Bitcoin Algo

Bitcoin Algo is a long–only algorithmic strategy focused exclusively on bitcoin. Our investment approach combines information from multiple quantitative metrics with accurate risk management methods to form a portfolio that yields excess returns with limited downside.

About Amdax

Amdax was created from a deep–rooted belief in the limitless possibilities that blockchain technology and crypto assets offer. We're building bridges between traditional banking and the new financial world, making it accessible for the serious crypto investor. As the leading digital asset house, we offer innovative and exclusive products and services designed to take advantage of the emerging opportunities in this dynamic industry. Algorithmic investing is one of Amdax' services that provides clients with an off–the–shelf systematic investment strategy. This type of investing eliminates emotional biases from decision–making, ensuring that only solid numbers drive our portfolio adjustments.

Strategy Overview

The only goal of Bitcoin Algo is to outperform a buy–and–hold bitcoin strategy on a risk–return basis. This means that we seek higher average returns than the bitcoin price series, while also achieving a lower portfolio volatility and maximum drawdown. Bitcoin Algo aims to achieve this by applying a simple two–step approach: identifying (un)favorable market conditions and applying volatility scaling to our output weights. Portfolio rebalancing takes place when the actual weights deviate more than 10% from the final target weights to decrease transaction costs.

Product specifications	
Minimum investment	€ 100,000[a]
Entry/exit fee	1% of incoming/outgoing assets
Management fee	1.6% per annum
Performance fee	20% of excess return[b]
Fee frequency	Quarterly

[a] Initial deposit can be made in either euros or bitcoin
[b] Excess returns are measured against a high–water mark in bitcoin terms

Custody fees (0.6% per annum) and trading fees (0.2% of trading volume) apply.

Identifying market conditions

The first step is to gauge the state of the market. Our proprietary algorithm employs a systematic approach using multiple quantitative input metrics, which are drawn from various sources, such as macroeconomic, on–chain and derivatives data. Using careful research and meticulous backtesting, the individual and joint significance of these metrics are assessed continuously, ensuring that our approach only uses the most relevant signals. These signals together form the backbone of the strategy. In more favorable conditions, the algorithm increases bitcoin's weight in the portfolio, optimizing for potential upside. Conversely, in less favorable conditions, the algorithm reduces exposure to bitcoin.

Volatility scaling

To enhance the risk-reward ratio of the portfolio, the algorithm also accounts for market volatility. It makes adjustments the output weights from the previous step based on its expectation of future market volatility. In

particular, if the expected volatility is high, the algorithm decreases the bitcoin position to mitigate potential downside risk and it allows additional exposure when the expected volatility is low. The main benefit of volatility scaling is to avoid taking unnecessary risks, while enabling the strategy to capitalize on potential gains when the market environment allows for it.
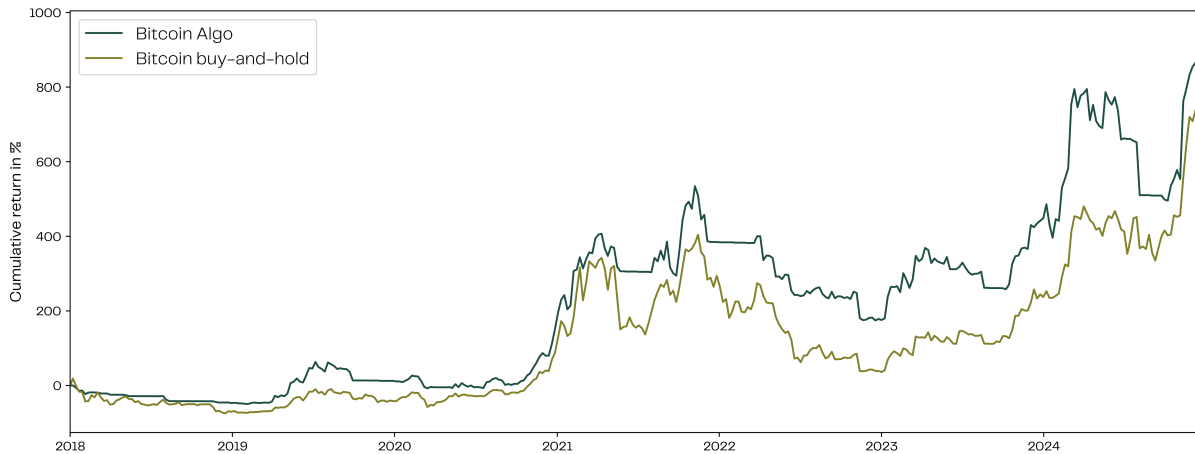
Performance and Risk Metrics

As an appropriate benchmark for Bitcoin Algo, we have a buy–and–hold strategy, which is an easily replicable strategy that adequately reflects the risk and return characteristics in the bitcoin price series. Buy–and–hold is not an active trading strategy, so we set all fees to zero for this benchmark.

	Bitcoin Algo	Bitcoin buy–and–hold
CAGR	38.35%	35.81%
Annualized volatility	44.58%	67.55%
Maximum drawdown	57.40%	80.14%
Sharpe ratio	0.95	0.77
Turnover ratio	246.08%	0.00%

Hypothetical performance and risk metrics (net of fees) based on a backtest using a sample period from 1 January 2018 until 22 December 2024. Bitcoin buy–and–hold serves as a benchmark strategy and is subject to zero fees.

The reported performance and risk metrics are obtained over a sample period from 1 January 2018 until 22 December 2024 and underscore some key differences. The Bitcoin Algo strategy, net of fees, generated a compound annual growth rate (CAGR) of 38.35%, outperforming buy–and–hold, which had a CAGR of 35.81%. This higher return is also characterized by a smoother profile with lower downside risk, as shown by the significantly lower annualized volatility and maximum drawdown. Overall, we find that the risk–adjusted returns for the Bitcoin Algo strategy are superior, with a Sharpe ratio of 0.95, notably higher than our benchmark strategy's Sharpe ratio of 0.77.

Hypothetical portfolio values (net of fees) based on a backtest using a sample period from 1 January 2018 until 22 December 2024. Bitcoin buy–and–hold serves as a benchmark strategy and is subject to zero fees.

Disclaimer

This document is for informational purposes only and does not constitute financial advice. Its accuracy, completeness, or relevance is not guaranteed. Past performance is not indicative of future results, and all investments involve risks, including potential loss of capital and the potential to not achieve the expected returns. Investors should seek professional advice before making any investment decisions based on this document.