The Nasdaq -100® Volatility Index: VOLQ

A Methodology Reference Guide for Retail Investors

Volatility is a measure of the magnitude of price movement–up or down–of a financial instrument like an index or an equity. Historical volatility is a measure of the standard deviation of price changes over a past, fixed time period. In contrast, implied volatility estimates the expected future movement of prices over a specified time horizon of one month, or even one day.

Introducing the Nasdaq -100 Volatility Index: VOLQ

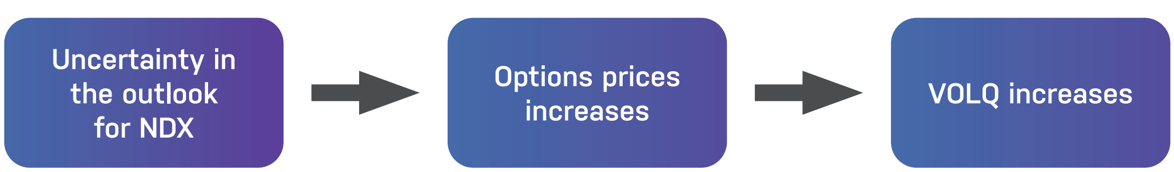
The Nasdaq -100 Volatility Index ("VOLQ") measures 30-day implied volatility of the Nasdaq -100 Index (ticker symbol NDX).

VOLQ is expressed as an annualized percentage and is positively correlated to NDX options prices (both calls and puts). The resulting value broadcasts the expected NDX index trading range over the next 30 consecutive days.

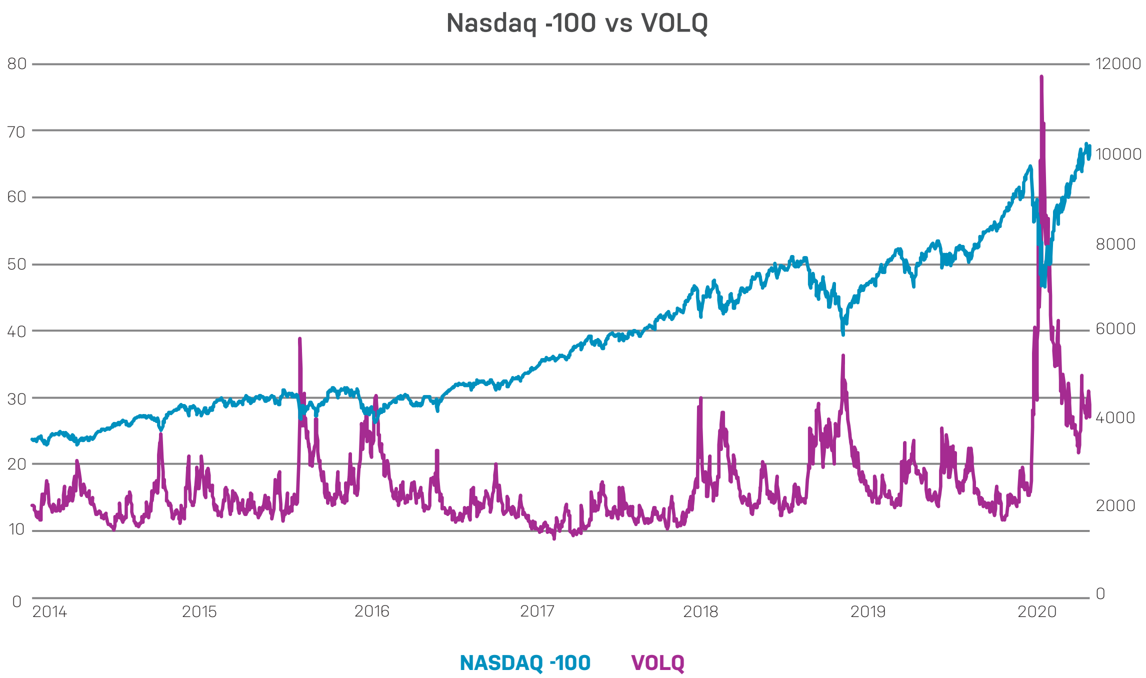
The VOLQ methodology is provided by Nations Indexes, Inc. in partnership with Nasdaq.

For example, if VOLQ is at a price level of 17.90, dividing by the square root of 12 (reflecting the number of 30-day periods in one year) implies an NDX trading range unlikely (with 68% certainty) to rise or fall more than 5.17% over the next 30-day period. Assuming NDX is at a price level of 9000, VOLQ indicates that the aggregate marketplace view is that NDX will have a potential trading range over the next 30 days contained within a range of up 5.17% (9465) to down 5.17% (8535).

Relationship between market outlook and the Nasdaq -100 Volatility Index:



Generally, more uncertainty in the outlook for NDX tends to cause options prices to rise. This is because there is a greater probability that the price will move above or below the strike price. In addition, options are used as insurance to protect against large movements in NDX price; investors buy options to hedge their portfolio positions against these large price movements (volatility movements), causing options prices to increase. As such, when NDX options prices are higher, VOLQ will be higher, and vice-versa.



In the chart above, for the period 2014-2019, VOLQ movement is negatively correlated to NDX (-81.49%). VOLQ tends to spike during market downturns and generally declines steadily during bull market moves.

Methodology

VOLQ is calculated throughout the trading day using published, real-time bid and ask quotes on 32 of the most liquid NDX options. VOLQ is based on options with a strike price exactly equal to the forward price of the underlying instrument. These options are considered precisely at-the-money, what traders look at most.

To learn more about the VOLQ index:

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