



PREDICTING VOLATILITY IN THE NASDAQ-100 USING TONE OF VOICE

Why corporate executive vocal patterns can be the next great factor

Alpha Provider: Helios Life Enterprises

Company Overview: Analyzing vocal patterns of company executives to forecast forward price movement.

Highlighted Dataset: Helios Voice Summation Index (VSI).

Market Polygraph? Helios flags shifts in corporate sentiment as executives get rigorous coaching.

The technology once standard for autonomously analyzing company earnings and other corporate releases, predictive modeling and natural language processing of corporate text-based communications, is becoming increasingly less effective as investor relations specialists and technology providers offer solutions that allow corporates to better optimize their language to maximize the sentiment of these bots. Practitioners seeking alternative methods to monitor markets should seek out Helios Life Enterprises, a novel data provider focused on analyzing patterns in the tone of voice. Helios underlying technology seeks to cut through the noise of market optimized text-based C-suite communication and generates returns and volatility forecasts solely based on executive vocal patterns.

Helios Life Enterprises recently released the Helios Voice Summation Index (VSI), a volatility index which measures the market's belief in corporate communications using tone of voice exclusively. Differing from the Nasdaq-100 Volatility Index ([VOLQ](#)), which is based on the option prices of the Nasdaq-100, VSI is based on the features of the voice of executives at corporate events like earning calls. Helios' proprietary algorithm generates a daily index value which represents a forecast of the forward 30-day annualized volatility. Volos analyzed the Helios VSI and derived an options-based signal which can be utilized as an active parameter within [Volos' Strategy Engine](#), a highly flexible no-code options backtesting engine.

Signal Summary

Volos designed a signal that alerts investors when the ratio between the VSI and the market's implied volatility reaches an extreme.

The signal becomes bearish when market implied volatility is widely elevated compared to Helios' forecast. The signal becomes bullish when that trend stops persisting and the ratio begins to normalize.

Helios Voice Summation Index (VSI) vs. Market Implied Volatility



Helios VSI driven signals triggering during recent volatility events



Strategy Rules

Using Volos' Strategy Engine, we designed a set of Calendar Short Put Spread strategy using Nasdaq-100 index options that:

1. Sells a 2-month 5% out of the money NDX Put Option.
2. Buys a 4-month 15% out of the money NDX Put Option and rolls the option every two months.
3. When the Helios signal is bearish, the strategy buys back the short put option so the only exposure is a long put position.
4. When the Helios signal is bullish, the strategy rolls out and restrikes the short put option to collect more income and sells the long put option to preserve the value of the put.

Source: Volos, Helios Life Enterprises, OptionMetrics

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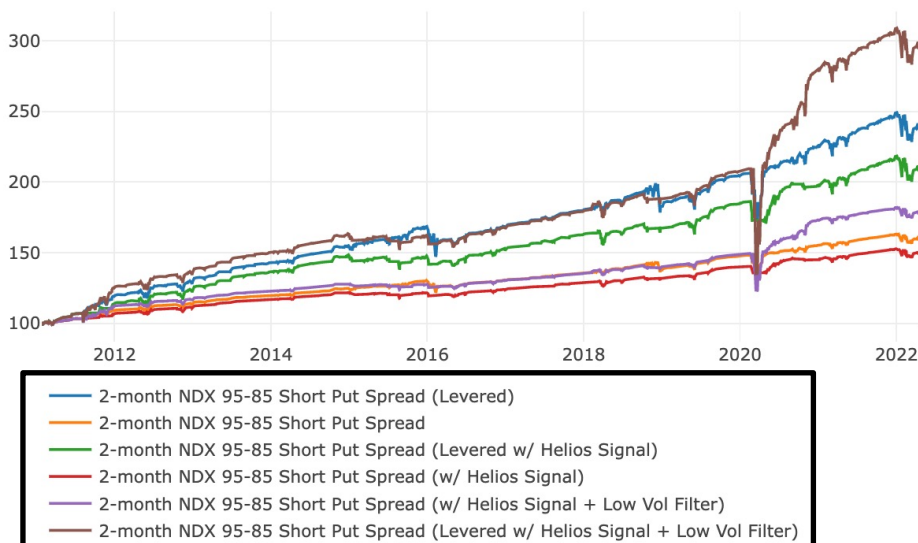
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Findings

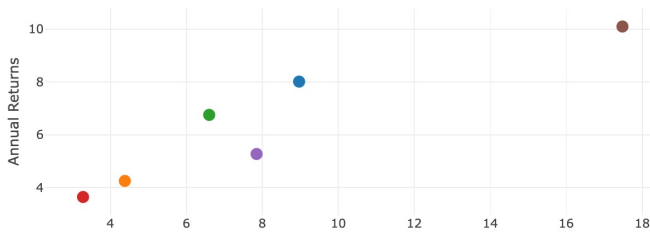
- Initial versions of VSI Enhanced NDX Short Put Spread strategies indicated that the signal successfully increased the risk-adjusted returns of the strategies (see table below) and dramatically reduced drawdowns. These strategies, however, were significantly more conservatively run than their passive equivalents.
- Volos developed a second set of more aggressive strategies with a low volatility filter that prohibits these strategies from applying bearish risk measures when the market implied volatility is above 30. At the expense of risk efficiency, these strategies had significantly higher performance mainly due to the actions the strategy took during the COVID-induced correction.
- Analyzing Helios' tonal forecasts at the asset class, region, sector, and security level and their respective volatility forecasts against the market's implied volatility warrants a thorough exploration.

Summary of Performance – Jan 2011 to April 2022- [\(View Interactive\)](#)

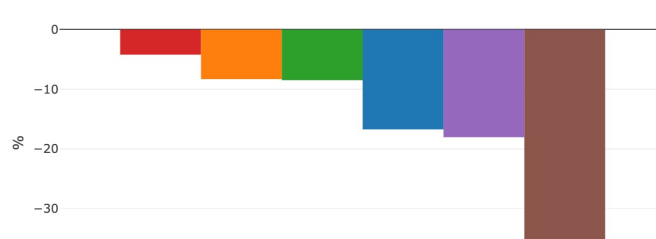
Total Returns



Efficient Frontier



Max Drawdown



Name	Cumulative Returns	Annual Returns	Annual Volatility	Ret/Risk ↓	Max Drawdown
2-month NDX 95-85 Short Put Spread (w/ Helios Signal)	49.36%	3.64%	3.28%	1.11	-4.21%
2-month NDX 95-85 Short Put Spread (Levered w/ Helios Signal)	108.19%	6.75%	6.6%	1.02	-8.48%
2-month NDX 95-85 Short Put Spread	59.5%	4.25%	4.38%	0.97	-8.31%
2-month NDX 95-85 Short Put Spread (Levered)	137.54%	8.01%	8.97%	0.89	-16.72%
2-month NDX 95-85 Short Put Spread (w/ Helios Signal + Low Vol Filter)	77.95%	5.27%	7.85%	0.67	-18.04%
2-month NDX 95-85 Short Put Spread (Levered w/ Helios Signal + Low Vol Filter)	194.5%	10.1%	17.48%	0.58	-36.06%

Source: Volos, Helios Life Enterprises, OptionMetrics

About Volos: Allocators, investment managers, and advisors use [Volos' Strategy Engine](#), to tailor options programs to meet their organization or end client's investment objective. **Volos' Strategy Engine** enables the design of both simple passive and sophisticated active options strategies. Please email jeff.corrado@volossoftware.com to learn more on our enterprise solution.



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