

## Energy, Power, and the Price of Oil

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Are financial markets today made vulnerable by the price of oil reaching new heights?

Most severe equity drawdowns in the last forty years were preceded by an inflationary shock on oil. Turning risk asset positions into cash ahead of extreme events is one of the very few possibilities to safeguard investment values, and to generate substantial alpha on the long run. So, is it time to reduce the sails?

TrackMacro's answer is negative, and for a fundamental reason originating in physics and statistical finance.

### Energy and Power in Physics

What's the difference between a beach jogger and a mountain trekker? The former counts distances in miles or kilometres, the latter in hours. The difference is cultural, but has something to do with physics, financial modelling, and, in particular, with the consequences of today's oil price pressure.

The energy spent by a trekker to walk up a mountain is the mechanical energy required to gain altitude. Regardless of the actual distance covered, an average trekker climbs 300 metres in altitude per hour during their journey. Distances to a mountain refuge are therefore counted in hours, which means average energy spent.

There is, however, a difference between energy and power. Power is the flow of energy per unit of time. A mountain guide spends the same amount of energy as an average trekker to reach a refuge, but he or she does it three to four times faster. The guide is more powerful than the average trekker.

### Levels and Trends in Finance

Financial modelling faces a dilemma. Should a model focus on levels, such as oil price, debt, and credit spreads, or should it focus on trends? Levels are energy; trends mean power.

The TrackMacro AI algorithm only tracks trends in fundamental macro variables: inflation, growth, liquidity, improvement or deterioration of competitiveness. Even equity valuations are observed in terms of variations: variations in multiples and variations in volatility.

Flashing a 'buy' signal when equities are cheap in absolute terms, for instance, is extremely unsafe. Indeed, value investors who bought the NASDAQ in early 2001, with a 50% discount to the March price levels of the previous year, ended up losing 65% in the two years that followed.

Power, or trends, or trends within trends (the various derivatives of a movement) are the most reliable indicators of potential stability or instability.

This does not mean, however, that levels don't count. If interest rates in Italy, for instance, keep rising, the country could enter a debt trap which might place the entire Eurozone at risk. A debt trap is both a trend and a level phenomenon. The trap opens when earnings' growth (trend) becomes insufficient to cover the cost of debt. And the cost of debt depends on the amount of debt (level).

TrackMacro ignores levels on purpose and is therefore blind with regards to book values, accumulation of debt, or the absolute price level of oil. The reasons are the following:

- (i) Financial markets constantly self-adapt to changes in the economic, social, and political environment. Most of the time, markets are made at the margin, with the exception of catastrophic periods.
- (ii) Catastrophic risks, such as a debt trap turning into a financial crash, can result from the accumulation of debt or from excessive valuations in absolute terms. However, they release massive amounts of energy within a short period. They are powerful events. Warning signals, even in the case of extreme events, are more reliable when measured by power, i.e. energy trends, rather than energy levels.

In physics, there's more energy to be released in a kilogramme of oil than in a kilogramme of trinitrotoluene (TNT). But TNT should be manipulated with extreme caution. It is a far more powerful explosive than oil, as it can release the energy at a much greater speed.

### Oil Price Today

TrackMacro issued warning signals on expected oil price pressures for eleven months in a row, ending on the 31<sup>st</sup> of July, 2018. Oil gained 35% during that period.

For two months, however, TrackMacro turned neutral on oil, despite prices flirting with four-year record highs. The power approach contradicts the level approach, but TrackMacro stands still. Global risks today result from a deteriorating inflation/growth mix in Europe, and from a shortage of liquidity, not from oil.

Oil price pressure, today, is energetic, but powerless.