

# Dynamic Volatility Strategy

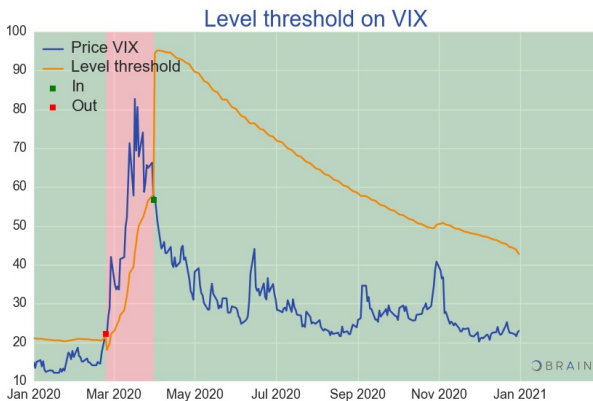
## Product Summary

The strategy is based on the Dynamic Volatility Signal (DVS) which provides an ON/OFF signal on US equity markets using some statistical measures on VIX (a widely-used proxy for global risk aversion). The hypothesis is that when the VIX grows above a dynamic threshold the market enters a more “nervous” state in which it could not be convenient to hold equities.

Based on the DVS the strategy toggles between an ON and an OFF portfolio, each of which is monthly rebalanced.

## Dynamic Volatility Signal

The DVS is in “live mode” since January 2018. The following graph shows an example of the signal during the pandemic outbreak in 2020 (signals of type IN are green squares and signals of type OUT are red squares).



## Asset Classes

Asset Class	Proxy ETF	Benchmark
US stocks	SPDR SP500	20 %
US stocks small cap	iShares Russell 2000	10 %
Gold	SPDR Gold Shares	10 %
Industrial Metals	PowerShares DB Base Metals	3.5 %
Oil	United States Oil Fund	3.5 %
Agriculture	PowerShares DB Agriculture	3 %
Corp. bonds US inv. grade	iShares iBoxx \$ Investment Grade Corporate Bond	12.5 %
Corp. bonds US high yield	iShares iBoxx \$ High Yield Corporate Bond	12.5 %
Gov. bonds US short term	iShares Short Treasury Bond	12.5 %
Gov. bonds US long term	iShares 20+ Year Treasury Bond	12.5 %

## Portfolio Strategy

The strategy, based on the DVS signal, actively switches between two dynamic portfolios:

1. An ON portfolio where equities are over-weighted up to 50%.
2. An OFF portfolio with zero equity exposure and a fixed allocation to Gov. Short Term Bonds of 35%.

In the graph below the strategy is compared to a benchmark with fixed weights. A commission of 0.1% per operation has been assumed in the backtest. The green shaded area shows when the strategy was “live”.



## Relevant Indicators

Indicator	Strategy	Benchmark
Annualized Return (since 2008)	7.7 %	5.3 %
Volatility (since 2008)	8.9 %	8.9 %
Sharpe Ratio (since 2008)	0.87	0.63
Max Drawdown (since 2008)	-21.8 %	-26.9 %
Cumulative Return YTD	4.7 %	2.2 %
Volatility YTD	7.6 %	6.8 %

## Contacts

BRAIN is a Research Company that develops proprietary signals based on alternative data and algorithms for investment strategies on financial markets.

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