

Strategy Settings Optimization — Executive Summary

Provider: gemini | Model: gemini-2.5-pro | Prompt tokens: 4529 | Output tokens: 1428 | Total: 5957

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This memo outlines targeted adjustments to the "Full Confirmation TK Exit" strategy. The current configuration demonstrates a strong edge (Sharpe Ratio: 2.84) but suffers from an unacceptably high maximum drawdown of 60.28%. The following modifications are designed to significantly reduce this drawdown and improve risk-adjusted returns by addressing issues in signal timing and risk management.

Relax Entry Criteria for Earlier Trend Capture: The core issue is late entries caused by overly strict "full confirmation" requirements. The Chikou Span conditions are the most lagging components, often triggering signals after a trend is mature and vulnerable to reversal.

Recommendation: Remove the ``ChikouAboveCloud`` and ``ChikouAbovePrice`` conditions from the buy logic. This will facilitate earlier entries, improving the potential reward-to-risk ratio and reducing the likelihood of buying into a local top.

Implement Dynamic and Calibrated Risk Controls: The severe drawdown is a direct result of static risk parameters that are misaligned with the market's volatility.

Recommendation 1: Replace the ``fixed`` position sizing method with a ``volatility``-adjusted approach (e.g., ATR-based). This is the most critical change to control drawdown, as it systematically reduces position size during periods of high risk.

Recommendation 2: Widen the ``stop_loss_pct`` from 5.0% to 8.0%. Analysis of the largest losses shows the current stop is too tight, resulting in premature exits from valid positions due to normal price fluctuations.

Adapt Ichimoku Parameters for the Crypto Market: The standard 9/26/52 parameters are optimized for traditional markets. The 24/7 nature of cryptocurrency trading warrants an adjustment to better capture its unique trend cycles.

Recommendation: Transition to a moderately slower set of parameters, such as **10/30/60** (Tenkan/Kijun/Senkou B). This adjustment aims to filter out short-term noise and provide a more stable framework for identifying durable trends.

These focused adjustments collectively aim to transform the strategy into a more robust system by enhancing entry timing and implementing adaptive risk management, thereby preserving its profitability while mitigating its primary weakness of excessive drawdowns.

Recommended setting changes:

- `tenkan_period`: current=9, suggested=10. Minor adjustment to pair with a longer Kijun, aiming to reduce noise while maintaining responsiveness for the primary signal line.
- `kijun_period`: current=26, suggested=30. Adjusts the trend baseline to better reflect a 30-day period, which is more relevant to the 24/7 crypto market than the traditional setting.
- `senkou_b_period`: current=52, suggested=60. Aligns the long-term momentum anchor (Kumo) with a two-month period, providing a more stable trend filter for higher timeframes.
- `chikou_offset`: current=26, suggested=30. Maintains consistency for the lagging span by aligning its offset with the newly suggested Kijun period.
- `senkou_offset`: current=26, suggested=30. Keeps the future Kumo projection consistent with the updated Kijun baseline.
- Signal logic:
 - `buy_logic`: AND -> AND (The AND logic remains appropriate for a confirmation-based strategy, ensuring multiple conditions align before entry.)
 - `sell_logic`: AND -> AND (The exit logic is simple and effective; no change is recommended.)
 - `remove_conditions`: [``ChikouAboveCloud``, ``ChikouAbovePrice``]
- Risk management:
 - `stop_loss_pct`: 5.0 -> 8.0 (The frequency of stop-loss hits among top losers indicates the 5% level is too tight for BTC volatility, causing premature exits. A wider 8% stop provides more room for trades to develop.)
 - `take_profit_pct`: None -> None (A fixed take-profit is inappropriate for this trend-following strategy as it caps upside. The Tenkan/Kijun cross exit signal should remain the primary profit-taking mechanism.)
 - `position_sizing`: fixed -> volatility (The 60.28% max drawdown is a critical issue. Switching to volatility-adjusted position sizing will normalize risk per trade, reducing exposure during volatile periods and smoothing the equity curve.)

Experiments to run:

- Ichimoku Period Optimization: Conduct a walk-forward analysis on crypto-centric Ichimoku periods to confirm optimal settings for the asset and timeframe.
- Kijun-sen Dynamic Stop: Test replacing the fixed percentage stop-loss with a dynamic stop placed below the Kijun-sen to better align exits with the underlying trend structure.