Digital Gamma Weekly Commentary

Anchors Aweigh!

Week ending May 10

Ari
May 10

	5/10/2022	5/3/2022
BTC	30900	38230
ETH	2328	2820
BTC Implied Yield (Qtly)	0.90%	1.90%
BTC 1M Implied Vol	79	58
BTC 7 Day Realized	95	50
BTC 1M 0.5 std dev skew	-8.75	-5.8
Implied 1 Std Dev Move	1277	1160
Avg Daily Move	1920	770
Avg Daily Range	2270	1570

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Hi All,

Right now the best news I have for all of you is that I won't be talking global macro or geopolitics. In the meantime, there is much to say about Terra USD (UST), Luna, and some related issues. I've got direct inquiries that run "Talk to me like I'm a Labrador. What are these things?" So let's begin there. I lied. Let's begin with a quote from Ash Bennington of RealVision:

> Ash Bennington Retweeted
> **Real Vision** @RealVision · 2h
> "I think it's important for people to understand that these algorithmic #stablecoins are incredibly interesting from a technology perspective, but they are science experiments. And with science experiments... sometimes the test tubes explode." @AshBennington

I'll start there because for a lot of traditional finance people, it is hard to get over stuff that just looks … weird. But if you want to find breakout new things then you need to experiment. I'll try to be brief and if you know more than me and I err at some point, I want to get corrected (not ReKT). TerraForm's goal was to set out to create a blockchain payments system based on stablecoins linked to fiat currency. The main one, unsurprisingly, was linked to the USD and was called Terra USD or UST. Luna is the coin for this blockchain project much like BTC is for its blockchain and ETH for its. So far, so good.

UST was set up as an algorithmic stablecoin. One could exchange, at any time, one UST for $1 worth of Luna in either direction. For the traditional finance people you can think of it as a parallel to the creation / redemption process for ETF's. The key, of course, is that Luna has to be worth something, be reasonably liquid, and have an aggregate value (I don't really like market capitalization) greater than that of UST. Also, and this is big: someone has to care. Otherwise UST will stay pegged to the $1 but no one will be transacting with it.

So Terra took a page out of the VC handbook: subsidize customers until you build up enough network effect. So they created Anchor Protocol as a "savings account" of sorts. They pay out 20% APY to holders of this Anchor and Anchor needs to be bought with UST. Now there is demand! Of course, everyone knows what is going on here. I mean, technically, this sort of fits a Ponzi scheme: buy in, earn a contrived and unstainable yield, and sell out to the next person in. While I roil at BTC (or art or stamps or stocks) being called a Ponzi, this kinda fits. I mean, its a *naked* Ponzi as it was visible to all. Typically, Ponzi schemes try to hide what's going on.

Everyone knew that the UST peg was vulnerable to weakness in the Luna token price. Do Kwon, the head of TerraForm, smartly decided to take a page from the central banker playbook: diversify reserves held. TerraForm started swapping Luna for BTC (as usual Matt Levine does a good job with this). They bought around $1.4B of BTC to back UST. That's the good news. The bad news is that there was something like 15B UST outstanding. Even worse is that UST "market cap" exceeded Luna's. According to what I read (h/t Aaron at Radkl — I know, I know, Matt throwing it out there every day and I quote Aaron — I suck) it also turned out that the technical process for the creation/redemption was a bit ornery and got even messier when people get more active doing it. Go figure. This was clearly a bad set up with "death spiral" or "bank run" or whatever your favorite metaphor for an instability event is.

It is worth a moment for all those trad-fi people who are clucking their tongues at DeFi to remind them of some of our favorite oldies: "Yen carry trade!", "Who's afraid of the Thai Bhat", “Worldcom pays a fat dividend”, “Yen carry trade: the sequel!”, and, of course, “The Franc came from Switzerland”. We all love a good carry trade.

But why do we care? Will it cascade into other things? Is it the canary in the coal mine?

First, USDT or Tether. To be clear, I have no real idea nor any big bets on whether Tether breaks the buck or not. What should be made very clear is that USDT is nothing like UST. It is not algorithmic. There is a balance sheet of assets that back Tether. Granted, there is some commercial paper of indeterminate origin, and skeptics wonder about loosy goosy loans to Bitfinex. But even most critics figure that it is 70-90% backed (DYOR / YMMV / grain of salt). Regardless, Tether will not fail because of a market mechanism. It will fail because either it is found that the assets are not actually there or the assets backing it are damaged goods.

Second … well, first, let’s talk about Michael Saylor. He is the CEO of MicroStrategy which used to do something but is now a leveraged play on BTC. In fact, it is more than a leveraged play on BTC, it is an option on BTC. Why? MicroStrategy issued slugs of debt to buy BTC. If BTC goes up, investors in MicroStrategy benefit to the tune of the entire BTC holdings. If BTC blows up, then so does MicroStrategy but investors in the stock can’t lose more than what they invested. On the other hand, the creditors are short that option.

> - MicroStrategy owns 129,218 bitcoins as of May 7, 2022. The price for the bitcoins was $4B at an average price of $32,000 per bitcoin.

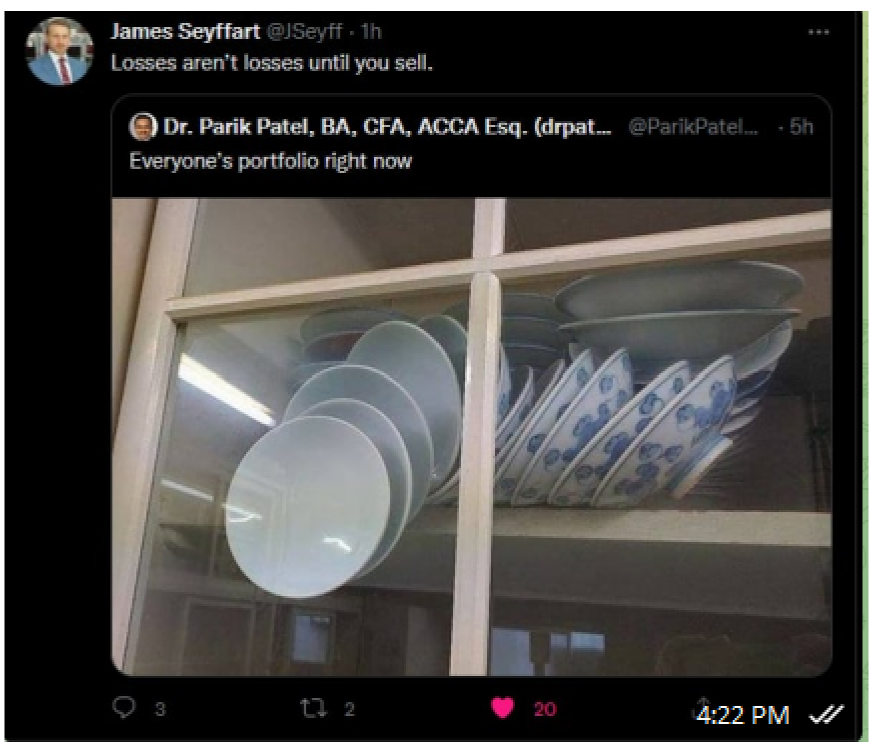
Source is here. Bitcoin is right about at that price maximizing the gamma and volatility has skyrocketed. Further, due to the wonder of SEC disclosures, we know that MSTR faces a margin call at $21,000. According to the article, should BTC print $21K, then MSTR will need to send over more BTC (not get liquidated). Still, there will be some sweaty palms at Silvergate (one of their lenders) should that occur. And whether or not the actual collateral starts getting liquidated, there is a good chance that there will be some hedging of that risk in some way.

So another reason that we care about UST is because if it blows out of all of its BTC holdings, that it could force the crypto market into melting. Which will then force margin calls for MSTR. In other words, it could be the detonator for the MSTR bomb. This won’t happen in isolation but these positions will likely 1) be hard for the market to digest and 2) will be on a mechanical margin schedule and not based on the “value” of BTC.

This, of course, has direct ramifications for the options market. Not only is there skew, but one can easily see why puts in the 20K and under strike area would be desirable. One of the ways that I think about options is that it is like buying future liquidity today. If I buy 20K puts, then if, in the future, BTC heads there, then I will be able to add liquidity to the market by buying a commensurate amount of spot at those prices. And that appears to be an area that, if we head there, will be extremely illiquid as compared to, well, probably anywhere else.

Finally, is this a canary in the coalmine? Are there other shoes to drop? For the past several years, it has been the futures market in crypto that held the leverage and which was a source of volatility. The auto-liquidations caused big jumps in the price of BTC and other cryptocurrencies. But lately this has been notably absent. Is there less leverage or risk in the system? I doubt it. I just think it has moved over into areas that we don't yet know to look for from the areas we have learned to look for (futures exchanges).

So I suspect there is more out there. The theme for the past year has been DeFi and UST is part of that entire ecosystem. Big entities used to playing aggressively in the crypto markets that most closely resemble traditional finance have been having trouble making the same sorts of money. The new kids in town are bigger institutions than before and seem to have smoothed out large amounts of the volatility (shakes fist at screen of basis pricing) in futures and options. But they have not yet made it over to DeFi so the crypto natives have moved there. I suspect with these moves and the popularity of AMMs (and especially V3 AMMs), that there are already large mark-to-market losses — or impermanent loss. Paul quipped that this picture summed up impermanent loss well:



As you can see, it was originally used for impermanent loss in stock & bond portfolios.

Best

Ari

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