Crypto Yield Generation Primer

With the advent of decentralized finance (DeFi) and the diversification of blockchain ecosystems, the crypto space has evolved beyond its initial role as a digital alternative to traditional currencies. This piece serves as a primer for some of the major yield generation strategies in crypto. As traditional financial paradigms continue to adapt and intersect with blockchain technology, the potential for generating attractive returns has captured the attention of both individual and institutional investors. We delve into various yield-generating methodologies, ranging from yield farming and lending yield on decentralized venues to cash carry trades and perpetual futures, dissecting their mechanics, risks, and reward.

The intent of this report is to serve as a primer for yield generation strategies in crypto, with intention to generate a longer form deep dive into these strategies in the future.

Generating yield through DeFi protocols

Yield farming is a popular DeFi strategy where crypto investors provide liquidity to decentralized exchanges and DeFi protocols. The most common activity engaged in by yield farmers is depositing pairs of assets into liquidity pools, becoming liquidity providers (LPs). LPs receive token rewards in return, normally proportionate to their share in the pool.

CoinMarketCap currently hosts a dashboard of the most profitable liquidity pools for yield farming, while also including an impermanent loss calculator. At the time of writing, PancakeSwap hosts the 12 most profitable liquidity pools, boasting outrageous APYs of over 100,000% – it must be noted, however, that these pools come with a heavy amount of impermanent loss risk. Engaging in LP activities is not without its risks. As noted, the primary risk is impermanent loss, which occurs when the prices of the assets within the liquidity pool deviate significantly. As a result, the value of your assets can differ from what you initially provided, leading to potential losses. Additionally, DeFi platforms are susceptible to smart contract vulnerabilities and security breaches, which can result in the loss of assets.

While “LPing” is the most popular, yield farmers assume multiple roles in the DeFi ecosystem: liquidity providers, lenders, borrowers, and stakers. Above we discussed the role of LPs, often working on decentralized exchanges like Uniswap or PancakeSwap. When functioning as lenders, yield farmers participate in lending platforms such as Compound or Aave, allowing coin or token holders to lend their assets to borrowers through smart contracts. In this capacity, they earn yield from the interest paid on these loans. Conversely, borrowers are created when yield farmers collateralize one token and borrow another,

enabling them to generate yield from the borrowed assets while still holding their initial investments.

Staying with borrow/lend yield generation, there are a handful of protocols that have captured a large amount of the market share – most notably, Maker and Aave. Below is a dashboard of the most popular lending protocols in crypto by TVL, provided by Messari:

	Protocol	TVL (Active De... Current	TVL (Active De... 30D Change	Active Borrows Current	Active Borrows 30D Change
1	MakerDAO	$12.22B	+52.31%	$4.95B	-5.82%
2	AAVE V3	$4.71B	+17.42%	$1.69B	+16.86%
3	Compound V2	$1.64B	+2.49%	$471M	-7.11%
4	Compound V3	$1.42B	+19.26%	$423M	+11.14%
5	Spark Lend	$1.32B	+79.39%	$434M	+86.29%
6	Venus	$1.13B	+17.77%	$467M	+37.21%
7	Liquity	$788M	+5.02%	$215M	-12.32%
8	Radiant V2	$610M	+1.09%	$319M	-3.88%
9	Morpho Aave V2	$528M	-14.42%	$253M	-19.05%
10	UwU Lend	$243M	-6.71%	$146M	-6.56%

Source: Messari

Spark Lend jumps off the table above, boasting an immense growth in active borrowers over the last 30 days. Spark was created in partnership with Maker and is designed specifically for DAI. It's closely linked with Maker's D3M (Direct Deposit Dai Module), allowing for easier interaction between Maker's ecosystem and third-party lending pools. This connection aims to enable users to access DAI loans at more favorable rates. Moves like these only look to strengthen Maker's stranglehold on the lending market (as evidenced in the preceding table). DAI/MakerDAO's true decentralization and composability have long made it a popular coin/protocol for DeFi users of all shapes and sizes.

While most are familiar with staking, a more-involved strategy occurs when yield farmers choose to stake LP tokens they've accumulated by providing liquidity to decentralized exchanges. This dual staking approach allows them to earn yield from both introducing liquidity through LP tokens and from staking the same LP tokens, thereby increasing their overall returns.

Generating yield through the centralized derivatives market

Traders can also profit from pricing differentials between the spot and futures markets. This involves buying an asset in the spot market and simultaneously entering a futures contract

to buy or sell that asset at a predetermined price in the future. The yield generation is derived from the difference between the futures and spot prices.

Harvesting funding rates involves capturing the differences in funding rates between perpetual futures contracts and the spot market. Traders can go long on the spot market by buying the underlying cryptocurrency and short on perpetual futures of the same cryptocurrency. They can then earn funding payments when the perpetual contract trades at a premium and funding is positive.

Another strategy involves options. Put options are financial derivatives that grant the holder the right, but not the obligation, to sell the asset at a specified strike price on or before a predetermined expiration date. The primary profit mechanism for this strategy is derived from the premiums received by selling put options, which are often chosen to be out-of-the-money (OTM) puts. These premiums are a compensation for undertaking the potential obligation to buy the underlying asset at the strike price in case the market price falls below it. Traders keep the premiums as profit if the market price remains above the strike price.

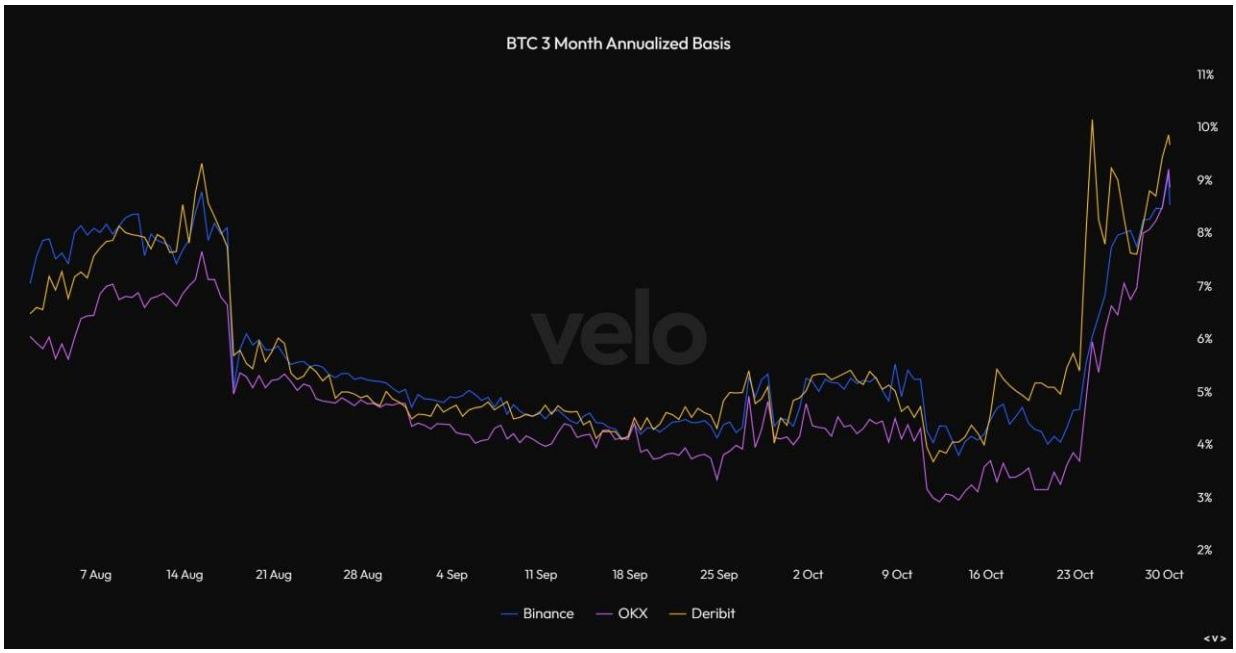
In this strategy, the yield is locked in through the premiums earned from selling put options. These premiums are fixed when the options are sold and remain constant, regardless of how the market evolves. Traders have a clear and predetermined return from the premium collection, which is relatively stable as long as the market price remains above the strike price of the put options. With this strategy, traders don't need to actively manage or rebalance their positions once the trade is executed.

On the other hand, when harvesting funding rates, capturing the delta is variable and dynamic. The funding rate in the perp market and the funding rate in the spot market updated periodically, often every eight hours. As a result, the yield in this strategy can change with each funding rate update. Traders need to actively monitor the funding rates, and they may need to rebalance their positions to maximize returns. If the funding rate turns negative, the trader might need to adjust their positions to avoid paying funding to the perp market.

Cash and carry trades generally perform better in more positive market conditions, particularly when the futures curve is positive sloping – a market condition known as *contango*. In the spring of 2021, Bitcoin reached an all-time high of over $64,800 and the premium on June futures contracts surged to 25% on regulated exchanges like the Chicago Mercantile Exchange (CME). This created opportunities for traders to secure significant profits by buying Bitcoin in the spot market and selling the quarterly futures contracts.

When taking a wider view at the history of cash and carry trades, Bitcoin has usually been the subject of the most attention. The strategy itself became popular within crypto during the 2017 bull run, when then-popular exchange BitMEX introduced perp futures to the market.

Recently, we can see that funding rates across major exchanges have grinded upwards in the midst of this rally. Funding rates in cryptocurrency perpetual futures contracts generally go higher when there is an excess of long positions in the market compared to short positions, driven by bullish sentiment. When funding rates rise, it means that long position holders are required to pay short position holders to maintain the price alignment between the futures contract and the underlying spot market. We can also see a similar dynamic in the basis between spot BTC and the 3 month futures contracts across multiple venues. Currently the 3 month futures basis sits just shy of 10% annualized.



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