HEDGE token: Mitigating BTC Risk

March 2019

**HEDGE is a token which seeks a return that corresponds to the inverse of the return of Bitcoin in USD for a single day.**

**Background**

Bitcoin can be a volatile asset class, both in price appreciation and depreciation. There is often a need to take exposure in the *inverse* return of the asset class, either to:

1. Hedge price returns against the cryptocurrency asset class
2. Take short term positions

For example: One may have a large position in various altcoins. In the case of a market downturn, it is too difficult to sell one’s altcoin positions in a falling market. Instead, one can hedge by putting on an inverse Bitcoin exposure.

Currently, there are two main ways to achieve inverse bitcoin returns:

1. Sell Bitcoin futures, on exchanges such as Bitmex, OKEx, CME
2. Borrow Bitcoin on margin and sell on exchanges (using Bitfinex/OKEx)

To add to these choices, we propose a crypto product: the **HEDGE token**.

HEDGE seeks a daily price return corresponding to the *inverse* return of BTC/USD for a single day:

- HEDGE is an ERC-20 token i.e. freely transferable on the Ethereum blockchain.
- HEDGE can be created/redeemed at any time
- HEDGE rebalances once a day (at 00:02 UTC) to maintain the correct inverse Bitcoin exposure. In the case of large moves (+/- 10% in Bitcoin price), HEDGE also rebalances to adjust for volatility.
A table comparing the different instruments can be seen below:

<table>
<thead>
<tr>
<th></th>
<th>Selling Futures</th>
<th>Selling on Margin</th>
<th>HEDGE token</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inverse Bitcoin return?</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Leveraged Inverse Bitcoin return?</td>
<td>✔</td>
<td>✔</td>
<td>❌</td>
</tr>
<tr>
<td>Avoids margin calls and forced liquidation?</td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
</tr>
<tr>
<td>Freely transferable across wallets/exchanges?</td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
</tr>
<tr>
<td>Storable in cold wallet?</td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
</tr>
<tr>
<td>Avoids liquidation gap risk on exchange?</td>
<td>❌</td>
<td>❌</td>
<td>✔</td>
</tr>
</tbody>
</table>

Daily returns during 1Q 2019

In short, HEDGE is an inverse Bitcoin product that is simple to trade, simple to calculate returns, transferable, and does not have the complexity/risk of margin calls.
Real-life comparison: the Stock Market

Margin trading allows market participants to put on positions larger than their capital base--and the ability to short sell. Traditionally, someone trading on margin might deposit $100 into a brokerage account and use it to buy $300 of AAPL stock; the user would then have net balances of +$300 of AAPL and -$200 USD.

However, margin trading is only suitable for the most sophisticated traders. They need access to a venue that supports leverage, the financial experience to fully understand the funding rates and borrow costs, and they need to constantly monitor their positions to prevent a margin call.

To simplify the process, some companies have launched leveraged ETFs on financial assets--for example SPXL, the Direxion 3X long S&P ETF. Buying $100 of SPXL gives the owner exposure to $300 of stocks; SPXL uses the $100 investment to buy $300 worth of assets, and the fund manager handles all of the intricacies of margining.

Alternately they could buy SPXS, an inverse S&P ETF, allowing them to short the market or hedge another position of theirs.

Leveraged ETFs thus allow retail customers to gain leveraged exposure to the market and hedge their positions without needing access to margin trading themselves.

Cryptocurrencies and margin

Some cryptocurrency traders have access to margin trading, but many do not. Many of the top exchanges do not support margin trading. Even on those exchanges that do support margin trading it is often difficult to borrow coins, making it hard to gain short exposure to cryptocurrencies.

Furthermore, there have been many high-profile failures of liquidity in leveraged markets, causing users to unwittingly lose significant funds if they were not constantly monitoring their positions.

There is huge demand for vehicles to hedge in crypto; funds, mining firms, and other cryptocurrency-related business often have natural or expected positions they can't liquidate.
Mechanics

HEDGE is an ERC20 token, so it can be freely moved between ETH wallets and traded on any exchange. Users can buy, sell, and hold the token on their favorite platforms.

Users can also create and redeem HEDGE by clicking a button on our portal. Creations and redemptions can be processed real-time, and users will pay/receive USD stablecoins equal to the net asset value of HEDGE’s holdings during the process, and then receive/pay the HEDGE tokens from/to their ETH wallet on the portal.

HEDGE gains its target exposure by trading and holding futures contracts.

Fees

- 0.10% creation and redemption fee to cover execution costs.
- 0.03% per day management fee.

Value proposition: to traders

Trading HEDGE allows cryptocurrency users to gain inverse exposure without having to manage margin trading.

This allows cryptocurrency traders to put on positions in a more capital efficient way, requiring less of their assets to be stored in a third party system for the same price exposure. It also allows users to hedge natural positions they have in coins, even if the exchange they prefer does not itself support margin trading.

Value proposition: to exchanges

Listing HEDGE allows an exchange to offer inverse price action to their customers without needing to implement their own margin trading and liquidation engine. It also allows the exchange to offer leveraged trading to customers who don’t want to manage margin positions themselves.

This, in turn, allows the exchange to attract customers who want short Bitcoin exposure, and prevent such customers from needing to move to another venue.
Appendix:

HEDGE seeks daily investment results, before fees and expenses, that correspond to the inverse (-1x) of the return of Bitcoin (in USD) for a **single day**, not for any other period. The return of HEDGE for periods longer than a single day will be the result of its return for each day compounded over the period. HEDGE’s returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from HEDGE’s stated -1x times the return of BTC/USD over the same period.

HEDGE may not be suitable for all cryptocurrency holders and should be used by those who understand the consequences of seeking daily inverse results.

HEDGE pays transaction costs when it buys and sells futures positions. A higher portfolio turnover rate may indicate higher transaction costs.

Risks:

Market Price Variance Risk:
- Holders buy and sell HEDGE tokens in the secondary market at market prices, which may be different from the value of the underlying Bitcoin asset. The market price for HEDGE will fluctuate in response to changes in the value of the token’s holdings, supply and demand for the token and other market factors.

Inverse Correlation Risk:
- Token holders will lose money when BTC/USD rises, a result that is opposite from holding the underlying asset.

Portfolio Turnover Risk:
- HEDGE may incur high portfolio turnover to manage the inverse Bitcoin exposure. Additionally, active market trading of HEDGE’s holding may cause more frequent creation or redemption activities that could, in certain circumstances, increase the number of portfolio transactions. High levels of transactions increase transaction costs. Each of these factors could have a negative impact on the performance of HEDGE.

Interest Rates:
- HEDGE takes positions in futures contracts to achieve its desired leverage. These futures might trade at a premium or discount to spot bitcoin markets as a reflection of prevailing interest rates in cryptocurrency markets. Thus HEDGE might out or underperform BTC returns because of a divergence between the two markets.