Kara Investments

ALGORITHMIC STRATEGIES

Systematic Equity Index Strategies

Institutional-Grade Quantitative Alpha

Kara Investments

ALGORITHMIC STRATEGIES

Who We Are

Kara Investments is a Swiss-based systematic strategy partner for financial institutions. We develop and manage rules-based strategies on global equity indices, designed to provide a diversifying source of return with low intended directional exposure to benchmark equity markets. Institutions retain ownership of the client relationship and portfolio mandate, while Kara provides the quantitative research, systematic investment process, and risk management that operate behind the scenes.

Why Institutions Choose Us

- Live track record: +190% cumulative return (2020–2026)
- Robust risk management
- Fully systematic and auditable strategy
- Daily liquidity and institutional infrastructure

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Strategy Overview

Core Strategy Features

Models: Dual-strategy framework combining Mean Reversion & Trend Following
Asset Class: Global Equity Index Futures (e.g. S&P 500, Euro Stoxx 50, SMI)
Execution: Fully automated, no discretionary overrides
Frequency: Avg trade duration ~1.5 days; ~1/3 time in cash

Edge

Adaptive to volatility regimes
No black-box components — fully explainable logic
Low correlation to traditional benchmarks

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Strategy Core Rationale

Core Rationale

The central rationale is how the algorithm manages beta, volatility and momentum. The strategy is designed to keep its net market correlation close to zero over time, so that it acts as a diversifier to traditional equity portfolios rather than an additional source of directional equity risk. Position sizing and leverage are adjusted dynamically to the prevailing volatility regime, and entries/exits are driven by short-term price-action and momentum signals rather than fundamental factors, with strict risk limits to keep drawdowns and tail risk under control.

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INSIDE THE ALGORITHM

General Scope

Market analysis and regime identification: Proprietary Regime Indicator

Mean Reversion Strategy

- **Indicators**: Dispersion, Short-term Volatility, Proprietary Momentum Index.
- **Objective**: Capture short-term mispricings during volatility regime switches or sideways markets.

Trend Following Strategy

- **Indicators**: Moving averages, Proprietary Momentum Index.
- **Objective**: Ride persistent directional trends with dynamic sizing

Trigger Coordination

Signals are cross-validated for trade confidence and capital efficiency.

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Algorithm Snapshot

```
elif self.current_price < self.sma3_value - self.threshold_75:

    ## STRONG M.R. MODE
    if self.vra_reference < self.VAR_RATIO_MR:

        ## Reasonable Deviation
        if self.std_val > -0.70:

            # Bullish
            if self.signal_av_5 == self.SIGNAL_OVERSOLD:
                self.execution(5.0, self.high_leverage, new_position = self.LONG, trade_type= self.OPEN)
            # Bearish
            elif self.signal_av_5 == self.SIGNAL_OVERBOUGHT:
                self.execution(5.1, self.base_leverage, new_position = self.CASH, trade_type= self.NOTRADE)
            # Neutral
            else:
                # Bearish
                if self.adj_vector_5 < self.ADJ_VR_LINE :
                    self.execution(5.2, self.base_leverage, new_position = self.CASH, trade_type= self.NOTRADE)
                # Bullish
                else:
                    self.execution(5.3, self.high_leverage, new_position = self.LONG, trade_type= self.OPEN)

        ## Extreme Deviation from SMA
        else:
            # Bullish
            if self.signal_av_5 == self.SIGNAL_OVERSOLD:
                self.execution(5.4, self.high_leverage, new_position = self.LONG, trade_type= self.OPEN)
            # Bearish
            elif self.signal_av_5 == self.SIGNAL_OVERBOUGHT:
                self.execution(5.5, self.base_leverage*0.75, new_position = self.LONG, trade_type= self.OPEN)

            # Neutral
            else:
                # Bearish
                if self.adj_vector_5 < self.ADJ_VR_LINE :
                    self.execution(5.6, self.base_leverage*0.75, new_position = self.LONG, trade_type= self.OPEN)
                # Bullish
                else:
                    self.execution(5.7, self.high_leverage, new_position = self.LONG, trade_type= self.OPEN)
```

The proprietary strategy engine comprises approximately **2,500 lines of core code**, supported by a broader ecosystem of over **15,000 additional lines** dedicated to libraries, back-office processes, data handling, and trading operations. Together, these components provide a robust and scalable foundation for systematic investment execution.

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INSIDE THE ALGORITHM
Risk Management

Embedded Risk Controls

- Stop Losses, Stop Gains & Profit Targets
- Volatility-Based Position Sizing
- Capital Exposure Limits
- Automatic Cash Reallocation in Unfavorable Regimes

Outcome

Designed for a stable volatility profile and controlled drawdowns across market regimes.

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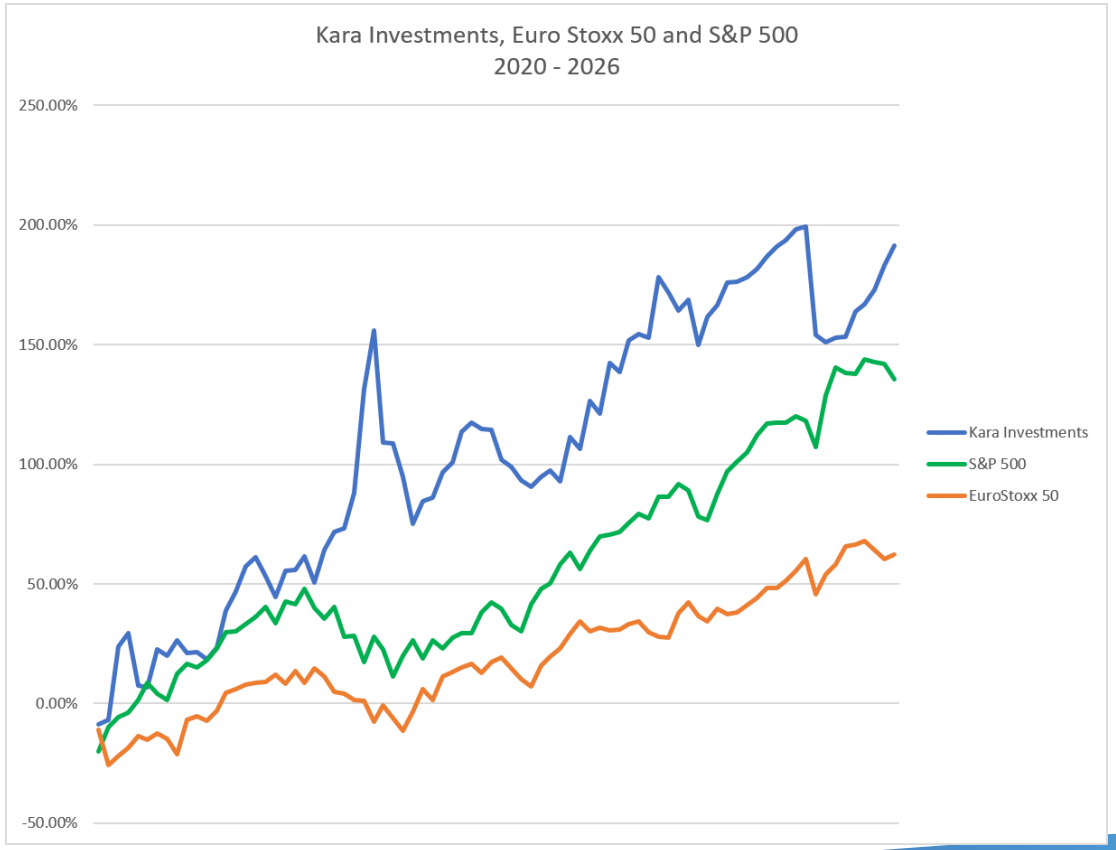
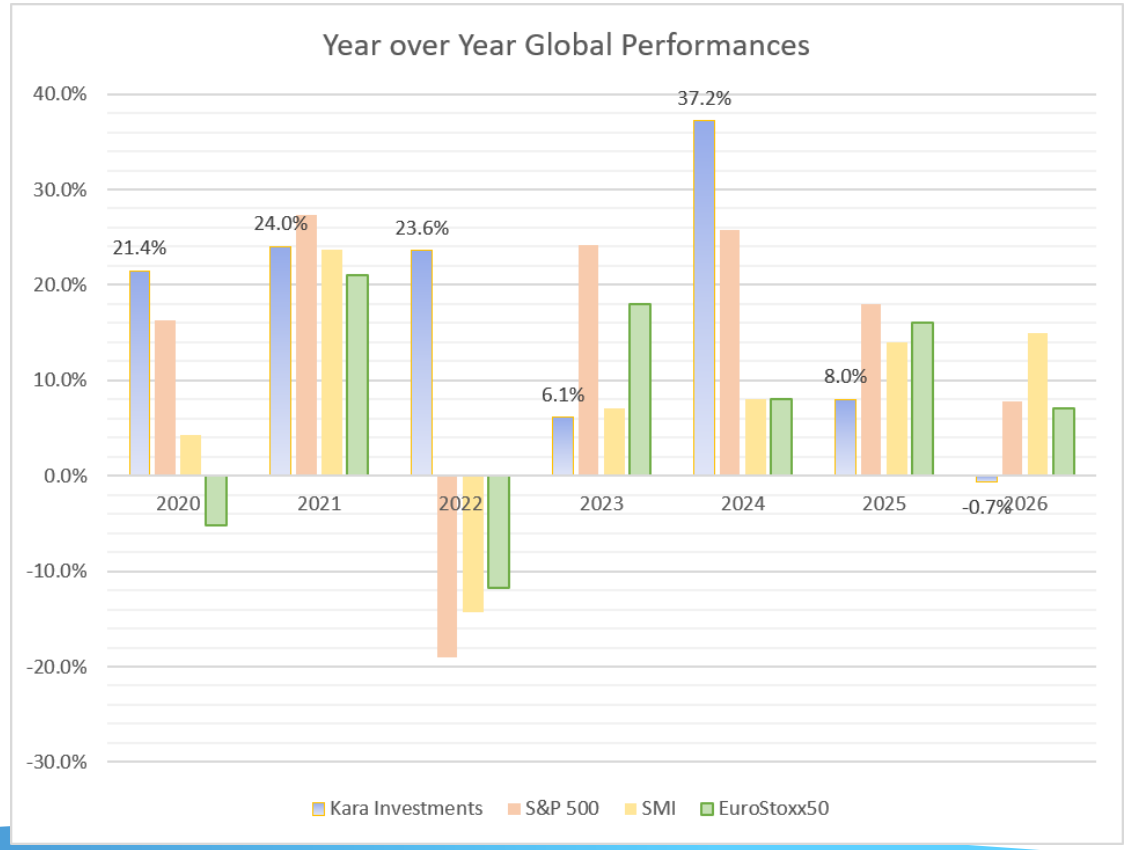
PERFORMANCE





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PERFORMANCE vs RISK

Addressing Risk Issues

The strategy has been continuously developed through live trading experience, with particular emphasis on improving downside protection, execution, and adaptation across market regimes.

Development timeline:

2022 — Stress test and redesign. The strategy recorded its largest live-capital peak-to-trough drawdown, approximately 31%. This period identified limitations in the original framework during adverse regimes and initiated a comprehensive redesign focused on risk control.

2023 to January 2024 — Risk and regime enhancements. Development concentrated on the dual-regime model—mean reversion and trend-following—alongside tighter volatility targeting and position sizing. The revised live version was deployed in January 2024 and forms the most relevant basis for evaluating the current strategy.

2024–2025 — Improved risk profile. The revised strategy showed smaller and shorter drawdowns than major equity indices, while maintaining volatility and downside deviation broadly comparable to equities. Correlation remained close to zero, supporting its role as a diversifying rather than equity-replicating allocation.

2026 — Event-driven drawdown and further controls. The strategy is down 0.7% year to date, after an approximately 15% drawdown in March during the escalation of the Iran–United States conflict. It has been positive in nine of the eleven months so far this year. The event led to a further enhancement of the intraday risk-management framework, intended to reduce exposure and limit losses during abrupt, geopolitically driven market dislocations by continuously evaluating market conditions and PnL features.

	Kara Investments	S&P 500	SMI	EuroStoxx50
2020	21.4%	16.3%	4.3%	-5.1%
2021	24.0%	27.3%	23.7%	21.0%
2022	23.6%	-19.0%	-14.3%	-11.7%
2023	6.1%	24.2%	7.1%	18.0%
2024	37.2%	25.8%	8.0%	8.0%
2025	8.0%	18.0%	14.0%	16.0%
2026	-0.7%	7.2%	15.0%	7.1%
Inception	190.4%	137.0%	67.6%	60.3%
YoY	**16.4%**	**13.1%**	**7.7%**	**7.0%**

Risk Stats	2020	2021	2022	2023	2024	2025	2026
PnL	21.4%	24.0%	23.6%	6.1%	37.2%	8.0%	-0.7%
Max Drawdown	29.5%	15.3%	31.0%	12.5%	7.0%	9.9%	16.1%
Sharpe Ratio	0.65	1.03	1.32	0.13	1.87	0.32	-0.38
Sortino Ratio	0.94	1.7	2.5	0.18	3.16	0.46	-0.4
Standard Deviation	2.8%	1.5%	2.5%	3.3%	1.0%	0.9%	0.9%
Std. Dev. Eurostoxx50	1.7%	0.8%	1.1%	2.6%	0.6%	0.9%	0.8%
Std. Dev. S&P 500	2.1%	0.8%	1.5%	4.1%	0.8%	1.2%	0.8%
Correlation	-0.17	-0.08	0.24	0.15	-0.22	-0.01	0.24
Beta	-0.29	-0.15	0.51	0.23	0.30	-0.01	0.25
Alpha	0.29	0.28	1.15	0.00	0.30	0.05	-0.10

* Data from Interactive Brokers Inc.
* Correlation, Beta, Alpha calculated versus de EuroStoxx 50

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PERFORMANCE vs RISK

Latest Strategy Version (2024)

Risk Measures Relative to Benchmark

2024-01-01 to 2024-12-31

U8354010 vs.	SMI	SPX	STX
Correlation	-0.24	-0.11	-0.22
Beta	-0.30	-0.13	-0.29
Alpha	0.28	0.30	0.29
Tracking Error	1.27%	1.25%	1.23%
Information Ratio	23.45	11.21	23.08

Risk Measures

2024-01-01 to 2024-12-31

	SMI	SPX	STX	U8354010
Ending Vami	1,075.43	1,233.09	1,088.78	1,373.58
Max Drawdown	8.44%	8.49%	7.41%	7.04%
Peak to Valley	09/02/24 - 12/20/24	07/16/24 - 08/05/24	07/12/24 - 08/05/24	07/03/24 - 07/18/24
Recovery	Ongoing	33 Days	Ongoing	11 Days
Sharpe Ratio	0.26	1.32	0.38	1.91
Sortino Ratio	0.34	1.88	0.51	3.23
Calmar Ratio	-	-	-	-
Standard Deviation	0.71%	0.78%	0.67%	0.90%
Downside Deviation	0.53%	0.55%	0.49%	0.53%
Turnover	-	-	-	0.00%
Mean Return	0.03%	0.08%	0.03%	0.13%
Positive Periods	150 (57.25%)	156 (59.54%)	149 (56.87%)	189 (72.14%)
Negative Periods	112 (42.75%)	106 (40.46%)	113 (43.13%)	73 (27.86%)

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PERFORMANCE vs RISK

Latest Strategy Version (2025)

* All data from Interactive Brokers Inc.

Risk Measures Relative to Benchmark

2025-01-01 to 2025-12-31

U8354010 vs.	SMI	SPX	STX
Correlation	0.07	-0.06	-0.01
Beta	0.07	-0.04	-0.01
Alpha	0.04	0.05	0.05
Tracking Error	1.22%	1.50%	1.26%
Information Ratio	-8.51	-5.62	-8.48

Risk Measures

2025-01-01 to 2025-12-31

	SMI	SPX	STX	U8354010
Ending Vami	1,183.30	1,163.88	1,186.38	1,079.64
Max Drawdown	16.25%	18.90%	17.04%	9.90%
Peak to Valley	03/20/25 - 04/09/25	02/19/25 - 04/08/25	03/03/25 - 04/09/25	02/05/25 - 04/15/25
Recovery	155 Days	58 Days	125 Days	53 Days
Sharpe Ratio	0.96	0.69	0.99	0.32
Sortino Ratio	1.27	1.01	1.32	0.46
Calmar Ratio	-	-	-	-
Standard Deviation	0.89%	1.15%	0.88%	0.90%
Downside Deviation	0.67%	0.78%	0.66%	0.62%
Turnover	-	-	-	0.00%
Mean Return	0.07%	0.06%	0.07%	0.03%
Positive Periods	155 (59.39%)	157 (60.15%)	150 (57.47%)	165 (63.22%)
Negative Periods	106 (40.61%)	104 (39.85%)	111 (42.53%)	96 (36.78%)

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PERFORMANCE vs RISK

Latest Strategy Version (2026)

* All data from Interactive Brokers Inc.

Risk Measures Relative to Benchmark

2026-01-01 to 2026-10-24

U8354010 vs.	SMI	SPX	STX
Correlation	0.20	0.06	0.24
Beta	0.22	0.07	0.25
Alpha	-0.10	-0.08	-0.10
Tracking Error	-	-	-
Information Ratio	-	-	-

Risk Measures

2026-01-01 to 2026-10-24

	SMI	SPX	STX	U8354010
Ending Vami	1,123.65	1,113.68	1,111.15	960.79
Max Drawdown	11.15%	9.10%	9.40%	18.63%
Peak to Valley	02/27/26 - 03/20/26	01/27/26 - 03/30/26	02/25/26 - 03/20/26	01/15/26 - 04/28/26
Recovery	48 Days	12 Days	46 Days	Ongoing
Sharpe Ratio	0.90	0.80	0.75	-0.53
Sortino Ratio	1.26	1.18	1.14	-0.66
Calmar Ratio	-	-	-	-
Standard Deviation	0.79%	0.80%	0.83%	0.88%
Downside Deviation	0.56%	0.54%	0.55%	0.71%
Turnover	-	-	-	-
Mean Return	0.06%	0.05%	0.05%	-0.01%
Positive Periods	126 (59.43%)	115 (54.25%)	108 (50.94%)	149 (70.28%)
Negative Periods	86 (40.57%)	97 (45.75%)	104 (49.06%)	63 (29.72%)

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PERFORMANCE (MoM)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year End	Total
2020	Kara Inv	2.20	-10.60	2.18	32.53	4.48	-16.76	-0.66	14.77	-2.24	5.47	-4.33	0.33	21.42%	21.42%
	EU50	-2.78	-8.55	-16.30	5.06	4.18	6.03	-1.85	3.09	-2.41	-7.37	18.06	1.72	-5.14%	-5.14%
2021	Kara Inv	-2.50	4.38	12.29	5.84	7.12	2.41	-4.86	-5.77	7.74	0.19	3.68	-6.88	23.97%	50.52%
	EU50	-2.00	4.45	7.78	1.42	1.63	0.61	0.62	2.62	-3.53	5.00	-4.41	5.79	21.01%	14.79%
2022	Kara Inv	9.17	4.46	0.82	8.66	23.02	10.64	-18.29	-0.17	-6.79	-9.99	5.35	0.79	23.57%	85.99%
	EU50	-2.88	-6.00	-0.55	-2.55	-0.36	-8.82	7.33	-5.15	-5.66	9.02	9.60	-4.32	-11.74%	1.31%
2023	Kara Inv	5.71	2.05	6.48	1.83	-1.22	-0.32	-5.67	-1.66	-2.80	-1.39	2.19	1.40	6.11%	97.37%
	EU50	9.75	1.80	1.81	1.03	-3.24	4.29	1.64	-3.90	-3.85	-2.72	7.91	3.18	17.96%	19.51%
2024	Kara Inv	-2.23	9.52	1.66	4.19	1.74	3.61	-1.61	5.62	1.02	-0.62	10.00	0.00	37.20%	170.80%
	EU50	2.80	4.93	4.22	-3.19	1.27	-0.80	-0.43	-0.80	0.30	1.75	-1.42	-0.40	8.21%	29.32%
2025	Kara Inv	-2.84	1.76	-7.04	4.73	1.78	3.54	0.13	0.75	1.15	1.94	1.49	0.82	7.97%	192.37%
	EU50	7.98	3.34	-3.94	-1.68	4.00	-1.20	0.30	0.60	3.30	2.40	0.10	2.17	18.21%	52.86%
2026	Kara Inv	1.64	0.28	-15.04	-1.27	0.71	0.25	4.15	1.11	2.31	3.70	2.98	0.00	-0.69%	190.36%
	EU50	2.70	3.20	-9.30	5.60	2.90	4.60	0.47	0.98	-2.35	-2.20	1.20	0.00	7.14%	63.78%

*Euro Stoxx 50 performance from www.stoxx.com.

*Kara Investments performance from Interactive Brokers Inc.

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Track Record Transparency

Format Transition

2020–mid 2022: Managed Accounts

Since June 2022: AMC Format

Verified Broker Reports Available Upon Request

Clarification of June 2022 performance

+14.48% performance (before AMC start)

-3.35% performance (post-AMC inception)

Net Result: +10.64% for June 2022

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Infrastructure & Operations

Structure

Vehicle: Actively Managed Certificate (AMC)

Issuer & Administrator: Maverix Securities AG (FINMA-regulated)

Custodian: Interactive Brokers Inc.

Settlement: SIX Group and ISP Group

Reporting: Daily NAV, Transparency via Broker Reports

Liquidity: Daily (T+1 Settlement)

Auditable & Transparent

Every trade is traceable to a documented trigger — no discretionary overrides.

Dedicated Certificates

Each financial institution can launch its own dedicated AMC, issued and administered by Maverix Securities AG, with fee and FX configurations suited to its clients.

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FOUNDER



LEANDRO PRIMO D'AGOSTINI

Founder & Strategist

Professional Experience:

- 2015 – 2025: studies of Data Science, Machine Learning, Algorithms and creation of Kara Investments Algorithmic Strategies
- 2010 – 2015: Equity and Equity Derivatives trader at Citibank Brazil
- 2005 – 2010: Sell-side Equity trader at ICAP, Spinelli and Alpes Brokerage.

Academic Background:

- Degrees
  - 2016 - Master in Finance and Risk Management – London School of Business and Finance.
  - 2004 - Master in Capital Markets – Universidade de São Paulo
  - 2002 - Bachelor in Business Management – Fundação Armando Alvares Penteado (FAAP – Brazil)

- Certificates
  - 2022 – Math: Algebraic Methods, Graphs and Applied Math Methods – Imperial College
  - 2020 - Quantitative Trading Strategies and Models – QuantInsti
  - 2020 - Data & Feature Engineering for Trading – QuantInsti
  - 2020 - Decision Trees in Trading – QuantInsti
  - 2020 – Neural Networks in Trading – QuantInsti
  - 2018 - Machine Learning for Data Science and Analytics – Columbia University
  - 2017 – Python for Algorithmic Trading – Python Quants GmbH
  - 2017 - Python Programming for Research and Data Science – Harvard University
  - 2016 - Programming with Python for Data Science – Microsoft Corp.
  - 2016 - Statistical Thinking for Data Science and Analytics – Columbia University

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