TickFlow Capital

Walk-Forward Validation Worksheet

Tickflow Capital Limited

Systematic Strategy Testing Tracker

v1.0 – April 2026

Cover & Instructions

This worksheet guides you through a systematic walk-forward validation process. Walk-forward testing is essential for confirming that your trading strategy has a real edge and is not a victim of overfitting.

Key Principle: Never optimize on out-of-sample (OOS) data. Always freeze parameters after in-sample (IS) optimization and test on fresh data.

7-Step Implementation Tracker

Use this table to track completion of each phase:

Step	Task	Completed?	Notes / Parameters
1	Choose data window (minimum 3–5 years of daily OHLCV)	☐	Symbol: ______ From: ______ To: ______
2	Define window sizes (e.g., 24mo IS / 12mo OOS)	☐	IS Period: ____ months OOS Period: ____ months
3	Optimize parameters on in-sample period	☐	Optimization Method: ______________
4	Freeze parameters – NO adjustments allowed	☐	Frozen Parameters Documented: ☐ Yes ☐ No
5	Test on out-of-sample period with frozen params	☐	OOS Period Start: _______ End: _______
6	Record metrics (PF, Sharpe, trade count)	☐	See Parameter Drift Log table below
7	Roll forward 1 month, repeat steps 3–6 for all windows	☐	Total Windows Completed: ____ / ____

Parameter Drift Log

Track how your optimal parameters change across successive walk-forward windows. Large parameter drift signals overfitting.

Window	OOS Period	MA Period	RSI Threshold	Volume Filter	Profit Factor	Total Trades	Pass/Fail
1	________	________	________	________	________	________	☐ Pass ☐ Fail
2	________	________	________	________	________	________	☐ Pass ☐ Fail
3	________	________	________	________	________	________	☐ Pass ☐ Fail
4	________	________	________	________	________	________	☐ Pass ☐ Fail
5	________	________	________	________	________	________	☐ Pass ☐ Fail
6	________	________	________	________	________	________	☐ Pass ☐ Fail

Notes on Parameter Drift:

- ✅ **Healthy:** Parameters stable across windows (±5% variation)
- ⚠️ **Concerning:** Parameters drift significantly (>10% variation)

- ❌ **Red Flag:** Parameters change drastically (>20% variation) — likely overfitting

Pass/Fail Criteria

Your strategy must meet ALL of these thresholds on EACH out-of-sample window:

Metric	Pass Threshold	Your Result
Profit Factor (PF)	≥ 1.0	______
Minimum Trades per OOS Window	≥ 20	______
Sharpe Ratio (annualized)	≥ 0.5	______
Win Rate (if available)	≥ 40%	______

Overall Strategy Validation Result

Count how many of your 6 windows passed ALL criteria:

Windows Passed: ____ / 6

Pass Rate: ____ %

Pass Rate	Rating	Recommendation
≥ 75%	✅ **Robust**	Ready for live trading (after additional due diligence)
50–75%	⚠️ **Needs Review**	Investigate failures; consider parameter tuning; test longer periods
< 50%	❌ **Insufficient Edge**	Do NOT trade live; return to research phase

Your Assessment: ________________________

Statistical Tests

Test 1: T-Test (Win Rate Significance)

Determines if your observed win rate is statistically significant (not just luck).

Null Hypothesis: Win rate = 50% (random flips)

Formula:

- Observed win rate: `Wins / Total Trades`
- Standard error: `√(0.5 × 0.5 / Total Trades)`
- t-statistic: `(Observed Win Rate − 0.5) / Standard Error`
- p-value: Look up in t-distribution table or use Excel `=T.DIST.2T(t-stat, df)`

Interpretation:

- $p < 0.05$ → Statistically significant (reject null hypothesis, you have an edge)
- $p \geq 0.05$ → Not statistically significant (edge may be due to luck)

Your Results:

- Total Trades: _______
- Winning Trades: _______
- Win Rate: _______ %
- t-statistic: _______
- p-value: _______
- **Conclusion:** ☐ Significant ☐ Not Significant

Test 2: Monte Carlo Simulation

Shuffles the order of your trades to see if the profit sequence is due to lucky sequencing.

Method: Generate 10,000 random permutations of your trade returns. If your actual cumulative return is in the top 5% (95th percentile), your edge is NOT due to lucky sequencing.

Interpretation:

- Actual Rank > 95th percentile → ✅ Edge is robust to sequencing
- Actual Rank 50–95th percentile → ⚠️ Mild luck factor
- Actual Rank < 50th percentile → ❌ Likely luck-based

Your Results:

- Actual Cumulative Return: _______
- 95th Percentile Threshold: _______
- Percentile Rank: _______ th
- **Conclusion:** ☐ Robust ☐ Moderate Luck ☐ Luck-Based

Test 3: Sharpe Ratio Analysis

Measures risk-adjusted return. Higher is better.

Formula:

- Annualized Return: `Avg Monthly Return × 12`
- Annualized Std Dev: `Monthly Std Dev × √12`
- Sharpe Ratio: `Annualized Return / Annualized Std Dev`

Interpretation:

- Sharpe > 1.0 → ✅ Excellent risk-adjusted return
- Sharpe 0.5–1.0 → ⚠️ Acceptable
- Sharpe < 0.5 → ❌ Poor risk-adjusted return

Your Results:

- Average Monthly Return: _______ %
- Monthly Std Dev: _______ %
- Annualized Return: _______ %
- Annualized Std Dev: _______ %
- Sharpe Ratio: _______
- **Rating:** ☐ Excellent ☐ Acceptable ☐ Poor

Stability Analysis

Parameter Stability Checklist

- [ ] MA Period varies < 5% across windows
- [ ] RSI Threshold varies < 5% across windows
- [ ] Volume Filter varies < 10% across windows
- [ ] Profit Factor remains ≥ 1.0 in all windows
- [ ] No single parameter dominates the strategy (each contributes to score)

Walk-Forward Consistency

Do your results improve consistently as you move through time?

Window	PF	Sharpe	Trades	Trend
1	___	___	___	→
2	___	___	___	→
3	___	___	___	→
4	___	___	___	→
5	___	___	___	→
6	___	___	___	→

Analysis: Are results consistent across time, or are there unexplained fluctuations?

Final Validation Rubric

Criterion	Weight	Score (0–10)	Weighted
Walk-Forward Pass Rate (75%+ = 10)	40%	___	___
Parameter Stability (low drift = 10)	30%	___	___
Statistical Significance ($p < 0.05$ = 10)	20%	___	___
Sharpe Ratio (> 1.0 = 10)	10%	___	___
		TOTAL SCORE:	___ / 10

Final Decision:

- Score ≥ 8/10 → ✅ **APPROVED FOR LIVE TRADING**
- Score 6–8/10 → ⚠️ **APPROVED WITH CAUTION** (increase position sizing slowly)
- Score < 6/10 → ❌ **NOT APPROVED** (return to research)

Sign-Off

Strategy Name: ___________________________

Analyst Name: ___________________________ **Date:** ________

Reviewed By: ___________________________ **Date:** ________

Approval Status: ☐ Approved ☐ Conditional ☐ Rejected

Comments:

References & Further Reading

1. **Pardo, R. (2008).** *The Evaluation and Optimization of Trading Strategies* — Comprehensive guide to walk-forward testing
2. **Kaufman, P. J. (2013).** *New Trading Systems and Methods* — Covers overfitting detection
3. **De Prado, M. L. (2018).** *Advances in Financial Machine Learning* — Advanced validation techniques

---

TFC

TickFlow Capital

Website: tickflowcapital.com

Version: v1.0 – April 2026

Disclaimer: This guide is provided for educational purposes. Always test on a demo account first. The kill switch is a safety mechanism but is not a substitute for careful risk management.