

# Cryptocurrency Performance and Risk Analysis Report

**Assets Analyzed:** Bitcoin (BTC), Ethereum (ETH), Solana (SOL)

**Period:** January – December (12 Months)

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## 1. Objective of the Study

The objective of this report is to analyze and compare the **performance and risk characteristics** of three major cryptocurrencies—Bitcoin (BTC), Ethereum (ETH), and Solana (SOL)—over the past 12 months using monthly price and return data.

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## 2. Performance Analysis

### 2.1 Bitcoin (BTC)

- BTC price increased from ₹35,00,000 (Jan) to ₹58,00,000 (Dec).
  - The asset showed **steady and consistent growth** throughout the year.
  - Monthly returns mostly ranged between **3%–7%**, indicating stability.
  - The only negative month was **August (-4%)**, after which BTC recovered strongly.
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### 2.2 Ethereum (ETH)

- ETH price rose from ₹2,30,000 (Jan) to ₹4,60,000 (Dec).
  - ETH showed **higher growth than BTC** in several months (April, September).
  - Monthly returns fluctuated more than BTC, with a notable decline in **August (-4.17%)**.
  - Strong recovery was observed in the following months.
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### 2.3 Solana (SOL)

- SOL price increased from ₹8,000 (Jan) to ₹21,000 (Dec).
  - Exhibited **very high monthly return swings**, including:
    - +16% (July)
    - +15.94% (September)
    - -4.83% (August)
  - Delivered the **highest percentage gains** among all three assets..
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## 3. Risk Analysis

Risk is assessed using **variability in monthly returns** and frequency of negative returns.

3.1 Volatility Comparison

Cryptocurrency	Volatility Level	Observation
Bitcoin (BTC)	Low	Stable returns, fewer extreme movements
Ethereum (ETH)	Medium	Moderate fluctuations, balanced risk
Solana (SOL)	High	Large price swings, aggressive asset

3.2 Negative Return Periods

- All three cryptocurrencies experienced **negative returns in August**, indicating exposure to market-wide corrections.
  - SOL experienced the **largest magnitude of swings**, increasing downside risk.
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4. Comparative Summary

Criteria	BTC	ETH	SOL
Annual Growth	High	High	Very High
Volatility	Low	Moderate	High
Risk Level	Low	Medium	High
Suitability	Conservative investors	Balanced investors	Aggressive investors

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5. Key Insights

- Bitcoin** acts as a stabilizer in a crypto portfolio.
  - Ethereum** offers a strong balance between growth and risk.
  - Solana** enhances returns but significantly increases portfolio volatility.
  - Market corrections affect all cryptocurrencies simultaneously, highlighting **systematic risk**.
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6. Conclusion

The 12-month analysis shows that while all three cryptocurrencies delivered positive performance, their **risk-return profiles differ significantly**. Bitcoin provides stability, Ethereum ensures balanced growth, and Solana delivers aggressive returns with higher risk. Proper diversification among these assets can help investors achieve optimal portfolio outcomes.

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