

Crypto Fund Portfolio Report



Fund Manager: Antony Kings

Fund Size: \$1,000,000

Objective: To achieve high risk-adjusted returns with a strategically diversified crypto hedge portfolio, using quantitative analysis and yield optimization strategy to minimize risk while maximizing growth.

Executive Summary

This report outlines the construction of a \$1 million crypto fund portfolio with the objective of outperforming the market while minimizing risk through advanced strategies. This portfolio includes a mix of delta-neutral strategies, stablecoins, high-risk meme coins, along with growth coins and yield farming opportunities. Performance metrics have been calculated to assess the portfolio's risk and return expectations, while a comprehensive risk management plan to mitigate risk associated with exposure to different crypto protocols. Additionally, few strategies are recommended for various market conditions to ensure resilience and adaptability.

Portfolio Construction

Investment Strategy Overview

- **Delta-Neutral Strategies:**
 - **Basis trading:** BTC and ETH earn returns from funding rate.
- **Lending:** Lend spot BTC and ETH in DeFi protocols.
- **Stablecoins:** Allocate stablecoins for liquidity and capital preservation. Additionally, lending these stablecoins can generate yield.
- **Yield Farming:** Utilize liquid staking for INJ and SOL to earn rewards from staking without sacrificing liquidity.
- **Growth Asset:** Allocate to JUP as a high-growth asset in anticipation of potential long-term appreciation.
- **High-Risk Assets:** Very low exposure to meme coins (Popcat, Bonk, Doge) to capture potential high upside.

Allocation Table

Asset	Allocation (\$)	Strategy Type	APR	APY
BTC	\$125,000	Delta-Neutral [Basis Trading]	10.95%	11.57%
BTC	\$125,000	Lending	0.02%	0.02%
ETH	\$125,000	Delta-Neutral [Basis Trading]	10.95%	11.57%
ETH	\$125,000	Yield Farming [Liquid Staking]	3%	3%
Stablecoins	\$100,000	Capital Preservation & Lending	11.15%	11.15%
INJ	\$150,000	Yield Farming [Liquid Staking]	12%	12%
SOL	\$150,000	Yield Farming [Liquid Staking]	8%	8%
JUP	\$50,000	Growth Asset	243.33% *	1030.48% **
Popcat , Bonk and Doge	\$50,000	High Risk [Meme Coins]	294% *	1287% **

*Projected APR based on 30 day returns

**Projected APY based on 30 day compounding

Detailed Performance Metrics

APR & APY Calculations

- **BTC and ETH Delta-Neutral:**
 - **APR:**
 - Funding Rate is 0.01% every 8 hours
 - $0.01\% \times 3 = 0.03\%$ per day
 - $APR = 0.03\% \times 365 = 10.95\%$
 - **APY:**
 - $365 \times 3 = 1095$
 - $APY = (1 + 0.0001/1)^{1095} - 1 = 11.57\%$
- **Lending:**
 - **APR & APY:** Protocol Rate
- **Liquid Staking :**
 - **APR & APY:** Protocol Rate
- **JUP and Meme Coins:**
 - **APR:** $(\text{Average 30 Day return} / 30) \times 365$
 - **APY:** $(1 + APR / 12)^{12} - 1$

Historical Volatility [Calculations are made using past 365 days data]

It is calculated as the standard deviation of daily returns over the past year.

BTC:	51.4%
ETH:	61.2%
SOL:	89%
INJ:	108%
JUP:	114%
DOGE:	90.3%
BONK:	179.7%
POPCAT:	344.4%

Value at Risk (VaR) – 95% Confidence Level [Calculations are made using past 365 days data]

Estimates the maximum expected loss over a specified period, with a 5% chance of a larger loss occurring.

Daily VaR

BTC:	- 4.5%
ETH:	- 5.3%
SOL:	- 7.9%
INJ:	- 9.1%
JUP:	- 9.7%
DOGE:	- 7.8%
BONK:	- 15.8%
POPCAT:	- 29.2%

Weekly VaR

BTC:	- 12.1%
ETH:	- 14%
SOL:	- 21%
INJ:	- 24%
JUP:	- 25.9%
DOGE:	- 20.8%
BONK:	- 42%
POPCAT:	- 77.4%

Monthly VaR

BTC:	- 25%
ETH:	- 29%
SOL:	- 43.5%
INJ:	- 50%
JUP:	- 53.5%
DOGE:	- 43%
BONK:	- 86.8%
POPCAT:	- 160%

Beta relative to Bitcoin [Calculations are made using past 365 days data]

Measures an asset's sensitivity to Bitcoin's price movements

ETH:	0.97
SOL:	1.20
INJ:	1.29
JUP:	1.27
DOGE:	1.35
BONK:	2.02
POPCAT:	3.12

Interpreting Beta

- **Beta > 1 : Follows BTC and also more Volatile than Bitcoin**
- **Beta < 1 : Asset is less volatile than Bitcoin**
- **Beta ~ 1 : Asset moves similar to Bitcoin**
- **Beta < 0 : Asset Moves in Opposite direction to Bitcoin**
- **Beta = 0 : Asset has no correlation with BTC**

Maximum Drawdown (MDD) [Calculations are made using past 365 days data]

A metric that measures the largest loss in value a portfolio can experience between a peak and a trough.

BTC:	52%
ETH:	53%
SOL:	79%
INJ:	72%
JUP:	73%
DOGE:	67%
BONK:	98%
POPCAT:	99%

Risk Management Plan

Risk Mitigation Techniques

- **Delta-Neutral Strategies:**
 - **Basis Trading:** Earn returns by hedging the spot and futures markets on the same asset.
- **Stablecoins:** Act as a buffer, holding value during market downturns and providing liquidity for rebalancing.

Diversification Strategy

- **Blockchain Diversity:** Investments across different blockchains networks like Ethereum, Solana, and Cosmos.
- **Asset Class Diversity:** Combining high-risk meme coins with low-risk stablecoins and yield-generating strategies.

Risk Mitigations

- **Smart Contract Risk:** Limiting exposure to DeFi protocols, with a focus on well-audited and reputed platforms.
- **Counterparty Risk:** Selecting reputable custodians and centralized exchanges.
- **Regulatory Risk:** Minimizing exposure to assets with high regulatory uncertainty.

Stress Test Simulation

30% Market Crash [Calculations are made using past 365 days data]

- Before Hedging BTC and ETH
 - Total Loss in Portfolio : \$ 218,678 [21.8%]
- After Hedging BTC and ETH using Delta-Neutral
 - Total Loss in Portfolio : \$ 81,228 [8.1%]

Scenario-Based Strategy Adjustments

Bull Market

- **Increase High-Growth and Risk Assets:** Allocate more to growth assets (e.g., JUP) and high-risk meme coins to capture upside potential.
- **Maximize DeFi Yield Opportunities:** Reallocate from stablecoins to liquid staking (e.g., INJ, SOL) to leverage high yields in bullish conditions.

Bear Market

- **Shift to Stablecoins for Capital Preservation:** Increase stablecoin allocation for liquidity and capital safety.

Sideways Market

- **Emphasize Yield-Generating Assets:** Increase yield farming (e.g., INJ, SOL) to benefit from passive returns in low-movement markets.
- **Range-Bound Strategies:** Use buy-sell ranges for assets like BTC and ETH to capture gains in constrained market.

High Volatility

- **Focus on Safer Yield Platforms:** Shift yield farming to more secure, established platforms which are battle tested to mitigate risk during turbulent conditions.

Additional Portfolio Improvements

- Using Pairs Trading as another Delta-Neutral Strategy
 - Can applied on Cryptocurrencies which has similar technology / sector
 - Like AAVE & COMP [Compound]