



OverSpread



powered by beeTrader

Quick Guide on how to trade with OverSpread

OverSpread® Quick Guide

OverSpread Trading how it works in practice

Imagine watching a drunk who walks his dog by holding him on a leash. There is a relationship between the path followed by the owner and the one followed by the dog! Although the paths of the dog and that of his owner are not predictable, given the position of one of the two, we can however get an idea of where the other can be found. This is because the distance that separates them, although variable during their random journeys, is however limited by the length of the leash.

In this case the two paths are defined as cointegrated.

We will do the cointegration test between different assets to look for the existence of a "stable" relationship between two or more historical series with apparently random trends.

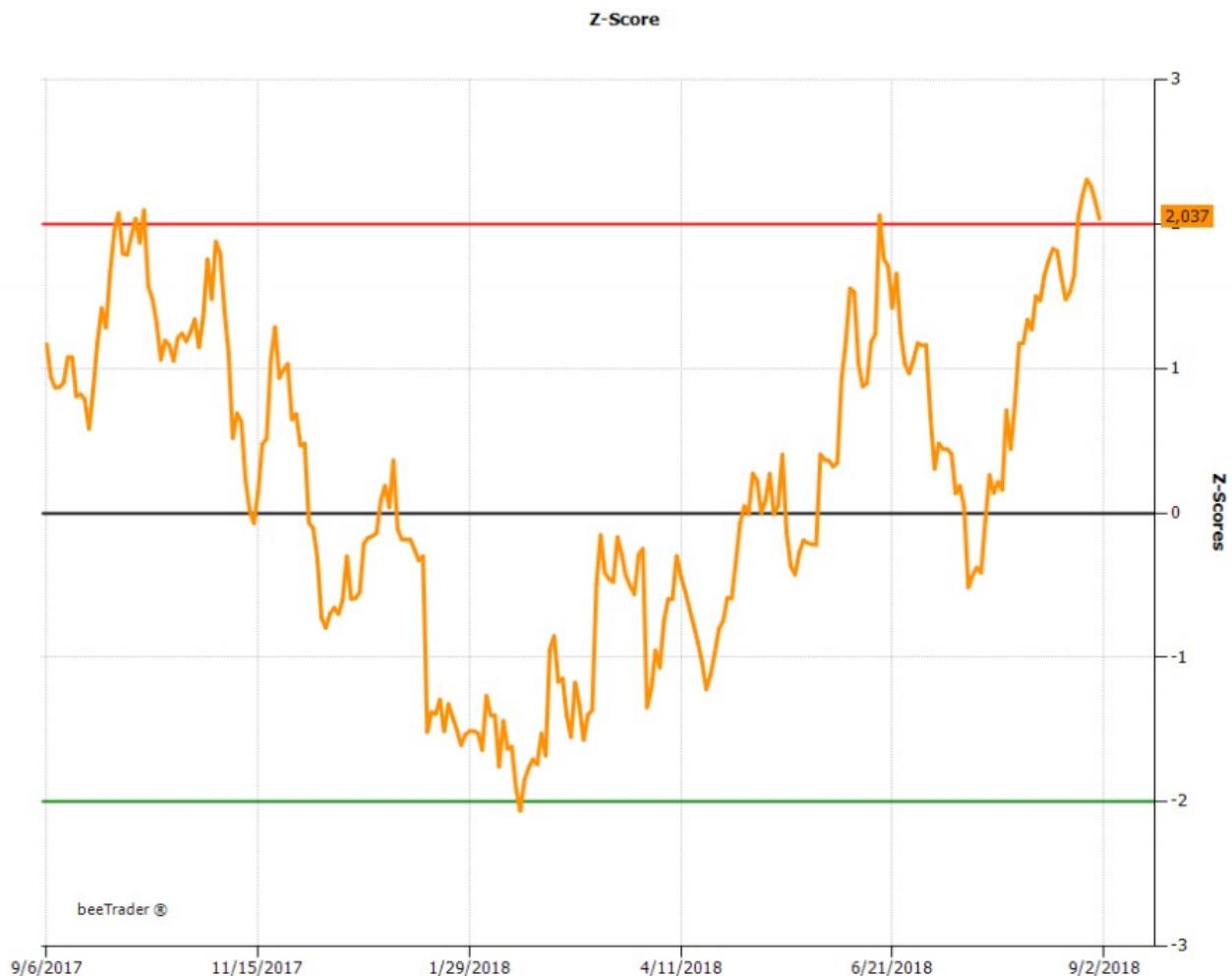
The trading of the OverSpread is to get in position when the dog and the owner are at the maximum distance given by the leash, trusting with a 95% probability that they will meet.

With the logic of cointegration between Assets, what we need to do is trading with pairs of stocks that we put against each other.

One Long and the other Short.

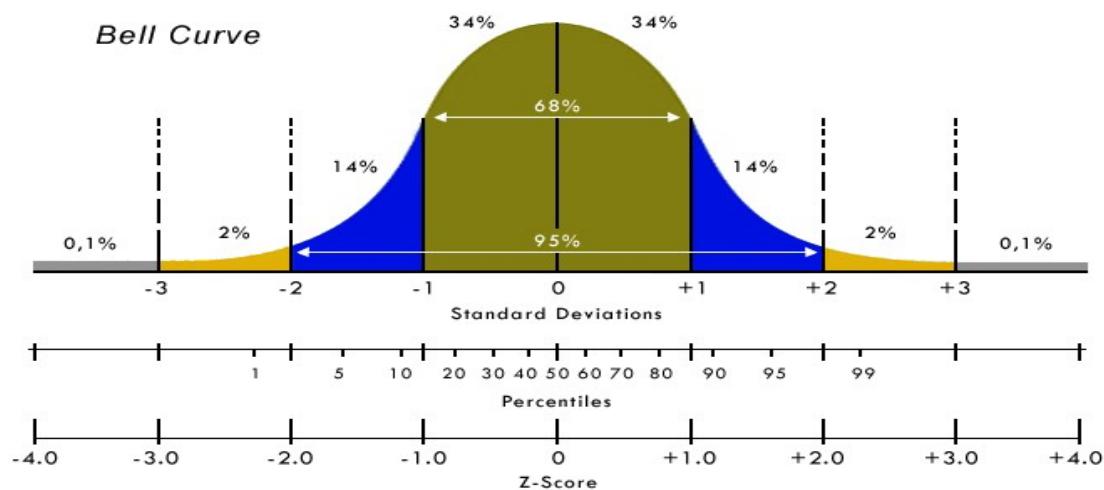
Making this type of trading is called Spread Trading, that is, you get a third chart called Spread, formed by the division between them of two stocks

This Spread has its own movement and shape which is illustrated in the following image.



We describe it by measuring it in Z_Score, in a chart where the two "pivot" levels of trading are highlighted:

the 2 and the -2 that correspond to 95% of probability within a Gaussian, or *the maximum length of the leash*.



A couple of words on the Z-Score

In order to always have graphs with the same scale and therefore comparable between them considering that spread trading will be done with Assets that will have very different values between them, we have used a small trick, the Z-Score.

Z-score is a statistical measure that represents the relationship between a value and the average of the values of a group to which it belongs.

A value of Z-score = 0 means that the score is equal to the average.

It can take positive values and negative values indicating if it is above or below the average and how many standard deviations.

If we wanted to calculate it on Close prices, the formula would be:

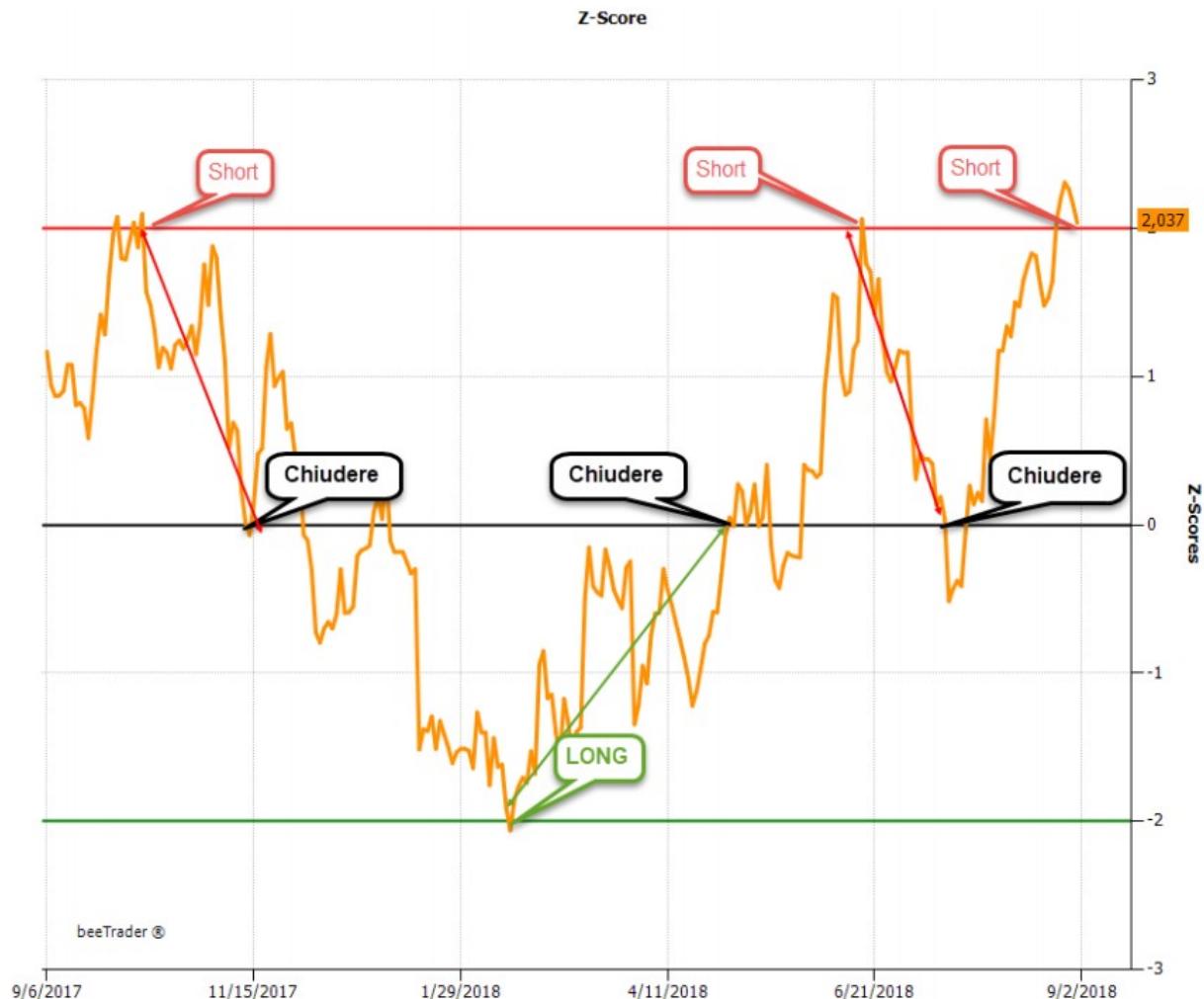
Close - average of Close / standard deviation ... or movement / deviation

* *In conclusion, the Spread is a graph, expressed in Z-Score, centered on zero and whose scale is coincident with the values of the Gaussian bell.*

All the graphs, of any pair of instruments, will therefore have the same scale, and therefore will always be comparable between them.

Everyone will always have the same interpretation: if the graph reaches the value of +2 or -2 Z-Score, it means that I have only about 2% probability of continuing beyond these extreme values, and 95% probability of returning to the central value.

The Technique



We have Short trades when the spread crosses from top to bottom the value of +2 Z-Score thus having a 95% probability of returning to "0".

Long trades when the Spread crosses the -2 Z-Score level from bottom to top, thus having a 95% probability of returning to "0".

It closes everything when it reaches zero. Exactly as described in the image.

Therefore: we will create a list of symbols to be fed to the software, we will select the time frame in which we want to operate and which depends on whether we use titles, futures or their options.

The most suitable couple

It will be the one that has shown a stronger relationship over time, that is, *the most solid leash that has remained the same length.*

	Asset A	Asset B	Cointegration	Asset A Weight	Asset B Weight	Z-Score Last Value	Z-Score Direction
	Saras SpA	TERNA - Rete Elettrica Nazionale SpA	1	2.422	1	2.037	Down
	Azimut Holding SpA	Banca Generali SpA	1	1.612	1	1.338	Down
	Assicurazioni Generali SpA	Compagnie Industriali Riunite SpA	1	1	13.673	0.859	Down
	ACEA SpA	Intesa Sanpaolo SpA	1	1	5.045	0.827	Up

The pair will have cointegrations near or equal to 1 and Z-Score that are above the value of 2 or below the value of -2.

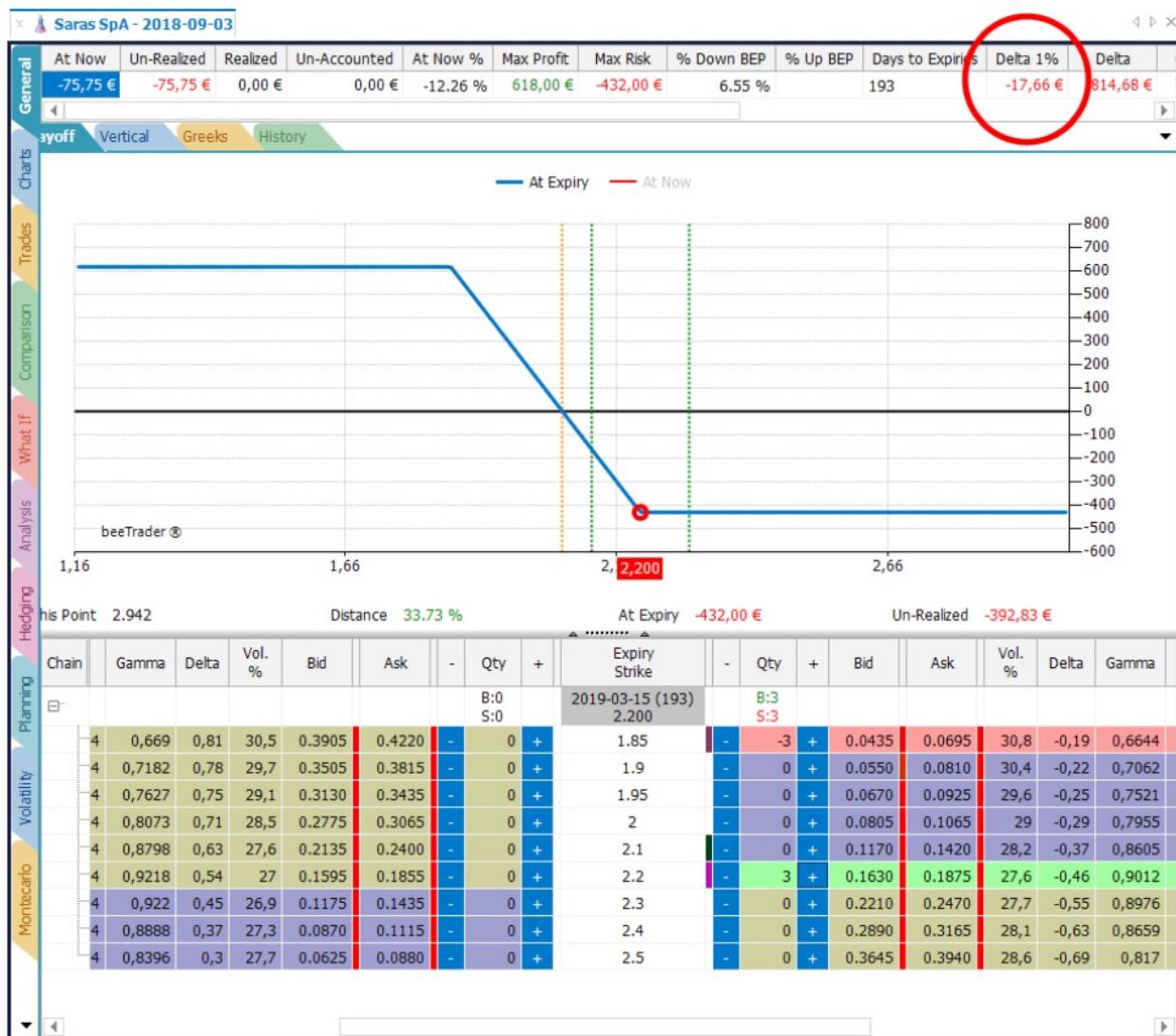
The leash is in range and at 95% probability it will re-enter!

In the upper image we see that the first pair of assets that passes the exam is Saras / Terna being fully cointegrated. The Z-Score is going through the value of 2!

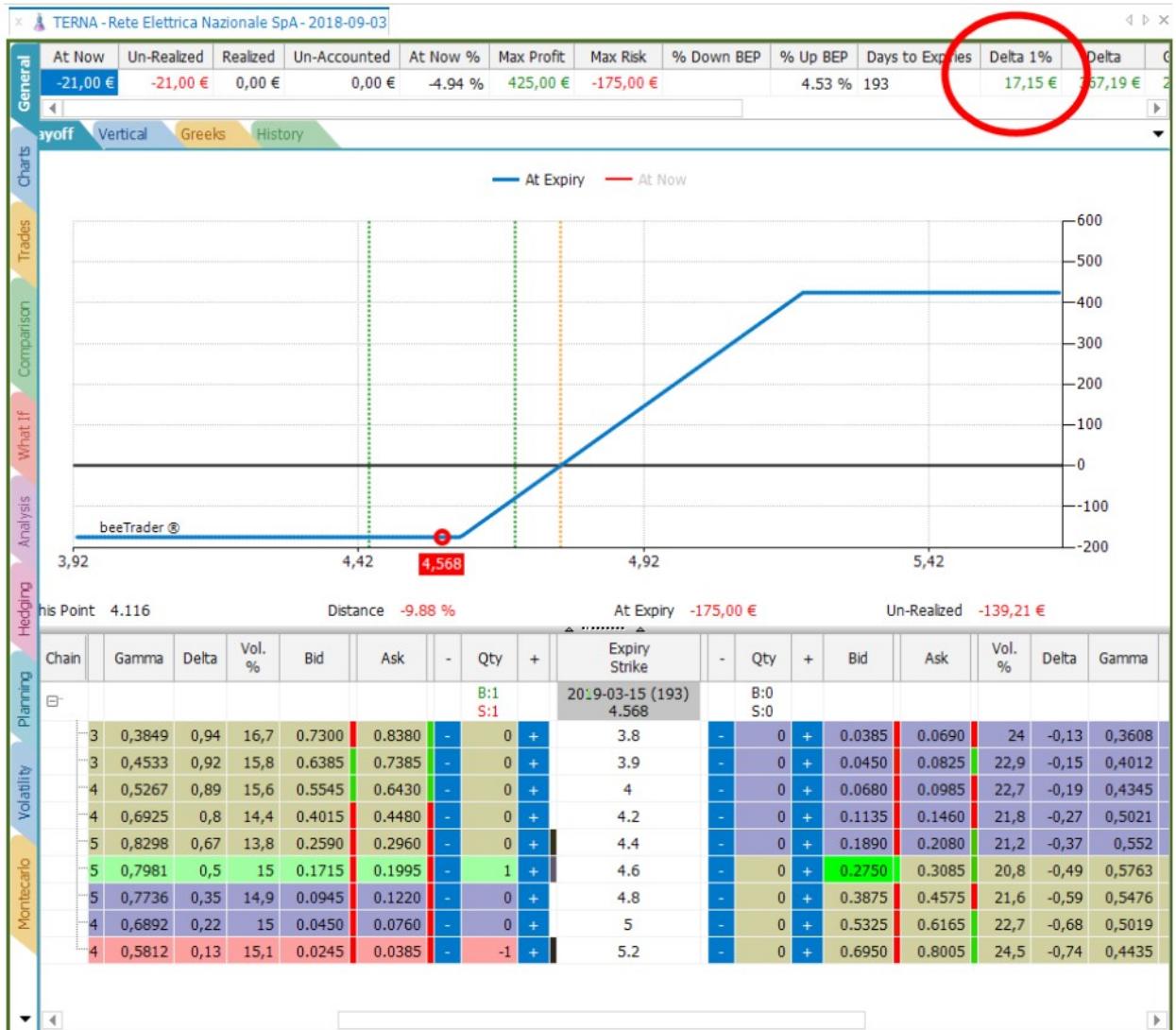
The leash is loosening ... and then to market with one of the two systems: we use Saras Short shares and Terna Long shares or we use two strategies in options, a Short and a Long.



Strategia short di Saras



Strategia long di Terna



Characteristics of the Saras / Terna Spread

Saras: Bear Put Spread

Days to expiry = 193
-3 put strike 1.85
+3 put strike 2.20
Delta 1% = -17,27 €
Max Profit = 613,50 €
Max Risk = -436,50 €

Terna: Bull Call Spread

Days to expiry = 193 = 193
-1 call strike 5.20
+1 call strike 4.60
Delta 1% = 17,15 €
Max Profit = 425,00 €
Max Risk = -175,00 €

Two days later



	Saras SpA - 2018-09-03	TERNA - Rete Elettrica Nazionale SpA - 2018-09-03					
General	At Now	Un-Realized	Realized	Un-Accounted	At Now %	Max Profit	Max Risk
	122,25 €	122,25 €	0,00 €	0,00 €	15.64 %	781,50 €	-268,50 €

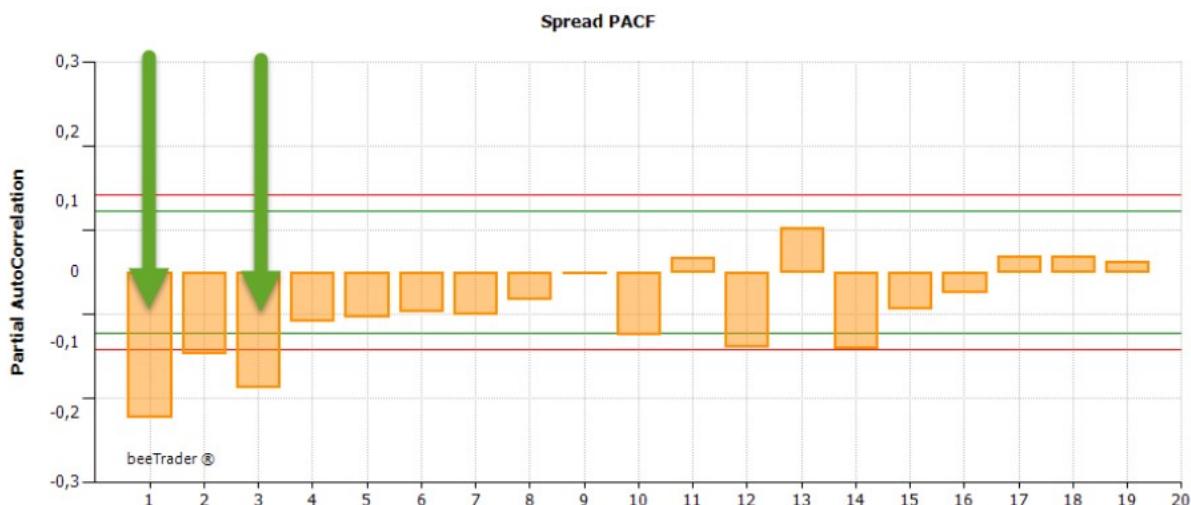
In the images of the Spread note how the path of his Z-Score is in the direction of "zero" marking a value of 1.298 while the day before was at 1.641 and the day of departure at 2.037.

In other words, the leash has been stretched to the maximum and now it is loosening towards zero.

The control console is based on some studies, the most important one is the following one because it tells us *if the dog and the owner have started walking with the same pace and therefore remain at the same distance*.

In practice it tells us if the correlation that we don't want is entering!

The histograms n°1 e n°3 came out of the green and red lines .. if the thing continues also in the next days we will have to undo the couple and find two new partners for the two single titles.



I understand that the whole topic is not simple and immediate, especially for those who are not familiar with numbers. However, keep in mind that you are paid for the risk that if you use techniques and instruments that reduce the risk, this must be balanced by the work I have to do. And I have always preferred the combination less risk more work since in Trading there are no free meals.



Writing this dispensation, I realized that this year marks the 30th anniversary of my career as a Trader in a constant and unique way. Hanging the pilots helmet from the classic nail, I switched to the negotiation with the telephone receiver.

Tiziano Cagalli

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