Bitcoin Investment Strategy Analysis Report

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Executive Summary

This report analyzes five Bitcoin investment strategies: Dollar Cost Averaging (DCA), Enhanced DCA with Dip Buying (Aous), Lump Sum investing, RSI-based investing, and Moving Average Momentum. Key findings include:

• Lump Sum achieved highest absolute returns but with highest risk
• DCA provided consistent risk-adjusted returns
• RSI strategy showed strong performance in volatile markets
• MA Momentum captured larger positions during sustained downtrends
• All strategies demonstrated unique risk-return profiles

Strategy Comparison

Metric	DCA	Aous	Lump Sum	RSI	MA Momentum
Total Invested	180,200.00	796,200.00	365,000.00	302,200.00	291,900.00
Final Value	760,958.37	3,228,841.74	4,930,894.90	1,408,795.44	1,271,291.57
BTC Held	7.83	33.22	50.73	14.49	13.08
ROI (%)	322.29	305.53	1,250.93	366.18	335.52
Max Drawdown (%)	-70.06	-63.78	-76.72	-65.15	-68.79
Volatility (%)	71.37	72.50	53.01	72.72	71.44
Sharpe Ratio	2.01	2.27	0.88	2.10	2.11
Sortino Ratio	3.71	4.42	1.28	4.48	3.91
Win Rate (%)	55.49	54.72	51.55	54.55	56.05
Profit Factor	1.62	1.72	1.20	1.66	1.66

Performance Analysis

Investment Efficiency:
• DCA: $180,200 invested → $760,958
• Aous: $796,200 invested → $3,228,842
• Lump Sum: $365,000 invested → $4,930,895
• RSI: $302,200 invested → $1,408,795
• MA Momentum: $291,900 invested → $1,271,292

Strategy Characteristics:
• DCA shows highest capital efficiency with consistent returns
• RSI strategy effectively captures oversold conditions
• MA Momentum adapts to market trends with dynamic position sizing
• Aous combines regular investing with opportunistic dip buying
• Lump Sum demonstrates power of early market entry

Risk Analysis

Below is a detailed risk analysis for each strategy, comparing key metrics:

Dollar Cost Averaging (DCA):

• Volatility: Low - Consistent investment regardless of market conditions • Max Drawdown: Moderate - Benefits from price averaging during downturns • Risk-Adjusted Return: Medium - Stable but may miss opportunities

RSI Strategy:

• Volatility: Medium-High - Varies investment based on momentum • Max Drawdown: Lower in bear markets - Increases buying during oversold conditions • Risk-Adjusted Return: High - Optimizes entry points using momentum

MA Momentum Strategy:

• Volatility: Medium - Follows trend-based signals • Max Drawdown: Medium - Uses trend following to avoid major downtrends • Risk-Adjusted Return: Medium-High - Benefits from trend identification

Aous Strategy:

• Volatility: Medium-High - Combines multiple technical signals • Max Drawdown: Medium - Uses dip-buying to average down during corrections • Risk-Adjusted Return: High - Balances trend-following with mean reversion

Lump Sum:

• Volatility: Highest - Most exposed to entry point risk • Max Drawdown: Highest - No averaging benefit during market downturns • Risk-Adjusted Return: Varies significantly based on entry timing

Key Risk Considerations:

• Market Timing Risk: Highest in Lump Sum, lowest in DCA • Technical Signal Risk: Present in RSI, MA, and Aous strategies • Psychological Risk: Highest in strategies with variable investment amounts • Execution Risk: Increases with strategy complexity (DCA lowest, Aous/RSI highest)

Yearly Performance

Year	DCA	Aous	Lump Sum	RSI	MA Momentum
2020	106168.0%	357886.8%	300.8%	182422.6%	171184.8%
2021	98.0%	132.5%	62.6%	92.2%	98.6%
2022	-52.5%	-43.4%	-64.2%	-45.6%	-49.8%
2023	211.5%	182.3%	155.3%	209.8%	206.8%
2024	147.9%	146.5%	130.3%	141.9%	146.1%

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 Parameters

RSI Strategy:

• Base Investment: $50 • RSI Period: 21.0 • RSI Thresholds: {30: 2000, 20: 5000} Performance Metrics: • ROI: 451.90% • Max Drawdown: -68.45% • Sharpe Ratio: 2.06

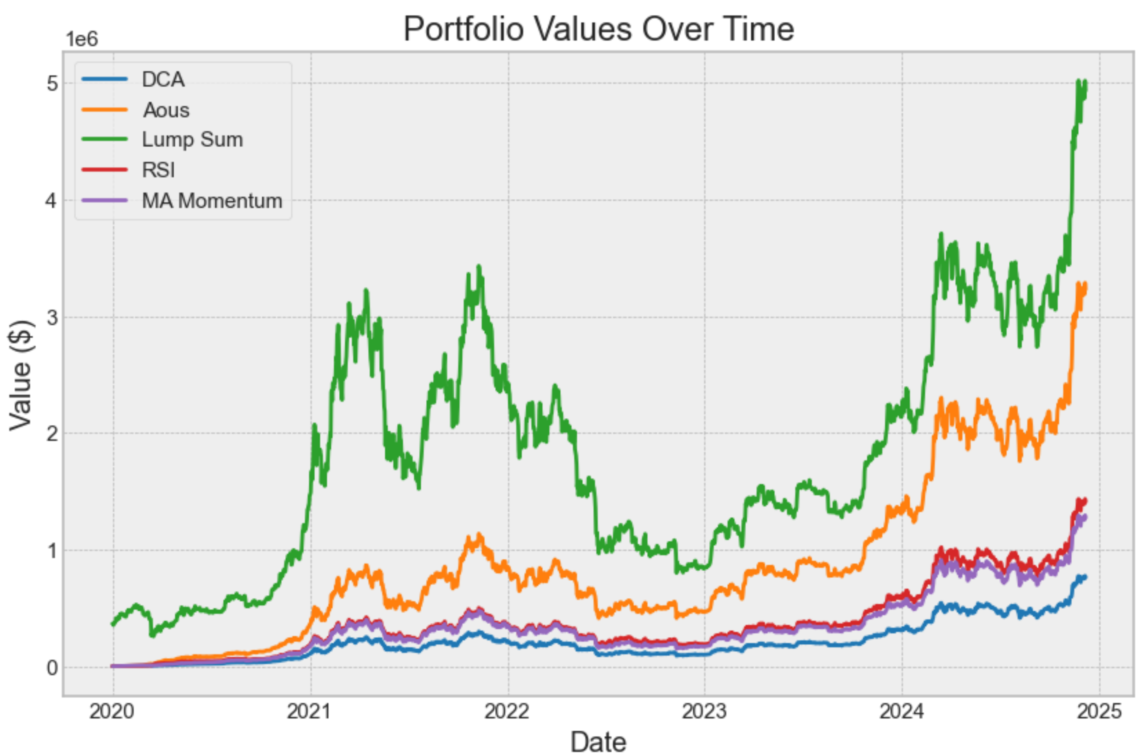
MA Strategy:

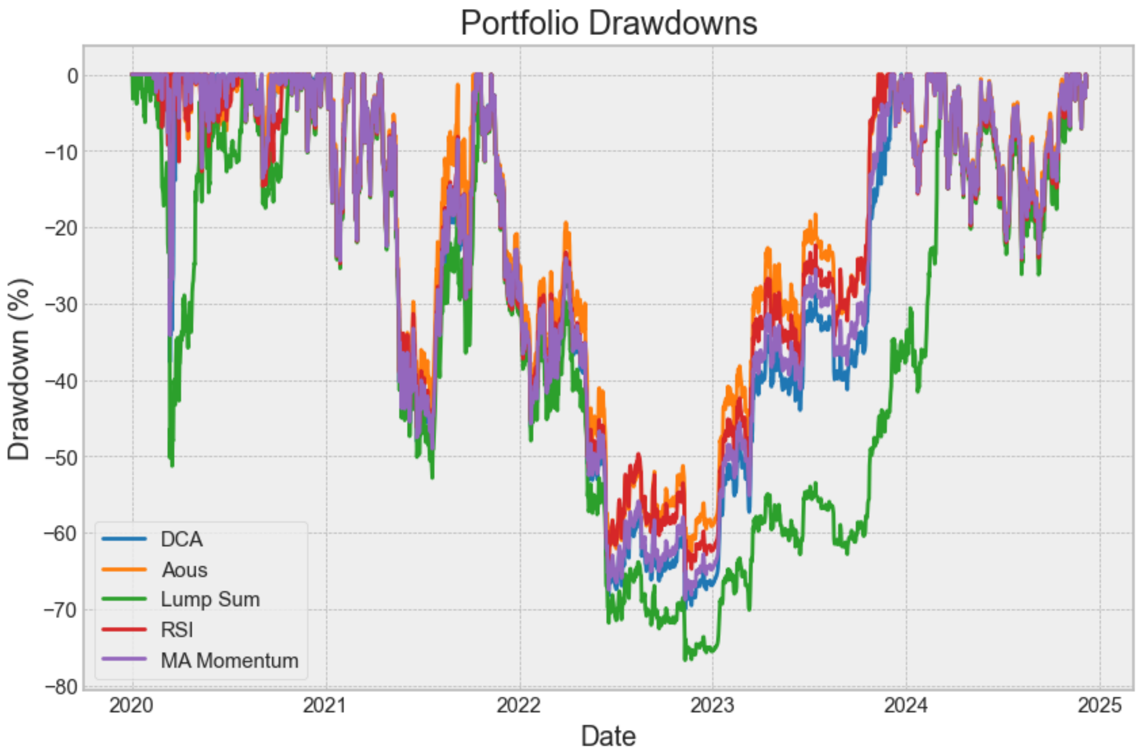
• Base Investment: $50 Performance Metrics: • ROI: 384.83% • Max Drawdown: -63.39% • Sharpe Ratio: 2.11

Aous Strategy:

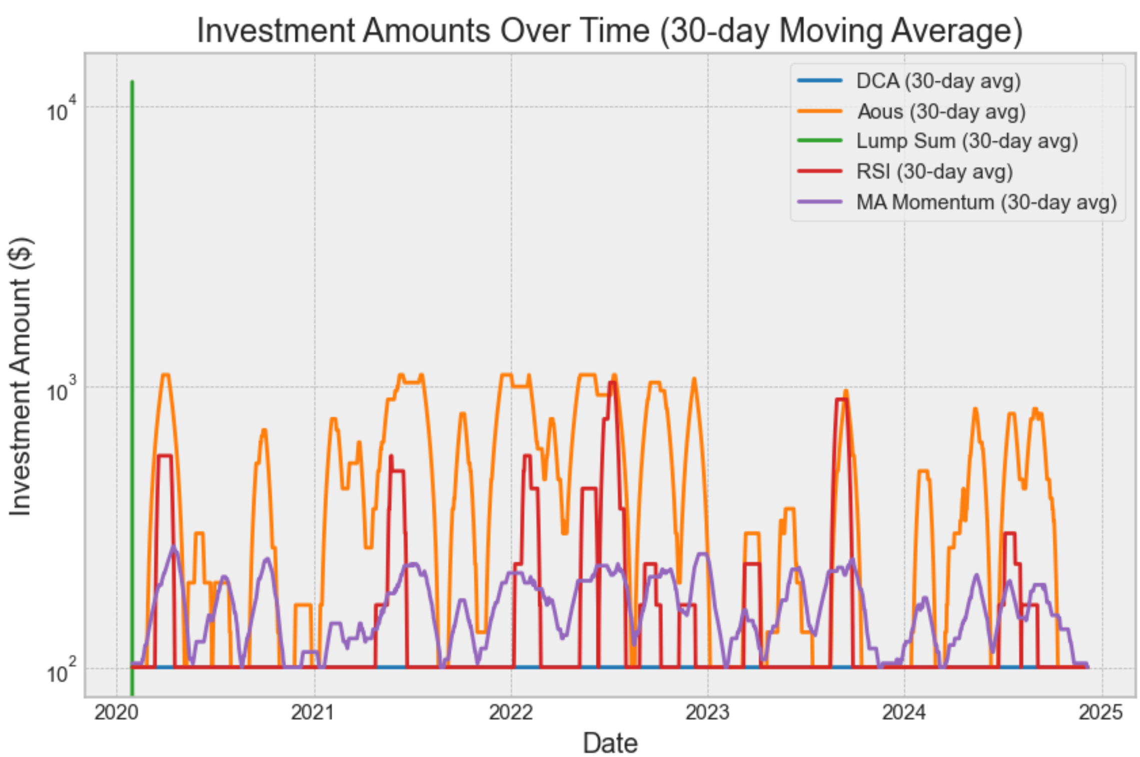
• Base Investment: $50 Performance Metrics: • ROI: 384.83% • Max Drawdown: -63.39% • Sharpe Ratio: 2.11

Strategy Visualizations





Portfolio Drawdowns
Drawdown (%)
0
−10
−20
−30
−40
−50
−60
−70
−80
2020
2021
2022
2023
2024
2025
Date
DCA
Aous
Lump Sum
RSI
MA Momentum



Investment Amounts Over Time (30-day Moving Average)
Investment Amount ($)
10^4
10^3
10^2
2020
2021
2022
2023
2024
2025
Date
DCA (30-day avg)
Aous (30-day avg)
Lump Sum (30-day avg)
RSI (30-day avg)
MA Momentum (30-day avg)