

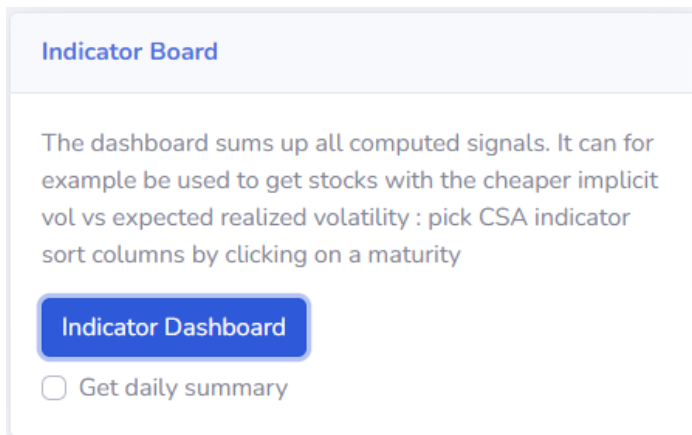
Use case :

You want to reduce the vega of your book by selling some of your long vega positions. Your 3 largest vega positions are Airbus, Deutsche Bank and Novartis. You give yourself a few days in order to get the best timing to sell your positions.

Let's see how Canari can help you maximize your PnL.

1/ Visit your canari admin page

2/ Press the "Indicator Dashboard" button :



3/ The MDE indicator is selected by default

Underneath the dropdown menu appears a short explanation of what MDE means :

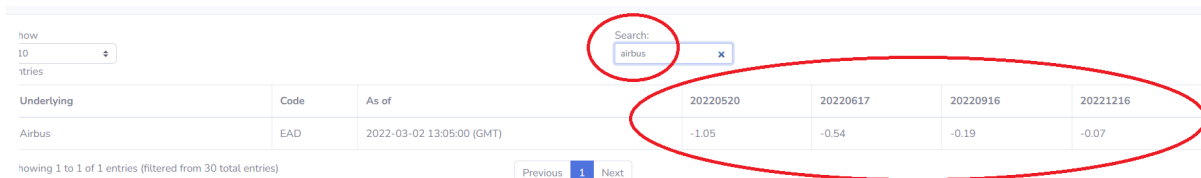
[MDE stands for Market Dynamics Extraday.](#)

[This indicator forecasts the idiosyncratic volatility move over 2 days.](#)

By "idiosyncratic", we mean that the implicit volatility movement of a stock/index can be split into the vol move of the overall market and the vol move specific to this underlying.

The former is usually impossible to predict with the tools at our disposal so we focus on the later. See git : [Defining Idiosyncratic Volatility](#)

With the search field, you can easily find the MDE indicator for your 3 underlyings.



Underlying	Code	As of	20220520	20220617	20220916	20221216
Airbus	EAD	2022-03-02 13:05:00 (GMT)	-1.05	-0.54	-0.19	-0.07

The MDE indicator is expressed in standard deviations :

A score of 1 means that the signal is moderate, 2 and more is strong. If the signal distribution was Gaussian, the score would be less than 1 around 68% of the time (see:

[Wikipedia standard deviation 68–95–99.7 rule](#))

A negative number means that the implicit vol will most likely go down over the next few days. This is what we are looking for : it means that the implicit vol (hence the options) are temporarily overvalued on the stock.

4/ How it works :

What kind of information does the indicator use?

To understand this, a good place to look is an MDE alert.

Conveniently, the admin page (still open on your browser) gives us access to the last triggered MDE alert :

Alerts

Single stock vol

		Forecast on	See last alert	Subscription
CSA	📍	Realized vol	Last alert	✓
CSA sector	📍	Realized vol	Last alert	✓
MDE	📍	IV 2 days	Last alert	✓
MDI	📍	IV 1 hour	Last alert	✓
TDI	📍	IV 1 hour	Last alert	✓

The two graphs in the middle shows the impact of different factors in the MDE score :



In this example concerning Adidas, maturity March 2022 and dating back to early february, the main factor is "IV dynamics vs OESX long term".

This means that the negative score stems mainly from the spread : $\text{Implicit_Vol_Adidas} - \text{Implicit_Vol_Eurostoxx50}$ which is higher than usual. This spread is mean-reverting so we expect the March implicit volatility of Adidas to fall back to a level more in line with the Eurostoxx50 March Vol.

Other factors can include for example term structure considerations (for example a bump on the March vol compared to the February and April ones).

Canari looks for non linear patterns in a wide range of factors in order to detect patterns indicating a probable future shift of the ATM vol. This method is 4 times more efficient than looking at a simple pairwise comparison.

NB :

The barchart values correspond to the present situation (not the situation at the time of the alert)

When the alert reaches maturity, the graphs cease to be updated.

The right hand side graph gives the timeseries of the factor selected in the barchart.

5/ Conclusion :

By pointing to the underlyings whose implicit vol is temporarily high, Canari can help you decide when and on which maturity you should sell back your vega to maximize total PnL. Just look for a negative score, if possible beyond -1 before selling options.