FEATURES - MAIN

Where Volatility Goes to Die

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(MICHAEL NAGLE/BLOOMBERG)

Greed, intrigue, and death are the stuff of detective novels, but there's plenty in the more mundane mystery of two very different exchange-traded products that were at the center of the great volatility blowup on Monday.

As the Standard's & Poor's 500 index fell 4% on Monday, giving back this year's gains in a single day, implied volatility—as measured by Cboe Volatility Index, or

VIX, which tends to rise as stocks decline—spiked 115%, to 38. That was bad news for anyone betting that volatility would stay low, but worse news for investors in exchange-traded products that shorted volatility.

After the market's close on Monday, the two largest— the VelocityShares Daily Inverse VIX Futures Short Term exchange-traded note (ticker: XIV) and the ProShares Short VIX Short-Term Futures exchange-traded fund (SVXY)—each fell about 90%, shedding around $3 billion in value.

The ETN, a debt obligation underwritten by Credit Suisse, was killed, but the ProShares ETF survived. But how that happened is shrouded in mystery.

These are complicated products. Robert E. Whaley, credited as the originator of the VIX, sighs when asked about the volatility ETP fiasco. The Vanderbilt University professor has warned for years that volatility ETPs—long, inverse, and leveraged—were flawed in structure. The constant trading of futures is an expense that drags on performance. "Volatility products lose money consistently over time, because they are based on futures contracts," Whaley says. "Yet retail investors continue to buy and hold them." Add the complexity of shorting those futures and these become even more costly and require closer attention.

BUT EVEN A SOPHISTICATED trader, making a one-day bet on volatility staying low, would have run into trouble on Monday.

Shorting volatility was easy money in a market with extremely low volatility. The VelocityShares ETN and the ProShares ETF each gained more than 180% last year. Flows followed performance, assets ballooned into the billions, and the futures market started to distort. Strong demand led to contango, a situation in which longer-dated futures are more expensive than shorter-term ones. That's a problem for products that then have to buy high and sell low as futures contracts expire, says Matt Hougan, CEO of Inside ETFs. "Contango hurts long-volatility products, but the inverse ones had great performance," Hougan says. "Trouble is when volatility goes up 100%."

To fully understand what transpired on Monday night, one must understand a crucial difference between an ETN and an ETF. An ETN is debt; the underwriter must repay the note in the amount the index has returned. In the case of the VelocityShares ETN, Credit Suisse's promise was to deliver the opposite return of the VIX. The ProShares ETF, however, actually owns the VIX futures.

Volatility Exchange-Traded Products

These are meant for trading and should not be held more than a day.

Name	AUM (mil)	1-Wk Total Return	5-Yr Total Return*
VelocityShares Daily Inverse VIX Short-Term/XIV	$1,620	–96%	–25%
ProShares Short VIX Short-Term Futures/SVXY	1,440	–92	–15
iPath S&P 500 VIX Short-Term Futures/VXX	1,330	90	–48
ProShares Ultra VIX Short-Term Futures/UVXY	557	158	–83
VelocityShares Daily 2x VIX Short-Term/TVIX	428	129	–84

Returns as of Feb. 8 *Five-year returns annualized Source: Morningstar

So when the VelocityShares ETN fell more than 80%, it triggered a poison pill clause in its prospectus that would protect Credit Suisse from losing more than what the ETN is worth and give it the right to kill it. On Tuesday morning, the firm did just that and announced that the last day of trading for the ETN is Feb. 20. This is called an "event acceleration" because ETNs mature like bonds and can be called. Credit Suisse will pay investors a cash payment equal to the closing indicative value of the ETN at the close on Feb. 21.

While many are scrutinizing the death of this volatility ETN, it isn't unique. A Barclays ETN died in similar fashion under similar circumstances, notes Mike Venuto, an ETF industry veteran and chief investment officer of Toroso Investments.

THE REAL MYSTERY is how the ProShares ETF survived the night—and how the value of its underlying futures contracts more than doubled between 4 p.m. on Monday night and Tuesday morning. The only ones who know are ProShares and its prime broker, probably Jane Street Capital. Both firms declined to comment.

The ETF's indicative value—calculated every 15 seconds based on the last sales price of an ETF's underlying securities—was roughly $4 around 4 p.m. on Monday, says Stuart Barton, a portfolio manager at Invest in Vol. "Any intelligent person with the publicly available holdings information would've been confused," says Barton. "How could anyone make sense of something that was $4 to recover to $11 overnight?"

Futures prices settle daily at 4:15 p.m., and ETPs typically rebalance to match their index in the 15 minutes before then. On Monday, in that 15-minute window, March-dated VIX futures jumped by 50%. Rebalancing then could have meant death for the ProShares ETF, because it would have pushed futures prices up even more, which they'd then have to buy. "ProShares lost less money than they should have," says Pravit Chintawongvanich, head derivatives strategist at Macro Risk Advisors.

It's possible the ETF survived—and its indicative value rose—because it didn't rebalance in that window and instead waited for prices to fall, Chintawongvanich speculates. Since our detective caps are in place, we'll note that no one can say how and when the ETF purchased futures, and ProShares won't comment. It also didn't publish the ETF's net asset value or its holdings in time for premarket trading at 4 a.m. on Tuesday. As a result, NYSE Arca halted trading, citing in a filing, "volatility in pricing" and a NAV that "was not publicly available." Trading resumed at 11:35 a.m. on Tuesday.

WE DEDUCE that ProShares took a calculated risk that futures prices would fall, and held off rebalancing. If so, that risk paid off—though it could have ended poorly (for investors as well as the fund) if futures prices went even higher after the settlement period. All this raises the question as to what ProShares priorities should be: Hew to its index? Limit its effect on the futures market? Or to simply survive?

In a two-sentence statement issued on Tuesday morning, ProShares said that the ETF "was consistent with its objective and reflected the changes in the level of its underlying index" and that the firm will "continue to manage the fund as usual." It's worth noting that the fund's prospectus says it does not need to hew strictly to the index, so holding off on rebalancing wouldn't violate any rules—but it would certainly depart from convention.

There's a lot to sift through, but the main lesson is this: Be wary of volatility ETPs. Yet investors have already poured another $500 million into the ProShares ETF in the days after the largest ETN keeled over, according to data provider XTF. Why is another mystery.

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