MAI Index Methodologies

- **Bull-Rider Bear-Fighter ™**
- **Tactical Growth & Income**

Updated Sept 2019

I. Construction Summary

A. Index Overview

The **MAI Bull-Rider Bear-Fighter Index** and the **MAI Tactical Growth and Income Index** (the "Index" or "Indexes") were created by MAI Indexes, a service of SumGrowth Strategies, LLC (SGS, the "Index Provider") and incorporate its Merlyn.AI algorithmic technology. This document describes the methodology and construction of these Indexes.

MAI Indexes are dynamic multi-asset indexes that seek to deliver higher returns and lower risk than a market capitalization-weighted index composed of comparable assets by employing a combination of differential asset class rotation, adaptive momentum filtering, active and passive risk reduction, integrated bear market strategies, and AI Genetic Algorithms that periodically evolve the model's configuration. Eligible securities are limited to U.S. publically traded ETFs deemed suitable to maintain investability of the Index.

B. Index Configuration

Each Index consists of a portfolio of eight underlying momentum strategy Categories, each of which selects one ETF to represent it in the portfolio. Momentum strategies seek to identify ETFs that have recently performed well and are likely to continue performing well for a subsequent period of time. During bull markets, each of the eight strategy Categories focus on a thematic set of candidate ETFs. Thematic Categories include; Sectors, Countries, Regions, Dividends, Factors, StyleMix, and Bonds. When a proprietary Bull/Bear Indicator (Section I-G) signals the onset of a bear market, each momentum strategy automatically switches its model to a Bear Market Strategy that replaces its set of thematic candidate ETFs with a set of safe-harbor candidate ETFs that generally perform better in bear markets. Bear Market Strategies seek to avoid the punishing losses of a market crash while striving for returns better than sitting on the sidelines in cash. The Indexes and their underlying thematic Categories are listed in Table 1 below with their corresponding allocation weights.

Table 1. Index Configuration

Index Name and Description	Categories	Weight
MAI Tactical Growth & Income Index The MAI Tactical Growth & Income Index employs a 30/70 stocks/bonds ratio typical of a conservative portfolio. During bull markets, thematic Category strategies seek to improve returns by owning the Category momentum leaders. During bear markets, the Index seeks to avoid risk and secure a positive return by selecting momentum leaders from among bond/treasury/gold safe-harbor ETFs. Inverse and leveraged ETFs are prohibited.	Bonds-I	20%
	Bonds-II	20%
	Bonds-III	15%
	Bonds-IV	15%
	Sectors	15%
	Regions	5%
	Countries	5%
	Dividends	5%
MAI Bull-Rider Bear-Fighter Index The MAI Bull-Rider Bear-Fighter Index employs an 80/20 stocks/bonds ratio typical of a growth portfolio. During bull markets, its Category strategies seek to improve returns by owning the Category trend leaders. During bear markets, the Index seeks to avoid risk and secure a positive return by selecting momentum leaders from among bond/treasury/gold safe-harbor ETFs. Inverse and leveraged ETFs are prohibited.	Sectors-I	20%
	Sectors-II	15%
	Countries	15%
	Regions	10%
	Factors	10%
	StyleMix	10%
	Bonds-I	10%
	Bonds-II	10%

Note: Duplicate strategy Categories will make an alternative ETF selections when reasonably possible.

C. Universe of Eligible Securities

Bull Universe:

When the Bull/Bear indicator signals a bull market, the Index identifies a portfolio of up to eight ETFs from the Bull Universe of ETFs, which includes a set of broad investment Categories having generally divergent investment objectives, but which may overlap one another. The Categories are further divided into a set of broad Subcategories, which may include "broad U.S. equity markets" that seeks to provide a momentum performance floor. Categories and Subcategories are viewed as general guidelines and the scope of each is interpreted broadly and may overlap. The Index Provider initially screens ETFs based on information provided by the ETF's name and investment objectives to identify candidates for membership in a particular Category and Subcategory, then further screens each candidate by conducting a correlation test with other Subcategory members to confirm that the candidate is sufficiently of similar character to become a member of the Subcategory. A single ETF may be a member of several categories and sub-categories. Categories and Subcategories include:

- The "Sectors" category includes ETFs that invest primarily in one of several economic sector sub-categories, such as healthcare, energy, technology, and finance. The Sector's sub-categories also include a broad U.S. equity market sub-category (seeking to provide a momentum performance floor).

- The "Global/Regions" category includes ETFs that invest primarily in one of several broad geo-political region sub-categories, such as global, Europe, Asia Pacific, and emerging markets. The Global/Region's sub-categories also include a broad U.S. equity market sub-category (seeking to provide a momentum performance floor).

- The "Countries" category includes ETFs that invest primarily in a single country, which can be any country in the World. The Country's sub-categories also include a broad U.S. sub-category (seeking to provide a momentum performance floor).

- The "Factors" category includes ETFs that invest primarily based on one of several investment factor sub-categories, such as value, growth, dividends, earnings, size, and momentum.

- The "Style Mix" category includes ETFs that invest primarily based on one of several investment style sub-categories, such as large-cap, large-cap growth, large-cap value, mid-cap, mid-cap growth, mid-cap value, small-cap value, equal weight, growth, and value.

- The "Bonds" category includes ETFs that primarily invest in of several bond sub-categories, such as mid-duration treasuries, aggregate bonds, corporate bonds, mortgage bonds, municipal bonds, and high-yield bonds.

The Bull Universe excludes, among others: (1) certain small ETFs (based on assets under management); (2) currency ETFs; (3) leveraged ETFs; (4) inverse ETFs; (5) utility ETFs; (6) commodity ETFs; (7) global/foreign fixed income ETFs; (8) global/foreign sector ETFs (9) inflation protected treasury ETFs; (10) long-term treasury ETFs; (11) short-term treasury ETFs; (12) short-term bond ETFs; and (13) ETFs with less than one year of operating of history. Each of the foregoing exclusions is based only on the relevant ETF's name and investment objective; and as a result, the Fund's underlying ETFs may, from time to time, hold the foregoing types of securities in their portfolios.

Bear Market:

When the Bull/Bear Indicator signals a bear market, the Index identifies a portfolio of four or more ETFs from the Bear Universe, which includes ETFs in the following categories: (1) medium- and long-term treasury, (2)

aggregate bond, (3) long-term bond, (4) corporate bond, (5) high-yield bond, (6) gold, and (7) broad-based U.S. equity market (seeking better returns during a bear market rebound). The categories are viewed as general guidelines and the scope of each category is interpreted broadly.

The Bear Universe excludes, among others: (1) leveraged ETFs; (2) inverse ETFs; (3) currency ETFs; (4) short-term treasury and money market ETFs; (5) inflation protected treasury ETFs; (6) global/foreign fixed income ETFs; (7) commodity ETFs (except gold); (8) equity ETFs (except broad-based U.S. equity market index ETFs); (9) certain small ETFs (based on assets under management); and (10) ETFs with less than one year of operating of history. Each of the foregoing exclusions is based only on the relevant ETF's name and investment objective; and as a result, the Fund's underlying ETFs may, from time to time, hold the foregoing types of securities in their portfolios.

D. Bull Market Index Configuration

During bull markets each Index employs a subset of the thematic Categories Sectors, Countries, Regions, Dividends, Factors, StyleMix, and Bonds to meet its investment objectives. Multiple instances of some of the thematic Categories are employed to improve diversification and trading logistics. The Index further develops 12 unique evaluation Models for each of its thematic Categories. Each Model is comprised of a different mix of candidate ETFs, and each Model includes an ETF from each of its associated Subcategories. At month-end, each of thematic Model selects its momentum leader from among its set of candidate ETFs, and each thematic Category selects its overall momentum leader from the selections made by its 12 underlying Models. (Figure 1) Thus the Index is composed of eight momentum leaders, one chosen to represent each of its eight thematic Categories (however, due to permissible duplication, the Index may identify as few as six ETFs).

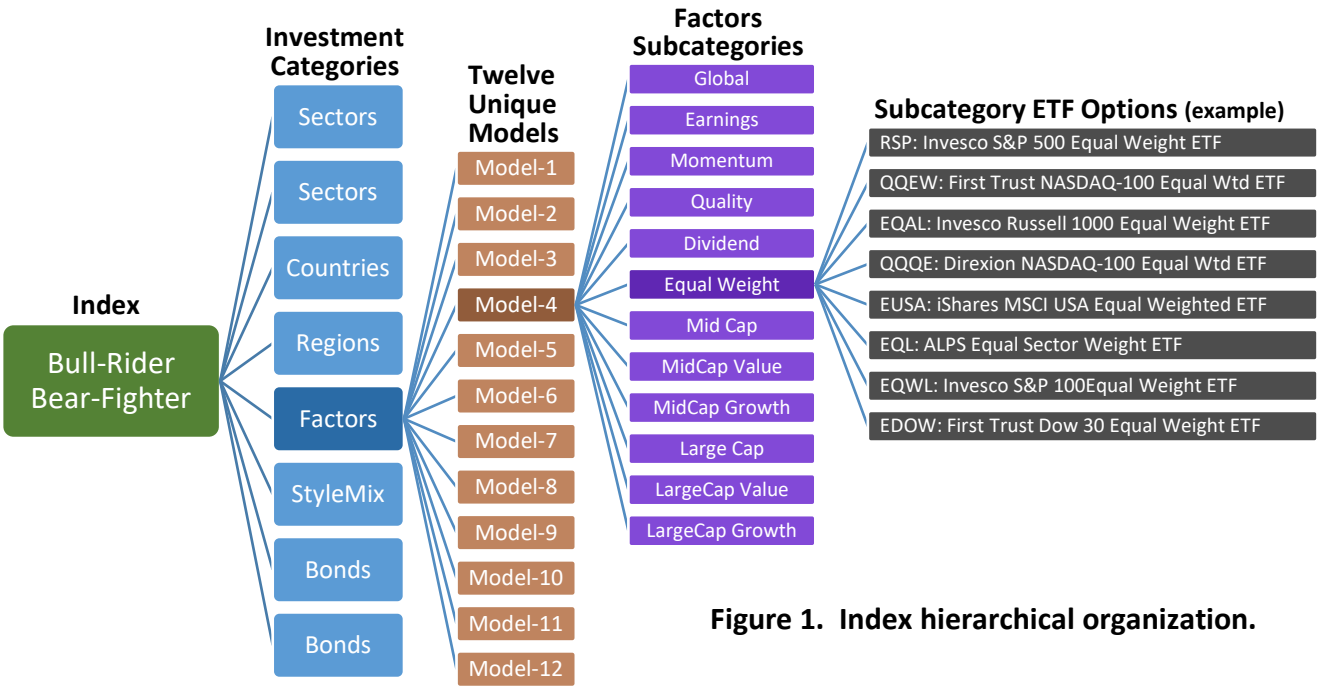

Figure 1. Index hierarchical organization.

To more proficiently evaluate the Bull Universe of candidate ETFs, the Index employs a proprietary AI Genetic Algorithm to continuously evolve the set of candidate ETFs associated with each of the 12 thematic Models seeking to improve investment performance and adapt to changing market conditions. A more detailed description of the Genetic Algorithm can be found in Section I-I.

E. Bear Market Index Construction

The Index creates two models each including a different mix of Bear Universe ETFs, one that will typically select, in the Index Provider's view, more conservative ETFs from the Bear Universe (the "Conservative Model") and one that will select, in the Index Provider's view, more aggressive ETFs from the Bear Universe (the "Aggressive Model"). The Index uses the Conservative Model to select up to two ETFs (each, a Momentum Leader), one of which will have a 20% allocation of the overall Fund portfolio and the other of which will have a 15% allocation of the overall Fund portfolio. The Index uses the Aggressive Model to select up to six ETFs (each, a Momentum Leader), one of which will have a 15% allocation of the overall Fund portfolio, and each of the other five will have a 10% allocation of the overall Fund portfolio. Because the Index may select duplicate ETFs, a particular ETF may be selected for both the Conservative Model and the Aggressive Model. Likewise, a particular ETF may be selected for both Conservative Model ETFs and multiple Aggressive Model ETFs. The Index will, at a minimum, select four ETFs. Notwithstanding the foregoing, the Bear Index may select ETFs that may generally be considered aggressive, such as high-yield bond ETFs and ETFs invested according to a broad U.S. equity market.

F. Duplicate Selection Reduction

The Index seeks to minimize the selection of duplicate ETFs for different Categories. A Duplicate Reduction algorithm (Section II-L) identifies instances of duplicate ETF selections and attempts to identify and substitute suitable alternative ETFs from the same Subcategory. If it is unable to identify a suitable substitute, duplicate ETF selections are permitted. While the bull market Index will be comprised of at least six unique ETFs, the bear market Index may be comprised of only four or more ETFs due to its more limited universe of alternatives.

G. Bull/Bear Indicator

The Bull/Bear Indicator is a proprietary market risk indicator that seeks to determine whether U.S. equity markets appear to be in an advancing market (a "Bull" indicator) or appear to have an elevated risk of market decline (a "Bear" indicator). The Bull/Bear Indicator is an algorithm that assesses U.S. equity markets across three key metrics: price-trend, market momentum, and value sentiment. In addition, when in a Bear market, the Bull/Bear Indicator assesses whether a particularly sharp rebound follows a recent market decline, in which case the Bull indicator is triggered. Price-trend indicates the degree to which U.S. market securities prices are trending higher or lower. Market momentum indicates the volume-adjusted, price-trend of U.S. equity market securities to assess investor conviction. Value sentiment indicates the recent proportion of U.S. equity market securities making 52-week highs against those making 52-week lows.

When any one of the three metrics is negative and that metric is declining further at month-end, the "Bear" indicator is triggered and the Index is constructed via the Bear methodology. When one or more of the three metrics is positive in value and the remaining metrics are increasing, the "Bull" indicator is triggered and the Index is constructed via the Bull methodology. The Index generally shifts between a "Bull" sentiment and a "Bear" sentiment, as appropriate, at month-end. However, the Index's construction may additionally shift from Bear to Bull during a month if, as noted above, the "Bull" indicator is triggered due to a particularly sharp rebound following a recent market decline. The Index remains constructed using a "Bull" or "Bear" methodology until a subsequent event triggers a change.

The Bull/Bear Indicator employs well-known PID (proportional, integral and differential) process control algorithms to further condition the three basic metrics before combining them using the methods of "fuzzy logic" to produce the final Bull/Bear Indicator value. See Section II-I, and Section II-J for a more detailed description of the calculations. The Bull/Bear Indicator is published daily by SGS as StormGuard-Armor.

H. Polymorphic Momentum – Forward-Walk Progressive Tuning

"Poly," meaning many, and "morph," meaning change, describe the nature of the momentum filter design for the Indexes. Momentum filters may be either DEMA (double exponential moving average) or TEMA (triple exponential moving average) in form and are progressively re-tuned at monthly intervals. The momentum strategies employ progressively tuned momentum filters because (1) the character of the noise present in market data has changes substantially over time, and (2) the differential noise between a strategy's candidate ETFs will depend on the character of the combination of bonds, treasuries, broad markets, sectors, and commodity ETFs present as they can be markedly different from one another. Thus, the filter time constants may range from 11 days to 105 days depending on the absolute and differential noise characteristics of the candidate ETF daily data. All momentum strategies do an initial backtest to tune the momentum filters through 12/31/2003, after which formal monthly performance evaluation begins. The momentum strategies then walk forward in time through out-of-sample data and progressively retune their momentum filters at subsequent month-end intervals. This methodology eliminates hindsight bias distortions that might otherwise plague the momentum filter tuning process.

I. Genetic Algorithm – Eliminating Hindsight Selection Bias

Hindsight selection bias can be problematic in simple backtested investment models because funds that made a model perform well in the past may not continue to do so in the future. These Indexes employ Merlyn.AI Genetic Algorithms designed to both expand the universe of candidate ETFs and evolve a population of candidate momentum Models on a monthly basis seeking to continuously adapt to the market's evolving character while eliminating hindsight bias in the ETF selection process.

The Genetic Algorithm evolves the population of 12 Models in much the same way as populations of animals evolve naturally. Consider the analogy where each ETF Subcategory represents a different animal body part. When animals evolve by mutation, its child's legs might be different in some way, but they will not have turned into arms or heads. The same applies to the Category Models – meaning that if the mutation Subcategory happened to be energy, then the child Model would have a different energy Subcategory ETF than its parent. As a result, the child Model might then perform slightly better or worse than its parent. In evolution through crossover, a child gets some of its genes from one parent and some from another parent. Here, the child Model starts with the Subcategory ETFs of its parent but then replaces one of its Subcategory ETFs with the ETF of the same Subcategory used by one of the other 12 Models.

If the child Model evolved through mutation or crossover to have better Fitness (a measure of risk-adjusted return performance, see Section II-F) than the parent Model, then it replaces the parent Model going forward. Otherwise, the child Model is discarded and the parent Model continues forward.

Each Index Category employs the Genetic Algorithm to create and evolve its underlying population of 12 unique Models. Each month, the Genetic Algorithm utilizes the following process steps to evolve each of the 12 Models attempting to improve their overall Fitness. Together, the 12 Models will vote to determine which one of their momentum leading ETFs will represent the Category in the Index. The steps include:

- For each of the 12 underlying evaluation Models:
  - Select one of its candidate ETFs for possible genetic mutation
  - Create a list of potential substitute ETFs from its Subcategory
  - Rank the list according to their current momentum value
  - Substitute the highest-ranking one for the ETF selected for mutation
  - Evaluate the mutant child Model for its Fitness (return and risk)
  - If the mutant child Model has better Fitness, the child replaces the parent

- For each of the 12 underlying evaluation Models:
  - Select one of its candidate ETFs for possible genetic crossover
  - Select a different underlying strategy as the donor for the genetic crossover
  - Substitute the corresponding ETF from the donor into the recipient child
  - Evaluate the crossover child Model for its Fitness (return and risk)
  - If the crossover child Model has better Fitness, replace the parent with the child

- Create a voting strategy for determining the momentum leader among the 12 Models
  - Create a list comprised of the momentum leaders from each of the 12 Models
  - Use the list of momentum leaders as candidate ETFs for the voting strategy
  - Evaluate the voting strategy to determine the ultimate momentum leader
  - The ultimate momentum leader represents the Category within the Index

II. Calculations

A. EMA, DEMA, TEMA

EMA is the exponential moving average, DEMA the double exponential moving average, and TEMA is the triple exponential moving average of a data series computed as follows:

$$\boldsymbol{EMA(n)} = \frac{Val(n)}{d} + EMA(n-1) * (1 - \frac{1}{d})$$

$$\boldsymbol{DEMA(n)} = \frac{EMA(n)}{d} + DEMA(n-1) * (1 - \frac{1}{d})$$

$$\boldsymbol{TEMA(n)} = \frac{DEMA(n)}{d} + TEMA(n-1) * (1 - \frac{1}{d})$$

Where:

- d = the EMA filter time constant in days.
- $V(n)$ = the value of raw data on the nth day.
- $EMA(n)$ = the EMA value on the nth day
- $DEMA(n)$ = the DEMA value on the nth day
- $TEMA(n)$ = the TEMA value on the nth day

B. Trend Leader – Population Member Strategy and Bear Market Strategy

The trend leader is the fund with the highest DEMA or TEMA of its daily return data series. The choice between the DEMA or TEMA filter is determined by performance/Fitness of the strategy

$$\boldsymbol{TrendLeader} = IndexOfMax\big(Trend(i)\big) \ \ldots \ for\ i = 1\ to\ 12$$

Where:

- i = the index, 1 to 12, of a strategy's candidate funds
- $Trend(i)$ = the trend value (DEMA or TEMA) of the i^{th} candidate fund
- $IndexOfMax(f(i))$ = the index of fund(i) having the highest trend

C. CAGR – Compound Annual Growth Rate

The CAGR is the annualized return for an investment.

$$\boldsymbol{CAGR} = \left(\frac{EndPrice}{StartPrice}\right)^{\frac{1}{yrs}} - 1$$

Where:

- yrs = the number of years the investment was held

D. Quarterly Downside Deviation

The underlying measure of risk used herein will be the Quarterly Downside Deviation (QDD), which is calculated as the root mean square of negative quarterly returns, sampled daily over the portfolio's data span. More specifically:

$$\boldsymbol{Quarterly\ Downside\ Deviation} = \sqrt{\frac{\sum_{i\ =\ 1+3mo}^{Total\ Days}\left[Min\left(\frac{p(i)}{p(i-3mo)} - 1,\ 0\right)\right]^2}{Total\ Days - 3mo}}$$

Where:

- $Total\ Days$ = the number of market days in the evaluation period.
- $3mo$ = one quarter of a year, typically 63 market days.
- $p(i)$ = the equity curve value on day i.

E. Relative Risk

Relative Risk is a ratio between the Quarterly Downside Deviation (QDD) of a strategy versus the Quarterly Downside Deviation of a very aggressive traditional portfolio consisting of 70% VFINX and 30% VTRIX measured from 1/2/2004 to present.

$$\boldsymbol{RelativeRisk} = QDD_{TestPortfolio}/QDD_{AggressivePortfolio}$$

F. Fitness

Fitness is a Genetic Algorithm term used to judge the relative performance/value of a population member. The Fitness value used in the MAI Categories is the 5yr CAGR divided by its Relative Risk.

$$\boldsymbol{Fitness} = CAGR_{5yr}/RelativeRisk$$

G. Score

The Score value for a strategy is a risk-adjusted return that includes the CAGR for all years, the CAGR for the most recent three years, and the RelativeRisk value for the Strategy.

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$$\textbf{\textit{Score}} = (CAGR_{AllYrs} + CAGR_{3Yrs} / 2) / (40\% + RelativeRisk)$$

H. Progressive Tuning

At each six month interval, the Tuning Time Constant for the momentum filter is re-evaluated by evaluating the ***Score*** of a strategy's performance over a range of 20 time constants ranging from 11 days to 105 days with an interval determined by a geometric ratio step size of 1.125. The tuning time constant producing the best ***Score*** will be used for the momentum filter algorithm for the subsequent six-month period of time.

$$\boldsymbol{TimeConstant}(i) = 10 * 1.125^{i} \quad \ldots \quad for\ i = 1\ to\ 20$$

$$\boldsymbol{BestIndex} = IndexOfMax\big(Score(TimeConstant(i))\big) \ \ldots\ for\ i = 1\ to\ 20$$

$$\boldsymbol{TuningTimeConstant} = TimeConstant(BestIndex)$$

Where:

- *i* = the index, 1 to 20, of a strategy's candidate funds
- *TimeConstant(i)* = the momentum filter time constant in market days
- *Score(TimeConstant(i))* = the ***Score*** of the strategy using *TimeConstant(i)*
- *IndexOfMax(Score(TimeConstant(i))* = the index of the one with the best ***Score***
- *TuningTimeConstant* = the final momentum filter time constant in market days

I. Bull/Bear Indicator: Price Trend, Market Momentum, Value Sentiment

The Price Trend is calculated as the 50d DEMA of the S&P500 composite index daily return, scaled monthly, and offset by +0.5%. The Market Momentum is calculated as the 50d DEMA of the Volume-Adjusted S&P500 composite index daily return, scaled monthly, and offset by +0.5%. The Volume-Adjusted S&P500 composite daily return scales the daily return in proportion to the square of the UpVolume/TotalVolume +.5

$$\boldsymbol{PriceTrend} = 21 * DEMA_{50d}(DailyReturnS\&P500) + 0.5\%$$

$$\boldsymbol{VolAdjustedDailyReturnS\&P500} = DailyReturnS\&P500 * [UpVolume/TotalVolume + .5]^2$$

$$\boldsymbol{MarketMomentum} = 21 * DEMA_{50d} * (VolAdjustedDailyReturnS\&P500) + 0.5\%$$

$$\boldsymbol{AvgHighsPlusLows} = EMA_{255d}(NewHighs + NewLows)$$

$$\boldsymbol{ValueSentiment} = EMA_{15d}(2 * NewLows/AvgHighsPlusLows)/66$$

Where:

- *UpVolume and TotalVolume* are trading volume statistics of the US Markets
- *NewHighs and NewLows* are rolling 52-week statistics of the US Markets

J. Bull/Bear Indicator: Fuzzy Logic Decisions

The decision of whether to exit the market, re-enter the market, or hold the current status consists of the following set of rules, each governed by a combination of logic and analog measures of market statistics.

Conditions indicating the market is not safe: Invoke the Bear Market Strategy

- Price Trend < 0 and declining.
- Value Sentiment < 0 and declining.
- Market Momentum < 0 and declining.

Conditions to hold off on re-entering the market: Remain in the Bear Market Strategy

- Long bear market (>6mo) and three primary measures not unanimously positive
- Price Trend remains < 0.
- Market Momentum < -.5% for 3 months.
- Value Sentiment < 0 for at least 3 of last 5 months.

Conditions for normal re-entry to the market with the momentum strategy: Exit Bear Market Strategy

- Price Trend > 0 and increasing.
- Value Sentiment > 0 and increasing.
- Market Momentum > 0 and increasing.

Conditions for early re-entry to the market with the momentum strategy: Exit Bear Market Strategy

- Bottom Conviction: At least one measure positive, the slope of others > .5%/mo.
- Re-entry Tease: < All measures increasing and expected to cross < 21 days
- Whipsaw Reduction: Recent drop >5% and highest S&P500 in seven weeks

Conditions for preventing a Bull/Bear Indicator false-trigger exit to Bear Market Strategy

- S&P500 drop >6% in prior 6 weeks with >85% recovery by current month-end.

K. Suitability

The Suitability of a candidate ETF is a measure of its relative volatility. Candidate ETFs with large relative volatility become unsuitable for participation in a momentum strategy. When differential volatility between the candidate ETF and the MDY (midcap 400) is larger than the volatility of the MDY, the ETF is unsuitable.

$$\boldsymbol{RelativeVolatility} = 1 - (ETF_{Rtn} - MDY_{Rtn})^2/(MDY_{Rtn})^2$$

$$\boldsymbol{Suitability} = EMA_{44d}(RelativeVolatility)$$

Where:

- *RelativeVolatility* is a daily measure of the ETF-MDY difference relative to the MDY
- *Suitability* is the 44day EMA of *RelativeVolatility*

L. Duplicate Reduction

When a Category selects the same ETF already selected by another Category, a suitable substitute is identified for the purposes of improving diversification and trading logistics. The set of candidate substitutes is limited to the set of ETFs belonging to the same Sector/Asset Class as set forth in Appendix A. The candidate substitutes are ranked as follows, and the list is searched for the first non-duplicative instance with *Ranking* > 0.95. Failure to find a suitable substitute results in accepting a duplicate choice.

$$\boldsymbol{Ranking} = Correlation_{42d}(1 + Return_{42d})$$

Where:

- *Correlation* is the 42 market-day correlation between the selection and the candidate
- *Return* is the 42 market-day cumulative return of the candidate

III. Index Evaluation and Rebalancing

A. Evaluation and Rebalancing Schedule

All MAI Indexes are evaluated month-end following the last trading day of the month, then rebalanced according to the trades produced by the Index's Categories and become effective at the close of the subsequent trading day. Each Category typically produces 4 to 5 trades per year.

B. Target Buffer Weights

To help minimize turnover, buffers of +/- 10% of the target weight are applied to the target weight of each of the Categories. If the weight of any individual Category deviates by more than the buffer amount from its target weight, the Category will be rebalanced back to its target weight at the next monthly evaluation.

IV. Index Calculation and Maintenance

A. Daily Calculation

The MAI Indexes are produced by SumGrowth Strategies, LLC (the Index Provider) and transmitted to Solactive AG (the Calculation Agent). The Index Calculation Agent is responsible for calculating index ETFs and weights as determined by the Index Provider on a daily basis using the ETF selections provided by the Index. The Index Provider will be the final authority on the Index and the interpretation of the Index Methodology.

The total return indexes are calculated for each MAI Index in US dollars. Total return indexes assume reinvestment of cash dividends across the full index at the open on the ex-date. The EEF compositions of the MAI Indexes are additionally available on the MAI Indexes website (www.maiindexes.com).

B. Inception Date

The MAI Indexes have the following inception dates. Index data prior to the inception dates are based on backtesting (pre-inception performance).

Index Name and Description	Inception Date
MAI: Tactical Growth & Income Index	09/01/2019
MAI: Bull-Rider Bear-Fighter Index	09/01/2019

C. Amendments and Exceptions to this Methodology

The Index Committee, comprised of MAI Indexes and SumGrowth Strategies employees, is responsible for approving changes to the methodology for the MAI Indexes. This document is updated to reflect any changes approved by the Index Committee. In the event that the Index Calculation Agent or the Index Provider determines that a material error has occurred in the calculation of the Index, the Index Calculation Agent, having consulted, or having been consulted by, the Index Provider, will endeavor to correct such error on a date agreed to by the Index Provider. If a material error is corrected, the Index Provider will apply the correction from the relevant date forward.

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