

November 30, 2022

GSR OTC Trading Commentary

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MACRO + CRYPTO SUMMARY

The last two weeks have centered around assessing the fallout from the FTX debacle. There have been varying degrees of damage across the cryptosphere, but the main companies impacted appear to be those with credit risk, such as Genesis, its parent DCG, and BlockFi. News around these companies has driven much of the price action (and misery) over the last few weeks. Liquidity in spot, perpetuals, and options markets across the digital assets arena has significantly worsened, and it seems like market participants are waiting for the next domino to fall.

In the meantime, the macro calendar has been deprived of catalysts. For example, a slightly lower-than-expected EU CPI was offset by worse-than-expected UK inflation, and both failed to push broader macro markets to break out of their pre-Thanksgiving Iull. Another notable factor has been the protests in China, which have dragged equities and oil lower this week. The market appears to be in a bit of a holding period, with recently released lower-than-expected German inflation having little impact on the market, and as we head into the holiday season. Over the remainder of the week, we'll be watching several economic data releases, including EU inflation tomorrow and several US reports like GDP, PCE, jobless claims, ISM, and payrolls.

RATES, FUNDING AND BASIS

The collapse of FTX has continued to ripple through the crypto lending market. With BlockFi filing for bankruptcy and Genesis halting redemptions, the OTC lending market has shrunk materially. DeFi unsecured lending platforms have also seen TVLs come down as lenders pull back in an attempt to escape the current turmoil unscathed. The few transactions that have gone through have done so at rates 5 to 6 percentage points higher than at the beginning of the month. While we hope the worst is behind us, we wouldn't be too surprised to see additional insolvencies as the dominos continue to fall.

In perp funding markets, funding rates turned massively negative, at one point touching -50% for ETH on top exchanges, as market participants de-risked and potentially moved positions from FTX. Funding rates have since stabilized, but continue to be biased negative given the tough outlook.

DERIVATIVES

BTC Derivatives

As BTC consolidates around \$16,500, 10-day realized volatility now stands at 34%. Consequently, 30-day vol continues lower, priced at 59%, after having opened the month at 47%. The ratio of 30-day implied to 10-day realized is 1.74, indicating that BTC is a more preferable gamma short compared to ETH. Note that vol is highly directional and swiftly firms



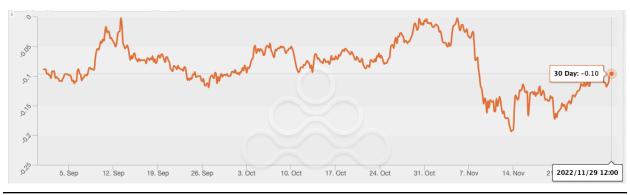
BTC ATM Implied Volatility (30 Day)



Source: Amberdata, GSR

Call skew continues to normalize and is back to its three-month average of -0.10. Now that vol and skew have normalized, one may argue that puts are cheap.

BTC 35 Delta Call Skew (30 Day)

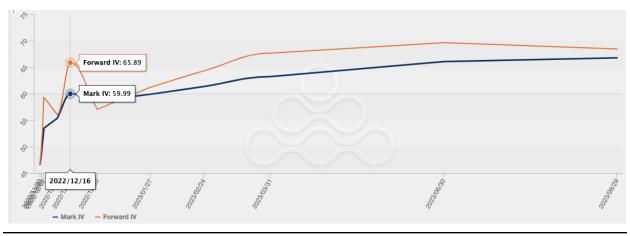


Source: Amberdata, GSR

Term structure is back in contango as gamma fails to perform. The 16th December expiry is relatively elevated as it covers both the US FOMC meeting and CPI release.



BTC Shadow Term Structure



Source: Amberdata, GSR

ETH Derivatives

30-day vol for ETH is now 78%, after having touched 65% at the end of October. 10-day realized stands at 59%, and the ratio of 30-day implied to 10-day realized is 1.32.

ETH ATM Implied Volatility (30 Day)



Source: Amberdata, GSR

Similar to that of BTC, call skew for ETH is now roughly back to its three-month average of -0.10.



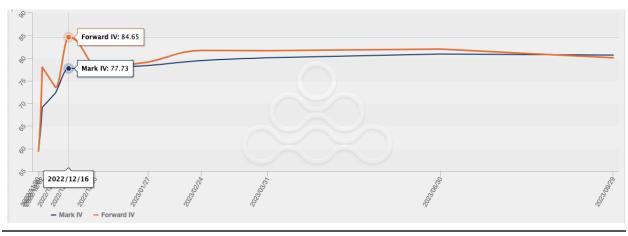
ETH 35 Delta Call Skew (30 Day)



Source: Amberdata, GSR

ETH term structure is also in contango with similar event premium in the 16th December expiry.

ETH Shadow Term Structure



Source: Amberdata, GSR

FLOWS AND LIQUIDATIONS

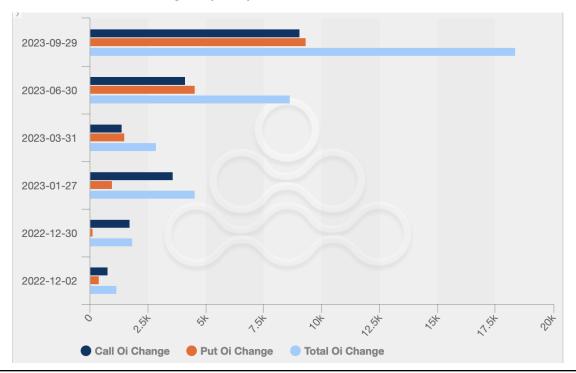
The last two weeks have been much calmer compared to the initial few weeks of November. Skew has drifted back down to more reasonable historical levels, suggesting some downside demand outweighing the upside, and realized volatility on both the 7- and 30-day time period has started to calm after the uncertainty and volatility experienced mid-month. Liquidations are relatively calm with the only noticeable action occurring on November 19th and 20th with \$200m of long liquidations.

In the BTC options market, open interest has risen throughout the past two weeks with the most common tenor opened being the September 29th, 2023 expiry that has been balanced between calls and puts. The June 30th, 2023 expiry has seen the next largest change in total open



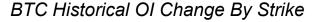
interest. When looking at strikes, the largest decline in open interest occurred in the \$45,000 strike calls, while the largest increase in call open interest was in the \$17,000-\$18,000 range. Put open interest declined after closures of the \$17,000-\$20,000 in-the-money puts while interest grew in the \$12,000 strike puts.

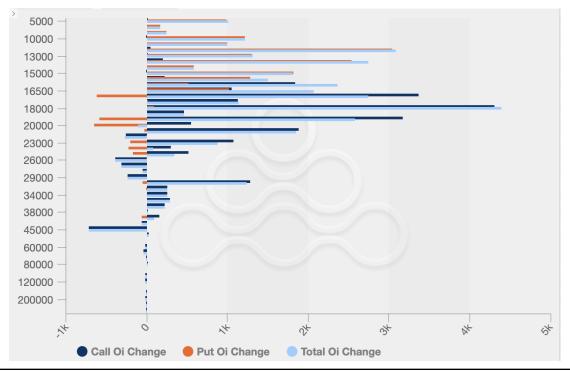
BTC Historical OI Change By Expiration



Source: Amberdata, GSR





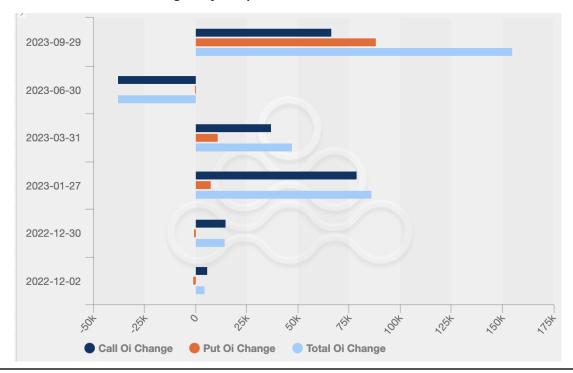


Source: Amberdata, GSR

In the ETH options market, open interest declined in the June 30th, 2023 expiry mainly consisting of calls. The largest increase in open interest occurred in the September 29th, 2023 expiry with relatively balanced puts and calls. Across the tenors, most of the open interest increase has been seen in calls. Regarding strikes, there was a sizable decline in open interest through the closing of \$3,000 strike calls. The most popular calls are in the \$1,300-\$1,700 range currently, while the largest amount of put demand is seen in the \$1,000 strike.

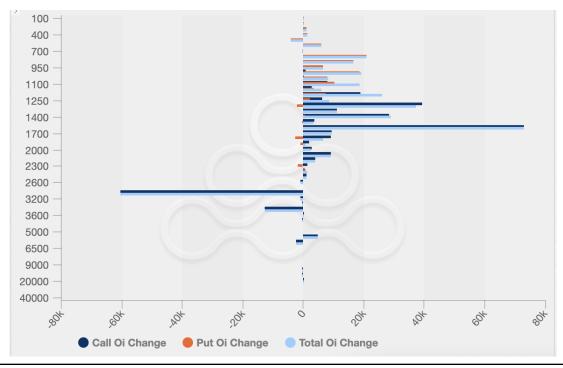


ETH Historical OI Change By Expiration



Source: Amberdata, GSR

ETH Historical OI Change By Strike



Source: Amberdata, GSR



DeFi

On-chain and DeFi activity continue to boom in the EVM world with volumes hitting recent highs. Avraham Eisenberg, who <u>exploited Mango Markets</u> last month, initiated a large on-chain short of CRV on Aave, aiming to liquidate the Curve founder for his large borrow position. However, the price of CRV rallied, and Avraham's large short was liquidated. This left Aave with ~\$1.5m in bad debt, given insufficient on-chain liquidity to liquidate the short. Avraham's consistent exploits of various protocols remind us that even decentralized platforms need to continually manage risk parameters to ensure protocol stability.

Elsewhere, GMX continues to face criticism for allowing zero slippage trades. Critics point to a fundamental design issue with zero slippage that allows LPs to experience large toxic flows. Empirically, we see the same wallet by Avraham entering and exiting large positions on GMX, suggestive of a potential arbitrage opportunity. Conversely, GMX proponents point to the outperformance of the GLP token relative to peers. We expect the effects of consistent toxic flow to play out over a long period of time, and will be closely watching how the protocol addresses issues if and when they arise.

Authors

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GSR has nine years of deep crypto market expertise as a market maker, ecosystem partner, asset manager, and active, multi-stage investor. GSR sources and provides spot and non-linear liquidity in digital assets for token issuers, institutional investors, miners, and leading cryptocurrency exchanges. GSR employs over 300 people around the globe, and its trading technology is connected to 60 trading venues, including the world's leading DEXs. We have a culture of approaching complex problems with tenacity and imagination. We build long-term relationships by offering exceptional service, expertise and trading capabilities tailored to the specific needs of our clients.

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