



AiLA-X

Systematic | Uncorrelated | Absolute Returns

Generating Alpha

The AiLA process allows to leverage its fundamental knowledge of the commodity sector by ingesting relevant data points to generate alpha.

AiLA brings together experts with deep expertise in commodities, finance and technology. This allows us AiLA to have a robust systematic approach in generating an absolute returns alpha strategies.

ABOUT US

A Systematic Strategy Provider in the Commodities Sector

WHAT MAKES AILA DIFFERENT?



Easy Access

Provides retail and institutional investors with access to portable commodity alpha traditionally accessible only through hedge funds, at a competitive price.



Rigorous

Strategy construction and delivery is simple and transparent. The performance is live and out-of-sample.



Systematic

The systematic process focuses on opportunistic allocation driven by events, seasonality, or trade-flow, delivering a return stream which is uncorrelated to traditional trend, carry, congestion, or mean-reversion strategies.



IOSCO Compliant

The technology and strategy construction methodology has been audited by KPMG, complying with international standards.

ACHIEVEMENTS



Live Performance for 6+ years



~US\$1bn + serviced



Differentiated Returns
/ IOSCO Audited - KPMG

DISTRIBUTION



Swaps

AiLA strategies' can be accessed via banks as a swap



SMA

AiLA strategies can be accessed as a Separately Managed Account



Funds

AiLA strategies are available via a Cayman fund & UCITS*

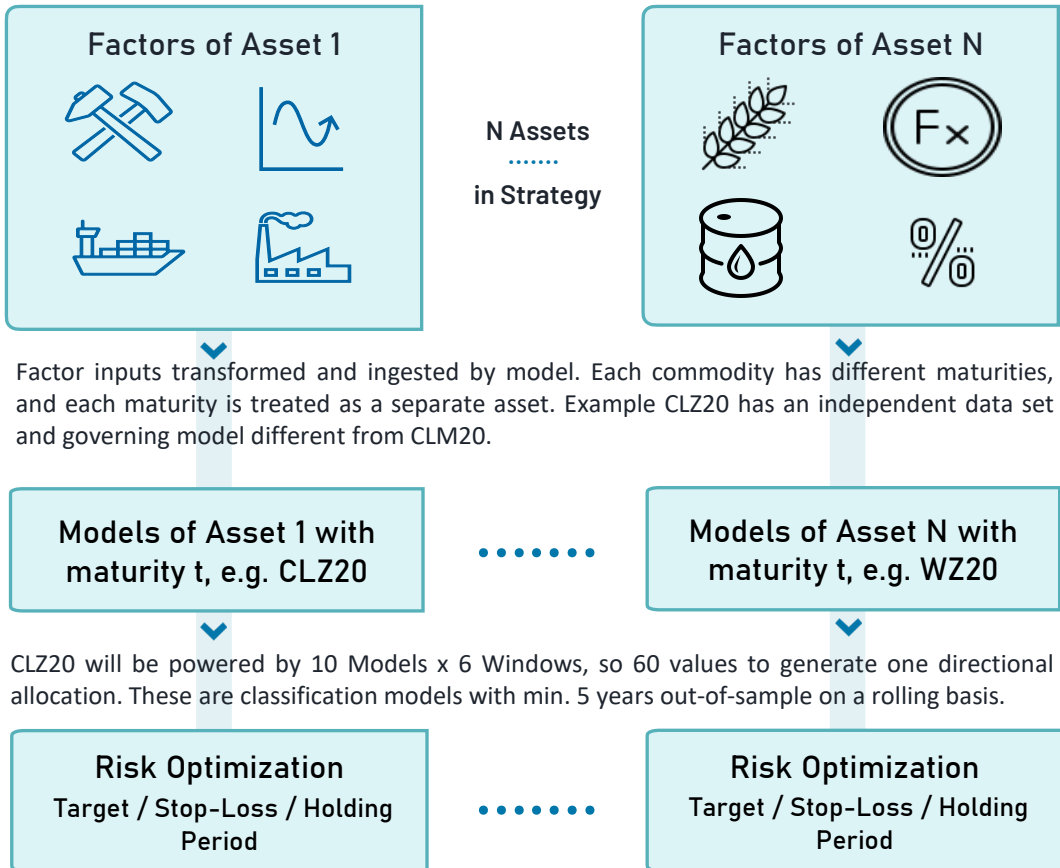
* Q3 2026

THE AiLA METHODOLOGY

Strategy Generation At a Glance

Upstream Process

Direction and investment period decision making



Downstream Process

Sizing and portfolio construction



THE AILA METHODOLOGY

A Timing and Risk-Driven Approach

The AILA Philosophy



At AILA, we believe that **Commodity returns** are driven by a variety of **Micro** and **Macro** factors. Commodity returns are opportunistic and hence timing and sizing risk are equally, if not more important than getting the direction correct.



Micro

- Selected using our deep expertise and fundamental knowledge of the commodity sector
- Factors are updated on a daily basis with built-in data quality checks
- Examples include trade-flow data, future prices, etc.



Macro

- Selected by our standard quantitative process for each asset
- Factors are drawn from both public and private sources
- Examples include crude stock, value of major benchmark strategies, FX rates, etc.

Usability Criteria for Data

Available

Legitimate and consistently available data sets are used

Verifiable

Any stakeholder will be able to verify the value of each factor that is ingested by our models

Repeatable

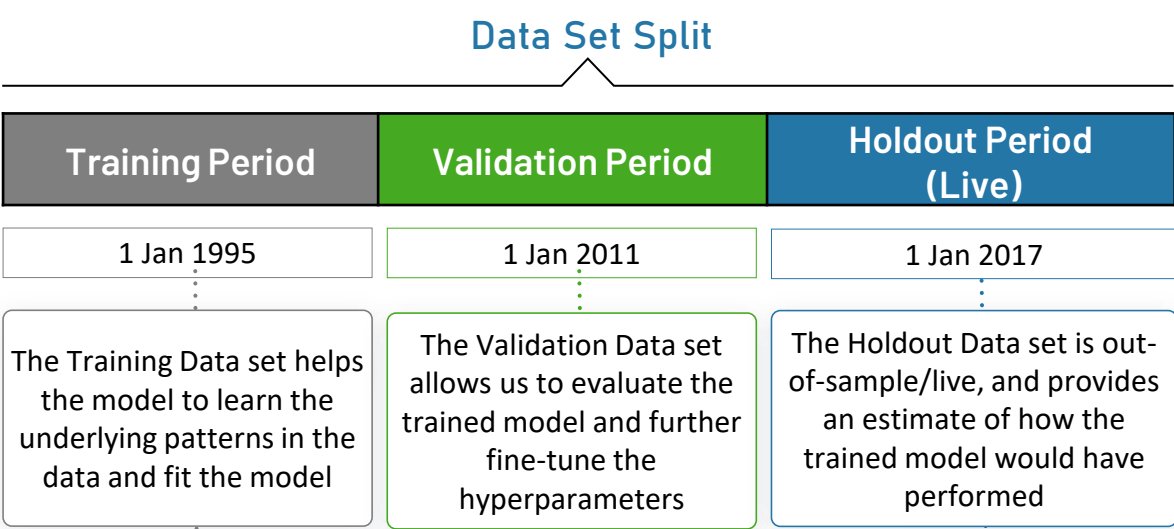
The factor data is available consistently at a regular frequency without interruption

How the Models are Trained

After the Factors are selected, the Factor Data Set is transformed into a standardised format to be used as inputs for the model. Each data point goes through a rigorous and robust series of validation checks to ensure data integrity.

Training data set uses signals based on at least 1:3 risk-reward ratio within a 30-day holding period look-forward basis. Long and short signals are separately generated.

The Data Set is then split into 3 periods, each with its respective roles. The defined time period varies across assets depending on data availability.



Trained models are created across various Training-Validation (T-V) Windows, by incrementally varying the training period, keeping the length of the validation period the same. Every year, models corresponding to the subsequent T-V Window are added.

T-V Window	Training Period	Validation Period
1016	Till Dec 2010	2011-2016
1117	Till Dec 2011	2012-2017
1218	Till Dec 2012	2013-2018
1319	Till Dec 2013	2014-2019
1420	Till Dec 2014	2015-2020
1521	Till Dec 2015	2016-2021

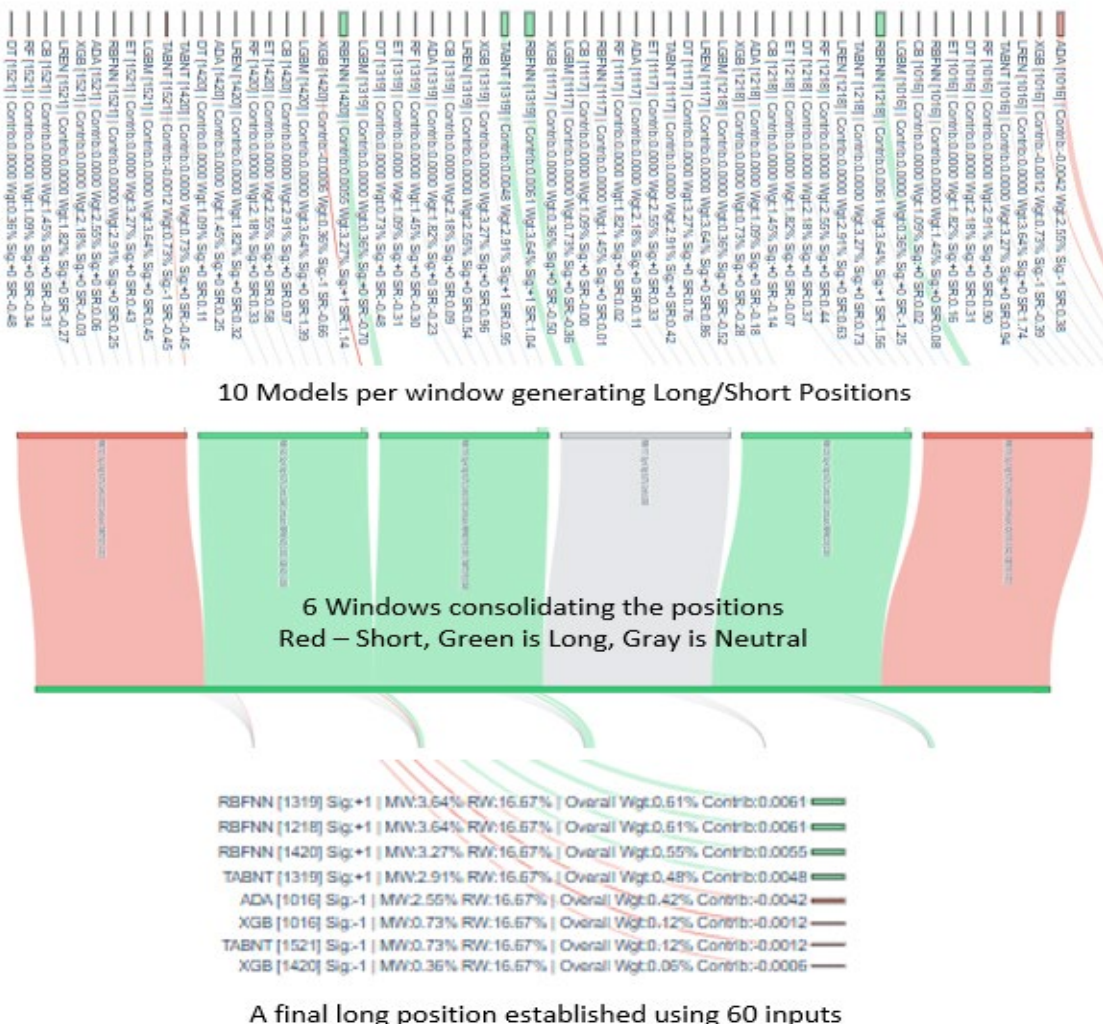
UPSTREAM PROCESS

Asset Position Allocation

At the model level, if the Long model predicts a long signal, and the Short model is flat, then the model can be said to be long, and vice-versa. If both Long/Short models have a signal, then they offset each other. If the model is long, and a short prediction appears, then the position is closed. Each Asset has underlying Long and Short inputs from multiple classification models across the T-V Window. The signals are assimilated across all the models and T-V Windows to produce a Single Long, or Short (or Flat) allocation output for the asset. For example: if there are 10 classification models and 6 T-V windows, then 60 inputs will be assimilated for a single long signal. Similarly for a short signal. The assimilation works by Sharpe-ratio weighting of models within a T-V window, and equal weighting of the allocation input across the windows. The chart illustrated on the next page shows that except for one window, all other windows are short and resulting in a short allocation. Each window's direction is decided by the weights of different models in that window.

Asset Allocation in a Multi-Model Approach

Asset: Soybeans November Decision making process



Risk Optimization

Risk optimization combines the Long and Short of each model and helps in aligning the model’s output as close to the training data post modelling.

The optimization process runs a simulation combining the predictive output from both models, for multiple scenarios of historical trading results and P&L for each scenario, and finally arrives at a set of boundary conditions.

Soybean Oil Aug

Stop Loss: 5.49%, Target: 12.18%, Holding Period: 26 Days

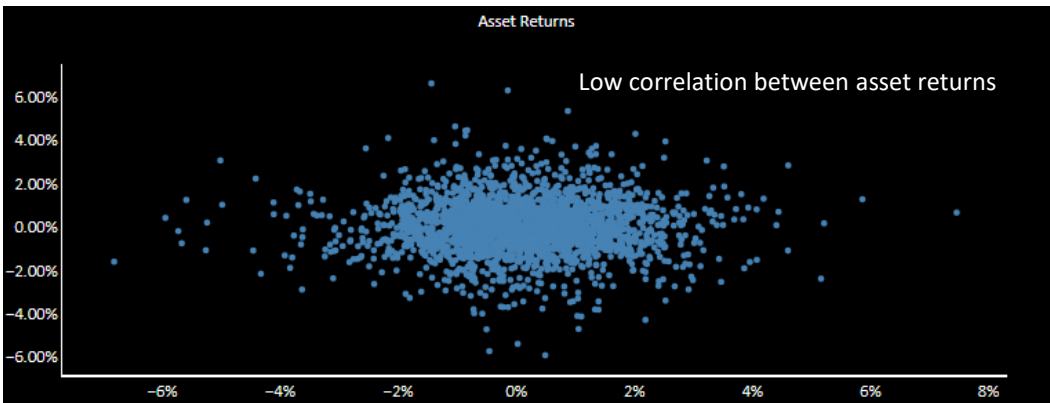
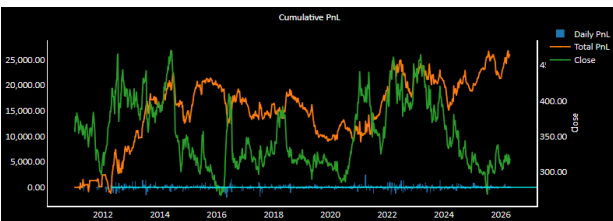
Metrics			
	Long/Short	Long	Short
Total PnL	44,429.91	24,036.46	20,393.46
Annualized Returns above Risk Free	17.34%	12.98%	30.72%
Annualized Returns above Target	13.34%	8.98%	26.72%
Annualized Std Dev of Excess Returns	21.44%	21.65%	20.78%
Annualized Std Dev of Negative Returns	20.77%	21.00%	19.99%
Maximum One Day Return so far	7.47%	5.87%	7.47%
Maximum One Day Loss so far	-6.81%	-6.81%	-5.94%
Sharpe Ratio	0.81	0.60	1.48
Sortino Ratio	0.83	0.62	1.53
Kurtosis	1.57	1.41	2.12
Skew	-0.06	-0.11	0.10
Total Trades so far	2596.00	1959.00	637.00
Long Trades so far	1959.00	1959.00	0.00
Short Trades so far	637.00	0.00	637.00
Average number of Long trades per year	125.62	125.62	0.00
Average number of Short trades per year	40.85	0.00	40.85



Soybean Meal Aug

Stop Loss: 5.59%, Target: 13.24%, Holding Period: 21 Days

Metrics			
	Long/Short	Long	Short
Total PnL	26,359.82	19,010.16	7,349.66
Annualized Returns above Risk Free	5.52%	8.37%	2.13%
Annualized Returns above Target	1.52%	4.37%	-1.87%
Annualized Std Dev of Excess Returns	19.67%	19.67%	19.68%
Annualized Std Dev of Negative Returns	19.33%	18.05%	20.90%
Maximum One Day Return so far	6.63%	6.63%	4.65%
Maximum One Day Loss so far	-5.91%	-5.72%	-5.91%
Sharpe Ratio	0.28	0.43	0.11
Sortino Ratio	0.28	0.46	0.10
Kurtosis	1.97	2.29	1.57
Skew	0.06	0.31	-0.24
Total Trades so far	2510.00	1365.00	1145.00
Long Trades so far	1365.00	1365.00	0.00
Short Trades so far	1145.00	0.00	1145.00
Average number of Long trades per year	87.39	87.39	0.00
Average number of Short trades per year	73.31	0.00	73.31



DOWNSTREAM PROCESS

Strategy Construction

1) Define the Strategy Objective

Before we construct the Strategy, we first **define the Strategy's objective**. This includes, but is not limited to:



- Thematic Objectives (Seasonal, Trade-Flow, Event-Driven)
- Sectoral Exposure, e.g. Agriculture (AILAS043), Base Metals (AILAS065), Diversified (AILAF010)
- Geographical Exposure, e.g. only US Commodities, US & Euro, China Commodities
- Capacity of the Strategy
- Currency of the Strategy
- Target Volatility or Maximum Daily Drawdown

2) Apply desired Constraints on the Strategy

Practical Constraints might have to be imposed on the Strategy for regulatory reasons or to ensure it is executable. This includes but is not limited to:

Risk Constraints



This could be at the sector or individual asset level where we are looking to restrict the maximum exposure for a given sub-sector or asset.

Liquidity Constraints



Market liquidity is taken into account as we have to ensure that the strategy is easily executable and tradable without substantial slippage.

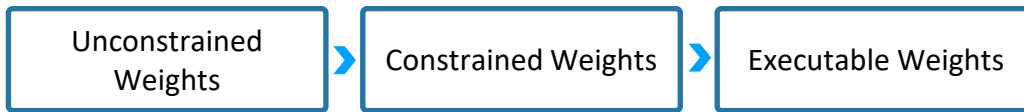
Capacity



Given the target capacity and market liquidity constraints, this determines how much of a given constituent asset can be traded on a given day.

Weight Allocation Methodology

The allocation process calculates weights through three sequential steps:



Unconstrained Weights

Market volatility is used to construct strategy weights with the desired risk profile, representing an ideal portfolio.

$$w^{vol}(t, i) = c_N \cdot \frac{w_{LS}(s(t, i))}{\sigma(t, i)}; \quad c_N = \text{const} \Rightarrow \sum_i w^{vol} = 1; \quad w_{LS}(s) = \begin{cases} 1 & \text{if } s > 0 \\ 0 & \text{if } s = 0 \\ r_{LS} & \text{if } s < 0 \end{cases}$$

Constrained Weights

Realistic Strategy weights are arrived at by applying and making the assets respect risk constraints: asset, sector, and group caps.

1) Asset caps (each asset)
e.g. $w_{(i)} \leq 5\%$

2) Sector caps (asset groups)
e.g. $w_{(TTF)} + w_{(NBP)} \leq 20\%$

3) Historic Annual SR (all assets)
e.g. $\sum w_{(i)} \cdot SR_{(i)} > 1.0$

4) Strategy allocation (all assets)
e.g. $\sum w = \sum w^{uc}$

Executable Weights

Daily rebalancing caps are applied which align each asset to its market liquidity, ensuring that the strategy is executable.

THE AILA METHODOLOGY

How are the Weights derived? Working Example

Strategy AILAF010 : On 4th May 2017, an allocation for Asset WTI April 2018 of 0.92% was given for rebalancing on the close of 5th May 2017. As of the close of 4th May 2017, the position was flat. We arrive at this allocation through two key steps:

1. Upstream Process : Do we go Long, Short, or Flat at the Model?

Given AILA's factor driven approach, these are the top factors that drove the Long allocation. (Source Refinitiv)

High Price of July WTI, 1 day prior to trade entry	GBP/USD FX Rate
USD/CAD FX Rate	
Close Price of April WTI, 1 day prior to trade entry	Baltic Dry Strategy
Close Price of August WTI, 1 day prior to trade entry	CFTC Future Commitments Natural Gas-NYMEX Non-Comm Net Contracts

The factors on the left affecting the trade on 4th May 2017 were at same levels that triggered a long bias on 12th Sep 1997. The factors are normalized and the chart on bottom left shows the rally in 1997 and the chart on bottom right shows the rally in 2017. This pattern recognition was picked up due to supervised learning of the factors.



2. Downstream Process : How much to allocate?

A. Number of Assets with an Allocation

There were 154 assets with an allocation. Given that a 100% allocation is assigned to each asset based on relatively equal risk (Asset volatility was relatively similar), WTI April received a 0.45% weight ($1/154 = 0.65\%$, given slightly higher relative asset volatility, WTI April was given a slightly lower allocation)

B. Constrained Fit

Due to the constrained fit where other assets have too small allocation caps for the allocations in step A, this results in higher allocation to WTI April, raising its allocation to 0.70%.

C. Meeting the Portfolio Risk Target

In order to meet the portfolio risk target, the weights would have been scaled up to 2.48%.

D. Ensuring the strategy is Unleveraged

However, if Step C is performed across all other assets, this would have resulted in 2.7x leverage. Therefore, in order to maintain a max of a 100% allocation, all weights are reduced with WTI April arriving at an approximately 0.92% allocation.

Explaining the Change in Weights

On any trading day for each asset, there could be an increase, decrease, or zero change in weights. There are several possible explanations for an increase or decrease in weights allocated.

INCREASED ALLOCATION

- A. Reduced number of Assets with an Allocation
When there are fewer assets with an allocation, a higher weight can be allocated to remaining allocations.
- B. In the midst of entering a trade, due to liquidity constraints, it could take a few days to fully enter into the desired trade.
- C. Reduced Asset/Portfolio Volatility
- D. Change in Tenor
Transitioning to a tenor with a lower time to expiry could result in higher allocation cap, allowing a higher weight allocation.

Example of Increased Allocation

- AILAS034, Zinc June
23rd March 2023 : 1.02% Long
24th March 2023 : 2.48% Long
27th March 2023 : 2.55% Long
- It is in the midst of entering a trade. As the rebalancing cap is 2.2%, the increase in weight will be limited by this value on each trading day

REDUCED ALLOCATION

- A. Increased number of Assets with an Allocation
When there are more assets with an allocation, some existing weights will be redeployed to those assets.
- B. In the midst of closing a trade, due to liquidity constraints, it could take a few days to exit a trade. Each asset is invested with a time horizon in mind. This time horizon is dictated by 2 factors :
 - Expiry Date of the Contract
 - Expiry of the duration of suitable risk/reward trade opportunities
- C. Increased Asset/Portfolio Volatility

Example of Reduced Allocation

- AILAS020, Brent January
2nd August 2017 : 11.95% Short
3rd August 2017 : Flat – Position Closed
- We start closing positions 7 days before expiry (9th Feb 2017). Given the rebalancing cap is 13.5%, the position is closed in a day

THE AILA METHODOLOGY

FAQ

Q : If everyone invests in this alpha, would there be an alpha remaining?

The alpha is generated from three parts: a) when to invest, b) how much to invest, c) in what asset to invest. These three decisions are dependent every day on the market behaviour which includes allocations of investors in the constituent assets. Classification models address questions a & c, whereas the daily rebalancing methodology addresses question b. At the end of each day after market close, the systematic processes decide on direction, quantum, and tenor of investment, and here the classification models provide the edge.

Q : Illustrate with an example, how a data point is used in an AILA Strategy

Consider the example of H/J Spread in RBOB, the RVP changes affect this spread and becomes a leading indicator of driving demand in summer, and that in turn is reflected in the M-Z spread. This information is captured, normalized and taught to the system to decide on direction of allocation in RBOB asset. More details are available on our perspective page <https://aila-x.com/perspectives.php>.

Q : How do we know the performance is not overfitted and is truly out-of-sample?

As illustrated earlier on page 6, the live performance is running on a set of models with a fixed set of hyperparameters. This performance is out-of-sample and is recorded and calculated by an independent calculation agent. For more details on how we address overfitting, please refer to our research piece <https://aila-x.com/analysing-overfitting.php>.

Q : What is the difference between an AILA Strategy vs other standard commodity strategies available in the market?

AILA strategies are by design opportunistic and can be market-neutral. Most standard commodity strategies are long-only and constantly invested. AILA provides allocation flexibility in both direction and timing.

Q : Are AILA strategies replicable?

Yes, AILA strategies are replicable with a large computing environment and are not designed for running purely on spreadsheets. AILA strategies are IOSCO-compliant and follow a rigorous approach in development.

THE AILA METHODOLOGY

FAQ

Q : What differentiates AILA-X from a factor allocating hedge fund?

While AILA might also use a factor-driven approach, we focus on the timing of allocation. We train our models to recognize, favorable risk/return opportunities and to make a trade when such opportunities arise. Similarly, we exit positions when these opportunities no longer exist. This methodology results in daily re-balancing and these dynamic weights generate a differentiated set of returns.

Q : How many models are used for each strategy?

We have an independent buy and sell model for each asset used in a strategy. We define a maturity of a commodity as an asset. As an example, CLZ (December WTI) is an asset. Therefore, a given strategy consisting of multiple constituent assets could be driven by a large number of underlying models. This diversified approach gives both independent and uncorrelated returns.

Q : What types of factors do we use to train our models?

AILA uses a mix of Macro and Micro Factors to train each model, with each asset having a different set of factors. For more information, please refer to Page 5 of this document.

Q : Who uses AILA's strategies?

AILA provides its strategies to a variety of clients. This includes: 1) Asset Owners source our strategies via investment banks as swaps on AILA strategies, 2) Asset Managers who source our Strategies directly, and 3) Trading desks of Corporates who source and track our strategies.

Q : How do AILA's strategy returns correlate to other standard Commodity strategies?

We have noticed very low levels of correlation in daily returns between AILA Strategies and other traditional commodity strategies based on trend, carry, congestion, or mean-reversion strategies.

Q : How can we access your strategies to invest?

You can access them via Swaps offered by Investment Banks or Funds tracking our strategies. You may reach out to us at emmanuel@aila-x.com to learn who are our partners and access those relevant tickers.

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