

SkewDex[®]

NATIONS[®]

INDEXES

A ROBUST, RULES-BASED AND INVESTABLE MEASURE OF OPTION SKEW

The Nations[®] family of SkewDex[®] Indexes provide the best available measures of option skew. The Nations SkewDex Indexes provide a clearer measure of option skew, relative expectations for market volatility and the market's willingness to assume risk. SkewDex Indexes are robust from a theoretical point of view and are the best indication of the amount of risk market participants are willing to bear.

What is Option Skew?

Option skew is the tendency for options with the same expiration date but different strike prices to exhibit differing implied volatilities. In equity and index options implied volatility generally increases as the strike price decreases from at-the-money. It is driven by demand for hedging with put options and by asset owners' willingness to sell covered calls.

Option skew is not a measure of fear or implied volatility. It's a measure of how much risk market participants are willing to bear, that is how far investors are willing to let markets fall before hedges offer protection.

Index Description

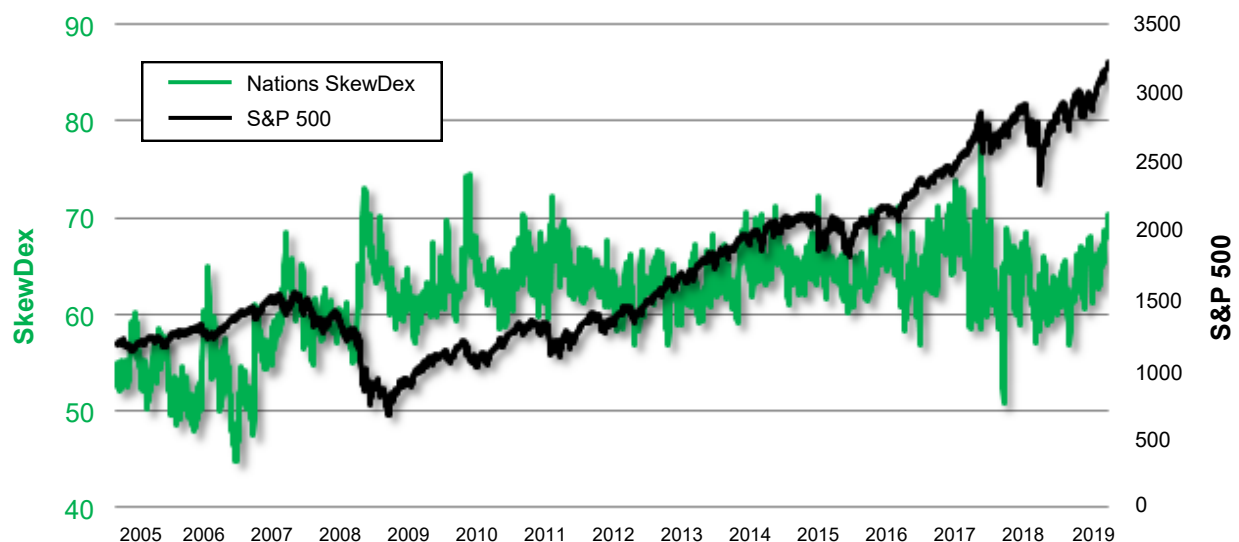
The Nations family of SkewDex Indexes provide an improved measure of option skew, the tendency for options with differing strike prices to exhibit different implied volatilities. SkewDex calculates skew the way option practitioners use it, by comparing the implied volatility of at-the-money option prices to the implied volatility of one standard deviation out-of-the-money put options resulting in the most meaningful measure.

Nations Large Cap

SkewDex Ticker Symbol:

SDEX

Historical Comparative Results



Better Ideas. Better Indexes.[®]

Nations SkewDex Indexes

Existing measures of option skew include all options, even if significantly out-of-the-money, or they compare the cost of out-of-the-money put options to the cost of out-of-the-money call options without regard to the most important gauge of option cost - that of at-the-money options.

Nations SkewDex Indexes compare the cost of at-the-money options to the cost of out-of-the-money put options to generate indexes that are a better measure of option skew, a measure that is consistent with the way option professionals measure skew. Since SkewDex Indexes compare the implied volatility of at-the-money options to that of put options struck one standard deviation out-of-the-money, they gauge a market's willingness to accept a one standard deviation loss and can be fairly compared to the SkewDex Indexes for other equity assets and measure the amount of risk participants in different markets are willing to bear. SkewDex indexes are protected by patents pending.

The Nations Large Cap SkewDex Index compares the implied volatility of a SPDR[®] S&P 500 (SPY) option that is precisely at-the-money with precisely 30 days to expiration to the cost of a SPY put option that is precisely one standard deviation out-of-the-money with precisely 30 days to expiration. SkewDex tells market participants how expensive out-of-the-money options are in relation to at-the-money options and thus, how risk averse investors are.

Historical Values

	Nations SkewDex Index	CBOE SKEW Index
Average Daily Closing Value	62.04	123.73
Median Daily Closing Value	62.88	122.44
Standard Deviation of Daily Change	1.90%	2.68%
Correlation to S&P 500	-18.03%	16.91%
Closing High	80.38 (February 5, 2018)	159.03 (August 13, 2018)
Closing Low	44.89 (November 21, 2006)	106.43 (January 31, 2008)

1/30/2005 through 12/31/2019

Performance of an index is not illustrative of any particular investment or vehicle. Index results quoted represent past performance, which is no guarantee of future results.

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A Superior Measure

SkewDex is a superior measure of option skew:

- SkewDex measures skew as option users and theorists measure it, by comparing at-the-money options to out-of-the-money puts.
- SkewDex yields a robust, tradable measure of skew.
- Moneyness is calculated logically based on the current volatility environment rather than by using stale historical data.
- Since time to expiration and moneyness are standardized, Nations SkewDex Indexes can be compared to those of other equity assets without regard to the number of strike prices listed, increments between strike prices, expiration, etc.
- SkewDex is calculated and disseminated during the trading day allowing traders and investors to recognize intra-day changes in market dynamics.

Other Skew Indexes

The CBOE Skew Index (SKEW) seeks to measure tail risk via skew; it doesn't compare out-of-the-money volatility to baseline at-the-money volatility, the best measure of skew. Due to its methodology, SKEW generates significant statistical noise resulting in a less useful measure of skew which often moves counterintuitively. SKEW is not calculated during the trading day, it is only calculated after the daily close limiting its usefulness to traders. Nations SkewDex is calculated every 15 seconds during the trading day.