Nasdaq-100 Higher Volatility than the S&P 500

Myths and Truths around Volatility

EFRAM SLEN, DIRECTOR, NASDAQ GLOBAL INFORMATION SERVICES

The Nasdaq-100, comprised of the 100 largest non-financial companies listed on Nasdaq, has been the barometer for US large cap growth and also one of the best performing indexes over the last decade and a half.

Over the last ten years alone with data (with data through the end of 2017), the Nasdaq-100 outperformed the S&P 500 eight times with a cumulative return of 207% vs. 82% by the S&P 500.

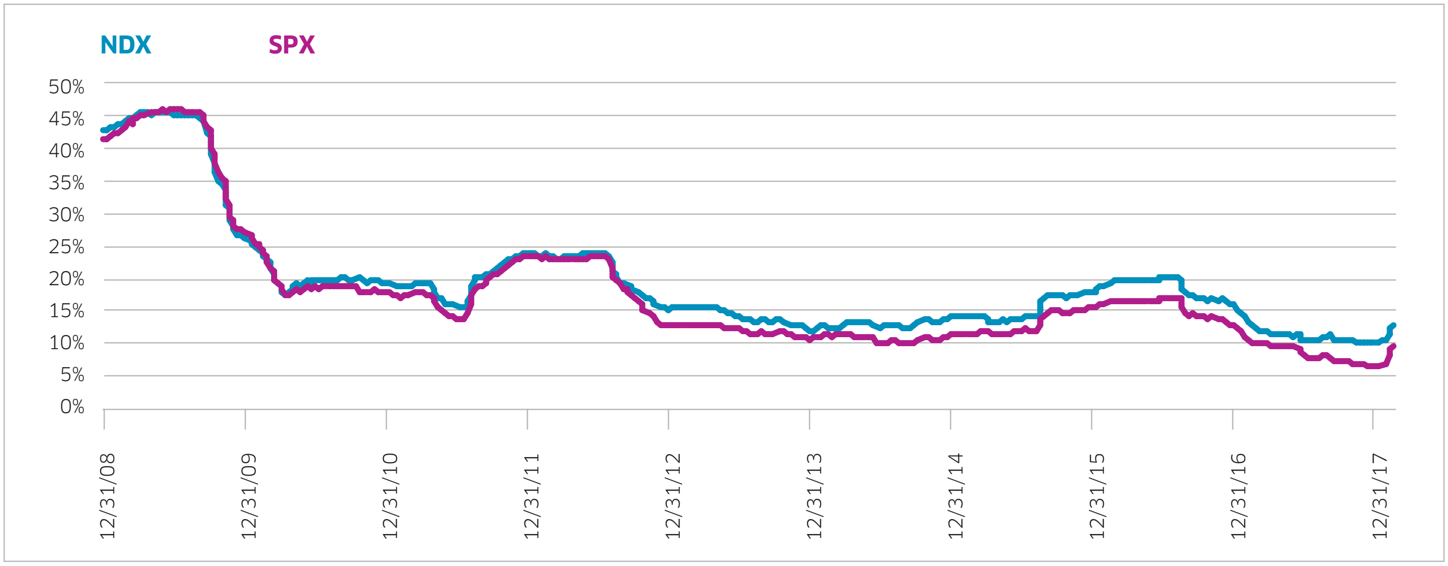
Naturally, there are some naysayers out there looking to point to the fact that the index which has been such a stud for so long must have some faults.

Sure, the Index is tech heavy with a current weight of 57%. But why shouldn't it be? Technology companies are the driving force behind today's economy. Most of the companies in the Nasdaq-100, tech or otherwise, are not only household names, but are driving the economy forward with products that they are bringing to market and the ways in which they operate. Apple, Amazon, Starbucks, Facebook, Microsoft and many others - touch almost every person on this planet in some form. From cell phones to social media to operating software and so forth.

Sure, these companies have ups and downs, and sure the Nasdaq-100 has 400 fewer companies than the S&P 500 but this allows it a few things. The ability to take on more exposure to fewer names and this can lead to higher volatility. But it also means that some of that volatility will come about not just on the downside like most people think when they hear about volatility. It can occur on the upside, too!

Here are some charts and tables with historical volatility and returns on the Nasdaq-100 vs the S&P 500.

1-YEAR ROLLING ANNUALIZED VOLATILITY



ANNUAL VOLATILITY

YEAR	NDX	SPX
2008	42.64%	41.30%
2009	26.48%	27.27%
2010	19.47%	18.05%
2011	23.76%	23.23%
2012	15.45%	12.75%
2013	12.49%	11.16%
2014	14.04%	11.35%
2015	17.86%	15.50%
2016	16.17%	13.11%
2017	10.33%	6.69%
2018	22.40%	19.70%

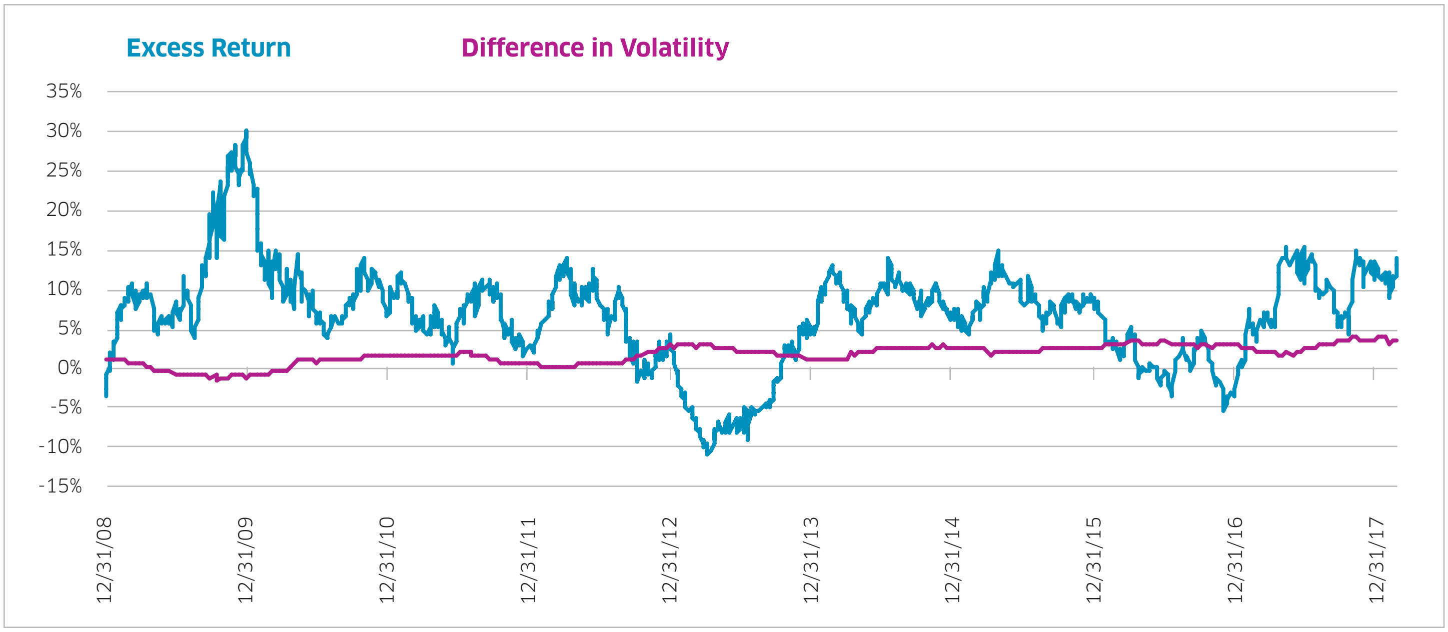
ANNUAL RETURNS

YEAR	NDX	SPX
2008	-41.89%	-38.49%
2009	53.54%	23.45%
2010	19.22%	12.78%
2011	2.70%	0.00%
2012	16.82%	13.41%
2013	34.99%	29.60%
2014	17.94%	11.39%
2015	8.43%	-0.73%
2016	5.89%	9.54%
2017	31.52%	19.42%
2018	7.16%	1.50%

NDX EXCESS RETURNS VS DIFFERENCES IN VOLATILITY

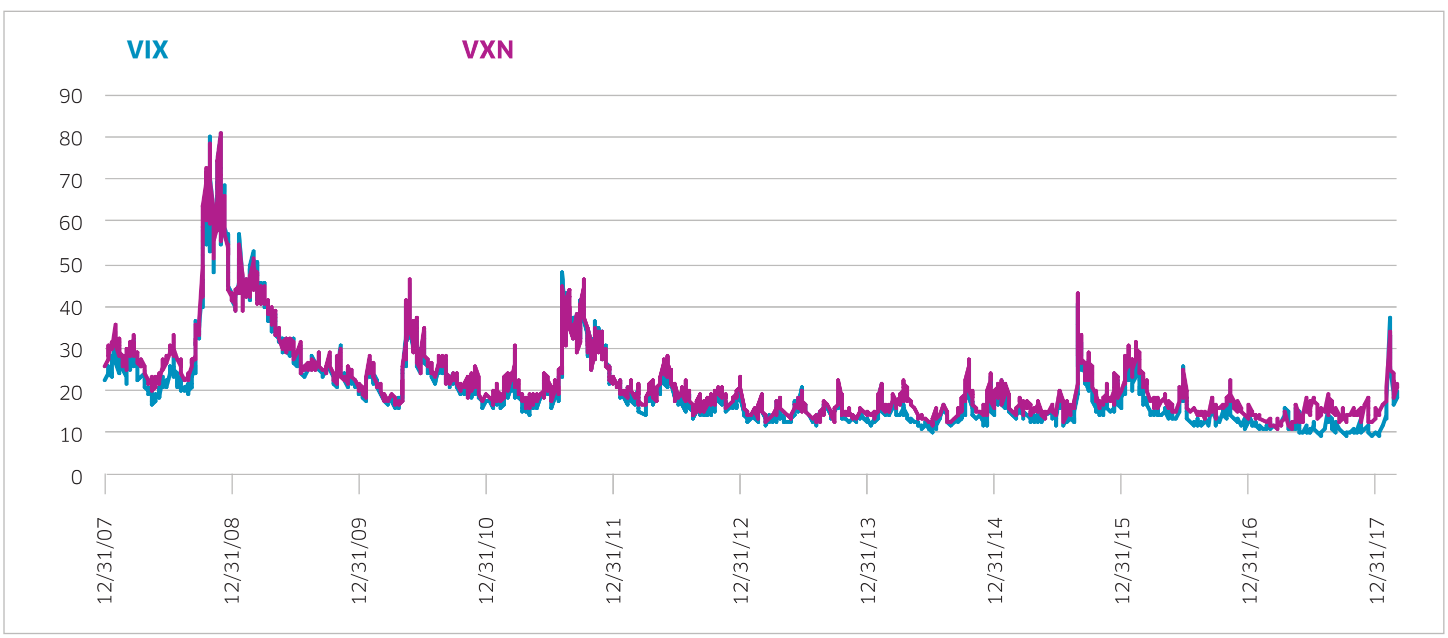
YEAR	EXCESS RETURNS	NDX VOLATILITY MINUS SPX VOLATILITY
2008	-3.40%	1.34%
2009	30.08%	-0.79%
2010	6.44%	1.42%
2011	2.71%	0.53%
2012	3.41%	2.70%
2013	5.39%	1.33%
2014	6.55%	2.69%
2015	9.15%	2.36%
2016	-3.65%	3.07%
2017	12.10%	3.63%
2018	5.66%	2.71%

ROLLING 1-YEAR NDX EXCESS RETURNS VS DIFFERENCES IN VOLATILITY



Note that the Nasdaq-100 actually had an annualized volatility of less than the S&P 500 (by over 1.5%) during the market recovery while returns were significantly stronger in the Nasdaq-100 immediately following the financial crisis. Thereafter, the volatility has not been more than 3.6%higher at any point in the last decade with annual excess returns being an average of 7% higher at any point over that time.

Lastly, chart of implied volatility for the Nasdaq-100 versus the S&P 500 by looking at the CBOE indexes tied to each (VXN and the VIX, respectively) are almost identical with each being slightly lower at times. As of the most recent uptick in volatility in February 2018, VXN was lower than the VIX. Prior to February, VIX and VXN had been lower as both gauges were at or around decade lows.



In closing, next time you hear someone talk about volatility being a bad thing, remember that volatility, as measured by taking the standard deviation of daily returns, is a way to measure price movements going down or up. When it comes to the Nasdaq-100 volatility being higher than the S&P 500 or other large cap benchmarks, remember that it probably should (not that it's that much higher, it's actually been very similar as evidenced in this piece) and that this is not a bad thing. It might actually be a great thing.

More Information

For more information on the Nasdaq-100, please visit business.nasdaq.com/indexes.