

Reprinted from

# Risk.net

RISK MANAGEMENT • DERIVATIVES • REGULATION

Risk.net June 2022



## Trend following's bumper returns mask fading convexity

# Trend following's bumper returns mask fading convexity

Research suggests strategy is no longer a reliable hedge against stock market crashes. By *Rob Mannix*

**T**rend followers are enjoying their best returns ever, but the good times could be masking the strategy's fading qualities as a tail-risk hedge, according to new research.

An index of leading trend-following strategies run by Societe Generale was up more than 26% year-to-date at the time of writing. And yet a study by \$3.4 billion boutique quant firm Versor Investments suggests the strategy has lost its trademark positive convexity to equities over time – a finding that calls into question whether trend followers will continue to perform well in stock market selloffs.

The strong performance of trend following in

2021 and 2022 is giving investors a “false sense of comfort”, says Deepak Gurnani, Versor's founder and managing partner. “These are good returns,” he says. “But trend following is still not exhibiting positive convexity.”

In future periods of extreme stock market stress such as occurred in the first quarter of 2020, trend following will “disappoint”, Gurnani predicts.

Versor's quants measured the convexity of returns versus the S&P 500 for trend following signals over different time horizons, looking at rolling five-year returns from 2000 to the end of 2021.

The convexity of strategies run by the firms in

the SG Trend Index dropped from nearly two during the aftermath of the financial crisis to zero or below after about 2014.

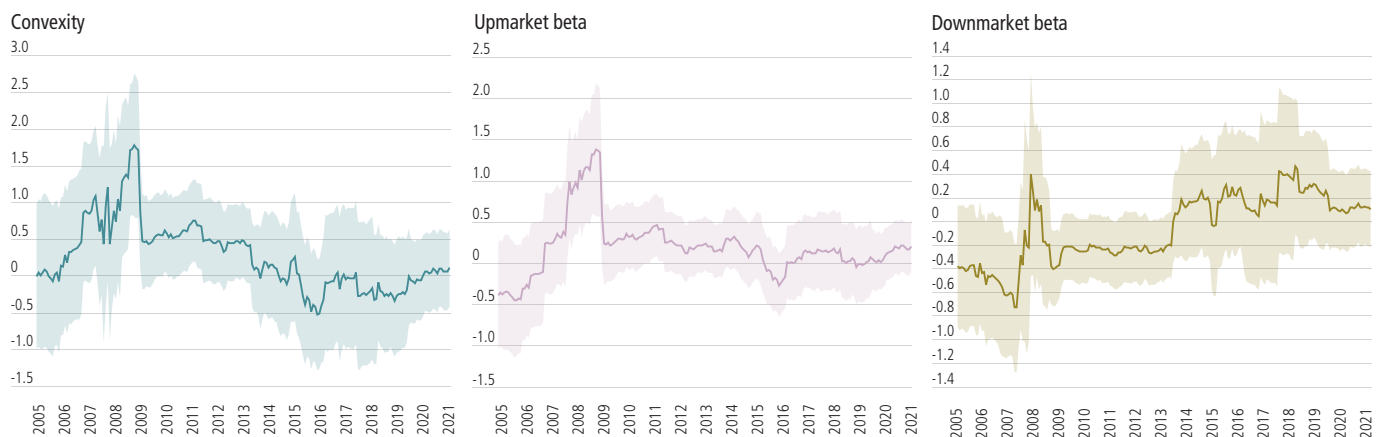
Convexity measures how closely returns track the market in extreme conditions.

A convexity of two means the strategy had a beta of one to equities in a rising market and -1 in a falling market. Returns could be expected to rise one-to-one with stocks going up, but to rise also if stocks tumbled.

A zero score – as seen after 2014 – means the strategy can be expected to more or less track equities both up and down.

Today's record returns, then, could be misleading.

## 1. Convexity in CTA returns



Source: Bloomberg, Societe Generale, Versor Investments

Trend following has made most of its gains in recent months from long commodities and short fixed income positions, profiting from “a continuation of trends that had already been going on for some time”, Gurnani says.

Versor estimated the positioning of trend followers by regressing their returns against returns from different signals. “It’s important to note that not much money has been made in equities,” Gurnani says.

### Trending, fast and slow

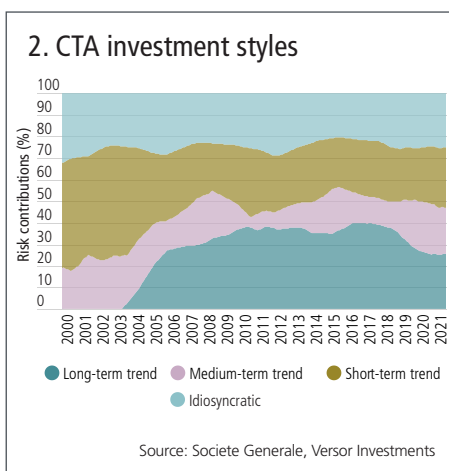
The quants attribute the fading convexity to firms relying increasingly on slower-moving trend signals that look back over longer time horizons.

“When there’s a gradual turn in equity markets even the slower signals do quite well,” says Ludger Hentschel, a founding partner at Versa. “But when there’s a more abrupt change, like in March 2020, slower signals don’t deliver the kind of convexity that we think investors are expecting from trend following.”

Long-term signals exhibited near zero or negative convexity from 2010 on, Versor’s study found.

Assets under management in trend following has grown by about 50% since 2008 according to data from BarclayHedge. Inflows have forced investment managers to migrate to slower – less convex – signals to overcome the capacity constraints of more rapid strategies, Hentschel believes.

Versor’s analysis suggests that long-term signals grew from a negligible element in strategies before 2005 to explaining more than a quarter of risk contribution. “It’s not that the signals have changed their stripes. The managers have,” Hentschel says.



Kari Vatanen, chief investment officer at Veritas Pension Insurance Company in Finland, who has also studied convexity in trend following, says he too found the strategy to be a less reliable hedge than sometimes claimed.

Trend following has provided convexity in longer downward trends and should work in future too, Vatanen says. But its reliability as a hedging tool in rapidly changing environments is weak, he says, and depends heavily on market conditions.

“In quick selloffs, trend followers can provide convexity only if their positioning is already in favour of the event,” Vatanen says.

If rising rates and commodity-driven inflation continue to drive markets, strong returns are likely to persist, he says.

Rates and commodity prices have tended to decline during equity selloffs in the past, though, and trend followers would be poorly positioned

for such a turn of events.

Versor advocates tilting towards shorter-term signals, arguing that faster signals exhibit higher convexity than slower ones because they react more quickly to abrupt market reversals.

In Versor’s study a simple short-term trend-following signal showed positive convexity of between 0.5 and one.

Market cycles may also be speeding up, Gurnani says, pointing to the more widespread use of technology, the availability of data, and cheaper computing power that has led to market cycles being more compressed.

This is not to say slower signals have no role to play.

“There will be periods of time when you will see longer-term signals performing,” Gurnani says. “Our point is that we need to recognise they have lower, even negative convexity. If you rely too heavily on the longer-term signals you are vulnerable.”

Other quants say the findings could be explained by the market environment in recent years.

Razvan Remsing, director of investment solutions at Aspect Capital, points out that while faster signals do tend to provide greater positive convexity, slower signals have had few chances to show the same property during the past decade.

“We’ve not had divergence in markets that has lasted for more than a handful of months,” he says. “Empirically the slower timeframe has not been called upon. In a grinding bear market, unlike during short and sharp corrections, we’d expect slower signals to outperform faster ones.” ■

*Additional reporting by Faye Kilburn*

### 3. Convexity in trend-following returns

