Adaptive Rotation Blueprint©

This report provides a complete overview of a model portfolio developed by Tirmann. It is designed to help prospective users assess the structure, performance, and risk profile of a fully automated trading system built from validated algorithmic strategies.

Each strategy included in this portfolio has undergone extensive historical testing and is selected based on its unique market behavior, contribution to diversification, and long-term resilience.

This document does not constitute investment advice. Its purpose is to present transparent, data-driven information so that clients can make an informed decision regarding the adoption of this portfolio within their own trading setup.

Gold futures **Crude Oil futures** **S&P500 futures**

Each system is built using robust research methodologies, including walk-forward optimization, dynamic parameter adjustment, and strict out-of-sample validation. This process is designed to mitigate overfitting and ensure that each strategy is capable of adapting to evolving market conditions with structural integrity.

Quantitative strategies are not static tools. They are dynamic systems whose performance is influenced by the ever-evolving nature of financial markets. Just as markets go through distinct regimes. Strategies have their own performance cycles. A model that excels during one regime may underperform in another. For this reason, strategy rotation is a critical component of the portfolio management process.

At Tirmann, we implement a structured, data-driven rotation mechanism, reviewed monthly, to ensure that each portfolio remains aligned with current market conditions and continues to deliver on its objectives. This process is governed by a blend of quantitative performance metrics, risk thresholds, and market regime detection tools.

This rotation process is rules-based and driven by objective performance thresholds, ensuring transparency and consistency. Strategies may be reintroduced once they realign with market conditions and regain stability. This disciplined approach keeps portfolios both diversified and adaptive, responding effectively to market shifts and internal performance dynamics.

- **Transparency**
- **Measurable**
- **Auditability**

Objectives of strategies rotation

Mitigate prolonged drawdowns

By rotating out strategies that exhibit structural underperformance or increased volatility, we help protect the overall portfolio from extended capital erosion.

Preserve alignment with market regimes

Strategies are continuously monitored to ensure they remain well-fitted to the prevailing market environment (e.g. high volatility, range-bound periods).

Capture strategy momentum

Just like assets, strategies can exhibit temporary momentum. Our rotation process seeks to capitalize on models in their outperforming phase, while pausing those that are temporarily out of sync.

Extend lifecycle and reduce decay

Even high-performing strategies can suffer from overexposure or statistical degradation. By rotating them out when appropriate, we preserve their long-term efficacy and delay obsolescence.

Each component of your portfolio is independently selected, validated, and monitored. This section provides a detailed view of every strategy currently included. Offering full transparency on their design, historical behavior, and role within the broader system.

By understanding the characteristics and performance of each individual model, you gain deeper insight into how they contribute to overall portfolio balance, risk distribution, and long-term consistency.

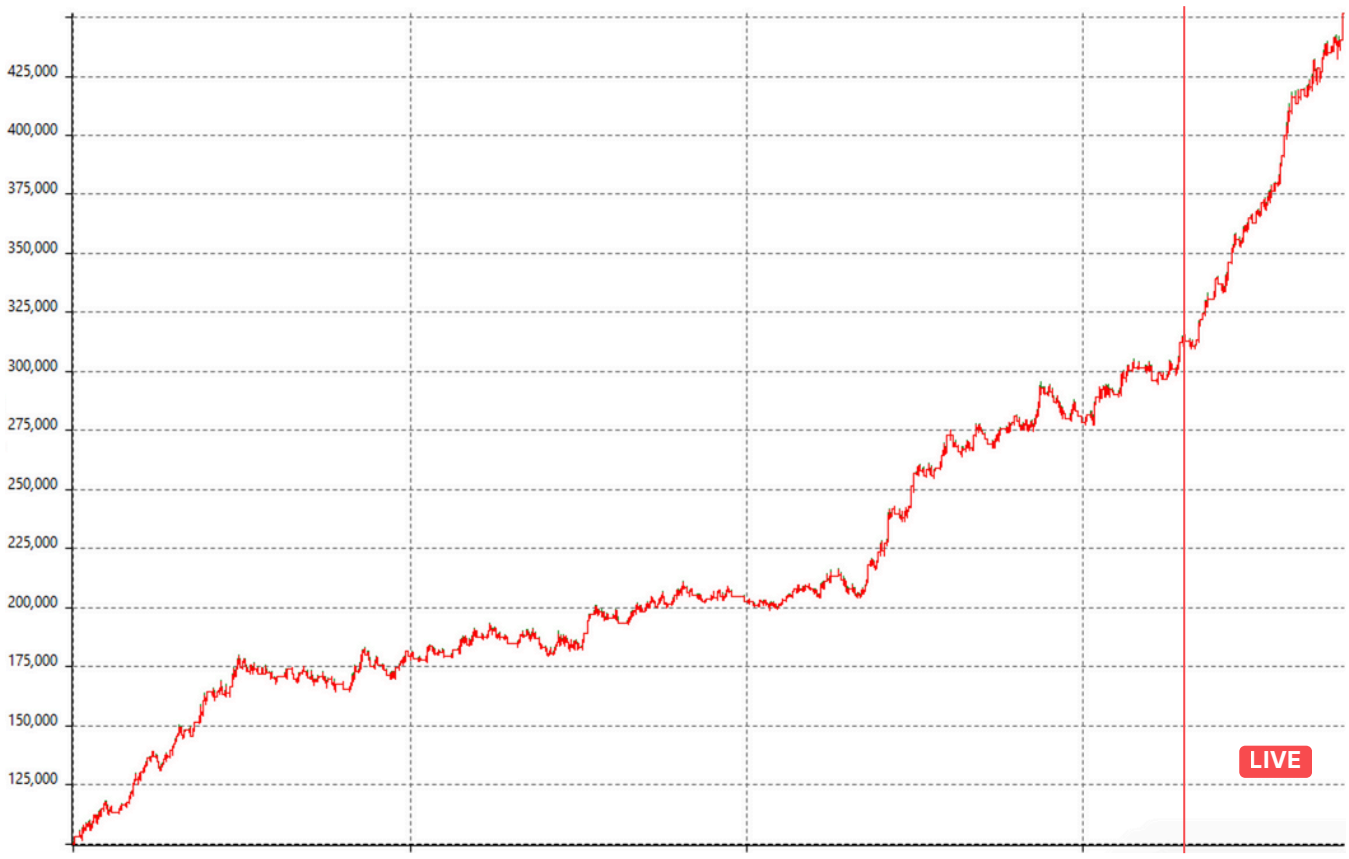
Gold futures strategy

A43-@GC-30'

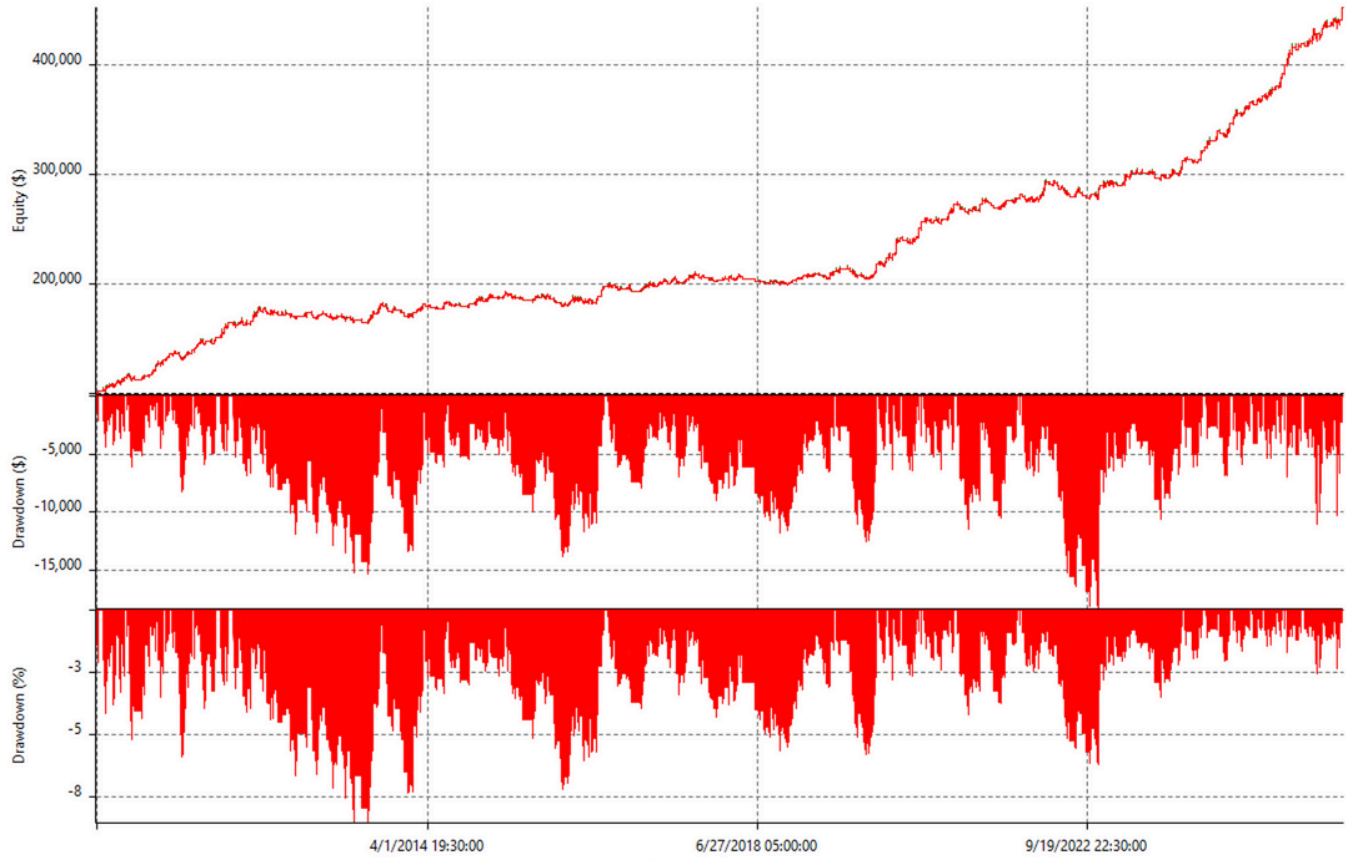
Net profit	349 320,00$
Max strategy drawdown	(18 360,00$)
Max # contracts held	1
Max close to close drawdown	(15 780,00$)
Return on max strategy drawdown	19,15
Total # of trades	601
Percent profitable	55,91%
Average trade	585,06$
Average winning trade	2 353,33$
Average losing trade	(2 005,02$)
Percent in the market	36,33%
Average # trades per month (last 8 months)	7,63
Last 8 months performance ($)	41 300$

05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
3300	5600	1500	7600	7600	2000	2000	11700

Equity curve detailed



Equity curve detailed with drawdown



Equity curve close to close

Buy and hold comparison

Stop loss	(2 300$)
Break-even	2 300$
Take profit	2 800$
Developed from	01-01-2010
Developed to	31-12-2023
Out-of-sample validation	✓
Stress-testing validation	✓
Effectiveness of optimizations post-validation	✓

Strategy description

This strategy is built on daily price levels and their structural behavior. It initiates long positions when price holds above an extreme daily level for three consecutive periods, demonstrating acceptance and strength above this key reference. The strategy enters the market via a buy stop order placed at the current session high, ensuring participation only upon confirmed bullish continuation, with risk strictly defined at entry.

A dedicated time window is applied to exclude overnight market noise, ensuring that only meaningful intraday dynamics are traded. In addition, a structural trend filter is enforced: the strategy avoids entries if the market has posted four consecutive bullish sessions, preventing participation in late-stage, exhausted trends.

Risk management is intentionally tight. Stops and break-even rules are short, and the take-profit target remains deliberately close. The objective is not to capture extended trends, but to exploit short, sharp market impulses with a high probability of follow-through.

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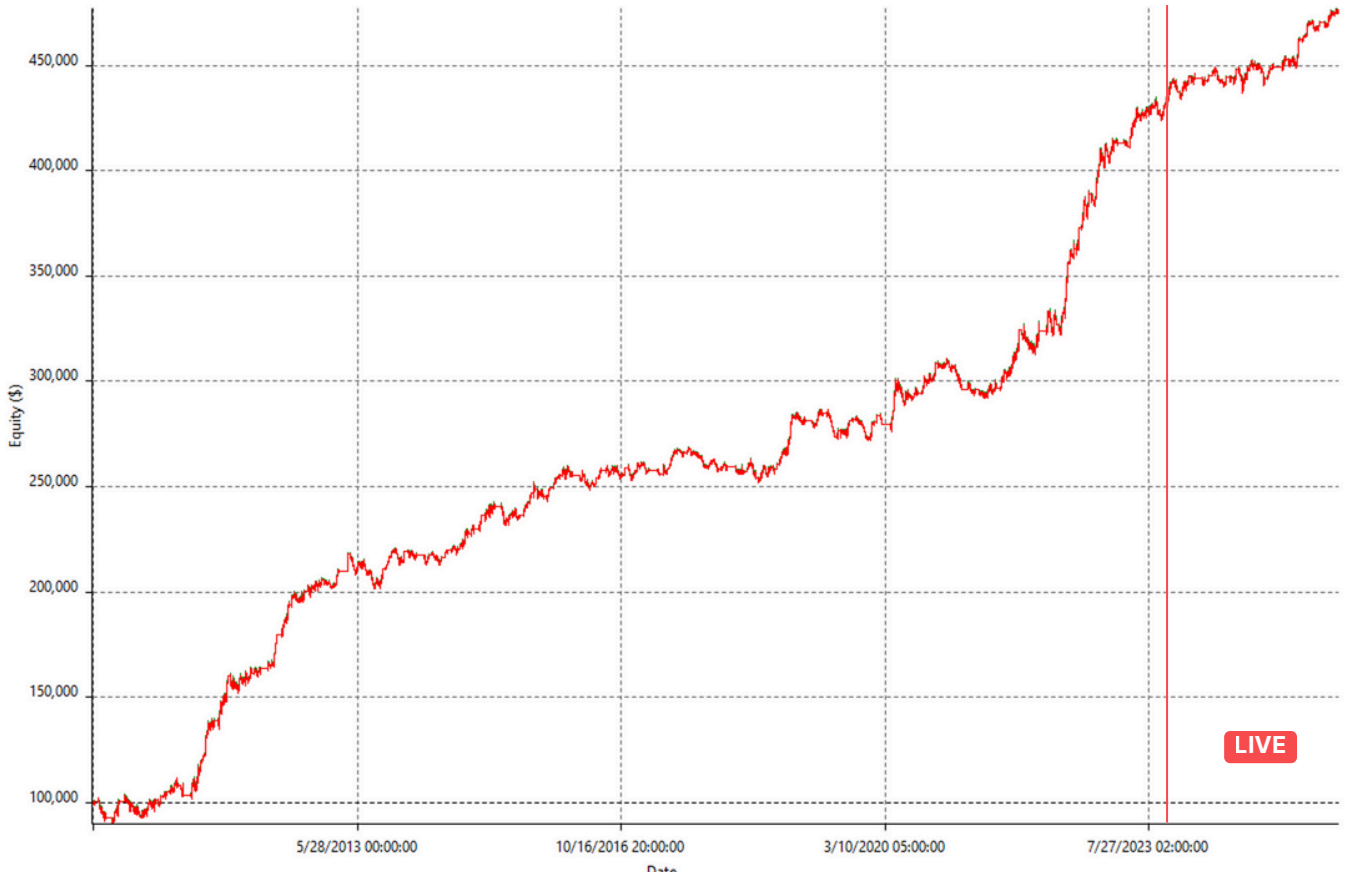
Crude oil futures strategy

A59-@CL-60

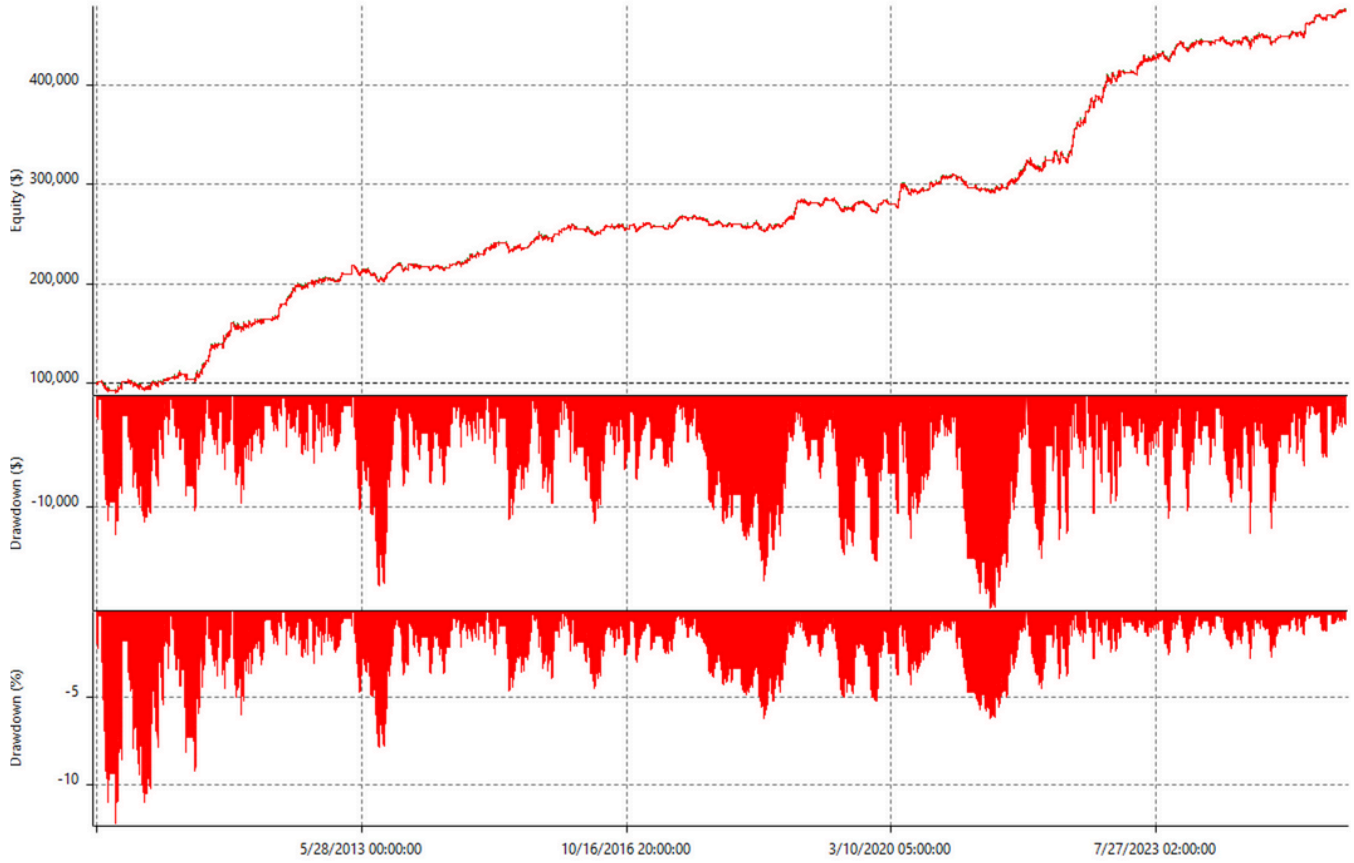
Net profit	374 710,00$
Max strategy drawdown	(19 130,00$)
Max # contracts held	1
Max close to close drawdown	(16 650,00$)
Return on max strategy drawdown	19,59
Total # of trades	803
Percent profitable	56,41%
Average trade	465,12$
Average winning trade	2 057,66$
Average losing trade	(1 596,09$)
Percent in the market	52,14%
Average # trades per month (last 8 months)	5,37
Last 8 months performance ($)	19 900$

05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
-410	9280	-790	7340	-4110	2840	5070	680

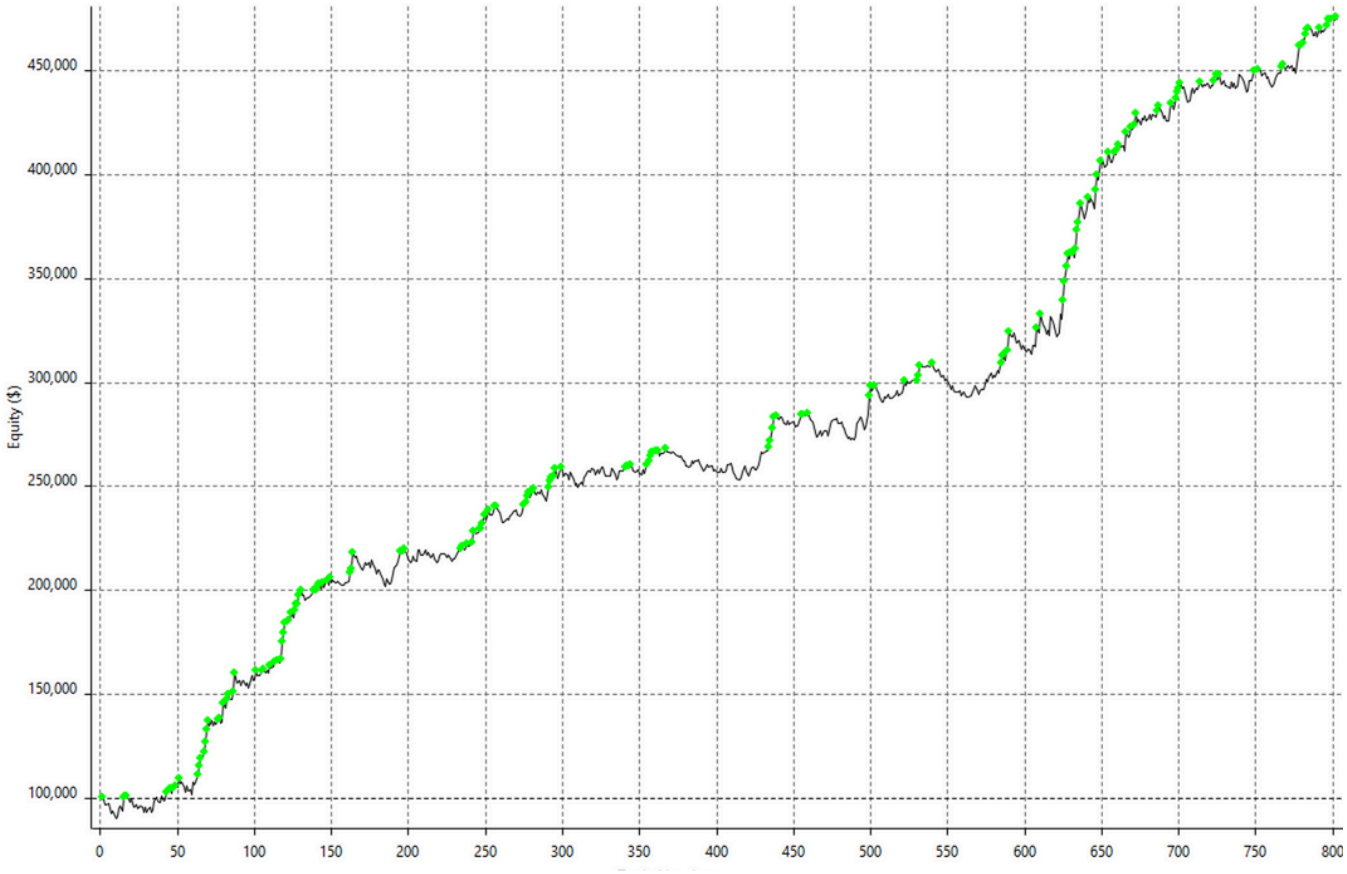
Equity curve detailed



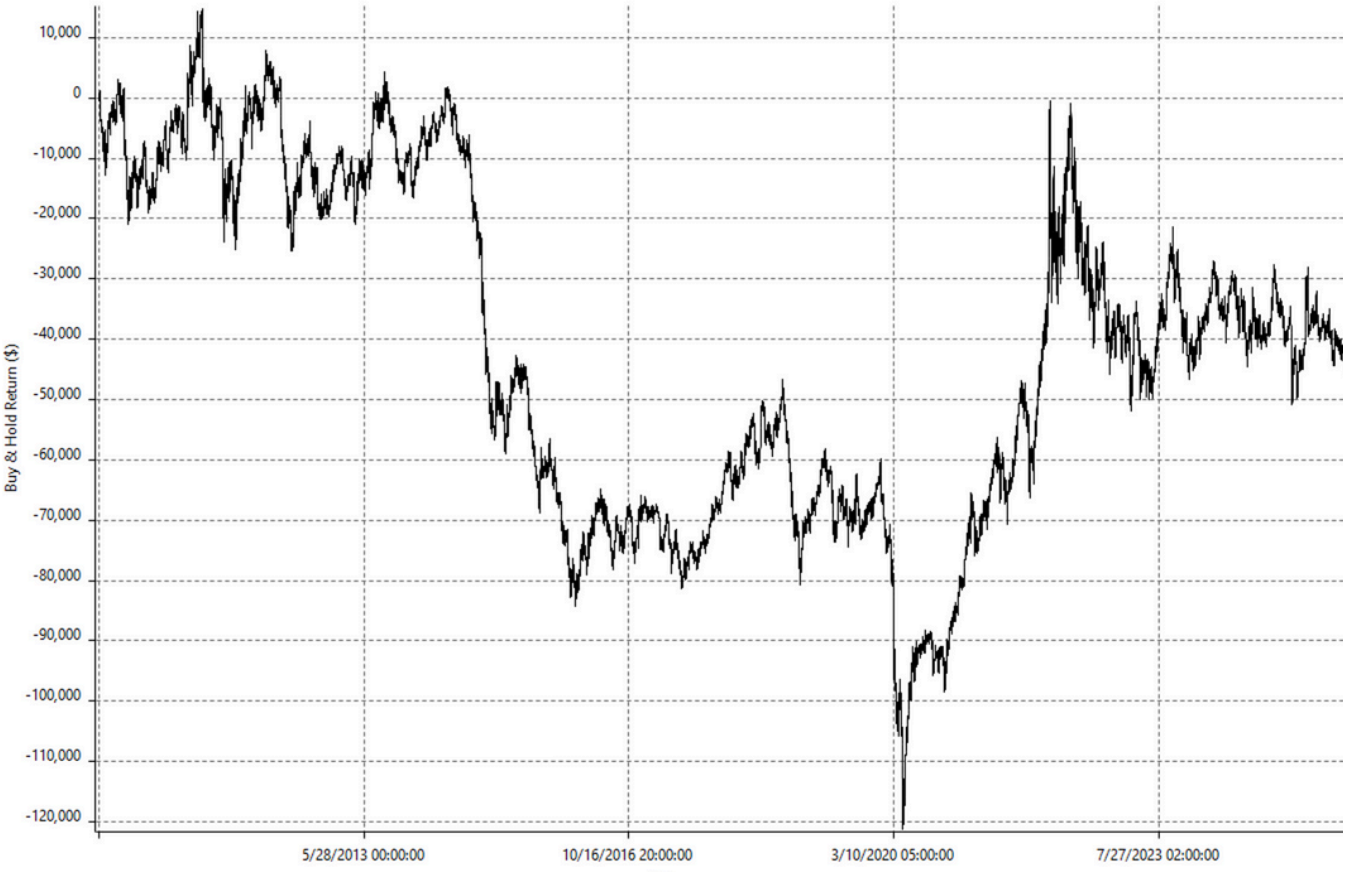
Equity curve detailed with drawdown



Equity curve close to close



Buy and hold comparison



Stop loss	(2 400$)
Break-even	N/A
Take profit	9 000$
Developed from	01-01-2010
Developed to	31-12-2023
Out-of-sample validation	✓
Stress-testing validation	✓
Effectiveness of optimizations post-validation	✓

Strategy description

Trading is disabled in March and allowed between 3:00 AM and 9:00 PM. This strategy uses Bollinger Bands to detect market extremes.

For the short side, a sell short order is triggered when a candle closes completely above the upper band, signaling a buying excess. Two invalidating patterns filter entries: a degree-2 bullish engulfing and a strong 3-day volatility compression.

For the long side, no position inversion is allowed. A long entry occurs only if no short position is open and the previous short trade was losing. The entry is then triggered by a precise bullish recovery signal: the previous close is below the lower band, and the current close moves above it, signaling reintegration of the band and the start of an upward move. This logic helps recover losses from short trades when the market becomes too bullish.

The intelligent exit, only for the short side, is activated if the current candle's high equals the weekly high and the close is below it, indicating a rejection of the weekly high; in this case, the position is closed (buy to cover). Positions are automatically closed after few bars. Stop-loss is $2,400 and take-profit is $9,000.

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By understanding the characteristics and performance of each individual model, you gain deeper insight into how they contribute to overall portfolio balance, risk distribution, and long-term consistency.

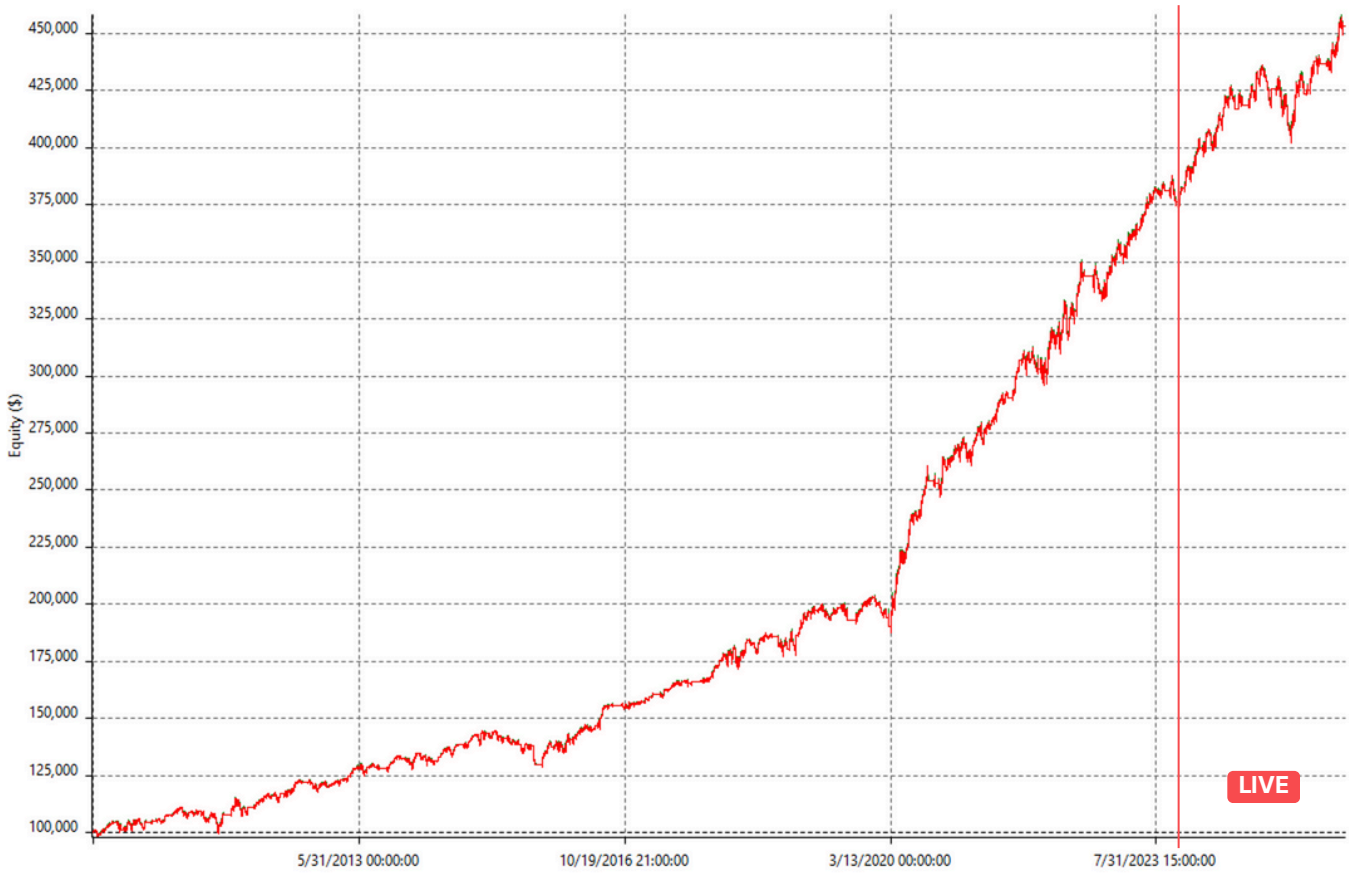
S&P500 futures strategy

A58-@ES-60'

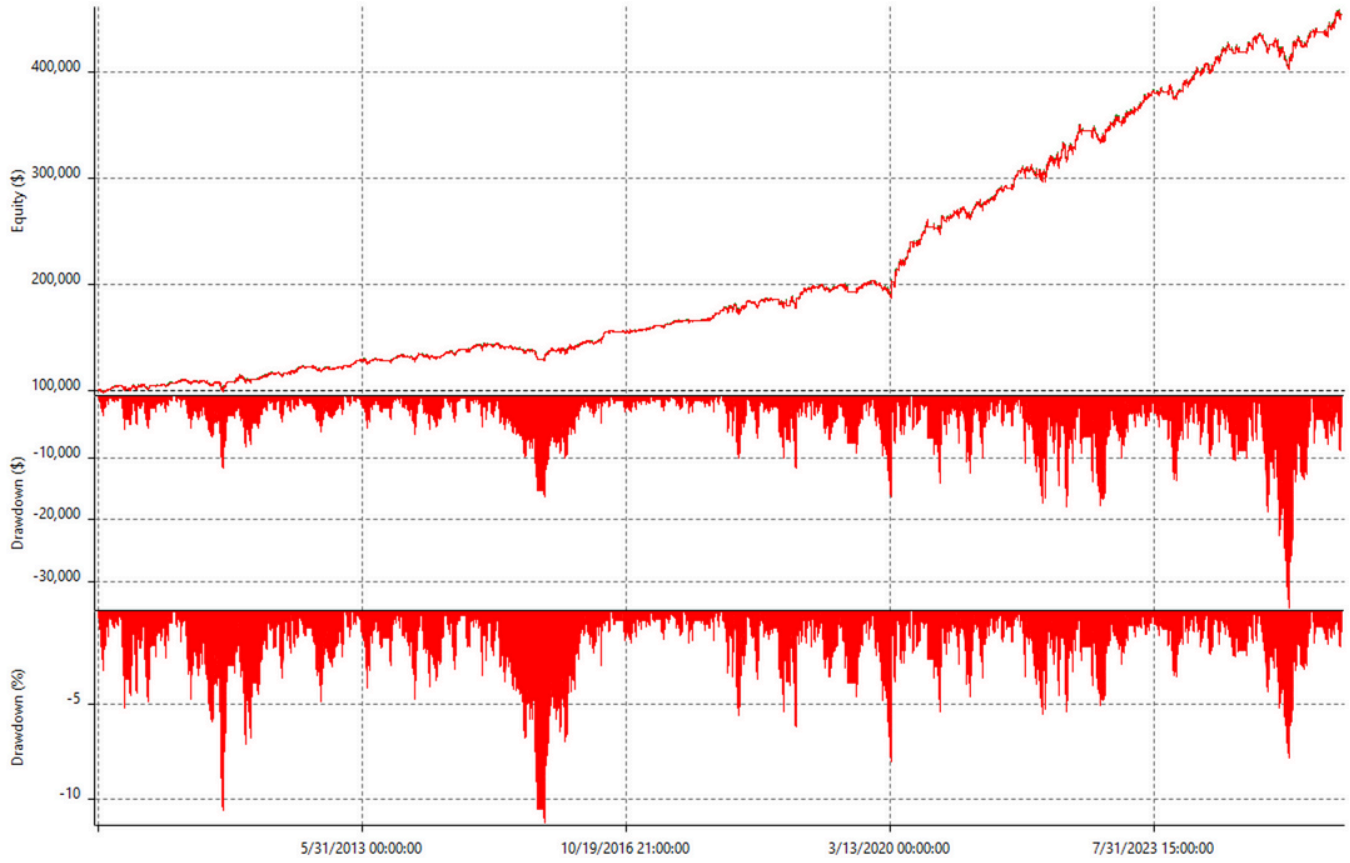
Net profit	352 950,00$
Max strategy drawdown	(34 175,00$)
Max # contracts held	1
Max close to close drawdown	(31 900,00$)
Return on max strategy drawdown	10,33
Total # of trades	745
Percent profitable	55,44%
Average trade	473,76$
Average winning trade	2 300,79$
Average losing trade	(1 799,02$)
Percent in the market	55,11%
Average # trades per month (last 8 months)	6,37
Last 8 months performance ($)	41 400$

05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
15200	-3300	11950	3325	-2100	5237,5	5412,5	5675

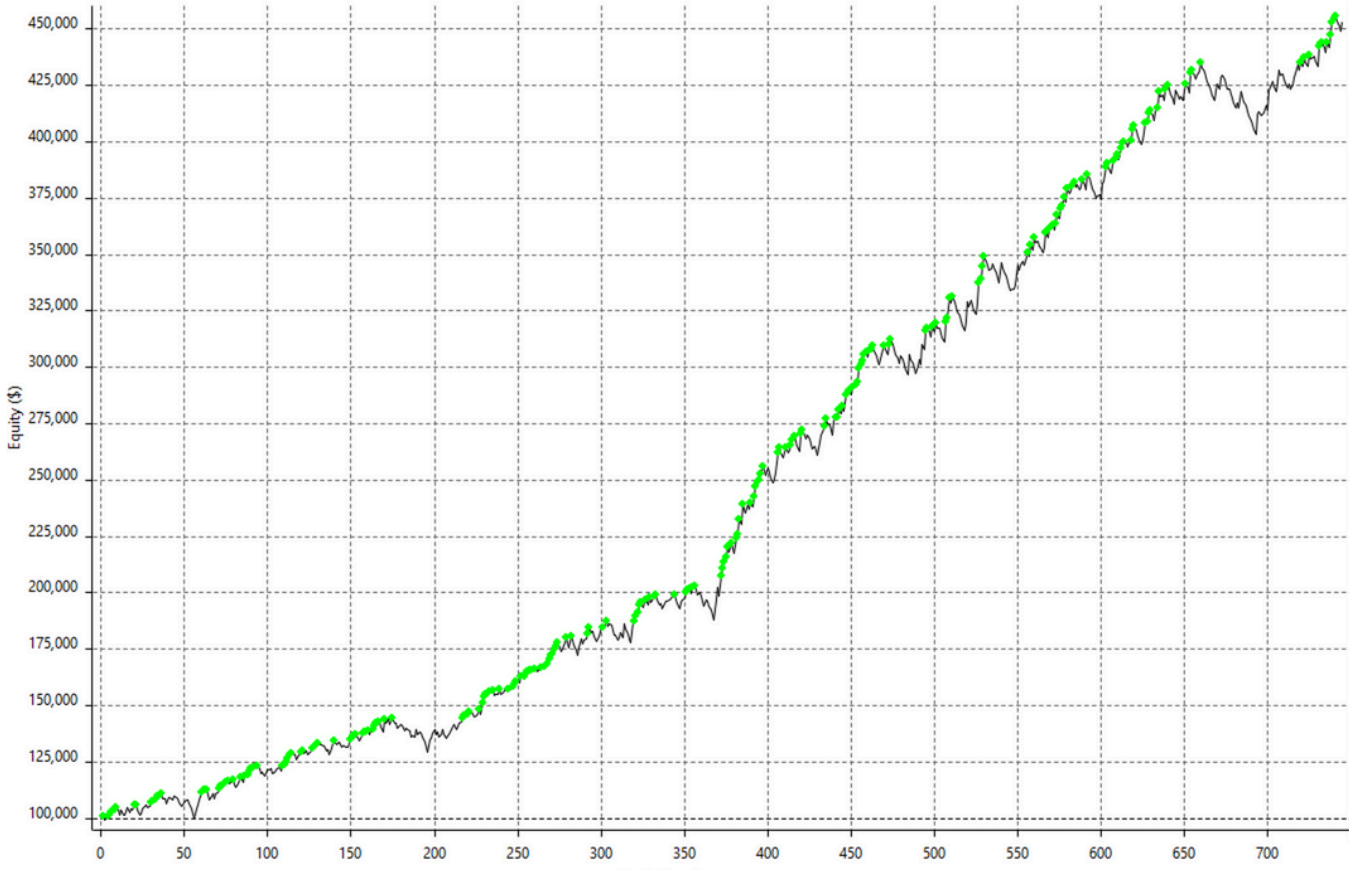
Equity curve detailed



Equity curve detailed with drawdown



Equity curve close to close



Buy and hold comparison

Stop loss	(2 100$)
Break-even	6 000$
Take profit	8 900$
Developed from	01-01-2010
Developed to	31-12-2023
Out-of-sample validation	✓
Stress-testing validation	✓
Effectiveness of optimizations post-validation	✓

Strategy description

Trading is disabled in September and also between 2:00 AM and 4:00 AM to avoid low-volatility periods. This strategy identifies extreme intraday moves by comparing the current candle to the previous one. A market buy order is triggered if the current candle's high exceeds the previous high, the low is below the previous low, and the close is under the previous candle's low. The goal is to capture a rebound following a bearish excess, entering when the price clearly rejects the support formed by the previous candle.

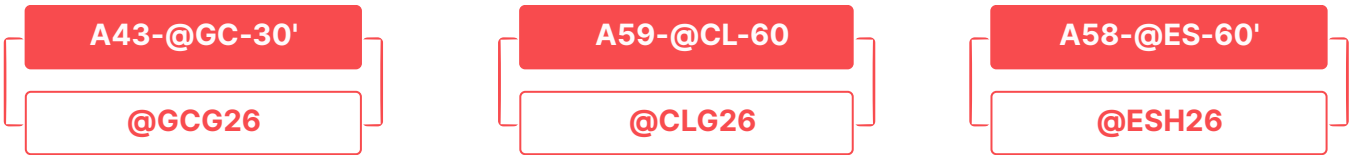
A filter condition prevents entries when the previous candle's body represents more than 90 % of its total range, which may indicate an already saturated move.

Intelligent exit occurs if the unrealized gain exceeds $500 and the price is rejected by pivot point R1. Otherwise, the position is automatically closed after few bars. The stop-loss is set at $2,100, the take-profit at $8,900, and the break-even at $6,000.

This section presents the consolidated view of the portfolio, detailing how the selected strategies interact and contribute to overall performance. By combining uncorrelated systems, the portfolio aims to maximize risk-adjusted returns while maintaining structural resilience across varying market conditions.

Each strategy has been selected based on strict performance, stability, and diversification criteria. The following metrics illustrate the behavior of the portfolio as a whole, including drawdown characteristics, volatility, correlation, and cumulative returns. Offering a comprehensive understanding of its historical robustness and adaptability.

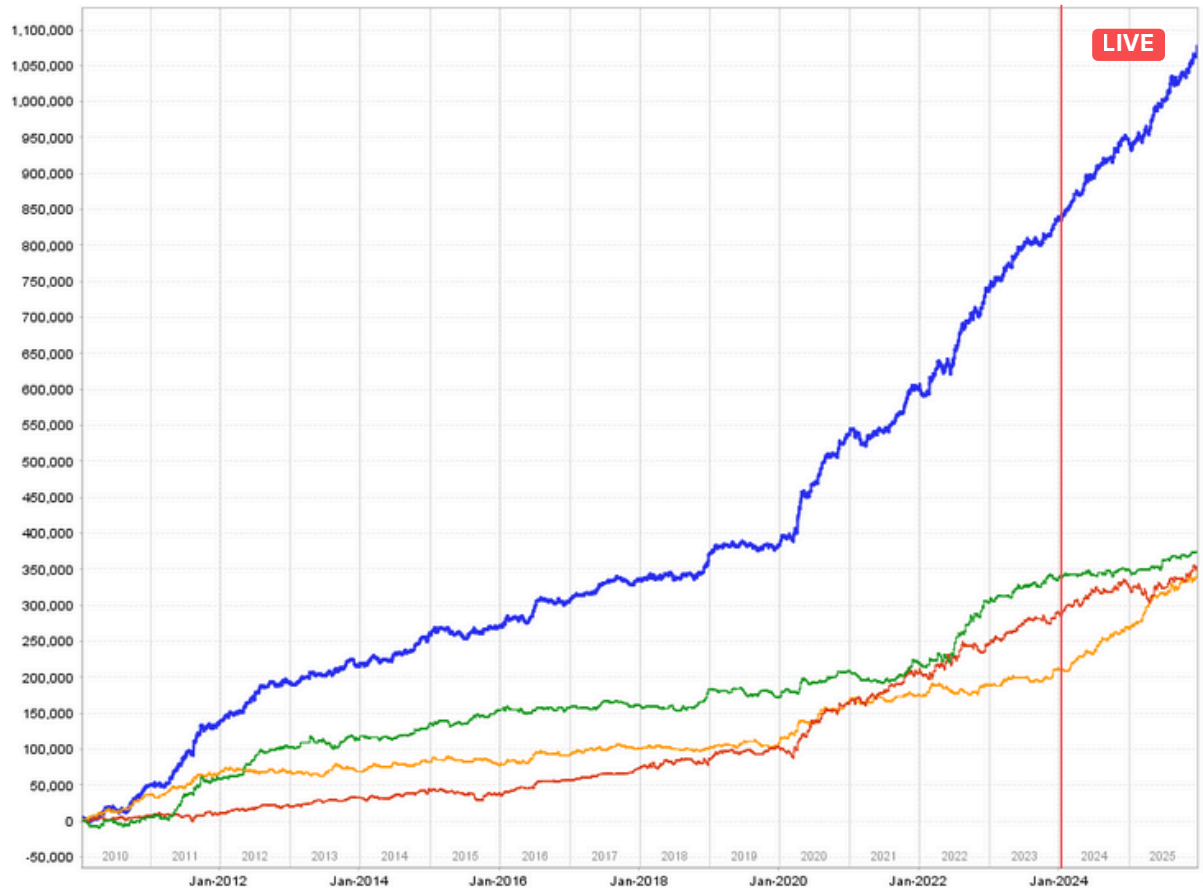
Complete portfolio overview



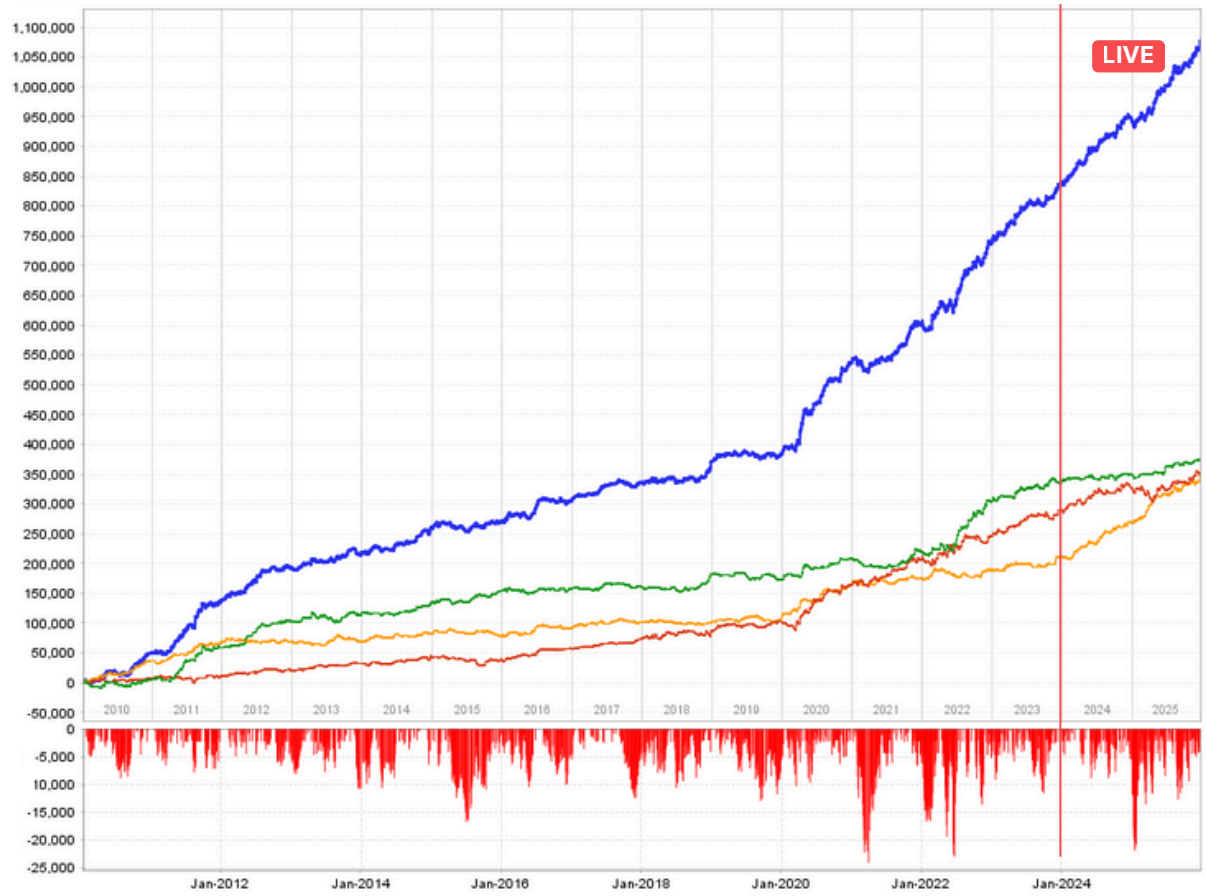
Net profit	1 075 760,00$
Max portfolio drawdown	(24 117,5$)
Return on max portfolio drawdown	44,6
Total # trades	2150
Percent profitable	55,91%
Average trade	500,35$
Average winning trade	2 223,85$
Average losing trade	(1 684,92$)
Last 8 months performance ($)	102 600,00$

05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
18090	11580	12660	18265	1390	10077,5	12482,5	18055

Equity curve detailed

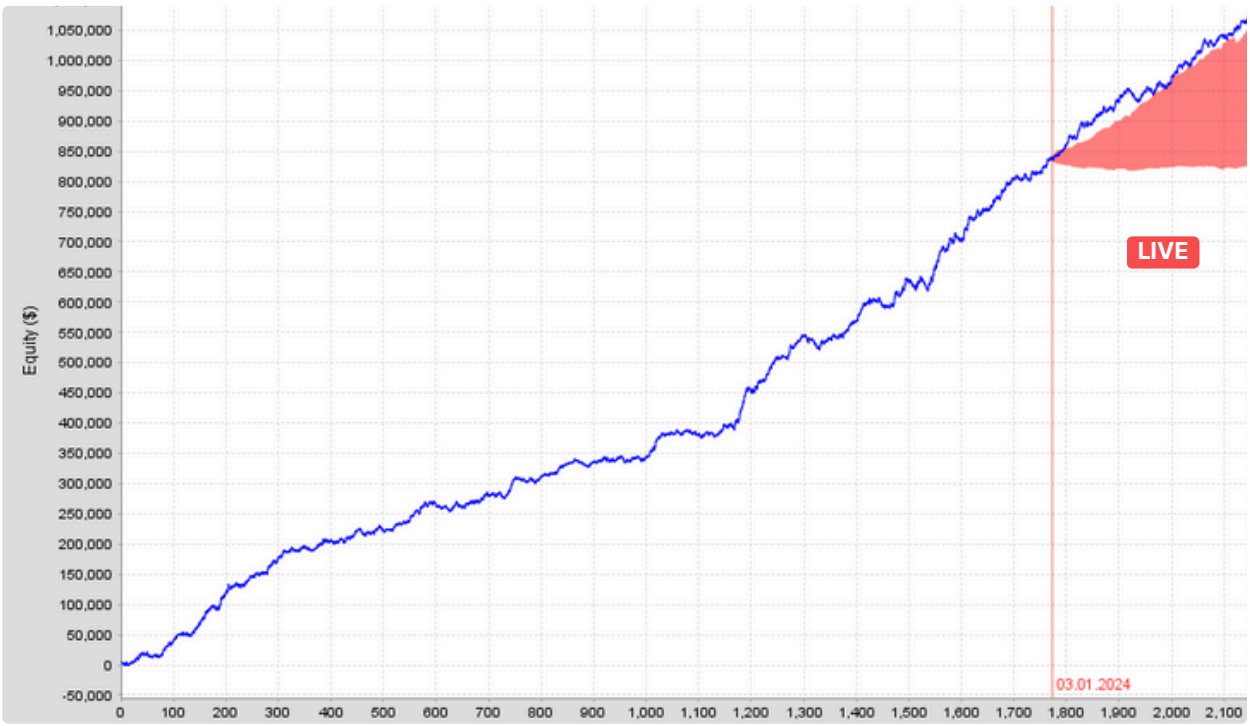


Equity curve with drawdown



Predict and verify curve

10,000 simulations | 5% trades skipped



Monte-carlo confidence levels

10,000 simulations | 5% trades skipped

Confidence level	Net Profit	% Net Profit	Number of tr...	Max DD	Max % DD	Ret/DD	R Exp	AR %	Consecutive Losi
Original	$ 1075760	358.59 %	2150.0	$ 24117.5	2.93 %	44.6	0.3 R	22.42 %	9
50	$ 942742.49	314.25 %	2043.0	$ 50804.49	5.38 %	18.54	0.29 R	20.68 %	9
60	$ 925032.19	308.34 %	2043.0	$ 55224.78	5.72 %	17.04	0.28 R	20.29 %	9
70	$ 905941.82	301.98 %	2043.0	$ 60553.07	6.11 %	15.54	0.27 R	19.87 %	9
80	$ 883378.77	294.46 %	2043.0	$ 67137.19	6.67 %	14.02	0.27 R	19.39 %	10
90	$ 853924.13	284.64 %	2043.0	$ 78742.21	7.51 %	11.94	0.25 R	18.75 %	11
92	$ 844742.98	281.58 %	2043.0	$ 82691.86	7.81 %	11.39	0.25 R	18.55 %	11
95	$ 828764.76	276.25 %	2043.0	$ 89878.33	8.35 %	10.44	0.24 R	18.2 %	12
97	$ 811749.69	270.58 %	2043.0	$ 99083.44	8.95 %	9.48	0.24 R	17.82 %	12
98	$ 801653.48	267.22 %	2043.0	$ 106315.19	9.44 %	8.88	0.23 R	17.6 %	13
99	$ 781048.76	260.35 %	2043.0	$ 116648.26	10.19 %	8.15	0.23 R	17.18 %	14
100	$ 690473.79	230.16 %	2043.0	$ 177793.88	15.26 %	5.49	0.18 R	15.16 %	21

Monte Carlo simulations allow us to evaluate the resilience of each strategy under thousands of randomized trade sequences. By reshuffling returns, skipping 5% of trades to simulate execution friction, and generating 10,000 alternate performance paths, we can measure how the algorithm behaves under conditions that no backtest alone can reveal.

Robustness under uncertainty

The simulations show how the strategy behaves when market conditions, trade order, or volatility deviate from history. A model that holds up across thousands of randomized paths is inherently more resilient and less exposed to curve-fitting.

Statistical confidence levels

The confidence intervals highlight the realistic dispersion of outcomes. Instead of relying on a single historical equity curve, you receive a probabilistic view of returns, drawdowns, and risk-adjusted performance.

Portfolio correlation

	@CL A59-@...	@ESH26 A58...	@GC A43-@...
@CL A59-@...		-0.06	-0.04
@ESH26 A58...	-0.06		-0.02
@GC A43-@...	-0.04	-0.02	

< 0.4 Moderate 0.4 - 0.7 Moderate high 0.7 - 1.0 high

Lower correlation = better diversification

Higher correlation = worse diversification

Drawdown | strategy 1	(15 780,00$)
Drawdown | strategy 2	(16 650,00$)
Drawdown | strategy 3	(31 900,00$)
Drawdown | Portfolio	(24 117,5$)
Portfolio diversification & synergy validation	✓

Summary of portfolio risk and diversification

Synergy ratio (must be < 1)	0,756034
Risk reduction through portfolio diversification	24,40%

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2025	2685	6502.5	14712.5	7735	18090	11580	12660	18265	1390	10077.5	12482.5	18055	134235
2024	2252.5	11727.5	19925	-2877.5	17822.5	4162.5	17720	6385	5260	7880	18290	-7297.5	101250
2023	10292.5	5762.5	15700	917.5	23597.5	5555	7500	4687.5	-10450	12692.5	9705	17137.5	103097.5
2022	-7762.5	23420	11687.5	3312.5	6080	-3137.5	42002.5	11870	17110	2760	12775	16175	136292.5
2021	-2252.5	-4682.5	-2785	9910	7170	-4307.5	7977.5	11940	5770	22612.5	15300	-2757.5	63895
2020	10500	1425	8112.5	54512.5	-3597.5	13022.5	15202.5	26132.5	-960	-2052.5	18390	13287.5	153975
2019	12605	-342.5	2025	2132.5	-3892.5	4977.5	-3550	-3830	-2120	6542.5	-4465	2695	12777.5
2018	3992.5	752.5	-745	12.5	2697.5	-5587.5	1602.5	5195	-297.5	1030	2590	24225	35467.5
2017	9250	1005	2152.5	1215	5585	7057.5	2582.5	3960	-1860	-4552.5	-3225	6850	30020
2016	2862.5	7857.5	1332.5	222.5	-6285	14997.5	15462.5	-530	-1670	-1222.5	-3892.5	4550	33685
2015	7507.5	440	-1390	-6677.5	1180	-8432.5	7210	3867.5	-4400	6190	575	3757.5	9827.5
2014	5230	6280	485	-2205	-2180	9247.5	1112.5	3202.5	-30	10535	9065	5967.5	46710
2013	-1910	8235	2022.5	7087.5	-2662.5	-2830	5210	4655	1982.5	8407.5	1222.5	-8747.5	22672.5
2012	10120	3037.5	2275	-880	13680	4357.5	19422.5	-1900	6450	-4990	7180	-3562.5	55190
2011	-780	1955	1450	11242.5	15587.5	8487.5	8455	18150	18420	-160	230	3797.5	86835
2010	2787.5	-1085	1505	6832.5	9557.5	-3882.5	-322.5	-3212.5	12627.5	11595	5690	7737.5	49830

LIVE

How do you select the strategies you offer each month?

We always start with a clear, scientifically tested quantitative hypothesis. Our strategies undergo stress testing, out-of-sample validation, and walk-forward validation. Only the most robust ones are integrated into our portfolios.

Why are some strategies retained and others set aside?

We prioritize robustness and repeatability. From dozens of models, only those suited to the current market are selected. They are then combined to maximize decorrelation and create a portfolio with strong synergy.

Why not stick to just one successful strategy?

Because no model can withstand market cycles forever. Our approach is based on diversification and rotation: exploiting what works now, pausing what's running out of steam.

What is strategy rotation?

Each month, we analyze the performance and relevance of our models. Those that demonstrate consistent momentum are activated, while those that become unsuitable are put on hold. This allows us to stay aligned with market cycles without experiencing long drawdowns.

How do you ensure that your models are not over-optimized?

Our strategies are validated through out-of-sample testing, walk-forward testing, and stress testing under extreme conditions. The goal is not to outperform in backtesting, but to be robust in real-world situations.

What does “skin-in-the-game” mean at Tirmann?

We commit our own capital to the same strategies we offer our clients. This ensures a complete alignment of interests: we face the same risks and benefit from the same opportunities.

Do you still use the same markets and underlying assets?

We work exclusively on futures, with monthly or quarterly rotations depending on the market. These transactions are explained and supported to empower the client.

What do I need to do to put a strategy live?

We provide clear guides and comprehensive support (MultiCharts installation, VPS creation, rollovers). You retain final control, but we assist you every step of the way.

What happens if a strategy has several consecutive losses?

Each strategy incorporates controlled risk from the outset: stop-loss, take-profit, capital management, and extreme stress tests. Once deployed in real-life situations, the model is not altered, even in the event of losses. Discipline ensures robustness: any adjustments are only made during the monthly rotation, never by interrupting an ongoing strategy.

Why choose Tirmann rather than a supplier of isolated algorithms?

Because we don't deliver fixed code, but a living, monitored, and evolving architecture. We build a sustainable, transparent, and collaborative performance framework, with ongoing support.

How can I review the basics of using the software?

All the basics are available in your customer area in the form of instructional videos. They cover each step: installation, configuration, strategy launch, and operational monitoring. These materials are designed to be consulted at any time, so you can refresh your knowledge without relying on our support.

Am I left on my own after setup ?

Never. Our support is continuous, expert, and available 7 days a week. You'll also receive monthly updates to ensure your system keeps performing at its best

What capital is needed ?

The minimum capital required is $20,000. This threshold ensures that our users can achieve meaningful profitability while fully benefiting from the quality and scope of our services.

Do you manage my money ?

No. You retain full control. We design and support the algorithmic architecture, not your capital.

What if I don't have enough capital for a standard contract ?

Our algorithms are designed for futures. You can trade micro contracts simply by dividing the displayed results by 10. The algorithm automatically adapts to the contract size, ensuring the same logic and performance whether you trade micro or standard contracts.