

# The Nasdaq-100 Engle 10% Index: Where Innovation Meets Nobel Prize Winning Research

UBS and Nobel Laureate Robert Engle have collaborated to develop a new index that leverages an innovative volatility forecasting method with the goal of benefiting investors.



Forward-looking volatility modeling



Partnering with Nobel Prize winner



Nasdaq-100 Total Return™ Exposure



Intraday reactivity

The innovation — used in the Nasdaq-100 Engle 10% Index (the “Index”) — is a new approach designed to forecast the volatility of the underlying asset and adjust the allocation accordingly. The key differentiator of the Index is in the “Volatility Control” mechanism, which uses a forward-looking volatility forecast as opposed to backward-looking realized volatility. Depending on what price action the volatility indicates, the Index adjusts its exposure to the underlying asset, the Nasdaq-100 Total Return™ Index (“Nasdaq-100 TR”), while targeting a volatility of 10% intraday.

This approach means that throughout the trading day, when forecasted volatility is higher than 10%, the Index will reduce exposure to the Nasdaq-100 TR. When forecasted volatility is lower than 10%, the Index will allocate more than 100% weight to the Nasdaq-100 TR.

Managing volatility when investing is important because increases in volatility are often “associated with prices going down. And when volatility comes down, it’s typically associated with asset prices going up,” according to Engle. By leveraging volatility as a predictor for price action, investors may be able to use volatility as an enhancer to risk-adjusted return as opposed to an inhibitor to performance.

The volatility forecast model is calibrated frequently as new price movements emerge. This new capability means the Index has a more sophisticated way of quantifying risk. As a result, investors have the potential to more effectively capture the upswings and weather the inevitable downswings of the market. When volatility is well-forecasted and controlled, it can help manage risk.

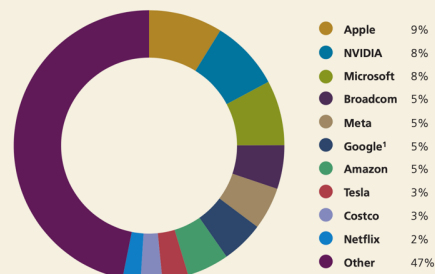
Engle first developed this approach by forecasting volatility for a universe of 10,000 assets using data from exchanges worldwide.

This analysis gave Engle insight into how volatility rises and falls and its impact on returns. Engle explains, “It’s exactly when the volatility is high, that stock prices are not where you expect them to be. And that’s a risk.”

## Nasdaq-100 Total Return™ Exposure

The Nasdaq-100® is one of the world’s preeminent large-cap growth indexes.

The companies in the Nasdaq-100® includes 100 of the largest domestic and international non-financial companies listed on the Nasdaq Stock Market® based on market capitalization. Nasdaq-100 Total Return™ Index is the total return version of Nasdaq-100 Index®, and it is the underlying asset of the Nasdaq-100 Engle 10% Index.





His work also revealed the importance of making fast adjustments to changes in volatility. Quick rebalancing helps investors to catch gains when volatility drops and get protection when it rises. Therefore, the Index uses intraday data and rebalances up to seven times daily. The idea behind this approach is that investors benefit when they avoid exposure to the drawdowns often associated with high volatility periods and capture the upside quickly when volatility decreases. This speed is important because a drop in volatility may be quickly proceeded by a rise in the overall market.

Quick moves are also important in an increasingly globalized world. As Engle explains, "we think that the morning is the most volatile period of the day because new information has been gathered overnight. European markets and Asian markets have been going all night. So, when the market opens, there's a lot of information." To benefit from that new information, investors need speed and more windows to adjust throughout the day.

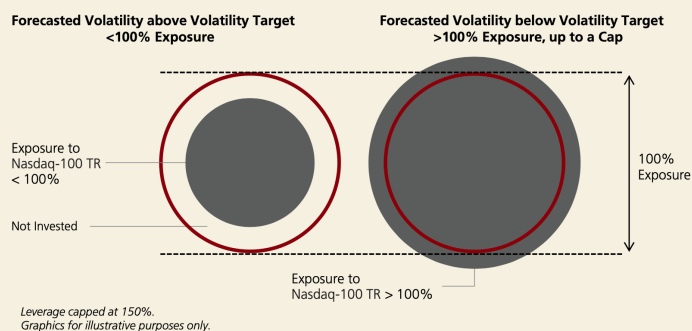
The Nasdaq-100 Engle 10% Index brings a new level of sophistication and insight to an increasingly dynamic market.

To learn more about the index, including, but not limited to selected risk considerations, please visit: [indices.ubs.com/ubengl10](https://indices.ubs.com/ubengl10).

## Forward-looking volatility modeling

The Index targets a 10% annualized volatility.

Unlike many other volatility-controlled indices that rebalance based on backward-looking volatility calculations, the Index uses an innovative forward-looking model that predicts volatility and adjusts allocation to the Nasdaq-100 Total Return™ Index ("Nasdaq-100 TR") intraday.



When forecasted volatility is higher than 10%, the Index will reduce exposure to the underlying asset, Nasdaq-100 TR, to dampen volatility.

When forecasted volatility is lower than 10%, the Index will allocate more than 100% weight to Nasdaq-100 TR, subject to a maximum exposure of 150% to control leverage.

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