S&P 500 Weekly Forecast 6/21

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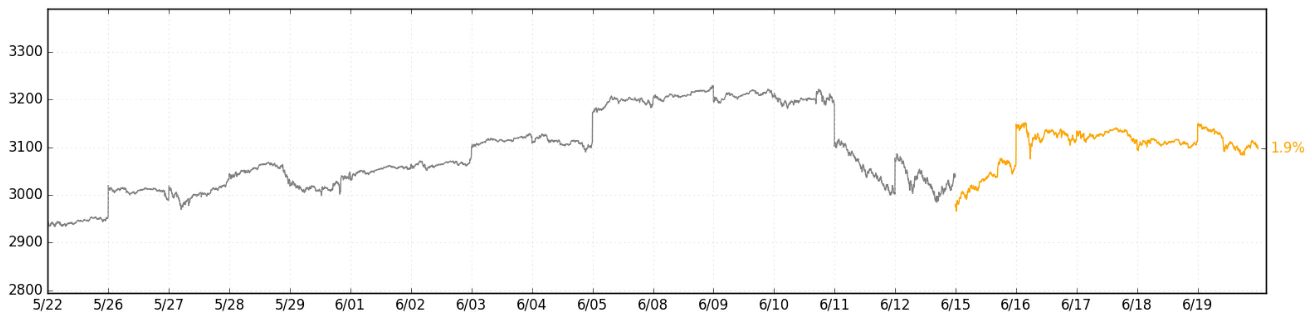
Hey everyone,

Going to try working out a couple things that have been bothering us over the last couple weeks, so excuse the stream-of-consciousness below, and please contribute any insights! Otherwise, not much new.



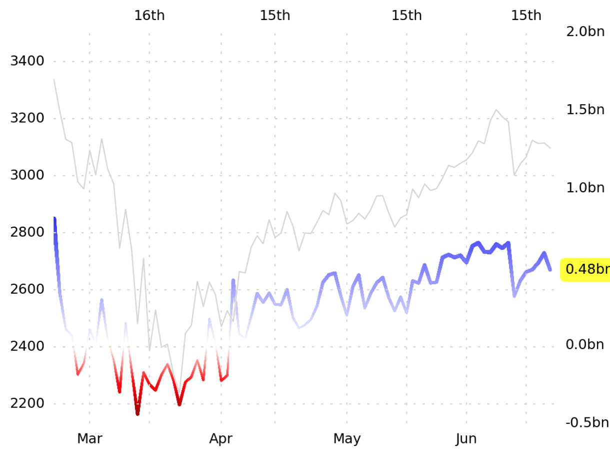
1. What happened
2. What will happen
3. *What happened?*

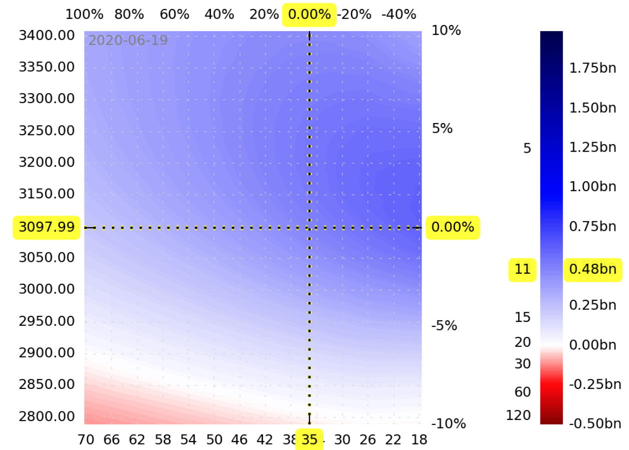
What happened
The S&P 500 went up 1.9% this past week. That's after two consecutive +/-5% weeks, driven by crazy overnight gaps and option flows. So this was a nice break. Especially because this was our position last weekend:

> In the meantime, we'll be selling a weekly iron fly and buying bits of gamma (long strangles?) to hold overnight.

This worked out pretty well.

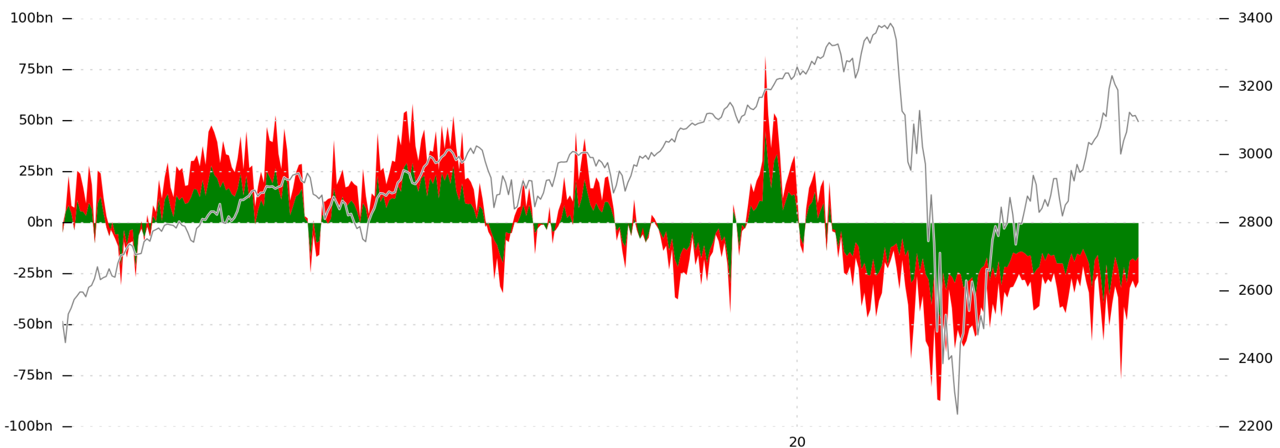
Two days featured large overnight gaps, but both either flattened out or mean-reverted. Interestingly, a lot of folks will tell you that option gamma "pinned" the index toward the end of the week, preventing it from moving, and that's why we had a tighter week -- but bear in mind that "pinning" is just a sort of Neolithic understanding of gamma exposure. Higher GEX means more pinning. Since GEX+ was pretty much in the same range it's been for months now, we know that there was no additional pin risk. I.e., there was just as much pinning going on two weeks ago as there was right before this last expiration.





To us, the much more interesting question is not whether there was pin risk, but whether the narrative power of gamma, OpEx, and pinning are strong enough to cause self-fulfilling prophecies. But that's kinda tangential, so more on that in a second.

In any case, none of that massive short delta that we saw coming into SPX options last Thursday (11th) has recurred. You can tell even from the wide-angle (1.5 year) plot below that this week's daily short delta flows appear to have been around a third (-$25bn) of Thursday's (-$75bn). Meh.



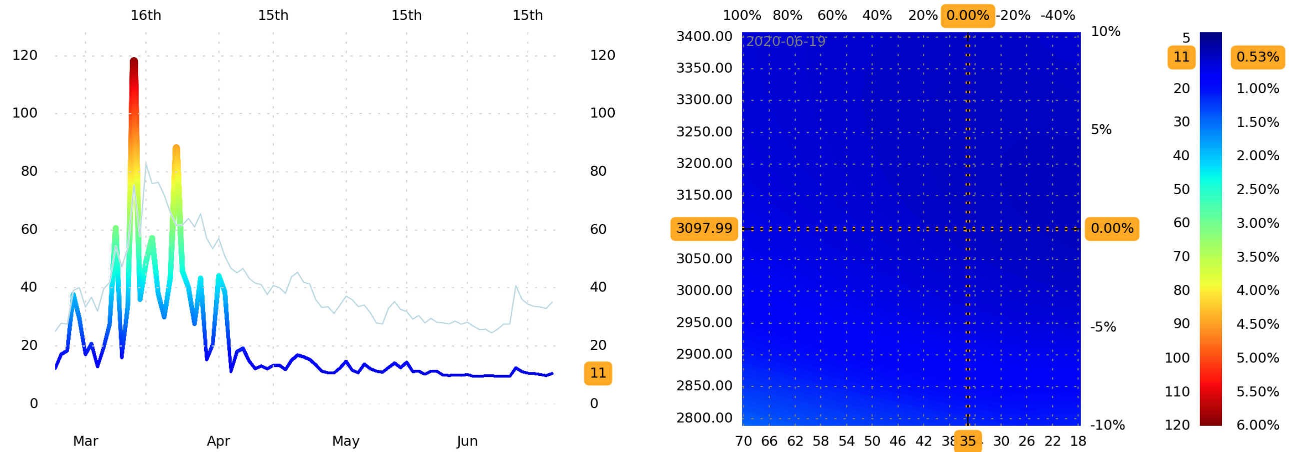
In this context, it's also interesting to note that the DIX printed a record 52.5% on Friday, suggesting that there is still a great deal of demand for the S&P 500. The way we make sense of this is that everyone is/feels obligated to own the index, and then many of them express their skepticism by collaring that exposure with SPX options (buy OTM puts, sell OTM calls, like with the original GEX assumptions).

What will happen

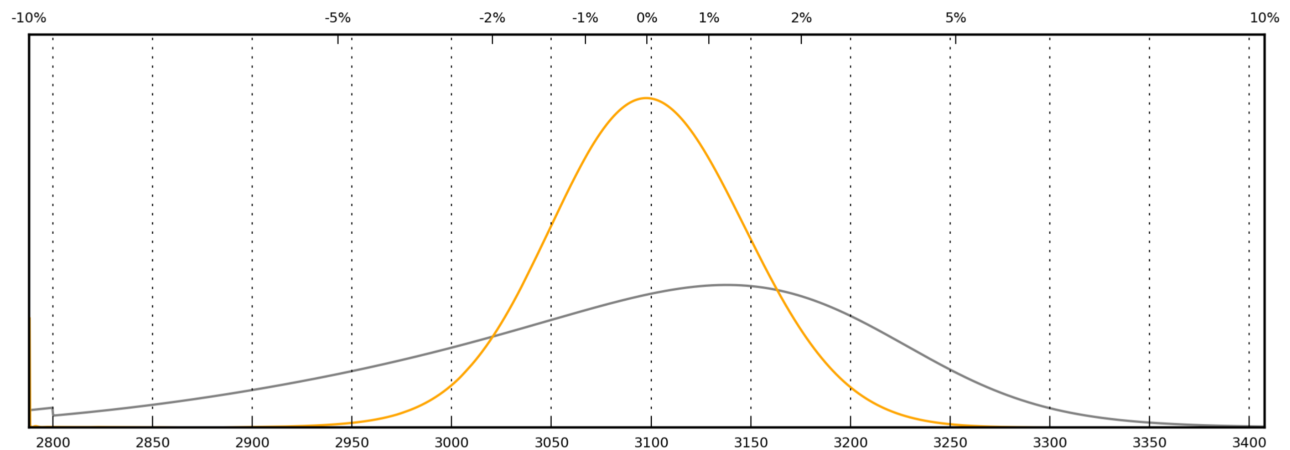
VIX is still 35. GIV is still 11 (0.53% average daily returns). The last week of close-to-close returns averaged 0.74%. VIX at 35 implies 1.76% average daily returns.

Sometimes, VIX is expressing liquidity risk (gamma risk, variance risk) -- the risk that the market simply won't be able to provide enough liquidity, on a day-to-day basis, to prevent the S&P 500 index from swinging around. This is what happens when GEX+ is negative. But VIX also tracks event risk (term risk) -- the risk that some bad stuff is gonna happen in the next month. Sometimes it's easy to isolate these. Right now, it's obvious that VIX is elevated because of term risk: a fear of the unknown.

Meanwhile, GEX-implied volatility (GIV) sees guaranteed, stable liquidity in all directions. With options positions as they are currently, a 10% drop in the S&P 500 and a 100% rise in VIX still wouldn't cause sustained volatility above 25 (1.25% average daily moves).



This is a wacky divergence, but to us, it just solidifies the belief that "long gamma overnight, short gamma intraday" is the way to go. Any fear-induced moves in the index will get a lot more room to run when option dealers aren't hedging their long gamma (i.e., overnight). So you'll find us selling that wide, weekly iron fly and buying overnight gamma again this week. Weekly probability densities below.



But if you're tied to more liquid instruments, why not short VIX with a bit of short SPX? There's a lot of meat on that, too.

What happened?

We had a tangent up there we said we'd get back to. So here we go...

> To us, the much more interesting question is not whether there was pin risk, but whether the narrative power of gamma, OpEx, and pinning are strong enough to cause self-fulfilling prophecies.

Ok, so this is one of two big-picture things that have been bugging us lately. The idea that an option expiration could be a total non-event -- but that there are still a bunch of people thinking that volatility *always* explodes after OpEx -- is really interesting. Do they buy puts? Do those puts push GEX down? Does

the belief end up turning into a reality? Why is this even an issue right now?

The other thing that's bugging us is still Thursday the 11th, when the index gapped down 2.5% and fell another 3% during the day. Even though we think we found the source of the selloff ($75bn in net short SPX delta in a single day), we wonder why this sort of thing hasn't seemed to happen before. Why were we caught so off-guard?

And it turns out that both of these things are related. Because even though a lot of the stuff we see going on right now is very vanilla (people buying SPX, people buying puts, people selling calls), there's one thing that's *really* unique.

What's unique is that the puts and calls that have been bought and sold in the last four months have been transacted *across a range of 1000 SPX points*. Usually, the index doesn't move that much, and so usually, option OI ends up clustering across a much narrower band of strikes. This is what causes GEX+ to become more extreme (e.g., remember this?).

But right now, option OI is all over the place. That's why GEX+ isn't all that high right now, and it's also why the GEX+ and GIV heatmaps look so flat. There are, e.g., customer-sold calls sitting below spot (rare). The reason that this is interesting in the context of self-fulfilling prophecies and Thursday the 11th is that it means that any given day's option flows *have a comparatively larger effect on the market than they usually would*.

You see, usually, if investors were to buy a lot of puts, the delta of those puts would butt heads with the necessary delta re-hedges on existing nearby (high-gamma) sold calls, and the index wouldn't end up moving much. But because those sold calls are spread out all over the place, they have much lower aggregate gamma than that number of contracts usually would, and thus less stopping-power.

This is *also* why zero GEX+ is so far away (the "stopping power" of sold calls is spread out below spot). This is why GEX+ is only $480mm instead of $1bn. This is why an otherwise normal volume of option trading could have an unusually large effect on the index. And by extension, this is why it's rational to worry a bit about self-fulfilling prophesies of post-OpEx volatility (though per se they'd only be temporary, like Thursday the 11th).

One big nerdy implication is that index volatility, by spreading option OI across lots of different strikes, causes *much* lower volatility of volatility. And that *low* index volatility, by clustering OI near spot, causes higher vol-of-vol. This is probably one of those things that you've noticed to be true, but here's an explanation for why it happens.

So, what all of this means is that volatility isn't going to be volatile right now. Which, in our estimation, really takes some wind out of the sails of a 35 VIX. To the extent that short VIX is largely a bet against vol-of-vol, that feels like a pretty tempting trade right now (especially because the "term risk" that VIX is pricing in can be partially addressed by short SPX).

Again...

> But if you're tied to more liquid instruments, why not short VIX with a bit of short SPX? There's a lot of meat on that, too.

And this is all just another way of saying that this market is deceivingly liquid and stable. Which we've been blabbing about for months already.

New daily summary chart sheet coming soon! Enjoy the week.

The SqueezeMetrics Team