Benn Eifert 🥷🏴‍☠️
@bennpeifert

Benn Eifert QVR Feb 2020

One more thing to add here which I neglected. Calendar day effects in VIX, or why it tends to fall on Fridays and before holidays, and rise on Mondays.

I said VIX is “roughly” the implied level of a 1 month variance swap (or square root thereof). One of the caveats that trigger the “roughly” is that CBOE chose to use a calendar day count convention in the calculation of VIX Index.

That is, the VIX pricing formula assumes that time is indexed by calendar days, and treats weekends, weekdays and holidays all the same in this regard. The market does not; it assigns some implied variance to weekends and holidays, but a lot less than trading days.

What that means is that, all else equal, the VIX will mechanically fall on a Friday (when there are four weekends falling into the next 30 days) and rise on a Monday (when there are only three); same when holidays fall into the window.

This has nothing to do with changes in the price of the underlying options in the basket, or their implied volatilities as a market maker or vol arb manager would calculate them, and only to do with the calendar day count assumption.

The magnitude of this effect is on the order of sqrt (2 / 30), in practice about half to two thirds that large because do not price non trading days at zero but rather at some fraction of a trading day.

So TL;DR is stop getting so excited about VIX up a point or Mondays or down a point on Fridays