

Bitcoin Investment Strategy Analysis Report

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Executive Summary

This report analyzes three Bitcoin investment strategies: Dollar Cost Averaging (DCA), Enhanced DCA with Dip Buying (Aous), and Lump Sum investing. Key findings include:

- Lump Sum achieved highest absolute returns (1,250% ROI) but with highest risk
- DCA provided best risk-adjusted returns (Sharpe ratio: 2.01)
- Aous strategy showed superior downside protection (Sortino ratio: 7.15)
- All strategies performed well in bull markets, but DCA/Aous were more resilient in bear markets
- Optimal strategy involves small base investments with aggressive dip-buying

Strategy Comparison

Metric	DCA	Aous	Lump Sum
Total Invested	180,200.00	1,052,200.00	365,000.00
Final Value	760,958.37	4,424,237.77	4,930,894.90
BTC Held	7.83	45.52	50.73
ROI (%)	322.29	320.47	1,250.93
Max Drawdown (%)	-70.06	-69.10	-76.72
Volatility (%)	71.37	416.40	53.01
Sharpe Ratio	2.01	0.68	0.88
Sortino Ratio	3.61	7.15	1.18
Win Rate (%)	55.52	57.97	51.58
Profit Factor	1.62	2.27	1.20

Performance Analysis

Investment Efficiency:

- DCA: \$180,200 invested → \$760,958 (322% ROI)
- Aous: \$1,052,200 invested → \$4,424,237 (320% ROI)
- Lump Sum: \$365,000 invested → \$4,930,894 (1,250% ROI)

Capital Efficiency:

- DCA shows highest capital efficiency with similar ROI to Aous using much less capital
- Lump Sum demonstrates power of early market entry but with higher risk
- Aous strategy requires significant capital but provides better risk management

Risk Analysis

Volatility Profile:

- DCA: 71.4% volatility with Sharpe ratio 2.01
- Aous: 416.4% volatility with Sharpe ratio 0.68
- Lump Sum: 53.0% volatility with Sharpe ratio 0.88

Drawdown Profile:

- DCA max drawdown: -70.1%
- Aous max drawdown: -69.1%
- Lump Sum max drawdown: -76.7%

Yearly Performance

Year	DCA	Aous	Lump Sum
2020	190.3%	200.0%	300.8%
2021	189.9%	189.6%	62.6%
2022	-9.8%	-10.4%	-64.2%
2023	110.1%	108.9%	155.3%
2024	322.3%	320.5%	130.3%

Drawdown Analysis

Key Drawdown Periods:

- 2021-2023 Bear Market: All strategies experienced their maximum drawdowns
- March 2020 COVID Crash: Quick recovery across all strategies
- 2021 Mid-Year Correction: DCA and Aous showed better resilience

Recovery Patterns:

- DCA/Aous strategies showed faster recovery due to continued buying
- Lump Sum experienced longer recovery periods but higher absolute returns

Optimal Strategy Parameters

DCA:

- Base Investment: \$50
- Dip Investment: \$500
- Dip Threshold: 5.0%
- Holding Period: 1 days
- ROI: 322.29%
- Max Drawdown: -70.06%

AOUS:

- Base Investment: \$50
- Dip Investment: \$2000
- Dip Threshold: 5.0%
- Holding Period: 1 days
- ROI: 320.21%
- Max Drawdown: -68.95%

Strategy Visualizations

