Over a span of seven years, this approach would have yielded a remarkable +140% return, averaging around +20% annually, with a standard deviation of 33.3%. By indulging in the erroneous financial orthodoxy of quantifying (even equating) "risk" as "volatility"[7] and using the compounded returns of the Fed Funds rates over the same period as a risk-free benchmark, we get a Sharpe ratio of 3.79 – something very few fund managers can tout.

Figure 6 below compares historical performance of this covered short position, both nominally and in real terms, against US10 treasuries and short-term bank deposits, shedding light on the superiority of the former. This data reflects not only the outperformance but also highlights the trend towards negative real yields in the Treasury market—a factor likely to motivate market participants to explore alternative avenues for storing their cash.

While these data are encouraging, they still falls short in evaluating the relative competitiveness of Bitcoin covered shorts versus conventional deposit instruments. A more comprehensive approach involves examining the performance of all potential covered short positions under varying entry and exit points. Indeed, what interests a money manager is not the gross performance but rather knowing he can store his cash for any duration without risking capital losses and still offset inflation. So, to gauge this, I wrote a Python script[8] that calculates annualized performance for all feasible covered short positions lasting over a week since the inception of perpetual markets in May 2016.

Asset	2016 (annualized)	2017	2018	2019	2020	2021	2022	2023 (annualized)	Average
BTC Nominal Yield	63.4%	30.9%	-2.2%	7.0%	5.5%	16.1%	0.6%	9.1%	**16.3%**
CPI YoY	1.3%	2.1%	2.4%	1.8%	1.2%	4.7%	8.0%	5.8%	**3.4%**
BTC Real Yield	62.1%	28.8%	-4.6%	5.2%	4.3%	11.4%	-7.4%	3.3%	**12.9%**
4-weeks bank discount (Nominal)	0.25%	0.83%	1.81%	2.08%	0.35%	0.04%	1.61%	4.63%	**1.45%**
4-weeks bank discount (Real)	-1.1%	-1.3%	-0.6%	0.3%	-0.9%	-4.7%	-6.4%	-1.2%	**-2.0%**
US 10Y (Nominal)	1.84%	2.33%	2.91%	2.14%	0.89%	1.45%	2.95%	3.64%	**2.27%**
US 10Y (Real)	0.5%	0.2%	0.5%	0.3%	-0.3%	-3.3%	-5.1%	-2.2%	**-1.1%**
Difference BTC Bank Discount	63.1%	30.0%	-4.0%	4.9%	5.1%	16.1%	-1.0%	4.4%	**14.8%**
Difference BTC US10Y	61.5%	28.5%	-5.1%	4.8%	4.6%	14.7%	-2.4%	5.4%	**14.0%**

Figure 6 - historical performance of covered short position vs comparators

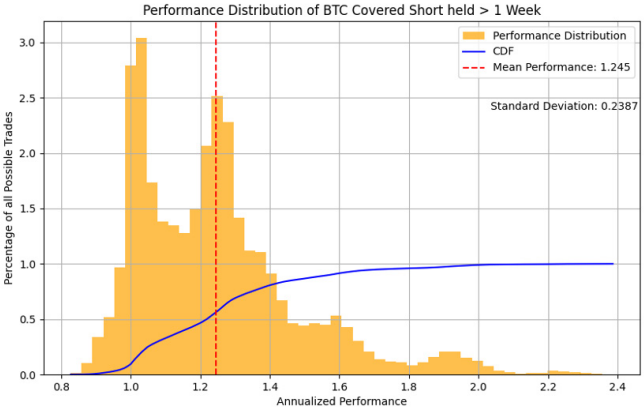

Figure 7 - performance distribution of covered shorts held > 1 week since inception

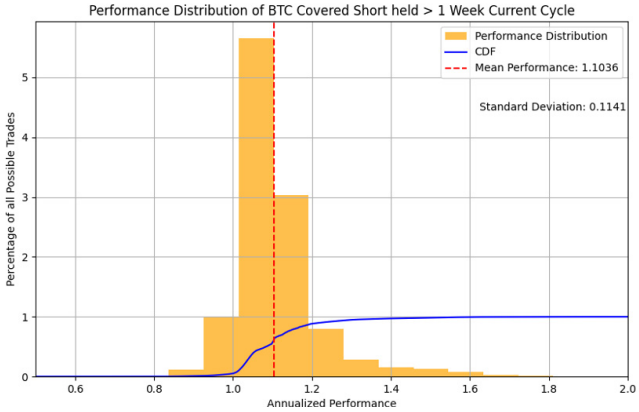

Figure 8 - performance distribution of covered shorts held > 1 week since most recent halving in May 2020

The cumulative distribution function (blue) for the distribution of the +28m resulting trades indicates that only 8.3% incurred losses (broke the buck), and the mean performance (red) highlights an average return of 24.5% per year.

Beyond the relative benchmark comparison, the evolution of return distribution proves enlightening. As the cumulative performance chart demonstrates, returns become less volatile over longer time intervals while consistently remaining positive. This phenomenon suggests that as Bitcoin and its derivatives market mature, funding rates stabilize and instances of structural negative funding are both shorter and rarer.

During the present cycle, 81% of funding events have been positive, even despite an extended bear market. There were only two periods characterized by meaningful losses due to negative funding: one spanning six months (from 19/5/2021 to 20/11/2021), and the other lasting under five months (from 9/11/2022 to 31/3/2023), resulting in a maximal nominal loss of merely 2.4%.

Moving to the performance distribution of all potential covered short trades within the current cycle, only ~5% led to losses, averaging a performance of 10.3%, and showcasing reduced volatility, from 23% to 10%. These insights, both in their raw data and trend analysis, foster optimism for a Bitcoin-based deposit facility. They not only exhibit steady returns capable of compensating for occasional losses, but they also illustrate a decrease in the frequency of negative funding periods. Although encouraging, such a trend doesn't preclude future periods of deeply negative funding. If, for instance, the largest stablecoins, such as USDT & USDC, were to implode and fiat off-ramps from exchanges severed, the only option left for market participants seeking refuge would be to hedge their crypto positions through derivatives, which could lead to a prolonged period of negative funding. Another tail risk scenario worth mentioning would be the case of a controversial fork leading to a schism within the Bitcoin community, fostering uncertainty about Bitcoin's future.

This quantitative perspective indicates that hedging Bitcoin's volatility through perpetual swaps generates higher returns than comparable investments such as short-term USD debt-instruments. While the perpetual swap market and the Bitcoin spot market aren't yet liquid enough to absorb the trillions of dollars of cash equivalents in perpetual search for real positive yield, they currently have enough depth to allow billions of dollars of Bitcoin covered short positions – see Figure 9 below.