S&P 500 Weekly Forecast 5/25

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Hey guys,

For the past couple months, we've done two things to add to our understanding of gamma exposure. First, we started logging the direction of each SPX option trade so we'd better know when dealers are long or short; then, we started computing "vanna exposure" (VEX), which is the sensitivity of option dealers' deltas to changes in implied volatility. Together, this is what we've been calling GEX+.

Originally, our intention was to use this new stuff to forecast daily and weekly volatility as we'd done before -- but to do it better. Hopefully it's becoming apparent that we're able to do this. But we've also also gone off on a bit of a tangent, talking about customer short puts, crash risk, and skews derived from a heatmap of potential future volatilities. We've taken this detour because it seems uniquely valuable -- knowing that true crashes can *only* occur when GEX+ is negative -- to map out whether there is crash risk out there, and if so, how much.

Before we go any further, though: It's really hard to talk about counterfactuals. It's very easy to say, in retrospect, that the Cuban Missile Crisis was no crisis at all, or that Nazi Germany didn't stand a chance against the Allies, or that the Spanish Flu never really threatened global prosperity. But things never really *needed* to happen the way they did, and things are always very close to happening differently. So, hopefully you'll tolerate a discussion on some things that didn't happen, but totally could have happened. More on that in a bit.

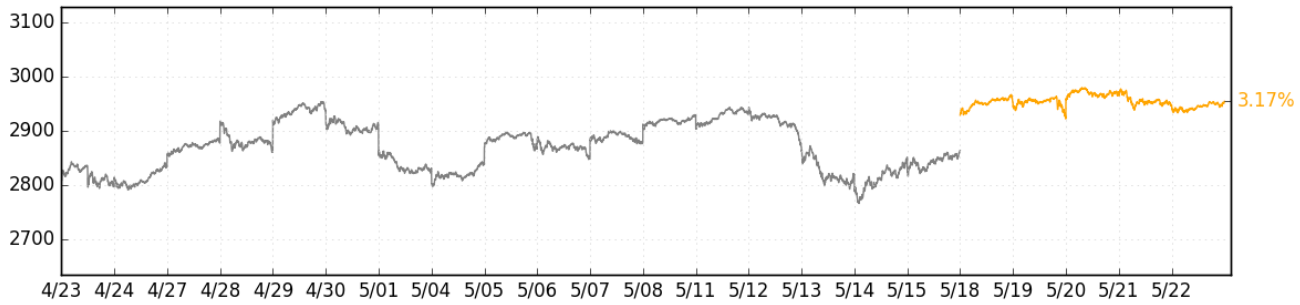
First, we have to talk about where we're at *right now*.

1. What happened
2. What might happen
3. What didn't happen, but totally could have

What happened
We don't think it'd be a stretch to say that this past week was a bit of a bore. But if you'll allow us to toot our own horn, that's exactly what we told you to expect.

> We also believe it's nearly *twice* as likely for price to stay unchanged (~100), as compared to what the market is pricing. This last point is what makes an iron fly a "good" trade.

The only hiccup was Monday's large gap up. We were, luckily, able to strike our iron flies *after* the fact, adjusting the center strikes up to 2900 (between the Friday close and the Monday open). This turned out well enough. After Monday, the average daily (close-to-close) move was 0.93%, and mean-reversion dominated.

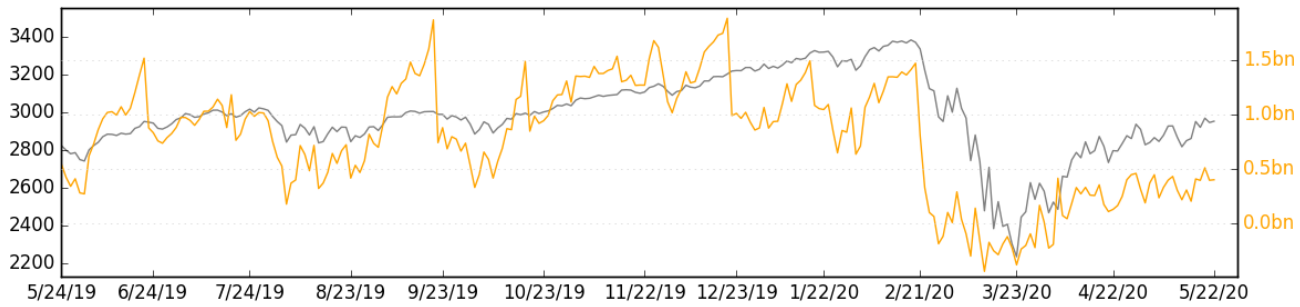


There was nothing really exceptional about any of this, except for the presence of a 3.00% overnight gap -- which is a strange but persistent feature of this market. As we mentioned during the week: Short intraday gamma and long overnight gamma is an interesting prospect for this reason.

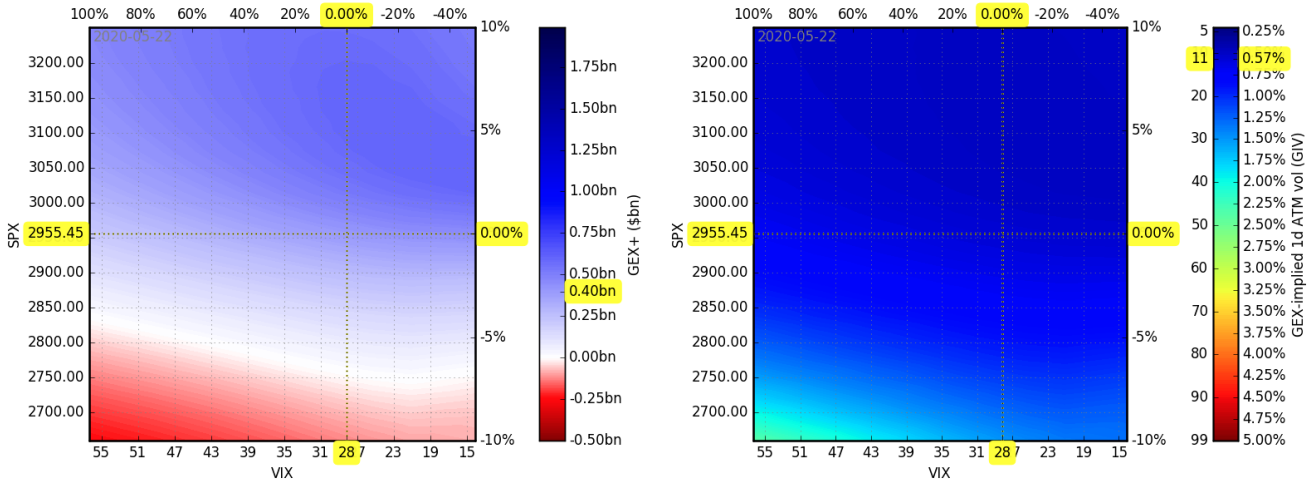
How about going forward?

What might happen

The setup for this coming week is pretty darn similar to last week, and there's no reason to believe that the patterns of the last 1.5 months won't continue to repeat: A 0-3% weekly move, one or more significant overnight gaps, mean-reversion, etc.



Volatility is still "monolithic" -- it's not subject to much change. As it stands, GEX+ is unlikely to go above $500mm or below $250mm, and so we expect average daily moves to be under 1.00%, but probably above 0.50%. The continuation of the overnight gap phenomenon will probably raise close-to-close volatility, but intraday ranges will stay pretty tight.



It's also worth noting that -- even if the index suddenly realizes that a great deal of damage has actually been

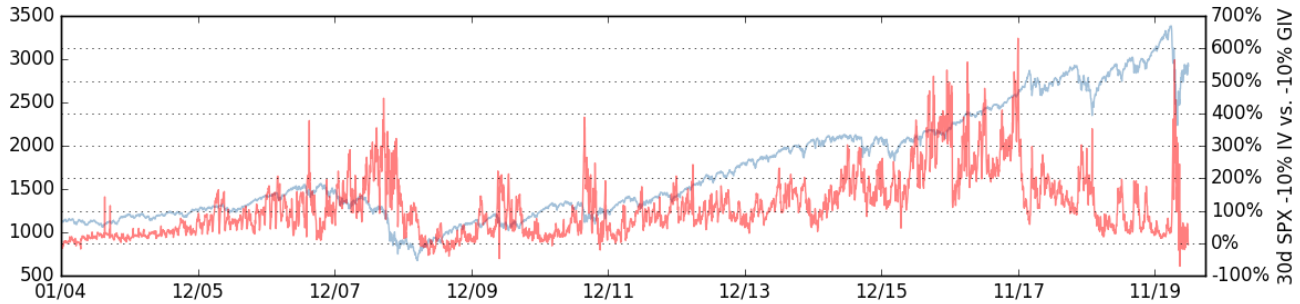
done to the economy (oh?) -- there will be no crash. I.e., that period of serious illiquidity in March, with its 3.00%+ daily ranges, simply cannot occur again unless a lot changes. Any selloffs from will be much steadier. As we've said a number of times before, this is why there is no occasion to buy a straight-up put. If there *were* occasion for holding puts, only a put *spread* would be a reasonable bet.

But we can tell you that there's "no crash risk" till we're blue in the face, and still wouldn't give you a sense of what that really means in the context of historical scenarios. So let's talk about those historical scenarios.

What didn't happen, but totally could have

There's an embarrassing Twitter feud going on right now between Nassim Taleb and Cliff Asness. It's about quantifying and profiting from tail risk. (Everyone is calling everyone else an idiot.) There are also a thousand pitch decks flying around about hedging market tail risk. Everyone seems to have an opinion on tail risk, especially right now, and it's all pretty much unintelligible.

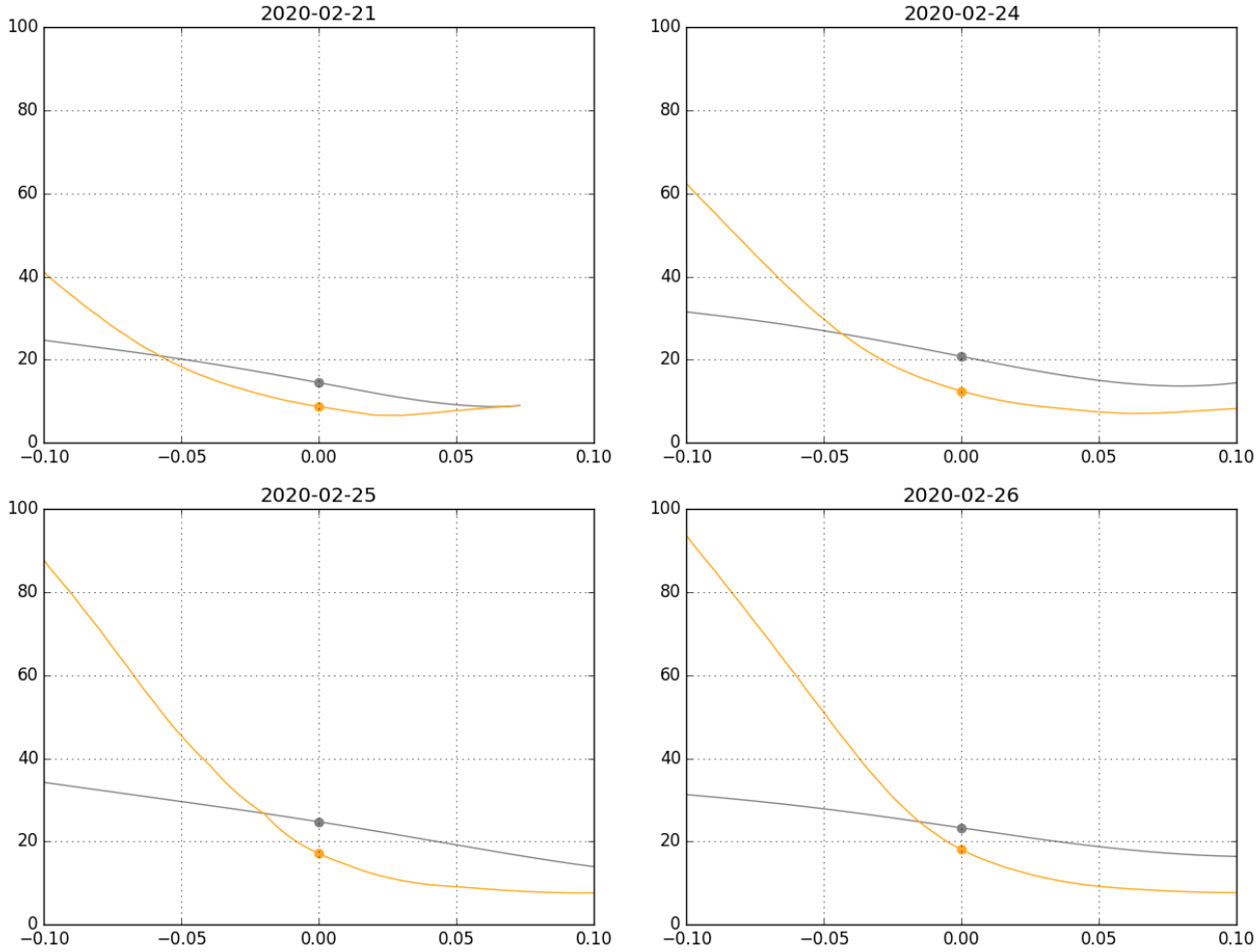
Here's our addition to the cacophony. Below is charted the relationship between the 30-day market IV 10% below spot (a measure of left tail volatility) and the same gamma-implied volatility (GIV). In other words, this is what the market thinks volatility (liquidity) will look like if SPX falls 10% versus what GEX+ thinks volatility will look like if SPX falls 10%. The y-axis denotes *how much higher* the -10% GIV is versus the -10% IV. E.g., "100%" means GIV is 100% higher (2x).



When the red line is low (0%), that means there's no crash risk. When the red line is high (300%+), that means there's a ton of crash risk, because the market is failing to price risk properly, and there's a lot of gamma/vanna risk present 10% below spot. The big idea is that when there's tons of mispriced risk 10% below spot, that's when you can get the -20% to -30% follow-through.

A couple things worth noticing: First of all, we're around 0% right now, which is historically as low as it gets. Second, not all of the times when there was huge crash risk resulted in a crash. Look at late 2016 to 2017! It was a powder keg, and yet nothing happened.

More recently, there wasn't much crash risk until the global-pandemic-selloff actually *started* (see the skews below). By February 26th (SPX was down to 3116), the -10% GIV was above 90 while market IVs stayed around 30 -- which would be around 300% on the plot above, and finally indicated serious risk of a crash.



Much harder to come to terms with, though, is the stuff that interests us even more: The *unrealized* potential for crashes throughout history. The stuff that didn't happen, but was oh-so-close.

And so, to illustrate one of these scary brushes with a crash, take a look at these heatmaps from November 24th, 2017. The numbers are *so extreme* that there are holes all over the maps. Not only is GEX+ nearly as high as it has *ever* been, but at the same time, all the market needed to do was find a reason to fall maybe 100 points and an *incredibly* violent unwind was likely to happen. Volatility would have gone from 5 to 100 very quickly, and we'd all still be talking about the crazy November 2017 crash.

Knowing this, would we have owned crash puts? Absolutely. And even though nothing ever materialized, we'd still feel stupid for not owning puts at that moment in time. All it needed was a little push, which it never got. (The index fell exactly one point the next day, then shot up after that.)

This undercurrent of crash risk is something that we now feel pretty comfortable quantifying and talking about, which means that we're going to start solidifying the presentation of some of these data and charts. Hopefully everything we've droned on about for the last couple months is starting to make more sense. If anything needs clarification, just ask!

Enjoy another (albeit shorter) boring week.

The SqueezeMetrics Team
