

# Adaptive Rotation Blueprint<sup>©</sup>

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

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.

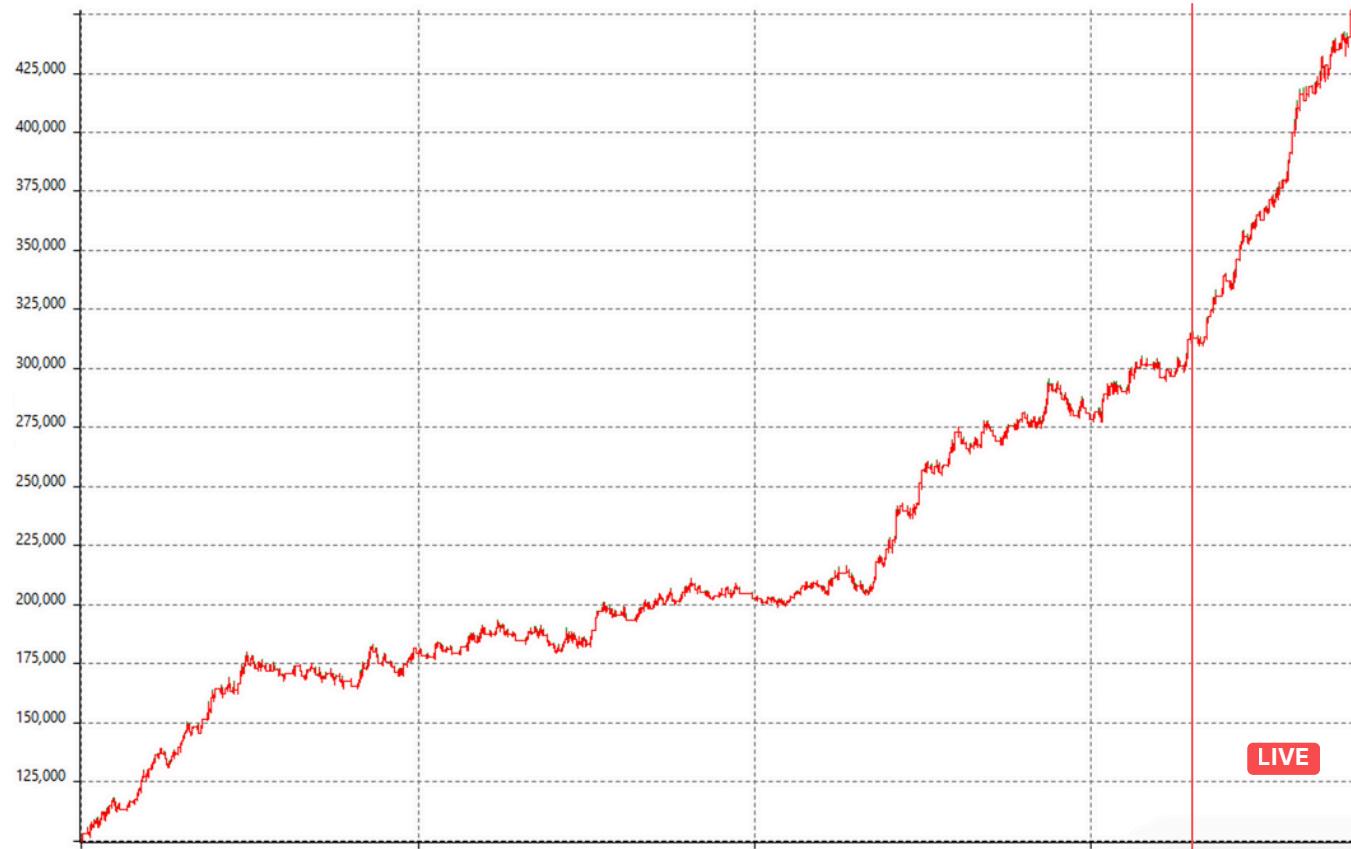
By understanding the characteristics and performance of each individual model, you gain deeper insight into how they contribute to overall portfolio balance, risk distribution, and long-term consistency.

### Gold futures strategy

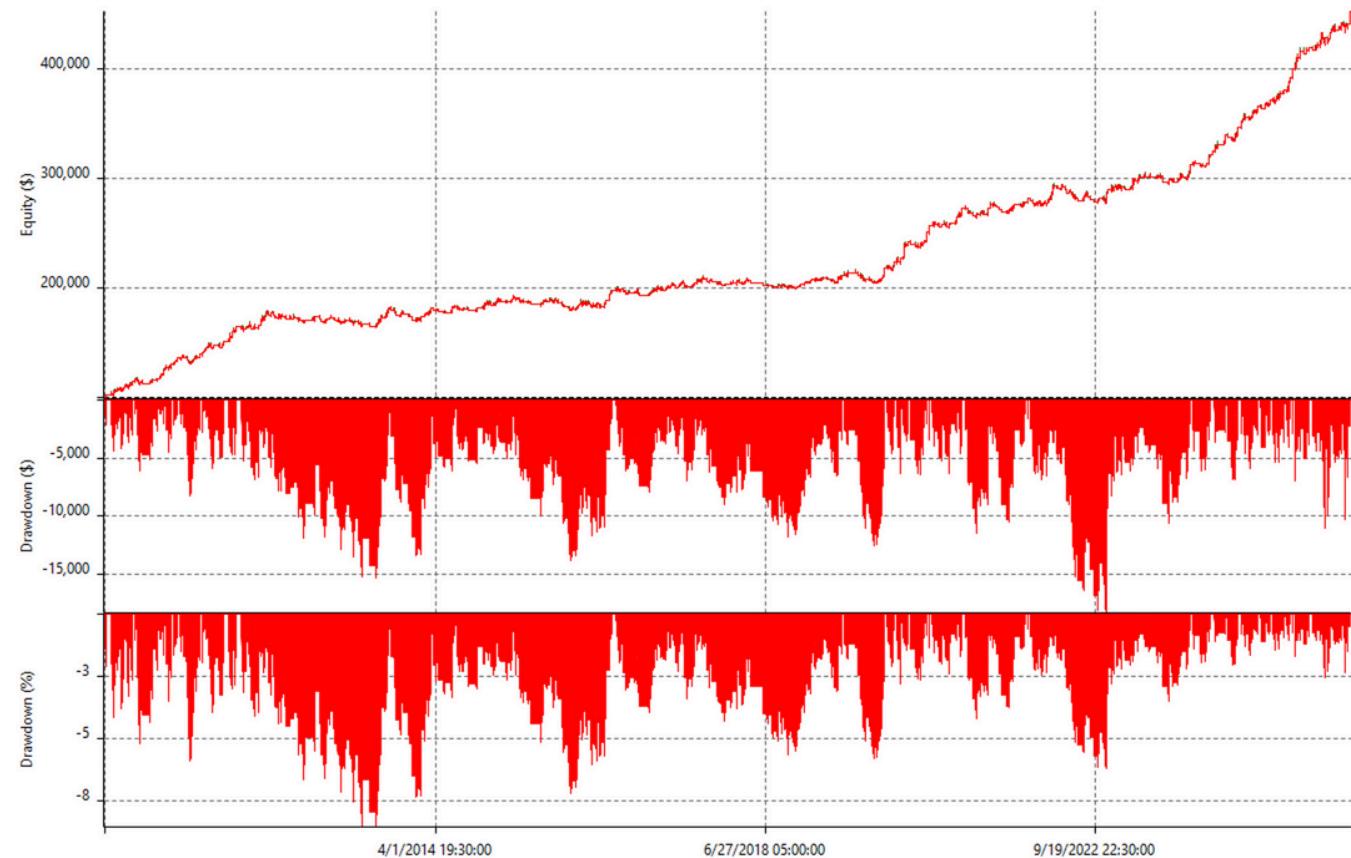
A43-@GC-30'

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



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

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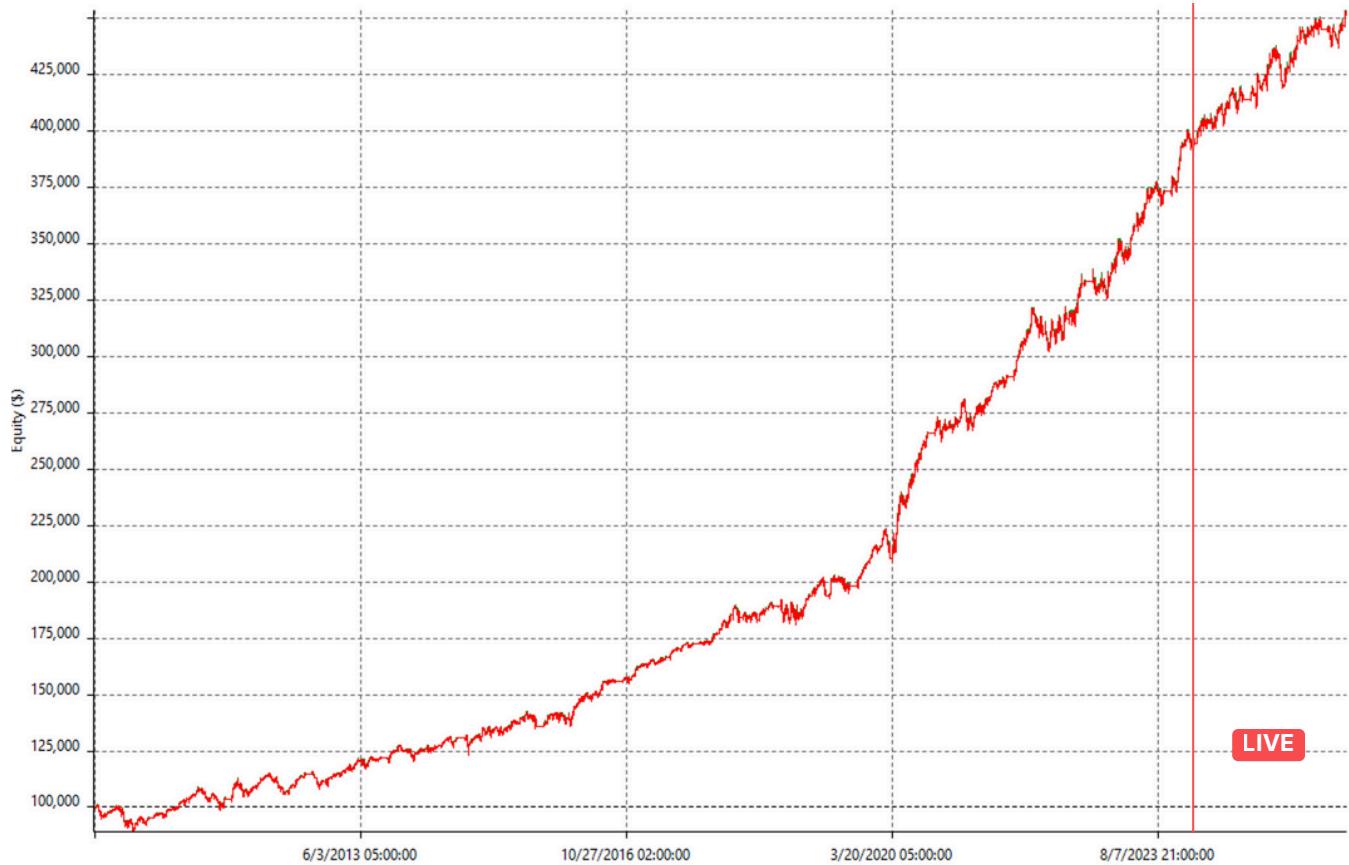
By understanding the characteristics and performance of each individual model, you gain deeper insight into how they contribute to overall portfolio balance, risk distribution, and long-term consistency.

## S&P500 futures strategy

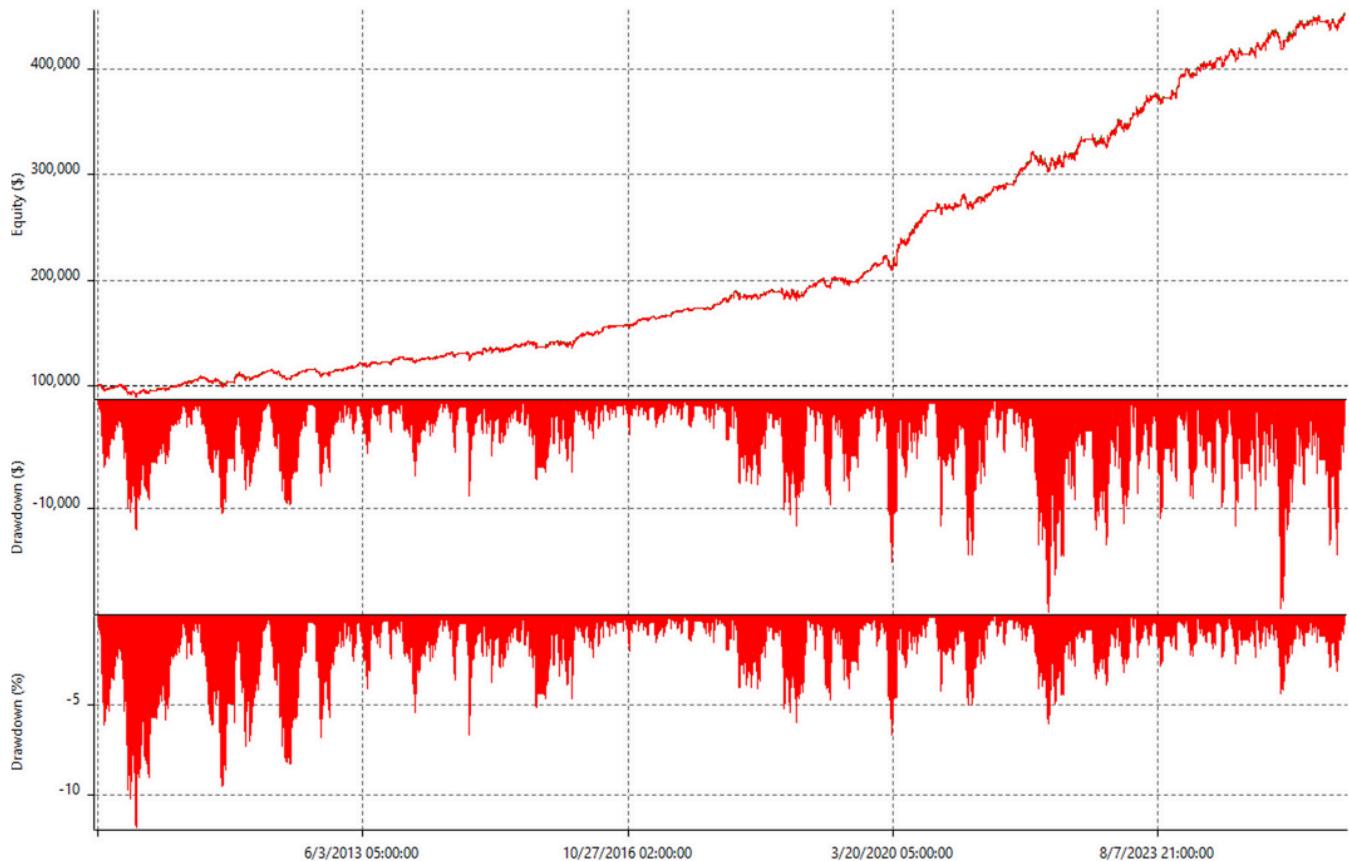
A40-@ES-60'

<b>Net profit</b>	350 237,50\$						
<b>Max strategy drawdown</b>	(19 425,00\$)						
<b>Max # contracts held</b>	1						
<b>Max close to close drawdown</b>	(18 762,50\$)						
<b>Return on max strategy drawdown</b>	18,03						
<b>Total # of trades</b>	856						
<b>Percent profitable</b>	56,41%						
<b>Average trade</b>	409,16\$						
<b>Average winning trade</b>	1 616,51\$						
<b>Average losing trade</b>	(1 659,17\$)						
<b>Percent in the market</b>	57,9%						
<b>Average # trades per month (last 8 months)</b>	7,12						
<b>Last 8 months performance (\$)</b>	19 900\$						
05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
9400	4250	3413,5	-775	0	-1512,5	2750	3575

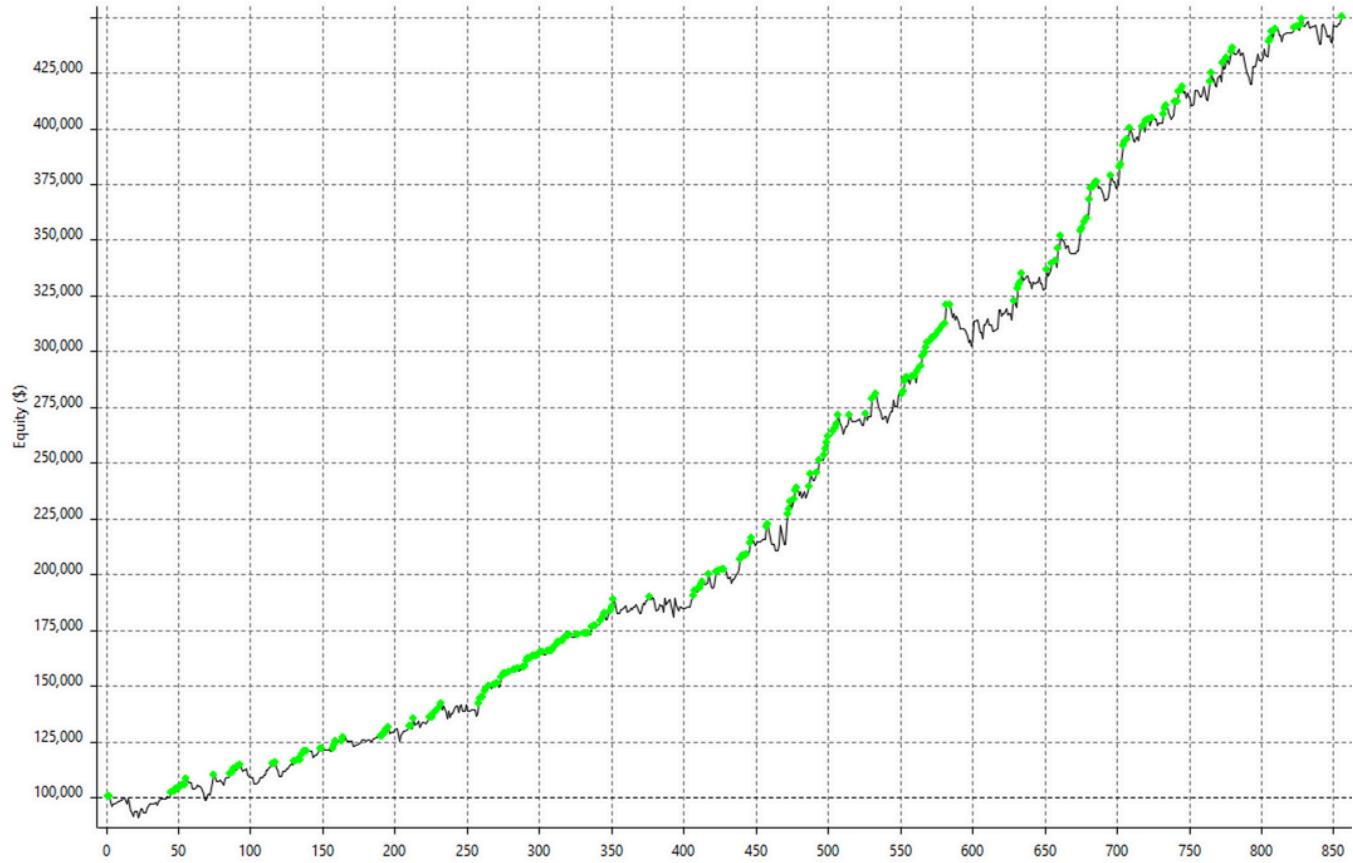
## Equity curve detailed



## Equity curve detailed with drawdown



## Equity curve close to close



## Buy and hold comparison



<b>Stop loss</b>	(2 800\$)
<b>Break-even</b>	2 400\$
<b>Take profit</b>	8 300\$
<b>Developed from</b>	01-01-2010
<b>Developed to</b>	31-12-2023
<b>Out-of-sample validation</b>	✓
<b>Stress-testing validation</b>	✓
<b>Effectiveness of optimizations post-validation</b>	✓
<b>Strategy description</b>	

This model focuses on capturing intraday continuation moves on Gold futures following confirmed bullish breakouts. Trading is limited to one long position per day, with no overnight exposure to avoid low-liquidity risks, and the system remains inactive during September, a historically inefficient month for this setup.

The entry occurs when price breaks a defined multi-period high and later pulls back to retest that same breakout level, where a limit order is positioned. If triggered, the trade is then governed by strict risk parameters. A rejection at daily pivot R1 leads to an immediate exit, while risk is framed by a \$2,800 stop loss, a break-even adjustment once price reaches \$2,400 in profit, and a final target set at \$8,300. The objective is to maintain controlled downside with an asymmetric reward structure and clean entry mechanics.

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

**A43-@GC-30'**

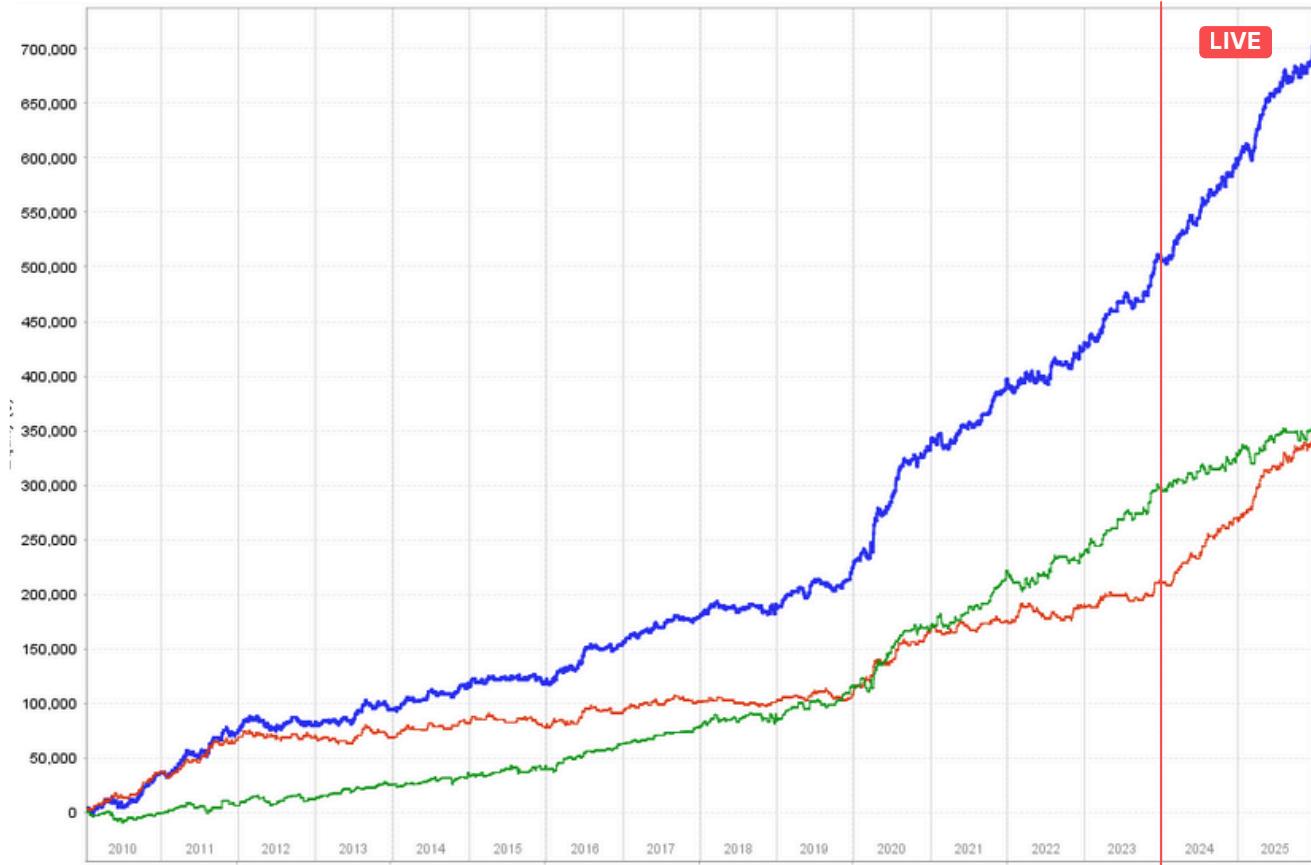
**@GCG26**

**A40-@ES-60'**

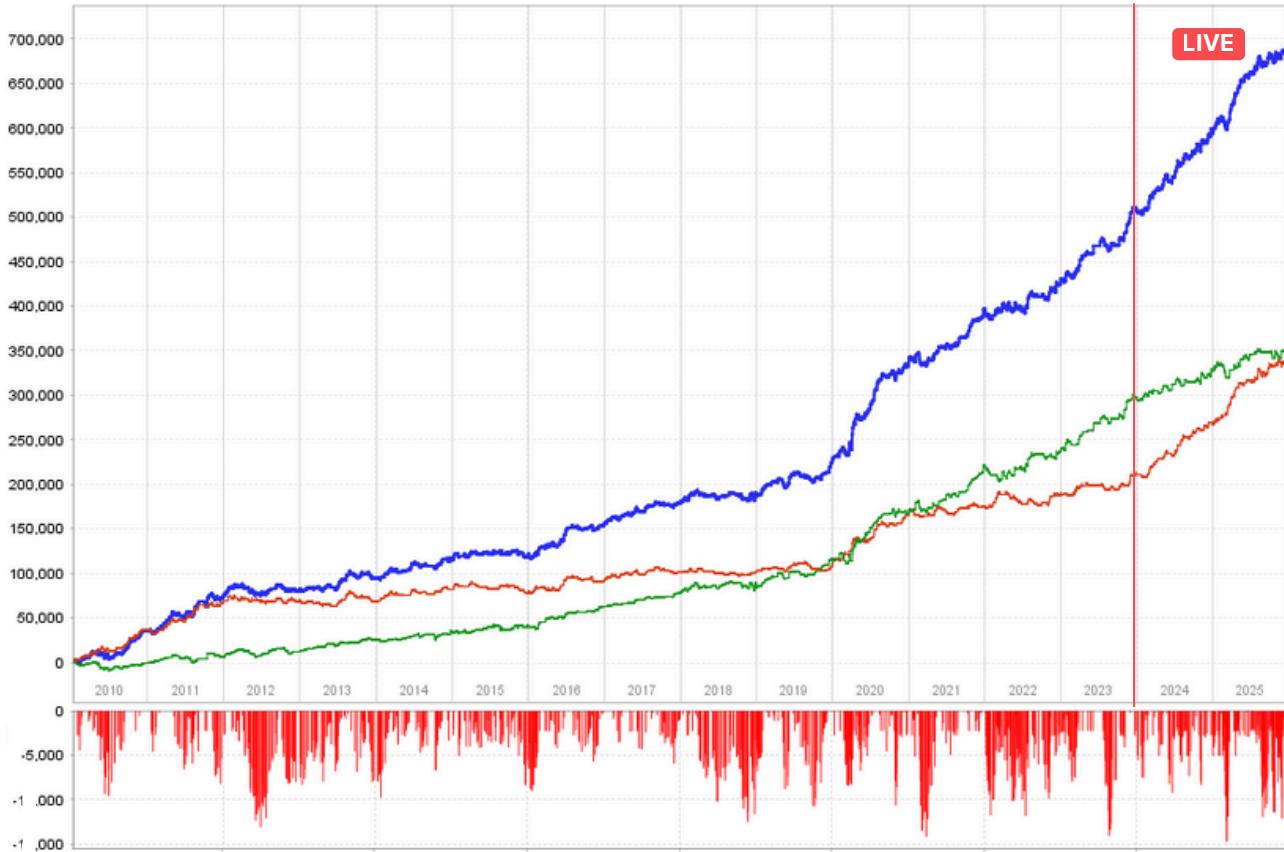
**@ESH26**

<b>Net profit</b>	702 370,00\$						
<b>Max portfolio drawdown</b>	(12 725,00\$)						
<b>Return on max portfolio drawdown</b>	47,71						
<b>Total # trades</b>	1460						
<b>Percent profitable</b>	57,53%						
<b>Average trade</b>	481,14\$						
<b>Average winning trade</b>	1 913,94\$						
<b>Average losing trade</b>	(1 460,06\$)						
<b>Last 8 months performance (\$)</b>	102 600,00\$						
05/25	06/25	07/25	08/25	09/25	10/25	11/25	12/25
12700	9850	4912,5	6825	7600	487,5	4750	15275

## Equity curve detailed

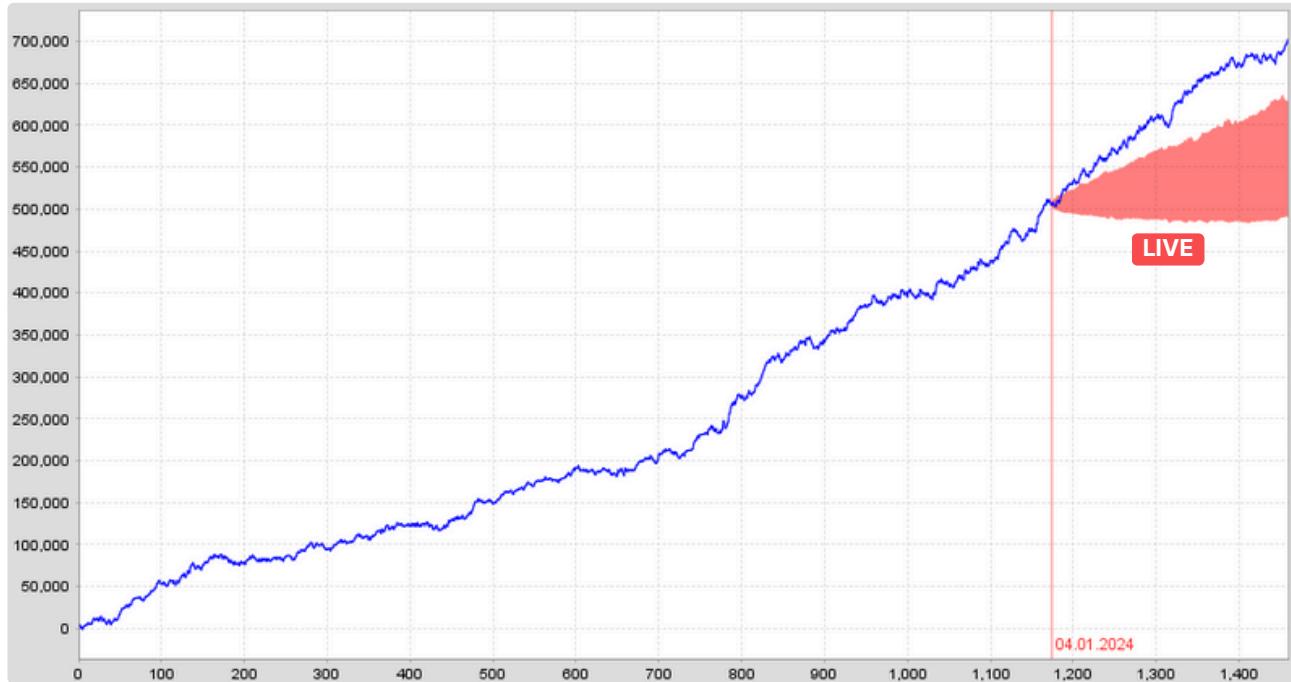


## Equity curve with drawdown



## 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 tra...	Max DD	Max % DD	Ret/DD	R Exp	AR %	Consec
Original	\$ 702470	351.23 %	1460.0	\$ 14725	4.56 %	47.71	0.33 R	21.94 %	7
50	\$ 623197.93	311.6 %	1395.0	\$ 38323.48	6.32 %	16.27	0.3 R	20.48 %	8
60	\$ 611435.52	305.72 %	1395.0	\$ 41673.93	6.7 %	14.98	0.29 R	20.1 %	8
70	\$ 599503.2	299.75 %	1395.0	\$ 45635.82	7.16 %	13.6	0.28 R	19.72 %	9
80	\$ 585757.34	292.88 %	1395.0	\$ 51128.1	7.78 %	12.16	0.28 R	19.28 %	9
90	\$ 565987.49	282.99 %	1395.0	\$ 60276.97	8.8 %	10.27	0.26 R	18.65 %	10
92	\$ 561045.88	280.52 %	1395.0	\$ 63434.36	9.1 %	9.77	0.26 R	18.47 %	10
95	\$ 550080.46	275.04 %	1395.0	\$ 69550.1	9.73 %	8.92	0.25 R	18.14 %	11
97	\$ 539469.92	269.73 %	1395.0	\$ 77001.3	10.35 %	8.04	0.25 R	17.78 %	11
98	\$ 531091.9	265.55 %	1395.0	\$ 82127.08	10.84 %	7.56	0.24 R	17.51 %	12
99	\$ 518825.81	259.41 %	1395.0	\$ 89782.97	11.67 %	6.91	0.23 R	17.07 %	13
100	\$ 473234.6	236.62 %	1395.0	\$ 149597.71	17.3 %	4.24	0.19 R	15.69 %	17

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.

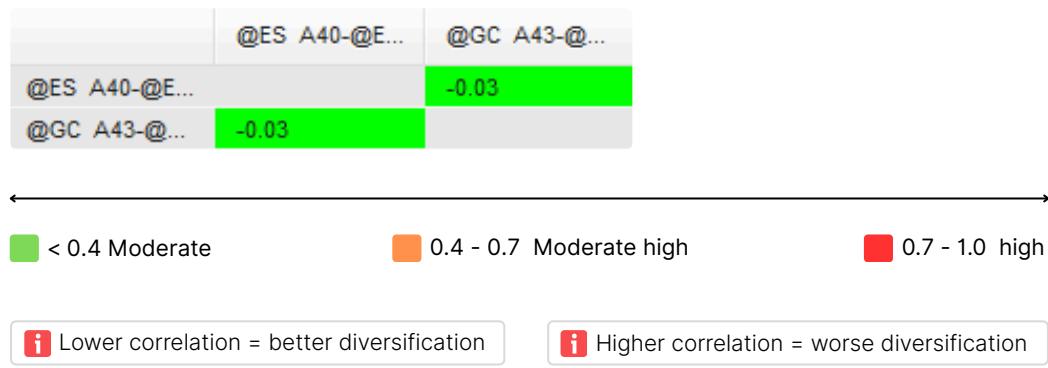
### Robustness under uncertainty

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



Drawdown | strategy 1 (15 780,00\$)

Drawdown | strategy 2 (18 762,50\$)

Drawdown | Portfolio (14 725,00\$)

Portfolio diversification & synergy validation ✓

## Summary of portfolio risk and diversification

Synergy ratio (must be < 1) 0,784810

Risk reduction through portfolio diversification 21,52%

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2025	14325	-4987.5	22800	13937.5	12700	9850	4912.5	6825	7600	487.5	4750	15275	108475
2024	-5250	11862.5	14812.5	1712.5	10587.5	2650	15462.5	7662.5	6100	50	11425	8412.5	85487.5
2023	11580	-4187.5	13200	11437.5	2642.5	8300	5390	-6587.5	2100	5187.5	22517.5	12287.5	83867.5
2022	-11355	10120	7187.5	1812.5	-2700	-7320	14612.5	3762.5	-2300	-1197.5	8737.5	6725	28085
2021	5200	-862.5	-1497.5	8687.5	10362.5	-2562.5	3712.5	3585	5675	13602.5	5437.5	12850	64190
2020	9150	4710	875	36562.5	-37.5	8837.5	21510	18500	-4600	-2725	8550	6825	108157.5
2019	3920	4925	3537.5	2867.5	-7425	12617.5	1485	-4337.5	-5100	4907.5	4407.5	12022.5	33827.5
2018	5947.5	3487.5	2555	-2022.5	-1550	-3862.5	3752.5	3692.5	-2470	-3427.5	-2725	8052.5	11430
2017	5867.5	4427.5	915	2745	3367.5	-1375	6105	932.5	417.5	-152.5	-3000	4992.5	25242.5
2016	47.5	8875	3670	2175	-2337.5	11225	7950	-515	-720	1937.5	-1632.5	3450	34125
2015	4832.5	-3162.5	2272.5	315	-540	720	1512.5	1867.5	-4130	3762.5	-2750	-2862.5	1837.5
2014	1205	4187.5	3160	-1312.5	1402.5	7625	-3272.5	2812.5	-2010	2062.5	5922.5	1540	23322.5
2013	1425	1917.5	1147.5	-1650	1387.5	-1725	9882.5	9840	-4600	1150	2000	-6387.5	14387.5
2012	11132.5	1637.5	1750	-3350	-5275	-3562.5	3812.5	3975	4350	-6637.5	1985	-2400	7417.5
2011	-3675	5247.5	7150	8900	1482.5	-4575	2937.5	9350	5600	6737.5	-1562.5	-1087.5	36505
2010	525	2732.5	2155	5982.5	-547.5	-6487.5	3800	1342.5	7522.5	10125	3012.5	5950	36112.5

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.