Market Volatility

Shorting volatility: its role in the stocks sell-off

Unwinding of strategies that make money from markets staying calm deepened the selling

A trader on the floor of the New York Stock Exchange © Getty

Robin Wigglesworth in New York FEBRUARY 6, 2018

When excitable beliefs in new paradigms in markets are shattered it can be spectacular. The conviction that stock markets had entered a new era of tranquility has become the latest example.

After a record breaking stretch of more than 400 days for US equities without a drop of more than 5 per cent, volatility has returned.

The S&P 500's two-day drop of more than 6 per cent was initially triggered by rising bond yields, but analysts and investors say the unravelling of popular volatility-linked trading strategies that have proved lucrative in recent years played a key role.

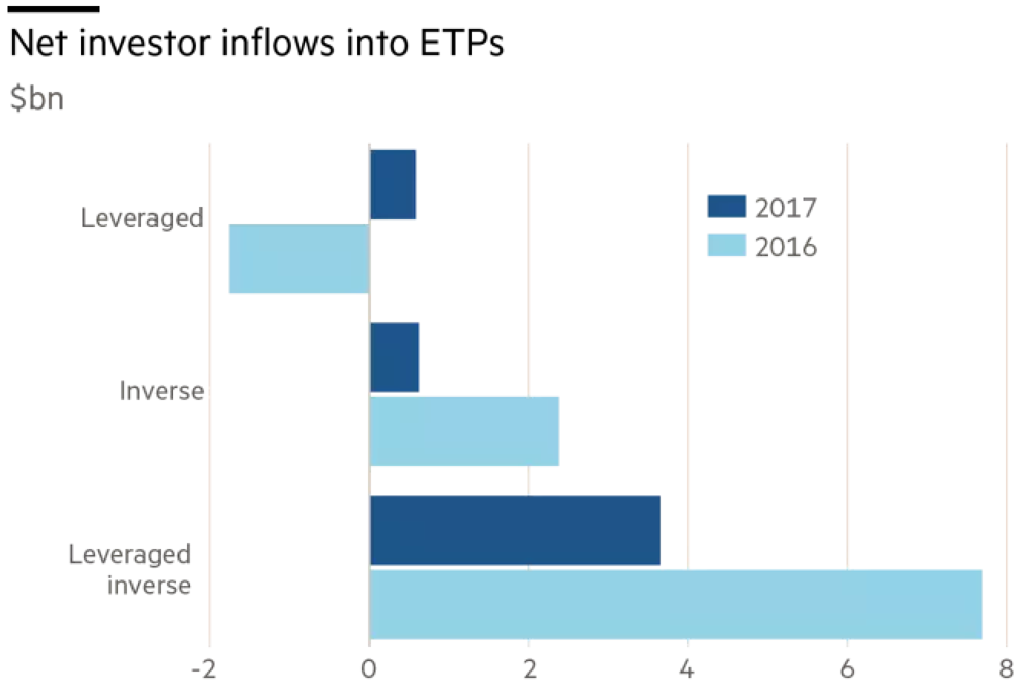
Analysts say the biggest US equity reversal since 2011 was deepened by a bevy of exchange-traded products that allowed investors to wager on the Vix index, a measure of stock market volatility sometimes dubbed Wall Street's "Fear Index".

However, these ETPs are just one corner of a complex and expanding "volatility ecosystem" that has evolved over the past decade and one that has raised comparisons with portfolio insurance, a hedging strategy blamed for exacerbating the market crash of 1987.

Indeed, volatility is now both a major input into multibillion-dollar investment strategies and a tradable asset in its own right.

Estimates for the volatility-targeting investment industry vary, but most estimates put the total assets under management of strategies like "risk parity" or "commodity-trading advisers" at close to $1tn. Even more conservative estimates indicate that they dwarf the $3bn that sat inside two Vix ETPs that blew up on Monday.

“Monday’s sell-off is an appetiser,” says Christopher Cole, the head of Artemis Capital Management, a volatility-focused hedge fund. “The Vix ETP market is tiny. There is a much bigger short-volatility trade still out there.”



Source: ETFGI
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What does ‘short-volatility’ mean?

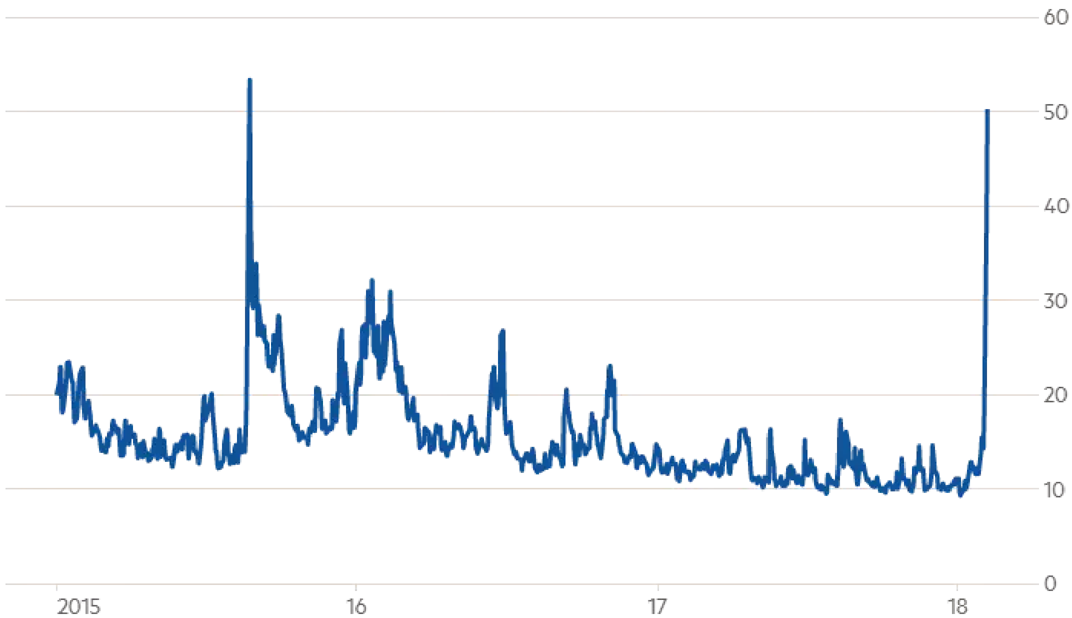
On Wall Street, being “short” means you are betting against something, and “short volatility” is financial jargon for a wager that markets will remain calm. In practice, this often amounts to selling insurance against turbulence, and over time it has proved very profitable. In recent years it has been phenomenally lucrative, as markets enjoyed their most tranquil streak in history.

Investors often also use volatility as a proxy for risk, embedding it into many algorithmic trading strategies. For example, if a fund has a volatility target of 10 per cent and the stock market is twice as turbulent then they automatically hold more cash to hit their target. If markets are tranquil, they use leverage to increase their exposure. In practice, they are short volatility.

This approach is based on evidence that targeting volatility is a good risk management tool. But some worry that when turmoil erupts — as it did in dramatic fashion late on Monday — then volatility can beget more volatility, triggering a lethal feedback loop of selling.

“Short volatility has been one of the most popular trades, and today the chickens came home to roost,” said Adam Sender, a money manager at Sender Company & Partners. “This market was an accident waiting to happen.”

Vix boom



Source: Reuters, Adam Samson / FT

What are the biggest volatility targeting strategies?

There are three primary groups that have a volatility target of some kind: Risk parity funds, commodity trading advisers, and “variable annuity” insurance accounts. CTAs are essentially trend-following hedge funds, and manage about $300bn, while there is another $200bn or so in variable annuity accounts with a fixed volatility target.

Risk parity funds are probably the biggest players, with estimates of their size ranging from $200bn to $600bn, and have become popular bogeymen whenever markets suffer mysterious movements. Risk parity funds allocate money to a wide range of assets according to their volatility, attempting to keep their contribution as equal as possible. For example, given that bonds are sturdier than equities, they typically use leverage to bump up the fixed income exposure.

When turbulence jumps these funds have to ratchet back their exposure, in theory worsening a market already under pressure. Indeed, some analysts say a tough spell for risk parity funds last week might have triggered forced selling and exacerbated Monday’s rout.

Did they play a role in the sell-off?

Marko Kolanovic, JPMorgan’s chief quantitative analyst, reckons volatility-targeting strategies played a significant part in Monday’s rout, both through their own de-risking and the knowledge of this automated selling keeping other investors on the sidelines.

Michael Mendelson, a principal at AQR, says that risk parity funds like his have only done a “trivial” amount of selling, arguing that the strategy responds too slowly and is too small to have played a big role in this week’s instability.

He is also sceptical that faster-moving CTAs and volatility-targeting variable annuity accounts were chiefly responsible, arguing that the vastly bigger universe of human fund managers making day-to-day decisions are a more likely culprit.

“Whenever there’s a big day up or down, then people want to blame ‘the machines’. But most of the time it’s just investors’ fundamental views changing, as normal,” he says.

Will their impact remain muted?

That may be, but the severity of the declines will inevitably trigger more automatic selling by volatility-targeting strategies. Mr Kolanovic estimates that they will have to shed about $100bn of exposure in the coming days and weeks.

The prominence of these strategies will grow further should the turmoil persist or deepen. And even if volatility does simmer down, the chaos vividly underscores how the “volatility complex” can exacerbate even healthy market corrections.

Mr Cole at Artemis points out that the slide came at a time when corporate earnings and the global economy is in fine fettle, and frets about what could happen if the fundamental backdrop turns less supportive.

“This was the canary in the coal-mine freakout session,” Mr Cole predicts.