S&P 500 Weekly Forecast 6/14

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Hey everyone,

Monday was fine, Tuesday was fine, Wednesday was fine. Thursday, though? Thursday was not fine.

Thursday was an incredibly persistent selloff on the heels of a big overnight gap. And it hurt, because it really caught us off-guard. Nor did our recent mantra, "long gamma overnight, short gamma intraday," come to the rescue -- there was just about the same amount of movement intraday as there was overnight.

Since we feel like we've been able to largely predict the market's tendencies over the past few months, this failure stings. By our numbers, any selloff of this magnitude almost certainly should have happened over the course of at least two days. But that's not what happened, and that's frustrating.

So frustrating, in fact, that we asked everyone who would listen what the heck happened. Was there some hidden inventory, some shadow deltas, waiting to be unleashed on the market? What, aside from some kind of carry crash, could unleash this much pain on the index when liquidity is so abundant?

The best answer was, "It was actually people just selling tons of S&P 500. Real money." But then there are two reasons that this doesn't square with logic:

- 1. DIX, a proxy for investor appetite for index products, printed 47.7% -- a high (buying) number.
- 2. People just don't sell like that in this scenario. Risk is trimmed over days or weeks. Liquidity providers carefully match markets to cause as little disturbance as possible. This, meanwhile, had the characteristics of panic-hedging or a massive liquidation, but into very good liquidity.

To get a sense for how much liquidity must have been taken, we looked at GEX+. On Wednesday, it was above \$600mm (per SPX point). By the open on Thursday, it was already below \$500mm. By the end of Thursday, it was closer to \$300mm. On average, then, we'd guess that each SPX point down from open to close on Thursday was met with an average of \$400mm in buying (coming from SPX option dealers, who are long gamma). And if there was a 200-point drop from close to close, that's roughly \$80 billion in GEX+ liquidity that got eaten up on Thursday.

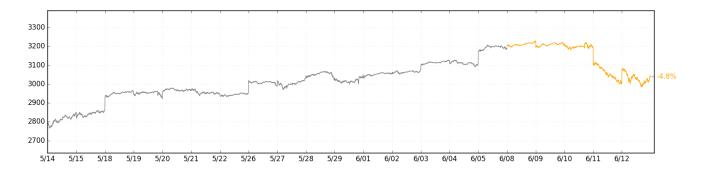
So, where the heck does **\$80bn** in selling come from? That's what we've been wondering since Thursday night, and that's what we're going to talk about in a moment.

- 1. This week
- 2. Next week
- 3. Eighty billion dollars

1 of 5 12/19/20, 11:45 AM

This week

Last week was up 4.98%. This week was down 4.8%. Both weeks would have been much less dramatic if it weren't for the crazy overnight gaps, but so it goes. We think it's fair to say that this week's returns were a reaction to last week's returns. It was too far too fast (this seems non-controversial). Now we're back to where we started.



But still, it's the *way* that we got back to where we started that disturbs us. Thursday sticks out like a sore thumb -- an anomaly. One of the more remarkable responses that we've been getting from people about what drove Thursday is "gamma." Apparently, we've done a good job of convincing people that GEX is a proximate reason for the index's movement. So good, in fact, that gamma has gradually become a new catch-all explanation for things people don't understand.

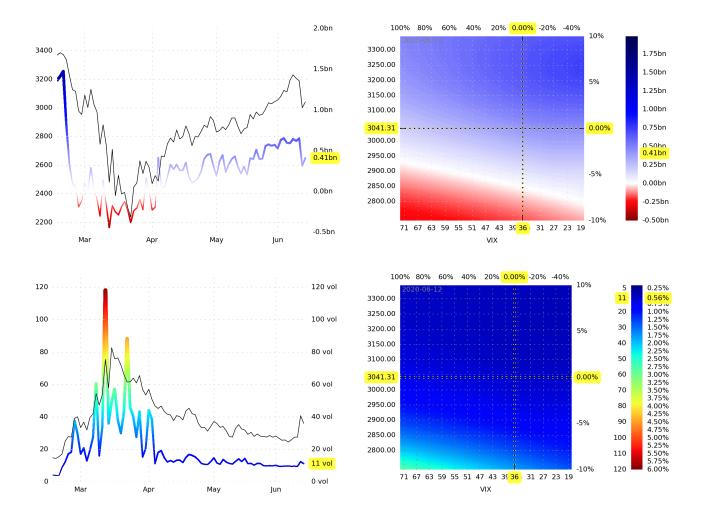
But you, dear reader, will note how beautifully liquid Thursday's intraday action really was: A perfect diagonal line down and to the right -- no bumps. If GEX turned negative during the day (as the vanilla GEX assumptions would suggest), you'd have seen an accelerated selloff and visible gaps in liquidity.

So, after months of broad tactical successes with long SPX, short VIX, weekly iron flies, and/or selectively being long gamma overnight versus short gamma intraday, Thursday left a bruise.

Next week

GEX+ is back to \$410mm. The effect on volatility won't be dramatic, but the Land of Illiquidity is visible again on our heatmaps. Somewhere around SPX 2850, dealer gamma and vanna stop providing liquidity to the index and sustained volatility can begin again.

2 of 5 12/19/20, 11:45 AM

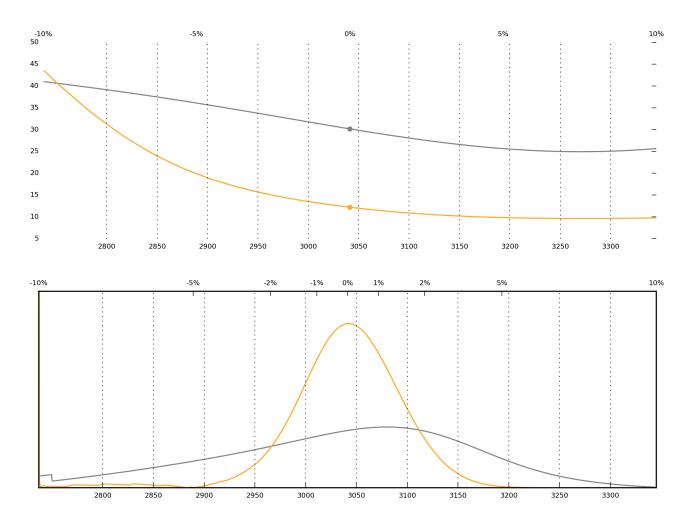


Until then, gamma-implied volatility (GIV) stays below 20 vol (1.00% average daily moves), which is a marked difference of opinion with the market. VIX closed Friday around 36. Clearly, VIX is pricing in a great deal of event risk (and has been for months). And while we'd still say 36 is far too rich, there's no denying that there are legitimate concerns about the global economy and stuff like that.

Luckily, we don't try to form an opinion on that sort of thing -- but in any case, we see it as unlikely for the index to realize that much volatility. Since overnights seem like they'll continue to house the majority of index volatility, consider adding some aspect of long overnight gamma on top of a short vol position, if possible.

Also, you can see below that a normal amount of tail risk has re-appeared in the GIV skew (orange), and that the probability density associated with that skew is in stark disagreement with SPX options on the most likely weekly outcomes.

3 of 5



Since the last two weeks haven't gone too well with respect to our forecasts, let's throw a party if SPX settles between 2970 and 3110 on Friday, which the GEX-implied volatilities say is pretty likely.

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

Eighty billion dollars

Back in February, we saw what we actually believe was a "real-money selloff." I.e., lots of people sold their exposure to the S&P 500 outright. This was especially clear on February 24th through the 27th, where the index fell from 3340 to 2980 and DIX was sub-40% the whole time.

And it makes *sense* that this was a real-money selloff. Index returns had been absurd and equity allocation appeared to be historically high by the metrics we find most meaningful (not like 2000, but still high). Bulk de-risking made sense in light of the coronavirus threat.

This past Thursday again had an abrupt selloff like we saw in late February. The idea that it was another real-money de-risking, though, didn't make sense in light of high DIX, a lower equity allocation, and largely very conservative option flows (despite what you hear about Robinhood). And so while we *are* willing to concede that sometimes the explanation is very simple, we weren't ready to accept that explanation again.

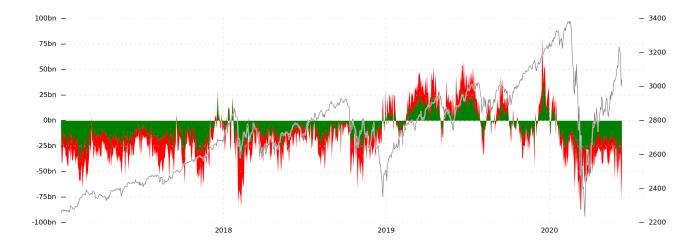
So we did what we do best: Held on to the belief that it must, somehow, have something to do with the SPX option market, the tail that wags the dog. The only way that the option market could *itself* overwhelm the effect of dealers' gamma and vanna is if newly originated positions added *so much new short delta to*

4 of 5 12/19/20, 11:45 AM

dealers' books that the initial hedge on new positions, in dollar terms, came overwhelmed the amount of liquidity that was taken from gamma- and vanna-originated re-hedges.

In other words, we set out to prove that **\$80bn** of S&P 500 delta was net sold by customers in the SPX option market. Why? Because we had no better explanation for what could have happened.

The result? Thursday had more short delta than almost any day in history, barring a few days in February of 2018 and a few days during the corona crash. **\$75bn** of short delta came through SPX on Thursday, from both puts and calls. Unprecedented for a period of relatively low volatility.



So, we're going to go out on a limb and say that this probably had something to do with it. Questions? We don't blame you. And if you have anything to add to the picture, we'd love to hear it. We'll be expanding on this later on as we dig up more.

Hopefully, a calmer week awaits.

The SqueezeMetrics Team

5 of 5