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The results shown in the reports are indicative only and depend on the adopted methodology, data selection, parameters, assumptions, and the way risk and return measures are calculated. Actual results may differ materially from historical or simulated results.

The author may hold positions in the instruments discussed or may apply a similar approach in practice. The information contained in the reports may change without prior notice.

Methodology

TradingEdge.Pro's methodology describes a multi-step process for building and validating trading strategies, structured into two parts: strategy development and testing, and practical use. In the testing phase, a strategy is defined as a set of objective rules, validated through initial tests, optimised, and assessed for stability (robustness), and then evaluated using Walk-Forward Analysis. The detailed testing assumptions (including the instrument universe, in-sample/out-of-sample periods, data sources, transaction costs, and execution rules) are described in the "Testing Specification" document. The full methodology and metric definitions are available on the TradingEdge.Pro "Methodology" page.

ATR Ignition v.5

Investment Strategy Testing Summary

The ATR Ignition strategy is a **trend following trading technique** developed by Larry Connors that is based on **price breakouts above historical volatility as measured by the ATR** (Average True Range) indicator. The strategy aims to capture strong market moves that occur after key volatility levels are broken – situations where **the market emerges from a low volatility phase and initiates a new directional impulse.**

Compared to ATR Ignition v.2, this strategy has been extended with the **Cumulative candlestick formation. Narrow Range (NDayRange),** described by Tobi Crabel, which requires that **the price range of the last few candles (in terms of high-low range) be the smallest in a dozen or so days.** Adding this element should enhance the effectiveness of the strategy, because periods **of low volatility** statistically often **precede dynamic price movements.**

It should be noted that while the strategy's results on in-sample data are decent, the strategy failed the stability test in a wide range of optimized parameters. This means that the strategy loses its profitability and generates a significantly larger drawdown when tests are conducted on suboptimal parameters. Therefore, **it is not recommended to use it in real transactions.**

Our goal is to have a strategy that remains **profitable and effective over a wide range of parameters,** because the market is a changing organism and the optimal parameters can change over different periods. **I cannot** emphasize enough that for **a strategy to work** in real conditions, it must also work on **suboptimal parameters** and in **suboptimal conditions.** In a word - **it must be stable** to changing market conditions.

I don't know who said these words, but they perfectly reflect the problem of many optimizations:

"I've never seen a strategy that didn't work in backtests."

We don't know the future, we don't know future market conditions, but if we know that our strategy **has historically generated acceptable results** in various market conditions and across various parameter ranges, then we are **one step ahead of other** market participants.

Contents

Step 1: Formulate an investment strategy

The ATR Ignition strategy is a trend following investment technique developed by Larry Connors, based on **price breakouts above historical volatility measured by the ATR** (Average True Range) indicator. In the analyzed version, the strategy has been expanded to include the **Cumulative candlestick formation Narrow Range (NDayRange),** described by Tobi Crabel, which requires that **the price range of the last few candles (in terms of high-low range) be the smallest in a dozen or so days.** Adding this element should enhance the effectiveness of the strategy, because periods **of low volatility** statistically often **precede dynamic price movements.**

The strategy aims to capture strong market moves that occur after key volatility levels are breached – situations where **the market emerges from a phase of low volatility and initiates a new directional impulse.**

For the purposes of the test, the daily volatility of financial instruments was used, analyzing moments when **the price breaks above or below the last close by a value equal to a multiple of the ATR (e.g. 150%).** However, this breakout must occur in **the direction of the long-term trend** (measured by the moving average) and must be preceded by a candle that is the smallest in several days (e.g. 5).

The strategy uses:

- **Average volatility (ATR)** to determine the level of order activation (breakout);
- **Price range over the last few days (NDayRange)** to determine the volatility over the last N days;
- **Buy stop and sell stop orders** activated above/below the previous day's close;
- **Stop loss order** set one tick below (for a long position) or above (for a short position) the last candle;
- **Following the dominant trend** defined by the long-term moving average;
- **Mechanism of closing positions** when the trend changes.

Why can a volatility breakout be effective? A breakout above a certain volatility level means that the market is breaking through a barrier of "natural price noise." When prices move too quickly by historical standards, a strong trend is often initiated—investors and algorithms respond to increased activity, volume, and breaks of psychological support and resistance levels. Relative volatility strategies like ATR Ignition don't try to predict market direction, but rather respond to market momentum—making them immune to forecast bias and well-suited to momentum environments.

Characteristics of the strategy and its strengths and weaknesses:

- **Directional neutrality** – allows you to react to movements in both directions without predetermining the direction of the breakout.
- **Volatility-based** – adapts better to current market conditions than strategies with fixed price thresholds.
- **Defined risk level** – strict stop loss limits potential losses.
- **Lack of directional prediction** – strategy is based on reaction to movement, not prediction.
- **Potential false breakouts** – losses may occur in the event of short-term movements without continuation (so-called false breakouts).
- **Playing with the trend** – transactions are opened only in the direction of the dominant trend.

- **Sensitivity to the ATR parameter** – the threshold value (e.g. 150%) should be adjusted to the instrument and the market environment.

ATR Ignition is a strategy that, despite its simplicity, provides access to an effective breakout trading mechanism. **Its strength lies in its reactivity to market behavior and its ability to adapt to current volatility conditions.** However, it requires careful calibration and conscious risk management, especially in the environment of false price signals.

Step 2: Define investment principles

Below is **the pseudocode** for the **ATR Ignition v.5 strategy** on daily data:

1. **Calculating Indicators:**
    a. **ATR-40-day –** used to determine order activation levels.
    b. **The previous day's closing price** – reference base for setting stop orders.
    c. **X-day moving average (SMA)** – determines the dominant trend in a given instrument.
    d. **NDayRange –** volatility, measured as the difference between the highest high and the lowest low, over the last N days.
2. **Generating Entry Signals (at the start of the day):**
    a. **Each day, designate:**
        i. Buy stop = Previous day's closing price + K * ATR
        ii. Sell stop = Previous day's closing price - K * ATR
    where K is the ATR multiplier (e.g. 1.5, i.e. 150% ATR).
    b. **Trend direction condition:**
        i. We set a buy stop only if the previous day's low > SMA-X (uptrend).
        ii. We set a sell stop only if the previous day's high < SMA-X (downtrend).
    c. **Condition (Narrow Range):**
        i. We only set a buy stop if yesterday's NDayRange value is the lowest in the last Y days.
        ii. a sell stop if yesterday's NDayRange value is the lowest in the last Y days.
    d. **Set an appropriate pending order (buy stop or sell stop).**
3. **Position Opening Rules:**
    a. **Long position:**
        i. If the market price rises to the buy stop level, a long position will be opened.
        ii. Set your stop loss one tick below the low of the previous day's candle.
    b. **Short position:**
        i. If the market price falls to the sell stop level, a short position will be opened.
        ii. Set your stop loss one tick above the high of the previous day's candle.
4. **Generating Exit Signals –** the position is closed when any of the following conditions is met:
    - Activation of stop loss order (original),
    - Price violates SMA-X:
        i. for long position: if low < SMA-X;
        ii. for short position: if high > SMA-X.
5. **Daily Monitoring –** every day:
    - Calculate ATR and update order activation levels based on last close.
    - Calculate SMA and update defense order.
    - Calculate NDayRange and verify set buy stop/ sell stop orders.
    - Verify if a breakout up or down has occurred.
    - Set new orders, cancel outdated ones.

The above rules have been described in a way that allows them to be directly converted into a script in the chosen testing platform, which ensures the accuracy of the historical simulation and the reliability of the test results.

The tests are performed assuming that **the risk of one position corresponds to 0.5% of the total capital.**

Step 3: Conduct a preliminary test of the investment strategy

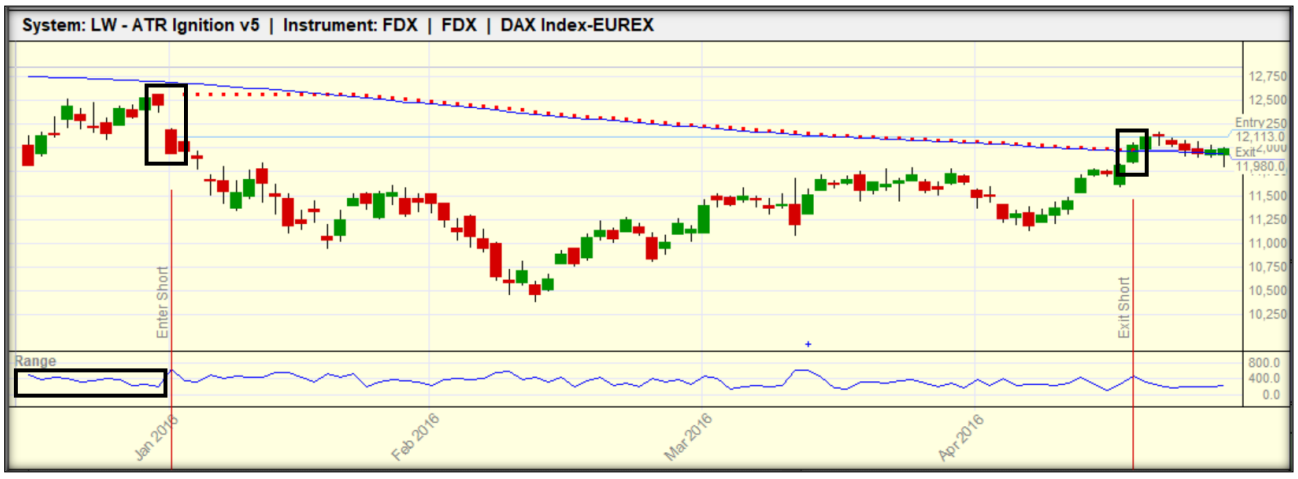
Below are some purchase and sale transactions that allow you to verify the following aspects:

- **Correctness of generated signals;**
- **Direction of opening position;**
- **Moment of opening a position;**
- **Position opening price;**
- **Moment of closing the position;**
- **Closing price of the position;**
- **Compliance of the transaction with the theoretical assumptions of the investment strategy.**

At this stage **it does not matter** whether the transactions are **profitable,** what **instrument was used** or whether they took place **recently** or **in the distant past.** The key is **to check whether the transactions are generated correctly** and in accordance with the assumptions described in the previous step.

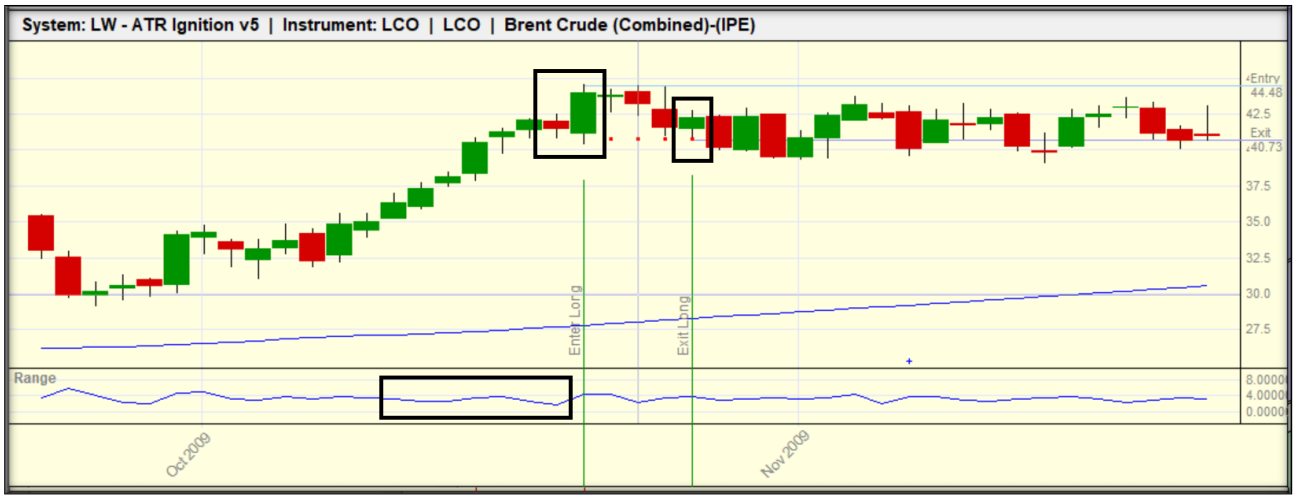
The first transaction was made on a futures contract on the DAX index. At the beginning of January 2016 (the first candle in the rectangle on the left), **the ATR(40) volatility was 248 points, the closing price that day was 12450.50, and we set the ATR multiplier at 130%.** In addition, **the price range of the last two candles (high - low; "Range" in the lower part of the chart; 2DayRange) is the smallest in 10 days.** Since the quotes are in a downward trend (below the 200-day moving average), the next day we set a **sell stop order at 12128.00** (12450.50 - 130% x 248; rounded). **The order was executed** (the second candle in the rectangle on the left) and a short position was opened (taking into account the slippage, the execution price was 12113.00).

Stop loss (red steps) **was set tick above the high of the candle from the day preceding the opening of the position.** However, it should be noted that after a dozen or so days, our **stop loss begins to follow the market,** because **its level is set at the lower of the two values:** 1) the high of the candle from the day preceding the opening of the position; 2) the level of the moving average. In mid-April 2016, the moving stop loss was activated (candle in the rectangle on the right) and **the position was closed. The system worked correctly.**



The second transaction was made on a Brent futures contract Crude. In mid-October 2009 (first candle in the rectangle on the left), **the volatility of ATR(40) was 2.25 USD, the closing price that day was 41.54, and we set the ATR multiplier at 130%.** In addition, **the price range of the last two candles (high - low; "Range" in the lower part of the chart; 2DayRange) is the smallest in 10 days.** Since the quotes are in an upward trend (above the 200-day moving average), the next day we set a **buy stop order at 44.47** (41.54 + 130% x 2.25; rounded). **The order was executed** (second candle in the rectangle on the left) and a long position was opened (taking into account slippage, the execution price was 44.48).

Stop loss (red steps) **was set tick below the low of the candle from the day before the position was opened.** After a few days our original stop loss order was activated (candle in the rectangle on the right) and **the position was closed. The system worked correctly.**



Once we are sure that the transactions are generated correctly, we can proceed to the first test of the strategy on the full **in-sample data set.** These tests are performed on **the base parameters,** which in my opinion correspond to the assumed goals of the strategy.

First of all, **we reject strategies that linearly lose capital.** If a strategy exhibits such a pattern, it is a clear signal that any parameter optimization does not make sense.

Our basic expectation is that the strategy generates **positive results,** even if they are at a low level.

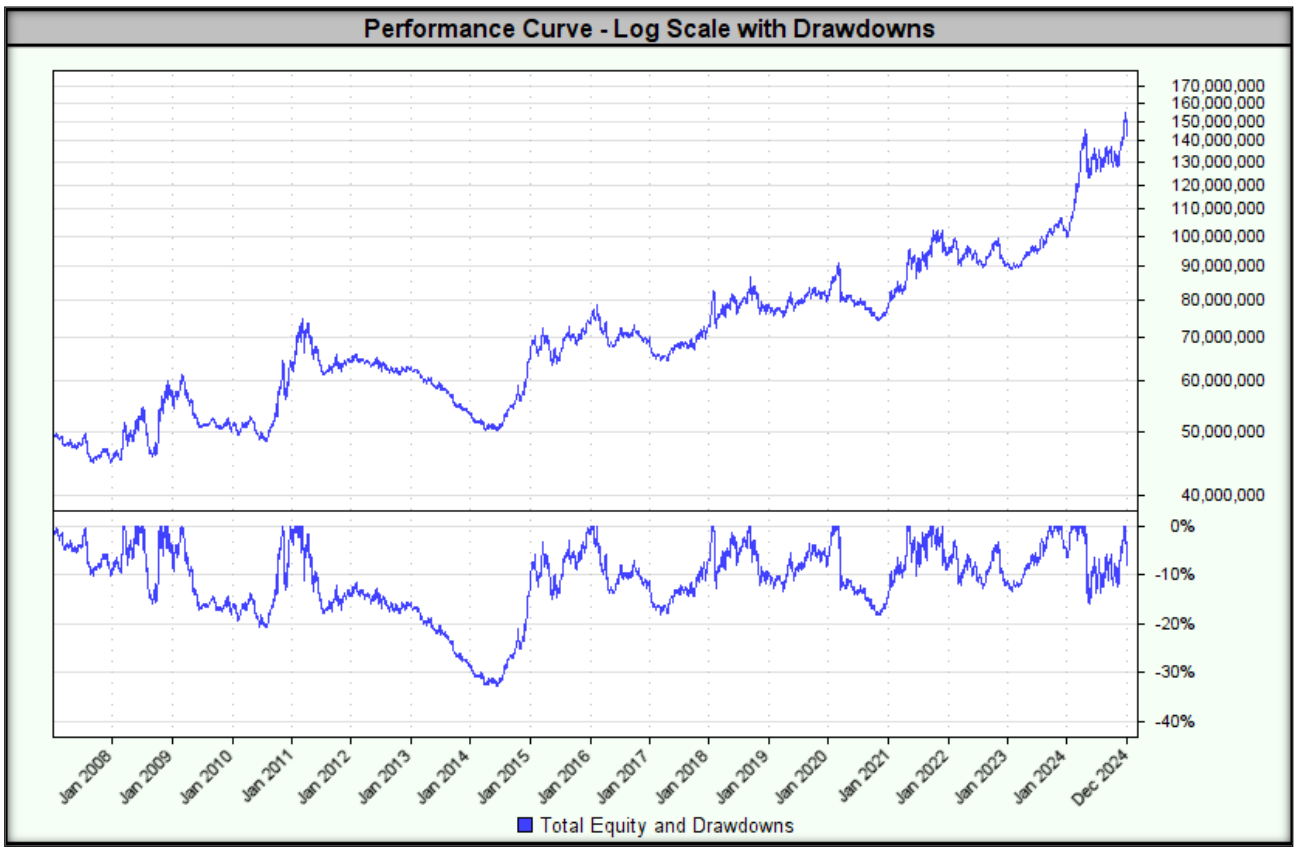
Tested base parameters:

- **Distance of buy/sell order from last closing price:** 130% ATR;
- **ATR lengths:** 40 days (fixed parameter);
- **Moving average:** 200 days;
- **Cumulative Narrow Range (NDayRange):** 2 days;
- **NDayRange value lowest since:** 10 days;
- **Stop loss:** for long position, tick below the minimum of the candle preceding the day the position was opened; for a short position, tick above the maximum of the candle preceding the day the position was opened;
- **Trailing stop loss:** moving average;
- **How to open a position:** buy stop/sell stop order;

- **Position size:** corresponding to a risk of 0.5% of total capital;
- **Position direction:** long (buy) and short (sell) positions.

The test result is shown below.

Historical or simulated results do not guarantee that similar outcomes will be achieved in the future.



Historical or simulated results do not guarantee that similar outcomes will be achieved in the future.

Indicators/Measures	Concluding a transaction at the opening price
CAGR%	6.3%
MAR Ratio	0.19
RAR%	4.6%
R-Cubed	0.10
Robust Sharpe Ratio	0.35
Max Drawdown	32.6%
Wins	19.4%
Losses	80.6%
Average Win%	3.67%
Average Loss%	0.51%
Win/Loss Ratio	7.23
Average Trade Duration (days)	79
Percent Profit Factor	1.74
SQN	0.44

Number of transactions	448

In summary, the system works properly and generates signals as expected. Additionally, tests on basic parameters have yielded acceptable results. We can now move on to the most interesting stage of creating an investment strategy – **optimization.**

Step 4: Optimization and assessment of investment strategy stability

This stage of strategy creation and testing is **crucial,** as it determines how **effective** the strategy will be in **real conditions. I cannot** emphasize enough that for **a strategy to work** in real conditions, it must also work on **suboptimal parameters** and in **suboptimal conditions.** In a word – **it must be stable** to changing market conditions.

I don't know who said these words, but they perfectly reflect the problem of many optimizations:

"I've never seen a strategy that didn't work in backtests."

My goal is not to find **optimal parameter values** – **my goal** is to find **a wide range of parameters** for which the strategy will generate **acceptable results. We don't know the future,** we don't know future market conditions, but if we know that our strategy **has historically generated acceptable results** in various market conditions and across various parameter ranges, then we are **one step ahead of other** market participants.

What **parameters to choose** for the next period is the subject of consideration in **Step 5 of the "Walk-Forward Analysis,**" but before we get to that, **we need to know whether our strategy is stable** at all.

1. Stability across a wide range of optimized parameters

Ignition v.5 Strategy in this version it assumes **optimizing the parameters proposed by the creator of the strategy, Larry Connors, and adding and optimizing: i) parameters for the moving average** filtering out transactions that are inconsistent with the dominant trend, **ii) Narrow Range (NDayRange) parameter,** defining the number of days used to measure the difference between the highest high and the lowest low in the last N days, **iii) the number of days parameter for which the current value of NDayRange is the smallest** (in other words, the current value of NDayRange must be the smallest in the period of the last Y days). Moreover, **the ATR length** is constant over time and equal to 40 days.

The Grid Search method, which involves **full optimization of all specified parameters by creating a wide range of possible combinations.** Our goal is to find such **parameter ranges** that **the strategy remains stable (robust),** which will allow us to assess its usefulness in real market conditions.

The key criterion for assessing stability is that all test results must show a positive MAR value and the maximum drawdown must not exceed 250% of the drawdown value for the result with the highest MAR. If any test generates a negative MAR value or if the drawdown exceeds 250% of the drawdown value for the result with the highest MAR, the strategy is rejected completely.

In the first step, we test the stability of parameters on **in-sample data.** For this purpose, we determine **the ranges of parameter values** so that **the quotient of the highest and lowest value of the range is at least 150%.**

In the tested strategy, the ranges defined in this way are:

- **ATR lengths:** 40 days (fixed);
- **NDayRange value smallest from:** range **10-17 days (step: 1);**

- **Cumulative Narrow Range (NDayRange):** range **2-4 days (step: 1);**
- **Distance of buy/sell order from last closing price:** range **100%-160% ATR (step: 5 pp.);**
- **Moving average:** range **160-280 days (step: 5).**

The lowest MAR value of 0.05 was achieved for the following parameters:

- **NDayRange value lowest since:** 13 days;
- **Cumulative Narrow Range (NDayRange):** 3 days;
- **Distance of buy/sell order from last closing price:** 115% ATR;
- **Moving average:** 180 days.

Historical or simulated results do not guarantee that similar outcomes will be achieved in the future.

Test	TR Bars	Sum of TR Bars	ATR Multiplier (%)	Moving Average (bars)	End Balance	CAGR%	MAR	Sharpe	Ann. Sharpe	Max TE DD	Longest DD	Trades	R3
3330	13	3	115%	180	$80,709,136.25	2.70%	0.06	0.26	0.19	48.9%	154.4	596	0.02
3305	13	3	110%	180	$83,409,550.09	2.88%	0.06	0.26	0.20	50.5%	154.3	674	0.02
7205	17	3	110%	180	$88,831,161.22	3.24%	0.06	0.29	0.24	50.1%	158.0	545	0.04
3329	13	3	115%	175	$87,185,164.42	3.14%	0.06	0.29	0.22	48.3%	154.1	594	0.02
7230	17	3	115%	180	$87,062,308.79	3.13%	0.07	0.30	0.24	48.0%	156.6	478	0.04
3304	13	3	110%	175	$89,074,097.59	3.26%	0.07	0.28	0.22	49.4%	149.6	673	0.02
4280	14	3	110%	180	$89,333,187.80	3.28%	0.07	0.29	0.22	47.2%	149.7	640	0.03
4305	14	3	115%	180	$88,600,563.69	3.23%	0.07	0.30	0.23	46.4%	149.7	565	0.03
3331	13	3	115%	185	$89,027,994.08	3.26%	0.07	0.29	0.24	46.7%	154.1	591	0.03

Below is a graph of the equity curve for **the strategy with the lowest MAR.**

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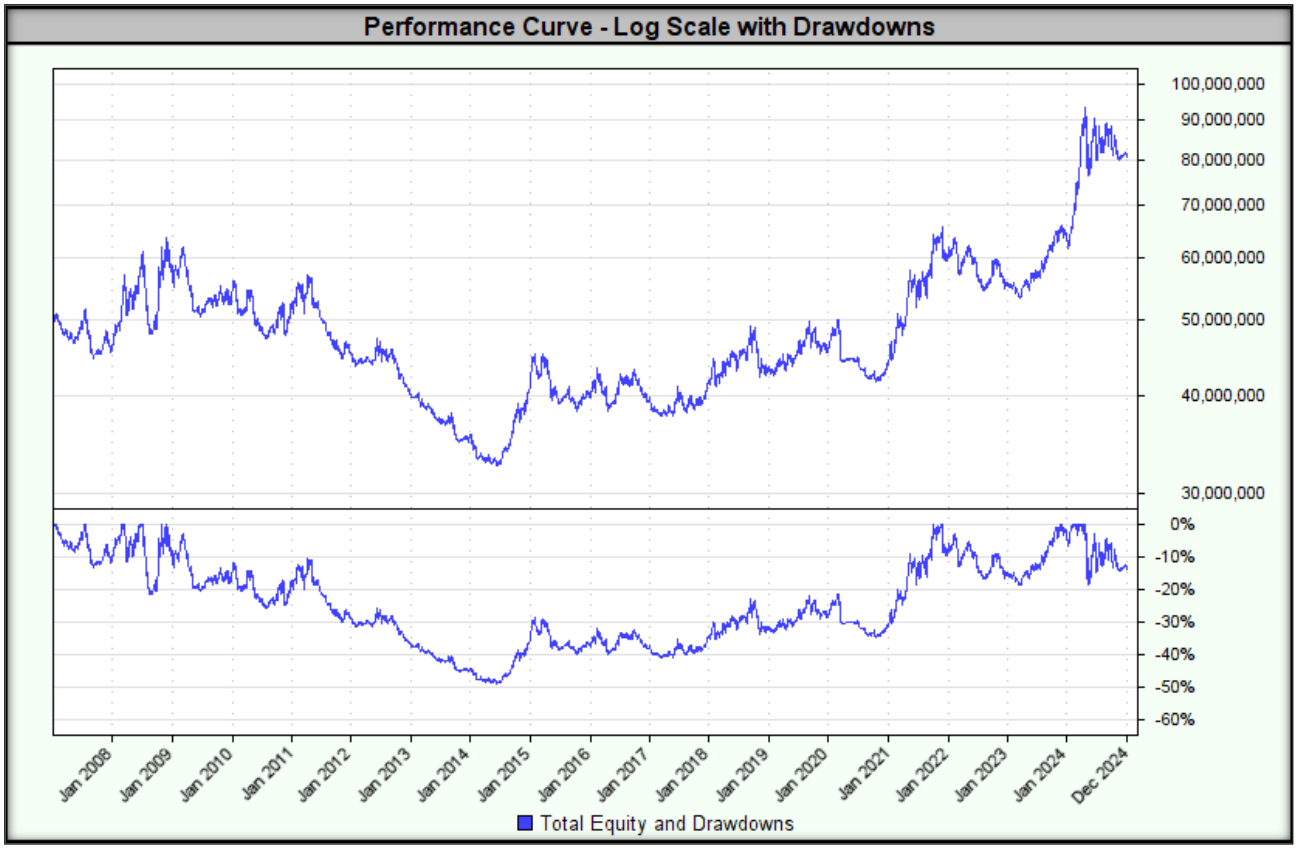

The highest MAR value of 0.45 was achieved for the following parameters:

- **NDayRange value lowest since:** 13 days;
- **Cumulative Narrow Range (NDayRange):** 4 days;
- **Distance of buy/sell order from last closing price:** 140% ATR;
- **Moving average:** 165 days.

The highest MAR value was accompanied by **a drawdown of 13.3%.**

Historical or simulated results do not guarantee that similar outcomes will be achieved in the future.

Test	TR Bars	Sum of TR Bars	ATR Multiplier (%)	Moving Average (bars)	End Balance	CAGR%	MAR	Sharpe	Ann. Sharpe	Max TE DD	Longest DD	Trades	R3
3777	13	4	140%	165	$196,613,334.44	7.90%	0.59	0.74	0.74	13.3%	42.4	337	0.34
3802	13	4	145%	165	$193,132,097.65	7.80%	0.59	0.75	0.80	13.2%	40.3	293	0.42
6702	16	4	140%	165	$156,863,963.21	6.56%	0.56	0.70	0.73	11.7%	35.4	279	0.40
3778	13	4	140%	170	$189,470,432.02	7.68%	0.56	0.72	0.72	13.8%	42.4	334	0.30
4777	14	4	145%	165	$169,647,450.99	7.02%	0.55	0.73	0.72	12.8%	41.6	272	0.39
6727	16	4	145%	165	$155,562,561.76	6.51%	0.55	0.71	0.78	11.9%	35.1	242	0.46
4752	14	4	140%	165	$174,386,693.78	7.19%	0.55	0.73	0.69	13.2%	43.5	313	0.31
3779	13	4	140%	175	$188,289,722.64	7.65%	0.55	0.71	0.72	14.0%	42.4	336	0.33
3781	13	4	140%	185	$207,176,545.40	8.22%	0.54	0.74	0.79	15.2%	43.4	339	0.33

Below is a graph of the equity curve for **the strategy with the highest MAR.**

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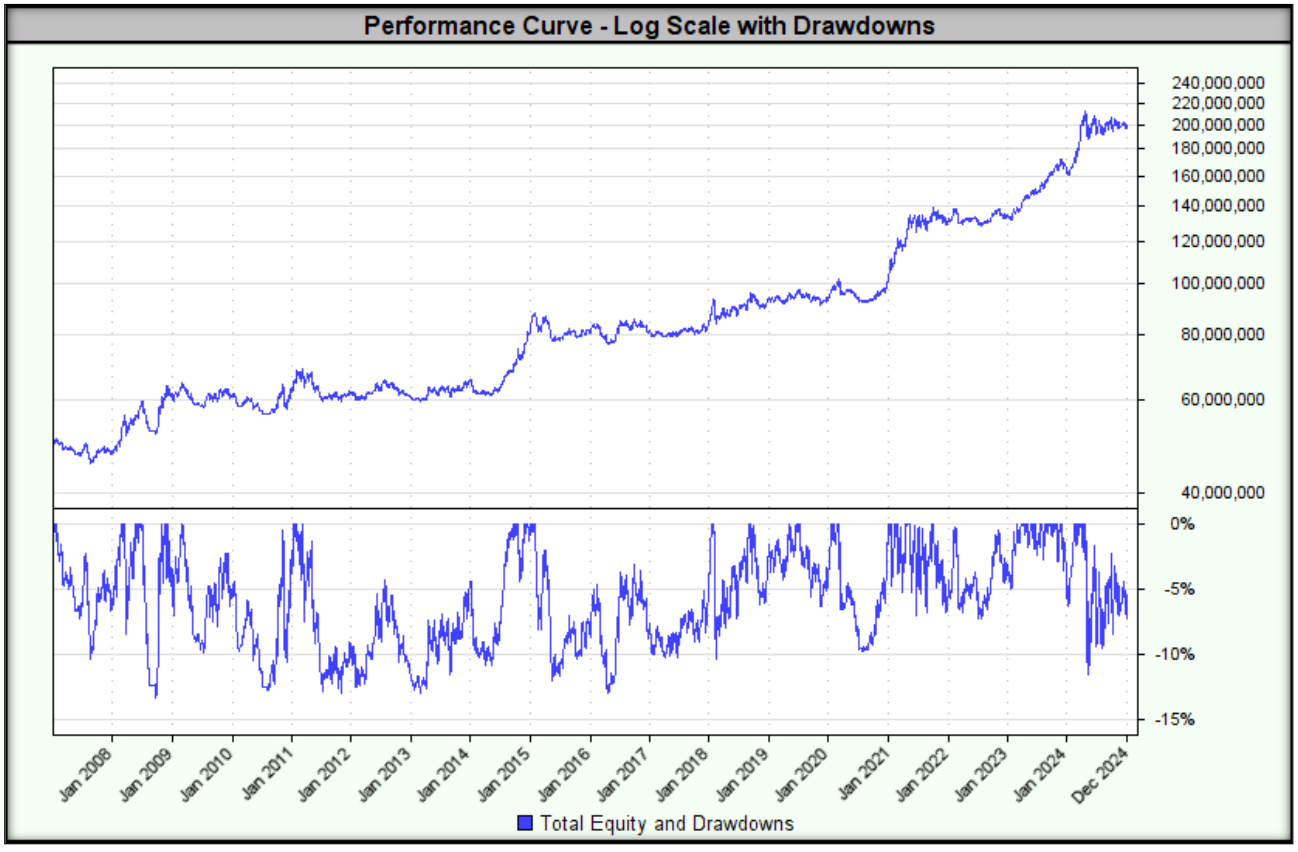


For all combinations of tested parameter ranges, **the highest drawdown was 50.5%.**

Historical or simulated results do not guarantee that similar outcomes will be achieved in the future.

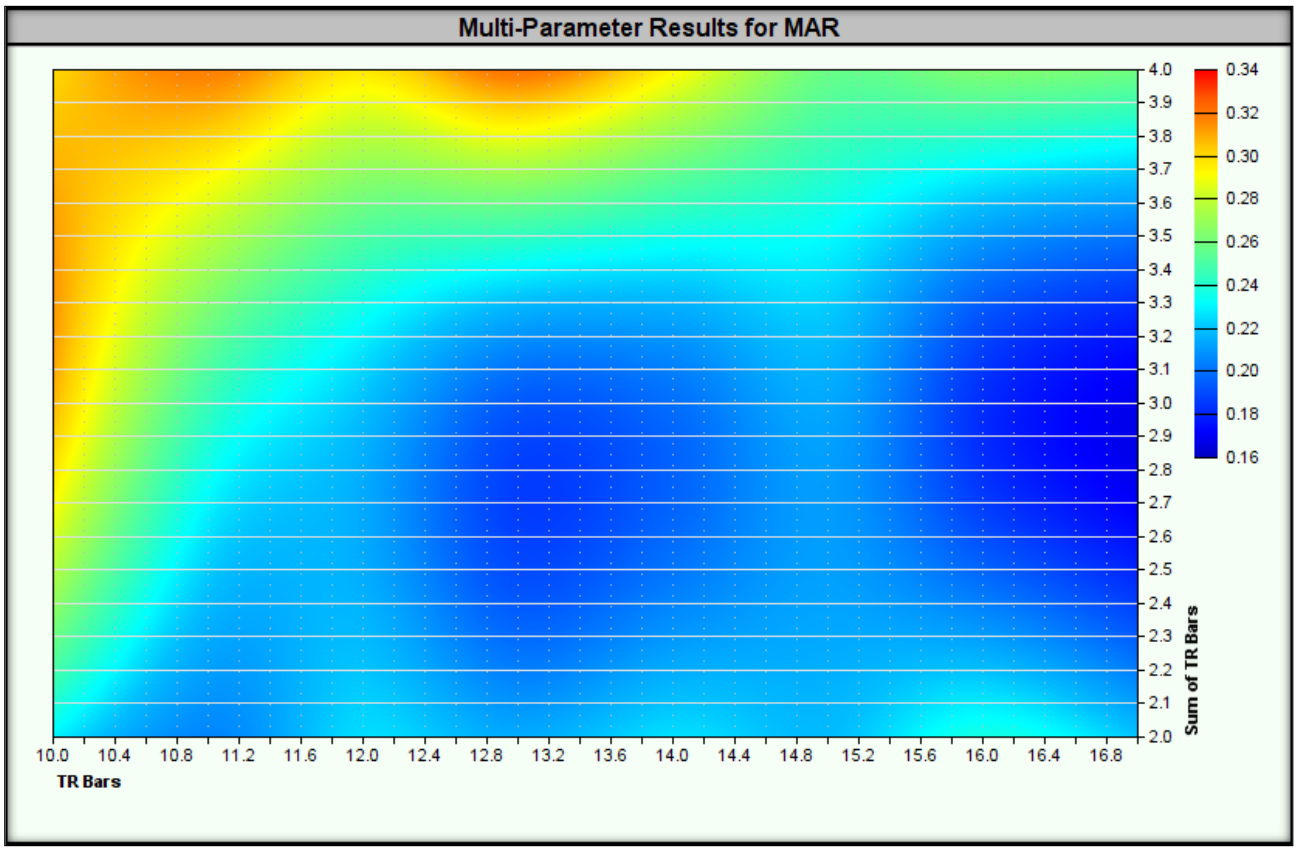
Test	TR Bars	Sum of TR Bars	ATR Multiplier (%)	Moving Average (bars)	End Balance	CAGR%	MAR	Sharpe	Ann. Sharpe	Max TE DD	Longest DD	Trades	R3
3305	13	3	110%	180	$83,409,550.09	2.88%	0.06	0.26	0.20	50.5%	154.3	674	0.02
7205	17	3	110%	180	$88,831,161.22	3.24%	0.06	0.29	0.24	50.1%	158.0	545	0.04
7209	17	3	110%	200	$124,514,438.67	5.20%	0.10	0.41	0.27	49.9%	134.0	540	0.05
4575	14	4	100%	280	$333,044,505.95	11.11%	0.22	0.60	0.40	49.9%	78.8	777	0.12
3309	13	3	110%	200	$127,868,069.29	5.36%	0.11	0.40	0.28	49.7%	149.5	658	0.04
3304	13	3	110%	175	$89,074,097.59	3.26%	0.07	0.28	0.22	49.4%	149.6	673	0.02
6234	16	3	110%	200	$130,054,326.89	5.45%	0.11	0.42	0.28	49.4%	139.6	565	0.05
3334	13	3	115%	200	$122,522,255.99	5.11%	0.10	0.40	0.27	49.4%	146.1	582	0.03
6230	16	3	110%	180	$93,916,727.73	3.56%	0.07	0.31	0.25	49.3%	158.3	572	0.04

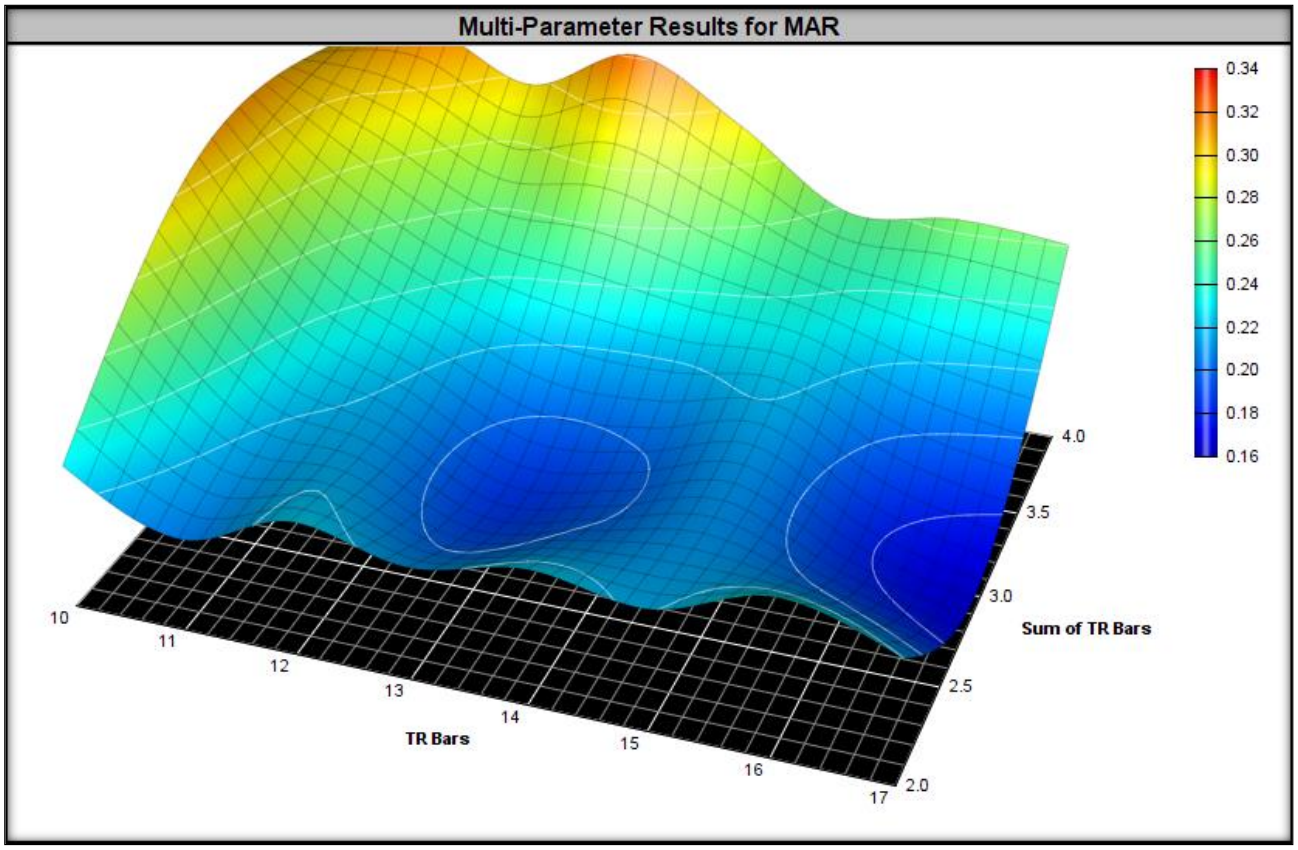
In summary, the strategy **failed the stability test** over a wide range of optimized parameters on in-sample data because:

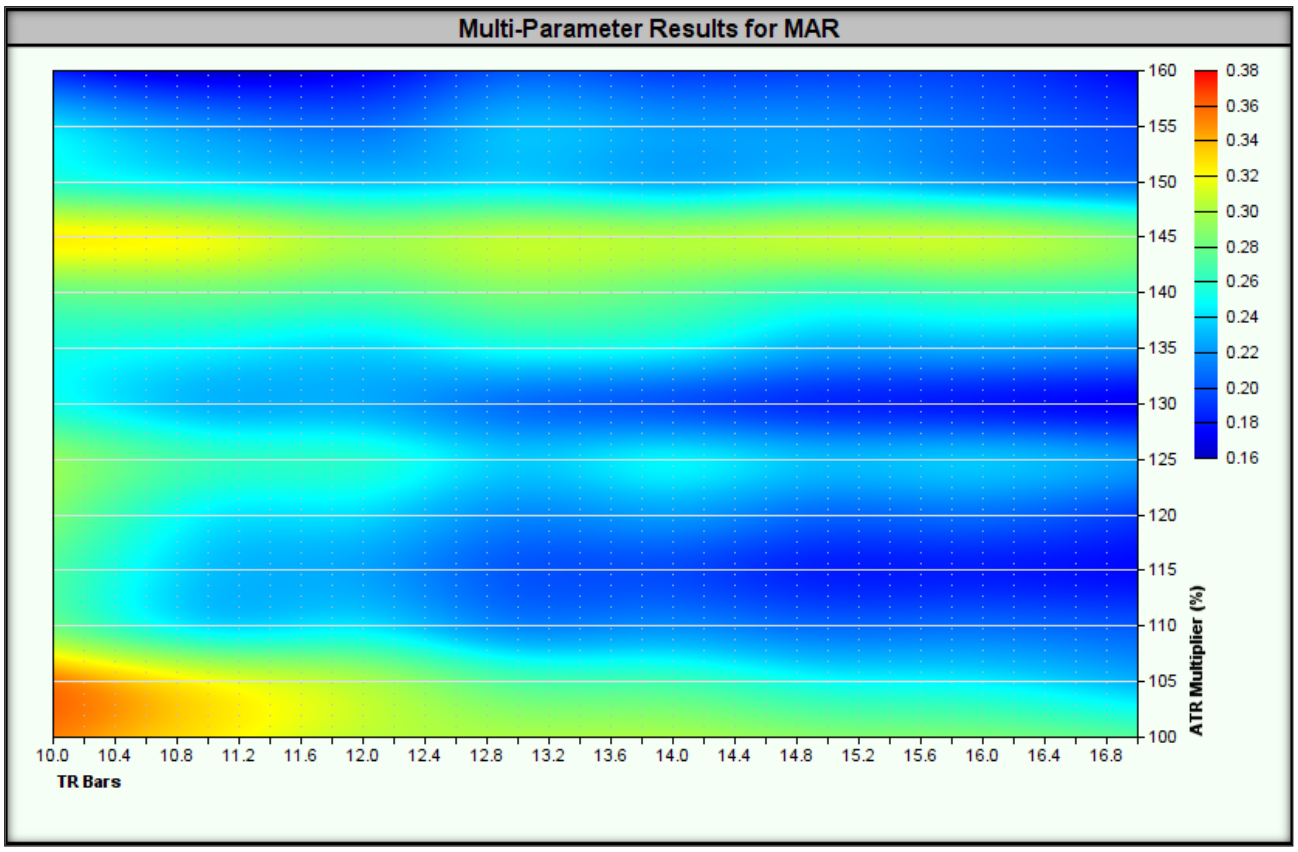
- **The maximum drawdown exceeded 250% of the drawdown value** for the result with the highest MAR (**50.5 % vs. 13.3 %)** – which means an unacceptable risk of deep capital drawdowns.

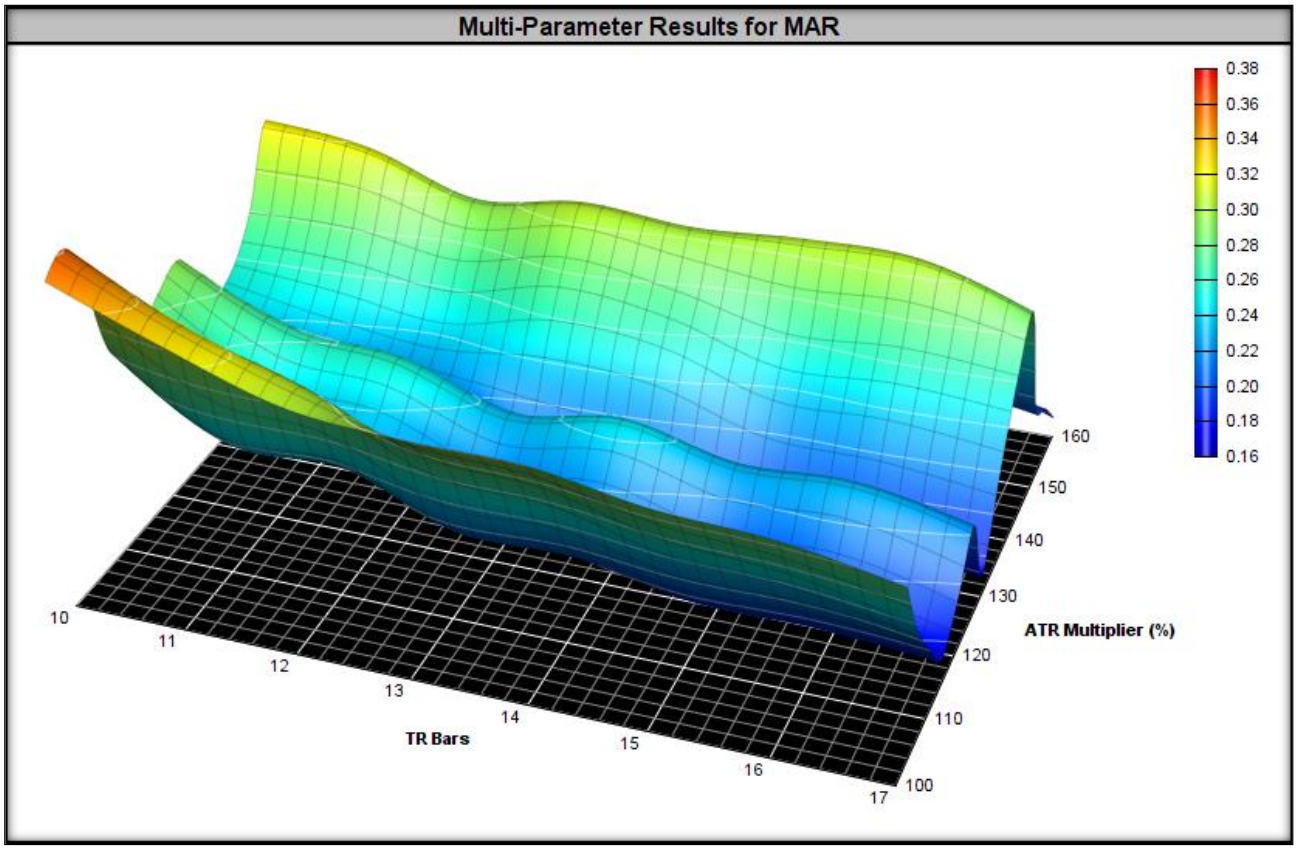
Therefore, **<u>further testing of the strategy is not justified,</u>** as its use in real transactions **is highly questionable.**

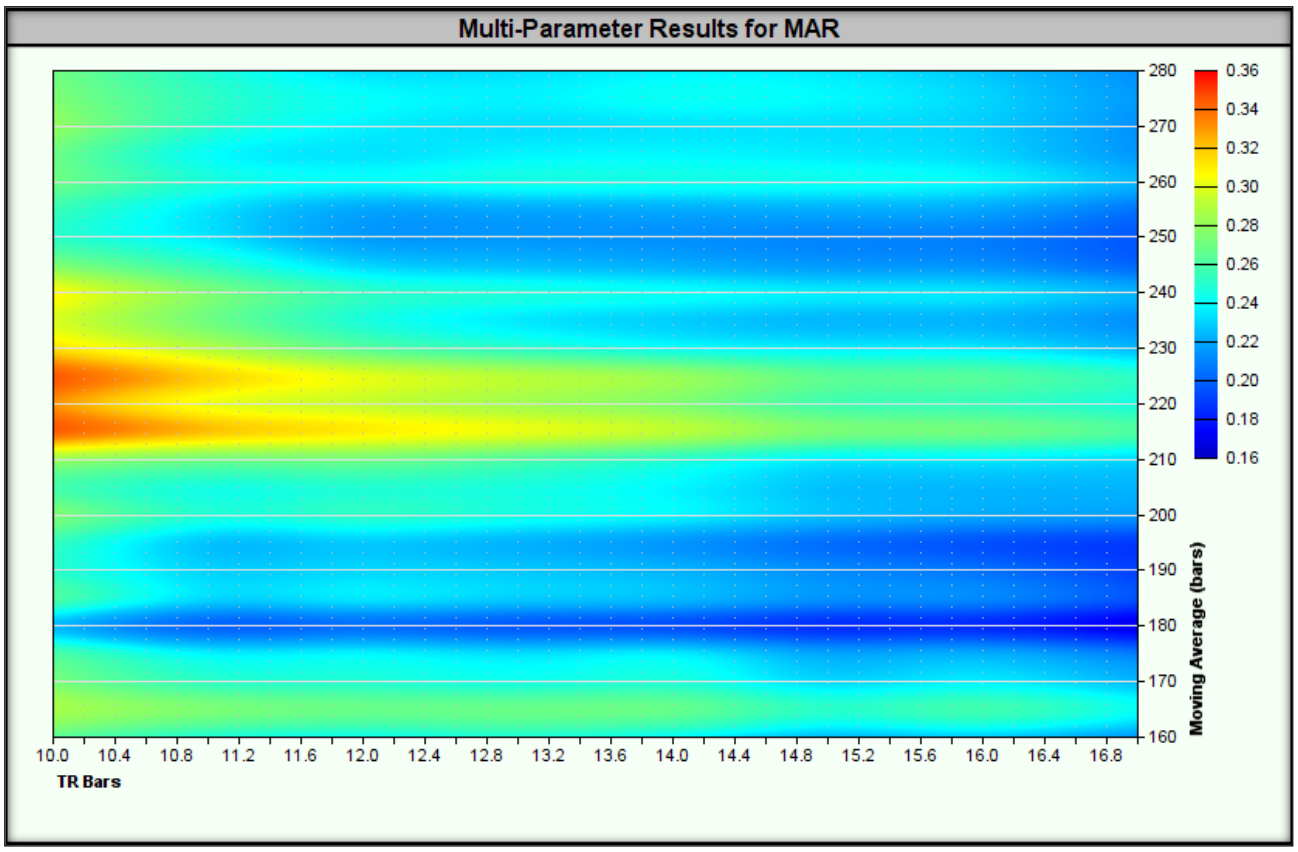
Heatmaps for the tested ranges are presented below.




Multi-Parameter Results for MAR
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
10
11
12
13
14
15
16
17
TR Bars
2.0
2.5
3.0
3.5
4.0
Sum of TR Bars


Multi-Parameter Results for MAR
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
160
155
150
145
140
135
130
125
120
115
110
105
100
ATR Multiplier (%)
10.0
10.4
10.8
11.2
11.6
12.0
12.4
12.8
13.2
13.6
14.0
14.4
14.8
15.2
15.6
16.0
16.4
16.8
TR Bars





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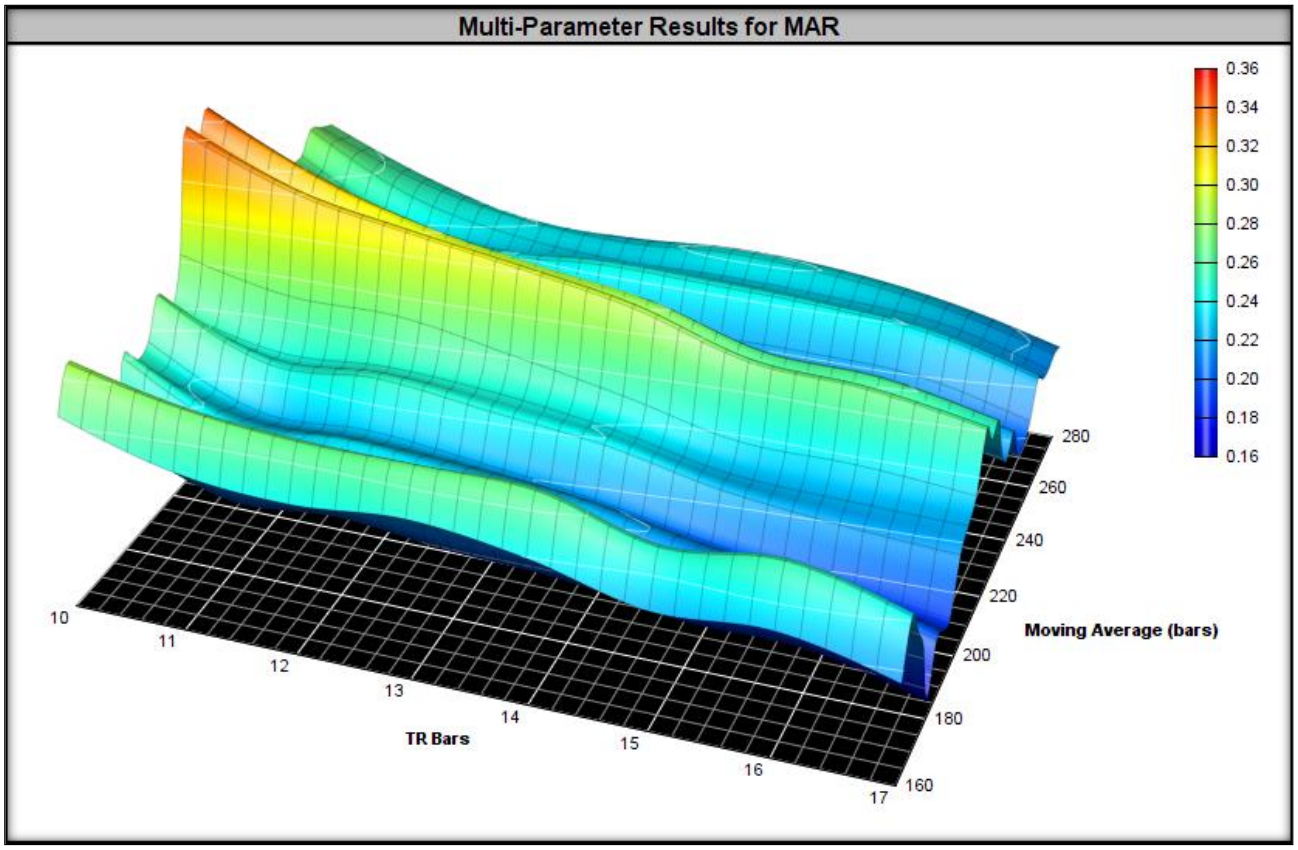
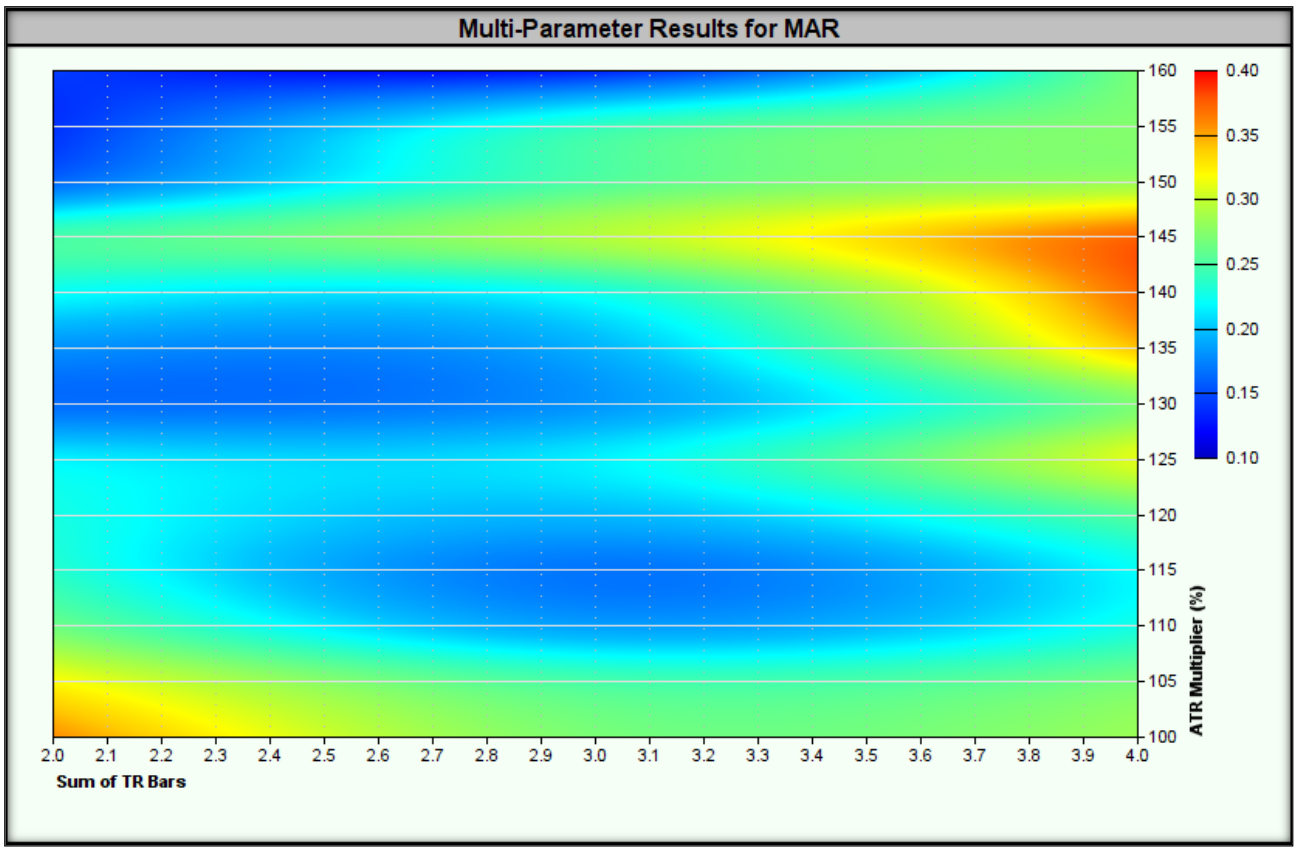
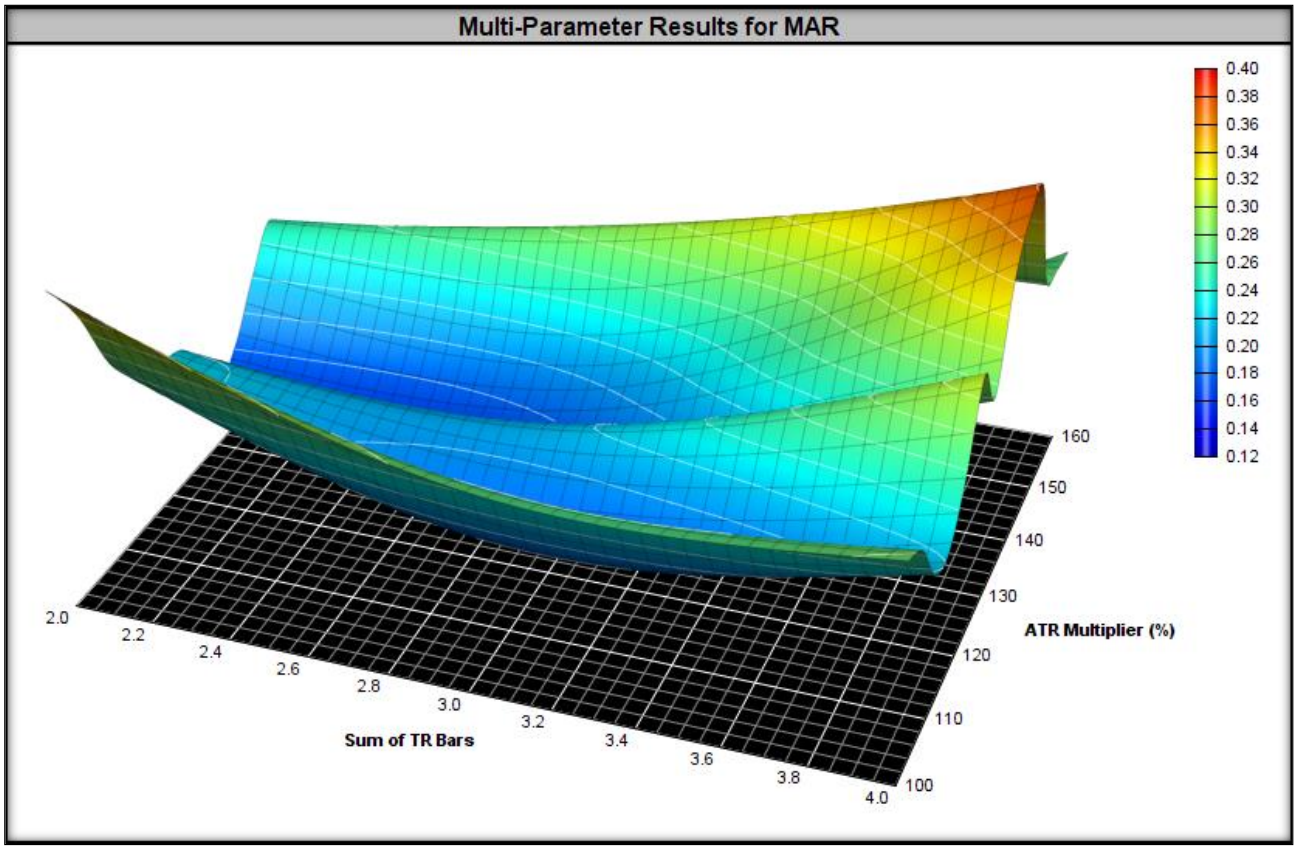
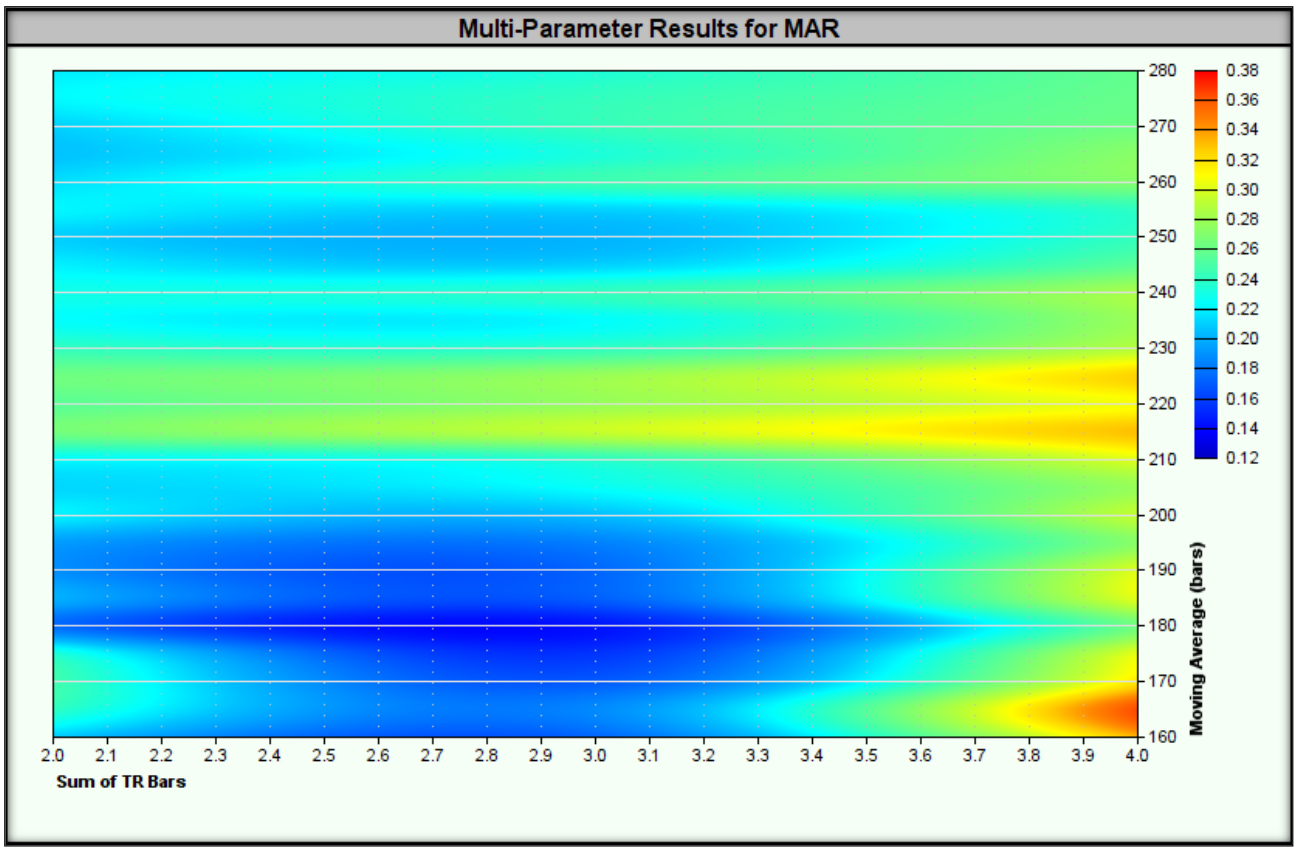
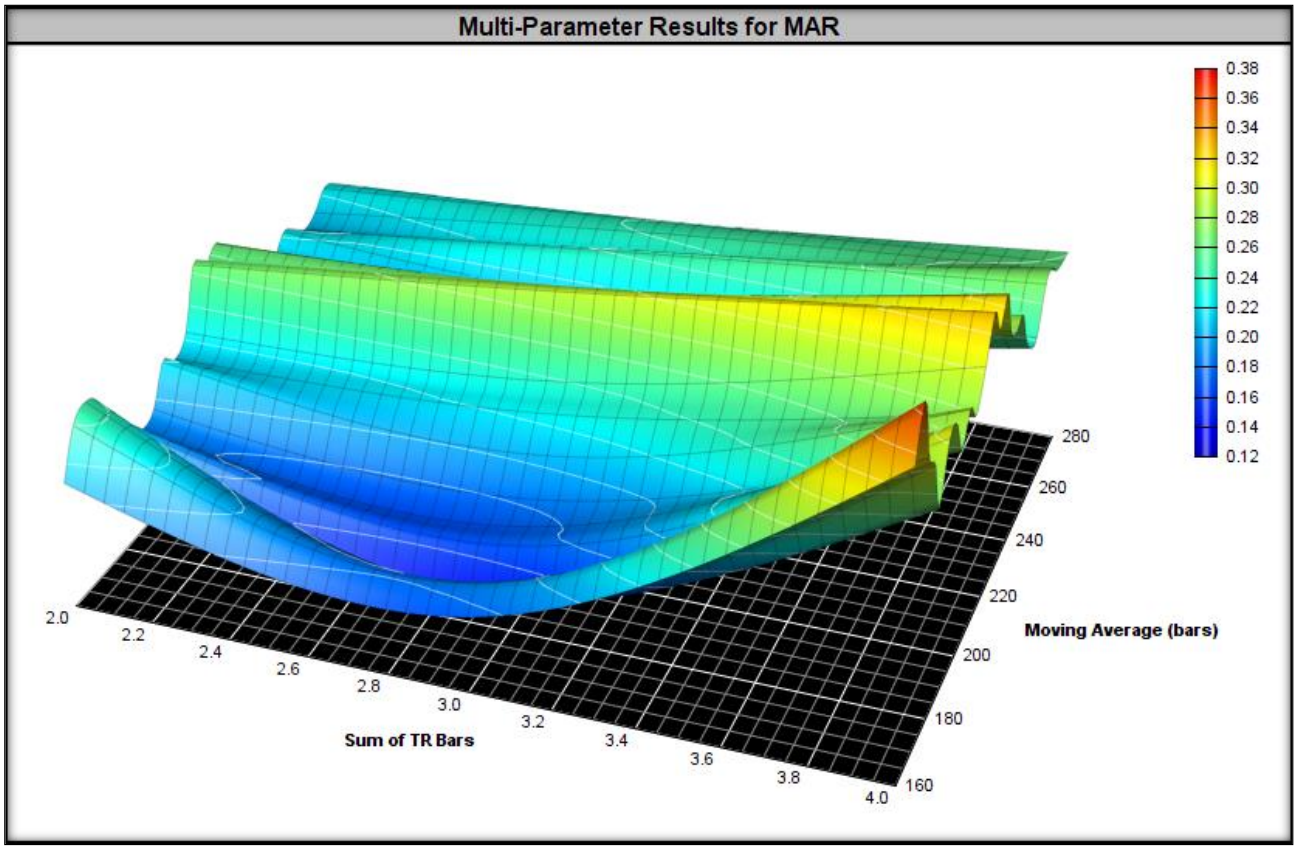
+48-698-630-421

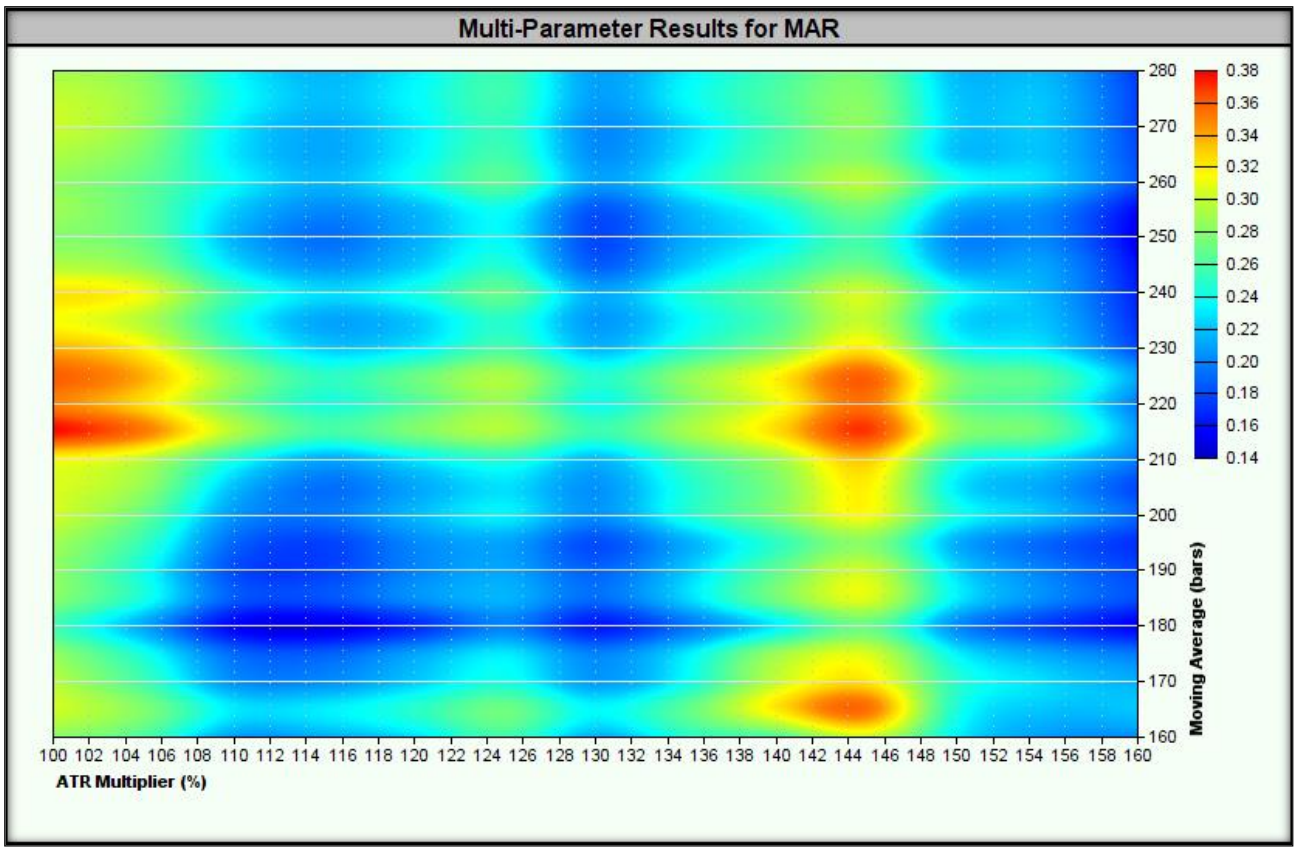

Multi-Parameter Results for MAR
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
10
11
12
13
14
15
16
17
TR Bars
280
260
240
220
200
180
160
Moving Average (bars)

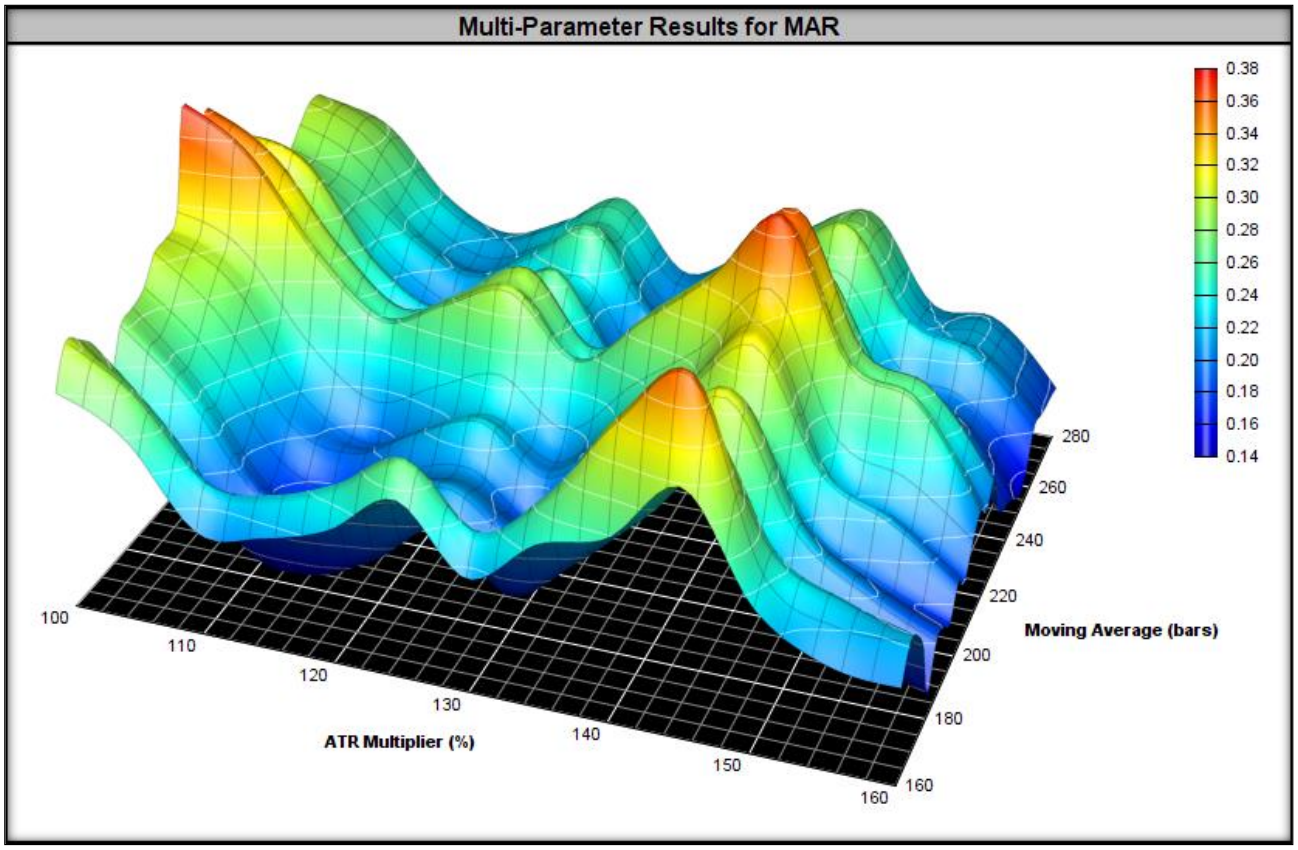

Multi-Parameter Results for MAR
0.40
0.35
0.30
0.25
0.20
0.15
0.10
160
155
150
145
140
135
130
125
120
115
110
105
100
ATR Multiplier (%)
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
Sum of TR Bars

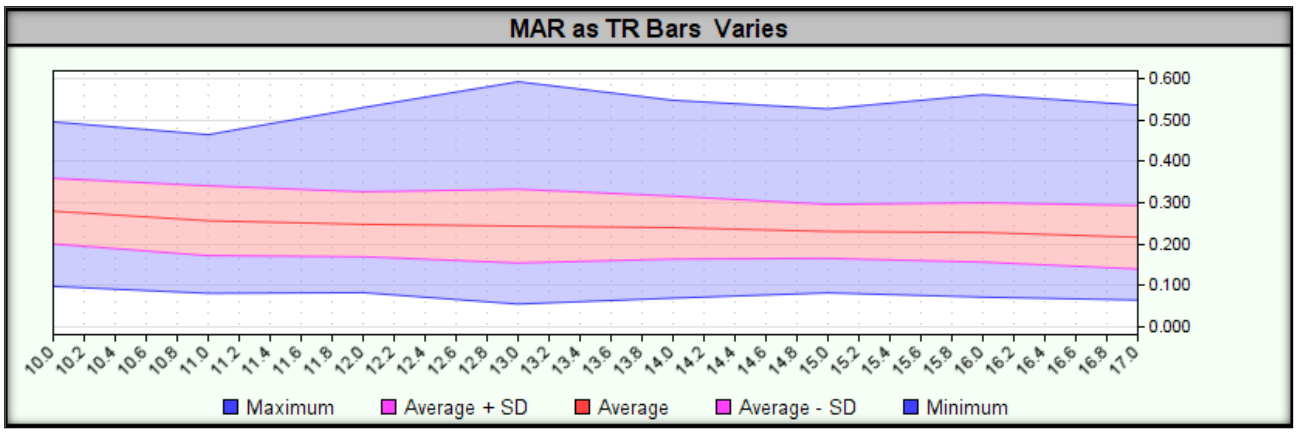

Multi-Parameter Results for MAR
0.40
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
Sum of TR Bars
160
150
140
130
120
110
100
ATR Multiplier (%)

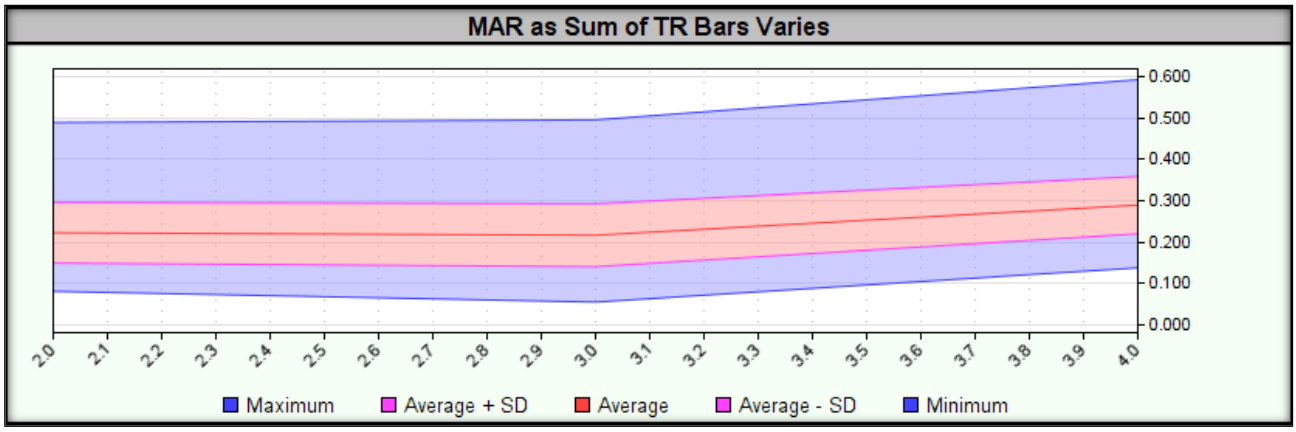

Multi-Parameter Results for MAR
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
280
270
260
250
240
230
220
210
200
190
180
170
160
Moving Average (bars)
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
3.1
3.2
3.3
3.4
3.5
3.6
3.7
3.8
3.9
4.0
Sum of TR Bars

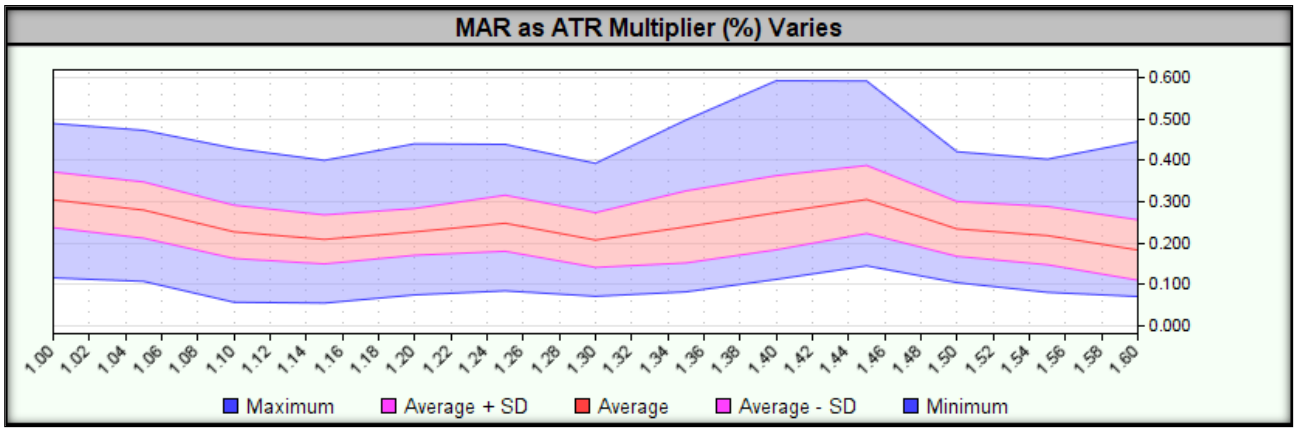

Multi-Parameter Results for MAR
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
0.12
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
Sum of TR Bars
280
260
240
220
200
180
160
Moving Average (bars)

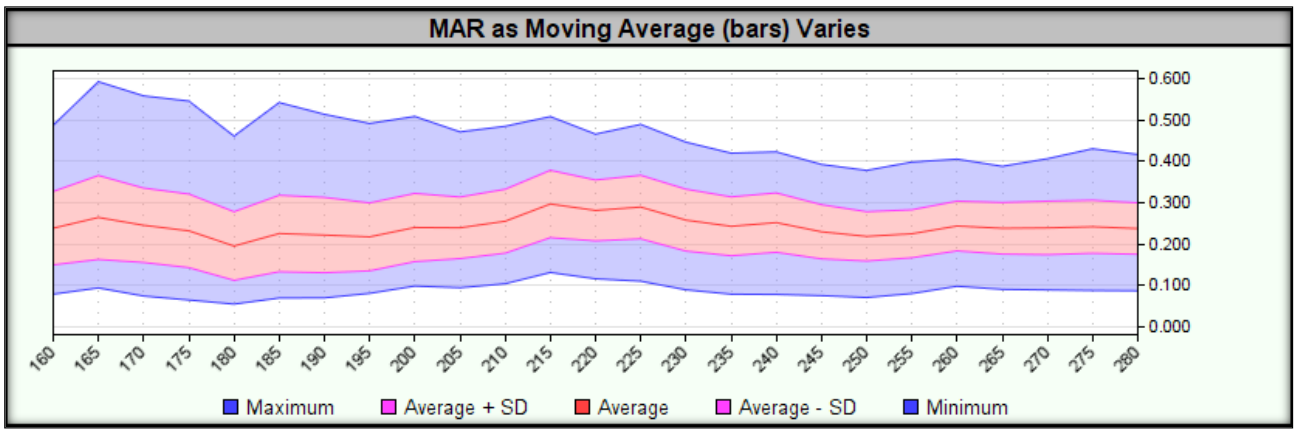

Multi-Parameter Results for MAR
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
280
270
260
250
240
230
220
210
200
190
180
170
160
Moving Average (bars)
100 102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136 138 140 142 144 146 148 150 152 154 156 158 160
ATR Multiplier (%)


Multi-Parameter Results for MAR
0.38
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
0.14
100
110
120
130
140
150
160
ATR Multiplier (%)
280
260
240
220
200
180
160
Moving Average (bars)


MAR as TR Bars Varies
0.600
0.500
0.400
0.300
0.200
0.100
0.000
10.0 10.2 10.4 10.6 10.8 11.0 11.2 11.4 11.6 11.8 12.0 12.2 12.4 12.6 12.8 13.0 13.2 13.4 13.6 13.8 14.0 14.2 14.4 14.6 14.8 15.0 15.2 15.4 15.6 15.8 16.0 16.2 16.4 16.6 16.8 17.0
Maximum
Average + SD
Average
Average - SD
Minimum







2. **Monte Carlo simulation**

This step was skipped due to **failure of previous stability tests.**

3. **Stability over a moving time window**

This step was skipped due to **failure of previous stability tests.**

4. **Stability long/short**

This step was skipped due to **failure of previous stability tests.**

5. **Stability in the portfolio of financial instruments**

This step was skipped due to **failure of previous stability tests.**

6. **Money Management (Position Sizing)**

This step was skipped due to **failure of previous stability tests.**

7. **Strategy Risk Management**

This step was skipped due to **failure of previous stability tests.**

Step 5: Walk-Forward Analysis

This step was skipped due to **failure of previous stability tests.**

Step 6: Using the strategy in real time

This step was skipped due to **failure of previous stability tests.**