

# Nasdaq-100 Volatility Index - VOLQ

NATIONS®

INDEXES

## AN IMPROVED MEASURE OF IMPLIED VOLATILITY ON THE NASDAQ-100 INDEX

The Nasdaq-100 Volatility Index (VOLQ) is an improved measure of implied volatility on one of the most important domestic equity indexes, the Nasdaq-100 Index®. VOLQ uses the Nations® VoIDex® methodology to measure implied volatility the way practitioners do, by focusing on at-the-money options. This methodology allows investors to fully understand the state of the Nasdaq-100 options market.

### POWERED BY VoIDex®

VOLQ is powered by the VoIDex methodology which uses the first and second in-the-money and first and second out-of-the-money call and put options for the four weekly expirations bracketing the moment 30 days in the future. Prices for these 32 options are used to calculate a mathematically robust, closed-form measure of at-the-money implied volatility.

### VOLQ INDEX - AVERAGE DAILY CLOSE PER YEAR

2014	2015	2016	2017	2018	2019
14.11	16.31	16.21	12.07	18.59	17.29

### The Nasdaq-100 Index

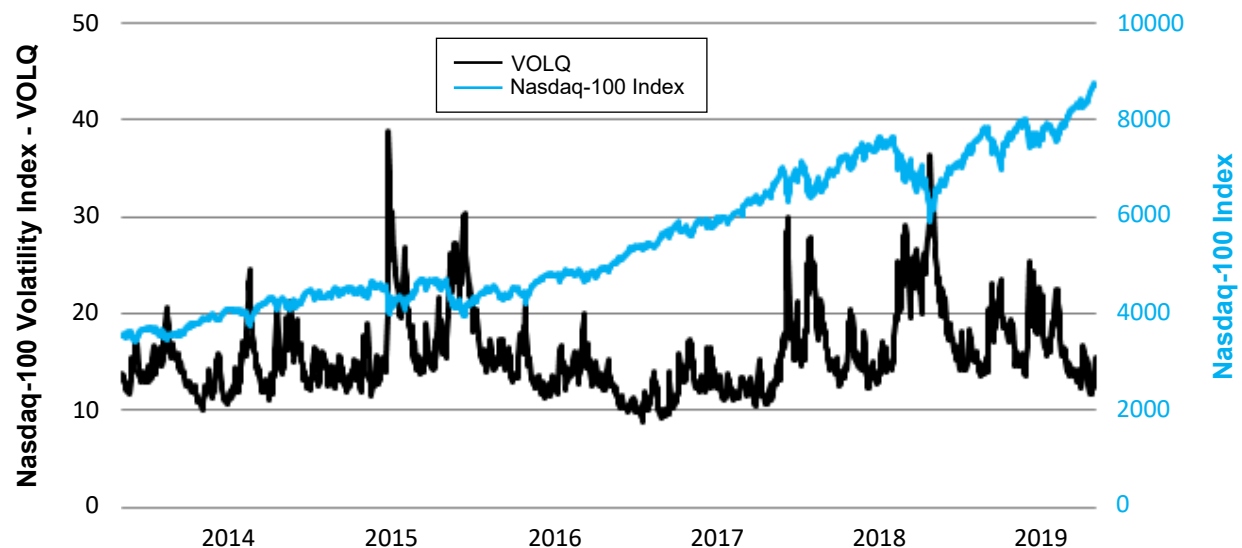
The Nasdaq-100 Index includes the largest domestic and international non-financial companies listed on The Nasdaq Stock Market. The Index reflects the performance of companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology.

The Nasdaq-100 Index has become the bellwether for technology companies.

Ticker Symbol:

**VOLQ**

## HISTORICAL COMPARATIVE RESULTS



Better Ideas. Better Indexes.®

## UNDERSTAND WHAT VOLATILITY IS TELLING YOU

VOLQ uses 32 at-the-money NDX options, the most important options for Nasdaq-100 market participants. Other measures of implied volatility, notably VXN, incorporate a large and variable number of options, many of which rarely trade, which reduces the value of the resulting measure and generates misleading statistical noise created by phenomena like the distance between strike prices, the number of strike prices incorporated, and option skew.

If a measure of volatility uses all options listed in an expiration, like VIX or VXN, it is impossible to know what is driving index changes. Is it moving because of at-the-money options? Is it because of deep out-of-the-money puts? Is it because of calls? Each scenario results in a very different outlook for investors and only VolDex answers these questions.

## VOLQ USES THE MOST LIQUID NASDAQ-100 OPTIONS

The underlying options for VOLQ are options on the Nasdaq-100 Index. These options trade on three different exchanges. Multiple trading venues result in tighter bid/ask spreads which means VOLQ provides a clearer measure of expectations for future volatility.

## THE NATIONS SUITE OF VOLATILITY INDEXES

Nations VolDex Indexes isolate the impact of skew and make it knowable through its suite of volatility indexes. NDX TailDex<sup>®</sup> measures the cost of deep out-of-the-money NDX puts which insure against a “tail event” or extreme drop in the NDX index while the NDX CallDex<sup>®</sup> Index measures the normalized cost of a 1 standard deviation out-of-the-money NDX call option. NDX PutDex<sup>®</sup> measures the normalized cost of a 1 standard deviation out-of-the-money NDX put option.

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## VOLQ Construction

The Nasdaq-100 Volatility Index (VOLQ) measures the implied volatility of a hypothetical precisely at-the-money Nasdaq-100 index option with 30 days to expiration.

VOLQ identifies the four weekly NDX option expirations bracketing 30 days from the current minute then incorporates the first and second call and put option above and below the forward price in each of those expirations. Prices of those 32 at-the-money options are then used to calculate a mathematically robust, closed-form measure of implied volatility.

Every option practitioner focuses their analysis on at-the-money volatility to understand the dynamics of any option market. VOLQ provides the information they need.

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## Nasdaq-100 Volatility Index Daily Results

Average Close:	15.76
Median Close:	14.69
High Close: (August 24, 2015)	38.85
Low Close: (March 20, 2017)	8.89
Correlation to NDX:	-81.49%
Correlation to VXN:	97.23%
STD of Daily Change:	7.60%
Largest Daily Gain: (February 5, 2018)	57.06%
Largest Daily Decline: (February 6, 2018)	21.15%

1/2/2014 through 12/31/2019