these mispriced stocks in time.

The Nasdaq US High Equity Income Index (NQUSHEIT) tries to find a good balance by employing a unique portfolio construction approach: it creates six equally weighted dividend ladders and rotationally rebalances every ladder on a semi-annual basis. This approach has the benefits to both minimize the overall portfolio turnover and better allocate to mispriced deep yield opportunities.

One of the Dividend Ladders Will Be Rebalanced Every Month



Characteristics of the Three Popular Dividend Indexes

FULL NAME	DOW JONES U.S. SELECT DIVIDEND INDEX	S&P 500 DIVIDEND ARISTOCRATS INDEX	NASDAQ US HIGH EQUITY INCOME INDEX
Ticker	DJDVY	SPDAUDT	NQUSHEIT
Launch Date	November 3, 2003	May 2, 2005	January 11, 2016
ETF Ticker (AUM in Million USD)	DVY (17,473.20)	NOBL (3,716.31)	UINC (72.41)
Eligible Universe (Number of Securities)	Dow Jones U.S. (2000)	S&P 500 (500)	NQUSB (2800+)
Final Universe (Number of Securities)	99	53	121
Average Market Cap (in Million USD)	41,701.68	73,953.13	114,349.73
Index Dividend Yield	3.87%	2.42%	3.59%
Liquidity Screen	Market Cap, Trading Volume	Market Cap, Trading Volume	Market Cap, Trading Volume
Dividend Screen	5Y Dividend Growth	25Y Dividend Growth	3Y Dividend Growth, Dividend Yield
Fundamental Screen	Dividend Coverage	N/A	ROA, Leverage, Payout, FCF
Portfolio Construction	Yield Weight, Security Cap at 10%, Sector Cap at 30%	Equal Weight, Sector Cap at 30%	Weighted based on Dividend Safeness, Equal Weight on Six Ladders
Portfolio Rebalance	Annually in March	Quarterly in January, April, July and October	Semi-Annually on One of the Six Ladders

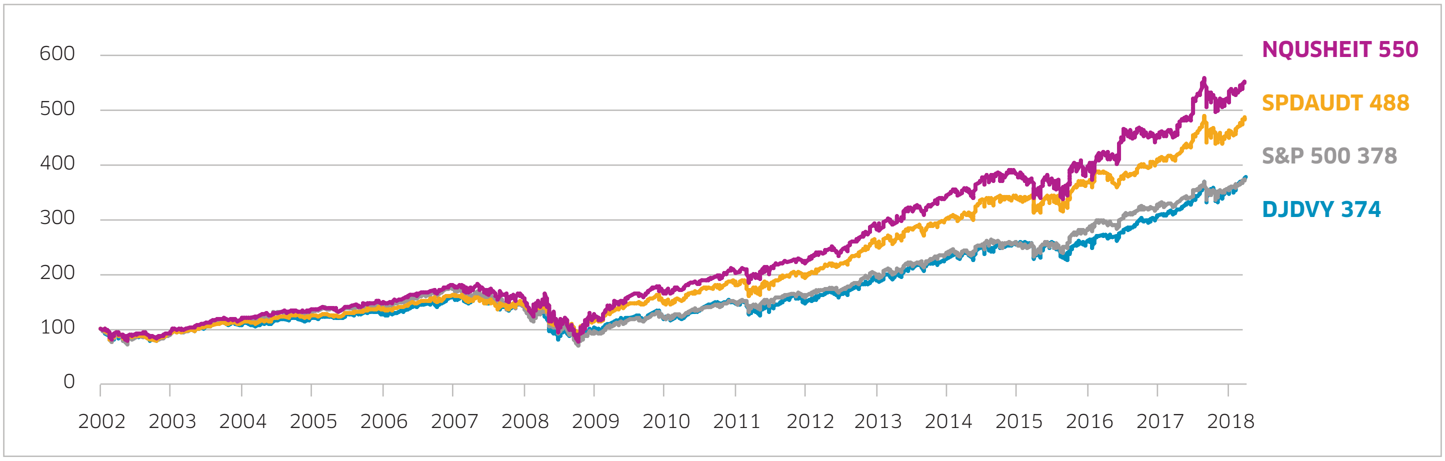
Source: Bloomberg, Standard & Poors, Nasdaq data as of July 31, 2018

Performance Review and Looking Forward

The Nasdaq US High Equity Income Index (NQUSHEIT) was able to outperform the Dow Jones U.S. Select Dividend Index (DJDVY) and the S&P 500 dividend Aristocrats Index (SPDAUDT) from 2002 to 2018. NQUSHEIT has clearly demonstrated the performance advantage over DJDVY, given their similar focus on high yield and the similar all cap universes they start with. NQUSHEIT can outperform SPDAUDT on an absolute basis but not on a risk-adjusted basis (i.e. Sharpe ratio). SPDAUDT's favorable Sharpe ratio is mostly helped by their security selection criterion that emphasizes the 25 year dividend paying history among the S&P 500 stocks. This approach gives SPDAUDT a niche, stable basket of large cap names but much lower yields and less capability to capture mispriced market opportunities.

Looking forward, lower yielded dividend products may face tougher challenges because the long term interest rate is rising quickly and has already passed 3%. NQUSHEIT, with its focus on the three pillars of good dividend selection (reasonable dividend yields, reliable dividend paying strategies and sufficient liquidity), in addition to the innovative laddered rebalance approach (that works to minimize portfolio turnover and better allocate to mispriced deep yield opportunities), should remain resilient in a rate neutralized world.

Historical Index Performance



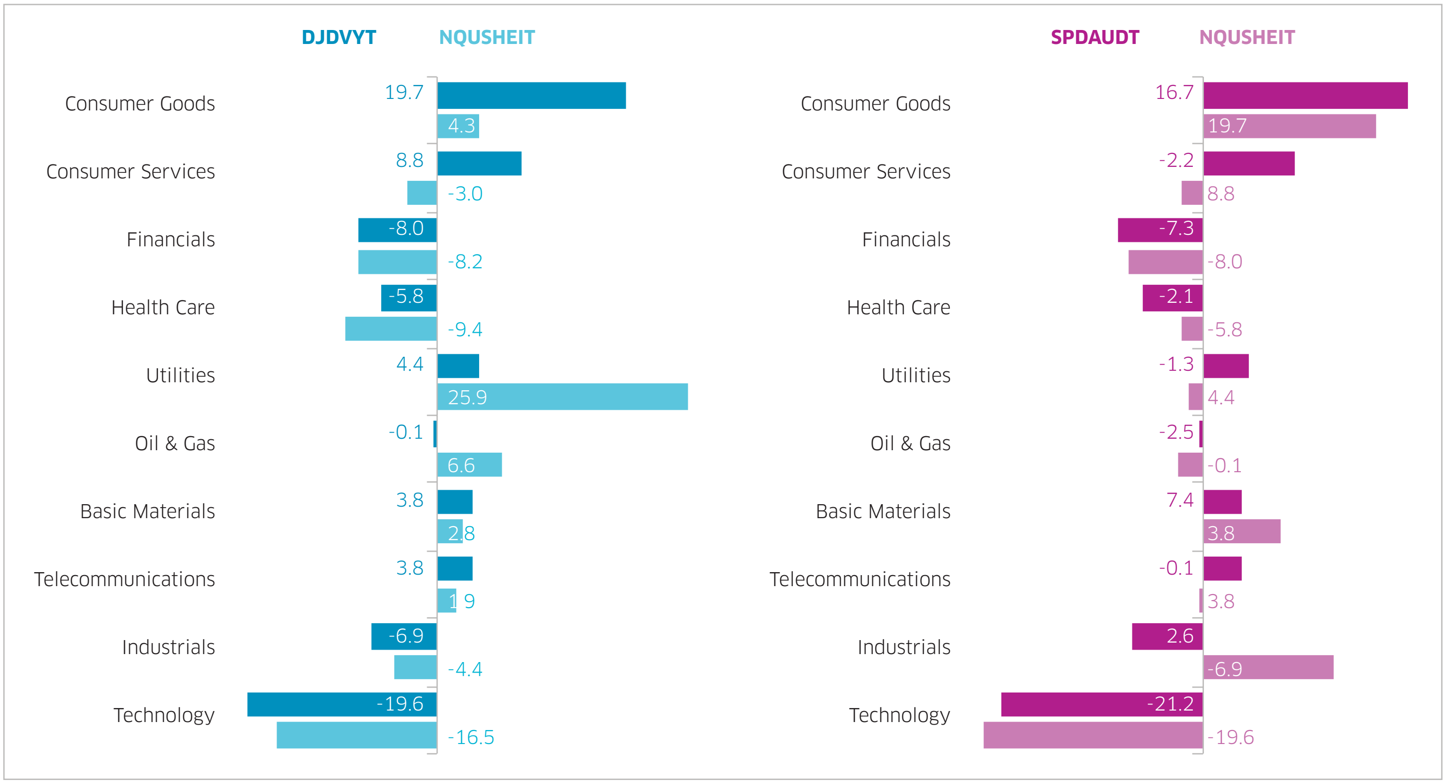
Source: Bloomberg, Nasdaq data as of 2018-8-31

Performance Statistics

YEAR	S&P 500	DJDVY	SPDAUDT	NQUSHEIT	S&P 500	DJDVY	SPDAUDT	NQUSHEIT	S&P 500	DJDVY	SPDAUDT	NQUSHEIT
	ANNUAL TOTAL RETURN				ANNUAL VOLATILITY				ANNUAL SHARPE RATIO			
2003	28.7%	30.2%	25.4%	27.9%	16.8%	14.6%	14.5%	14.7%	1.71	2.06	1.75	1.90
2004	10.9%	18.1%	15.5%	16.0%	10.9%	10.7%	9.8%	9.5%	1.00	1.69	1.57	1.68
2005	4.9%	3.8%	3.7%	4.6%	10.1%	10.5%	9.8%	9.7%	0.49	0.36	0.38	0.48
2006	15.8%	19.5%	17.3%	20.1%	9.9%	8.8%	9.1%	8.4%	1.60	2.22	1.90	2.39
2007	5.5%	-5.2%	-2.1%	0.1%	15.7%	17.2%	15.1%	15.6%	0.35	-0.30	-0.14	0.01
2008	-37.0%	-31.0%	-21.9%	-30.5%	40.3%	46.5%	38.5%	46.2%	-0.92	-0.67	-0.57	-0.66
2009	26.5%	11.1%	26.6%	40.0%	26.8%	28.9%	27.3%	37.3%	0.99	0.38	0.97	1.07
2010	15.1%	18.3%	19.4%	15.7%	17.7%	16.1%	15.0%	13.9%	0.85	1.14	1.29	1.13
2011	2.1%	12.4%	8.3%	15.6%	22.9%	19.5%	19.8%	16.5%	0.09	0.64	0.42	0.95
2012	16.0%	10.8%	16.9%	12.9%	12.5%	9.9%	10.8%	9.2%	1.28	1.10	1.56	1.40
2013	32.4%	29.1%	32.3%	32.9%	10.9%	10.7%	10.7%	10.2%	2.98	2.71	3.01	3.22
2014	13.7%	15.4%	15.8%	15.1%	11.2%	10.0%	10.2%	9.4%	1.22	1.53	1.55	1.61
2015	1.4%	-1.6%	0.9%	-2.6%	15.2%	13.5%	13.9%	14.8%	0.09	-0.12	0.07	-0.18
2016	12.0%	22.0%	11.8%	23.8%	12.9%	11.9%	11.9%	16.4%	0.93	1.85	0.99	1.45
2017	21.8%	15.4%	21.7%	16.5%	6.6%	6.9%	6.7%	8.9%	3.33	2.23	3.23	1.86
YTD	9.9%	4.5%	5.5%	4.1%	14.4%	11.5%	13.3%	13.4%	1.05	0.58	0.62	0.46
1Y	19.7%	13.7%	17.7%	20.6%	12.2%	10.0%	11.4%	12.0%	1.61	1.36	1.55	1.71
3Y	16.1%	15.3%	14.4%	15.2%	12.1%	10.8%	11.3%	13.7%	1.33	1.41	1.27	1.11
5Y	14.5%	13.3%	13.7%	13.7%	12.1%	10.9%	11.3%	12.7%	1.20	1.22	1.21	1.08
7Y	15.6%	14.4%	15.7%	15.4%	13.2%	11.6%	12.0%	12.4%	1.18	1.24	1.30	1.24
10Y	10.8%	11.0%	13.2%	14.2%	19.7%	19.6%	18.3%	20.8%	0.55	0.56	0.72	0.68
Inception	8.5%	8.4%	10.2%	11.0%	18.4%	18.7%	17.1%	19.3%	0.46	0.45	0.60	0.57

Source: Bloomberg, Nasdaq data as of 2018-8-31
Annual Sharpe Ratio is calculated as the Annual Total Return divided by Annual Volatility with the assumption of zero risk-free rates.

Relative Weights to S&P 500



Source: Bloomberg, Standard & Poors, Nasdaq data as of July 31, 2018

2. The lower of 10% or five times a constituent's float-adjusted market capitalization divided by the index sum.

3. Dividend Coverage Ratio is defined as Earning divided by dividend.

Appendix

Dow Jones U.S. Select Dividend Index (DJDVY)

Launch Date: November 3, 2003

The Dow Jones U.S. Select Dividend Index measures the performance of 100 high dividend-paying companies within the Dow Jones U.S. Index but excluding REITs, that meet specific criteria for dividends, earnings, size and liquidity. The index is weighted by dividend yield, subject to a 10% or lower cap on individual constituents[2] and 30% cap on sectors.

The detailed Index eligibility criteria are:

1. Within the Dow Jones U.S. Index but excluding REITs.
2. A float-adjusted market capitalization of at least US$ 3 billion (US$ 2 billion for current constituents).
3. A three-month ADVT of 200,000 shares.
4. Dividend-per-share greater than or equal to the 5-year average;
5. Five-year average dividend coverage ratio[3] of greater than or equal to 167%;
6. Paid dividends in each of the previous five years.
7. A non-negative trailing 12-month earnings-per-share (EPS).

S&P 500 Dividend Aristocrats Index (SPDAUDT)

Launch Date: May 2, 2005

The S&P 500 Dividend Aristocrats measures equal-weighted performance of companies within the S&P 500 that have followed a policy of consistently increasing dividends every year for at least 25 years. Constituent weights are reset every quarter, with the qualifying universe reviewed once a year in January. The index is weighted equally subject to a 30% cap on sectors.

The detailed Index eligibility criteria are:

1. Be a member of the S&P 500.
2. Have increased total dividend per share amount every year for at least 25 consecutive years[4].
3. Have a minimum float-adjusted market capitalization (FMC) of at least US$ 3 billion as of the rebalancing reference date.
4. Have an average daily value traded (ADVT) of at least US$ 5 million for the three-months prior to the rebalancing reference date.

4. According to S&P's index methodology document, the dividend growth criteria could be loosened to just 20 years or even abandoned if the qualified securities can't reach the minimum required number of 40.