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Benn Eifert QVR Oct 24, 2022

people asking a lot about the skew discussion from the letter. this thread should help. the key thing is that skew tells you about the market-implied level of statistical covariance between an underlying asset's returns and the implied volatility of its fixed strike options

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🖼️ Benn Eifert 🥷 ☠️ @bennpeifert · Sep 22

taking this in a different direction that is relevant to derivatives trading.

vanna is the cross-partial derivative of an option's value with respect to spot price and fixed-strike implied volatility. twitter.com/Zinko83/status…

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in an environment where fixed strike vol is falling when asset prices fall and rising when they rise, in order for a long skew position (long downside put, short upside call, dynamically hedged) to break even, the skew curve needs to be upward sloping!

this is because when you are long skew, you are short vanna: as the underlying asset falls, you get long fixed strike volatility exposure, and as fixed strike vol rises you get short exposure to the underlying asset

if spot falls and fixed strike vol drops, you get long vol and long delta and lose money on it; and you were paying theta for the privilege (assuming skew is inverted like normal in equity indices)

just because skew is at the 1st percentile of its own historical distribution doesn't mean you will make money owning it if it eventually reverts to more normal ranges; it may end up carrying sharply negative against you (as now)

another example of first order thinking almost never works in derivatives, need to understand the nuances of how the math works in a proper attribution framework in a portfolio that is losing you money

low ain't cheap