

The Quant Corner

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Measure What You Feel, Not What You See

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TrackMacro [™] is a software tool providing equity risk signals in 40 countries

Download TrackMacro for PC from the company website Download TrackMacro for iPad from the Apple Store Human beings are much better at sharing emotions than sharing opinions. The global influence of opinions in finance vanishes with their diversity. This is called the "diversification effect" in portfolio management theories. However, this effect doesn't apply to emotions, the likely origin of speculation, fat tails and market crashes.

But how should we approach, and measure, emotions?

Let's assume that a plane is about to take off for a night-flight. The only information a passenger can perceive and analyse is sensorial. Meanwhile, the captain has access to objective measures of the plane in motion: position, speed, acceleration (which is a variation of speed), jolt (which is a variation of acceleration).

Fig1. Take-off in three phases



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<u>During phase 1</u>, the passenger feels the take-off, even though he can't see anything. Does that mean the sensation is related to a variation of position of speed?

<u>During phase 2</u>, in a period of constant acceleration, the captain observes a faster change in position, a regular variation of speed, a constant acceleration, and no jolt. Meanwhile, the passenger feels very little, apart from a slight and stable excess weight. Sensations are not related to a change in position or to a constant change in speed.

<u>During phase 3</u>, the plane reaches its targeted speed and height and stops accelerating. The passenger feels the phase transition, measured on the captain's dashboard with a sudden jolt, and nothing more thereafter.

The conclusion is that we don't really feel position, constant speed or constant acceleration, but changes in various measures of the motion.

When looking at asset prices or the dynamics of economic factors, our TrackMacro research program doesn't focus much on assets or currencies' price levels, nor on stabilized inflation, whether at 1% or 5%, but on any change in the dynamics of macro factors with a high statistical significance. "Macro changes" are series of events at the margin, which are likely to be felt by market participants, who will then react in some way or another. The statistics of these events, their frequency and magnitudes, are objects of science.

Filtering relevant objects is the purpose of TrackMacro's first layer of its neural network. If a signal is not statistically significant, no information is transmitted to the second layer. If it is informative, the second layer activates to speculate on the potential consequences for equity markets, according to fundamental macro rules.

TrackMacro measures what we feel, not what we see!

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