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Description automatically generatedCrypto 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% \* 3 = 0.03% per day
    - APR = 0.03% x 365 = 10.95%
  + **APY:**
    - 365 x 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:** (Average 30 Day return / 30 ) x 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]