

# UBS Multi Asset Inflation Aware Index

A Global Multi-Asset Index that  
*Adapts to Inflation Regimes.*



# UBS Multi Asset Inflation Aware Index Overview

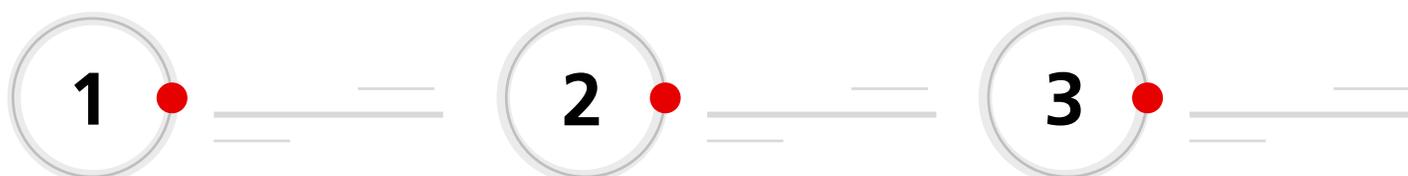
The UBS Multi Asset Inflation Aware Index (the “Index” or the “UBS-MAIA Index”) aims to provide a diversified and global exposure to equities, bonds and commodities using a risk-based allocation that is informed by market implied U.S. inflation environment.

Each asset class features a specific investment mechanism. Equities use an **intraday rebalancing** methodology to quickly react to changes in equity markets. Bonds use a **dynamic weighting mechanism** allowing it to adapt to various rates environments. In addition, a **diversified commodity** strategy is used as an uncorrelated source of returns particularly in periods of high inflation.

Finally, the Index targets a volatility of 5% with the goal of providing smooth and stable returns over the long run.

<b>Ticker</b>	<b>UBSMAIA5 Index</b>
<b>Website</b>	<a href="http://www.ubs.com/ubsmaia5">www.ubs.com/ubsmaia5</a>
<b>Index Sponsor</b>	UBS AG
<b>Index Type</b>	Excess Return
<b>Calculation Agent</b>	MerQube, Inc
<b>Backtest Start Date</b>	Mar 31 <sup>st</sup> , 2004
<b>Index Live Date</b>	Nov 11 <sup>th</sup> , 2022
<b>Volatility Target</b>	5%
<b>Maximum Leverage</b>	300%
<b>Rebalance Frequency</b>	Daily (equity component might be rebalanced intraday)

## Index Building Blocks



### **Inflation regime** using market implied inflation expectations

- Level of inflation expectations relative to historical levels: low, medium or high
- Recent change in inflation expectations: decrease, stable or increase
- Nine different inflation regimes

### **Monthly allocation** to a global exposure, informed by current inflation regime

- Global equities, covering US (S&P 500<sup>®</sup>), Europe (Euro Stoxx 50<sup>®</sup>) and Japan (Topix 100<sup>®</sup>) with intraday risk control
- Global dynamic bonds exposure covering US 10Y Treasuries, German 10Y Bunds and Japanese 10Y JGB
- Diversified commodity strategy harvesting supply/demand imbalances across 21 different commodities

### **Multi-layer volatility control**

- Volatility control on each of the Index sub-components
- Top level volatility control
- Rebalancing the overall Index daily, targeting 5% volatility (equity component might be rebalanced intraday)

# Inflation Regime Determines Risk-Based Asset Allocation

The allocation to the three asset classes uses a risk budgeting approach with target risk budgets based on current inflation regime. Inflation regime is updated on a monthly basis.



## Inflation Regime and Associated Risk Budget

		Inflation Level ←		
		High	Medium	Low
Inflation Change ↑	Increase	Commodity tilt	Equity & Commodity tilt	Equity & Bond tilt
	Stable	Equity tilt	Balanced	Balanced
	Decrease	Equity tilt	Balanced	Bond tilt

## Global Multi-Asset Exposure

**Global Equities**

Exposure to the US, European and Japanese equity markets through the S&P 500®, Euro Stoxx 50® and Topix 100® futures

**Global Bonds**

Exposure to the US, European and Japanese bond markets through 10Y US Treasuries, 10Y German Bunds and 10Y Japanese Government Bonds futures

**Diversified Commodities**

Exposure to commodities market (excluding precious metals) to harvest supply/demand imbalances across 21 commodities

# Global Equities

**The Equity Intraday Strategy** aims to adjust equity exposure intraday during times of market stress or large equity movements.

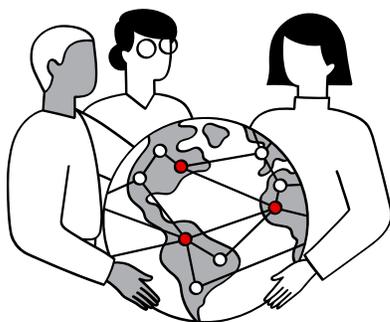
- The Equities component of the Index can react to the intraday performance of the **S&P 500<sup>®</sup>**, **Euro Stoxx 50<sup>®</sup>** and **Topix 100<sup>®</sup>** futures during each of their respective time zones.
- The target weights are consistent with global equity benchmarks at, respectively, **55%**, **30%** and **15%** for S&P 500<sup>®</sup>, Euro Stoxx 50<sup>®</sup> and Topix 100<sup>®</sup>.

<b>Volatility Low</b>	 <b>Increase Position</b>
<b>Volatility High or Large Drawdown</b>	 <b>Decrease Position</b>

## Around the Clock Trading

**Observing and potentially adjusting** equity exposures for a combined **19 out of 24 hours a day\***.

\* assuming the 3 relevant markets are open on that day.



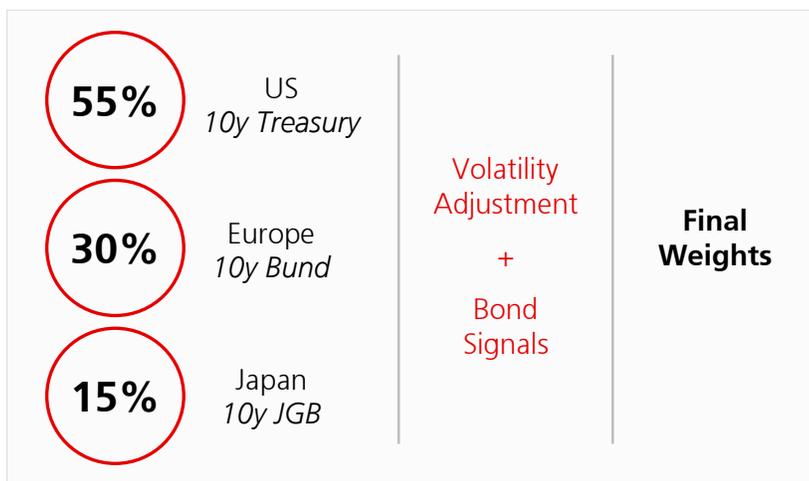
- The equity components can **rebalance intraday** to react to market moves, taking both volatility and drawdown into consideration.
- In the case of a **significant market sell-off\*** in any of the three markets during the day, the strategy will **respond intraday** and decrease exposure by reducing the futures positions in that market and reallocating the proceeds to cash.
- **Turnover controls** are in place to avoid excessive rebalancing.

\* -1% for S&P 500<sup>®</sup> futures, -1.5% for Euro Stoxx 50<sup>®</sup> futures and Topix 100<sup>®</sup> futures compared to their last closing prices.

# Global Bonds

**Exposure to three sovereign bonds** via futures, with volatility control and dynamic weighting mechanisms.

- The target weight of each country in the Global Bonds component is determined in line with the Global Equities basket.
- **Weights are adjusted** to ensure that each sub-component contributes to the bond portfolio according to their **realized volatility** (up to a cap).
- Sub-component weights are also adjusted utilizing a combination of **bond signals** (carry, trend and value). Each sub-component can **dynamically adapt to its country's rates environment**, designed to reduce bond exposure in a rising rates environment.



For illustrative purposes only.

# Commodities

The commodities component applies a volatility control mechanism on the **UBS Commodity Alpha Beta-Neutral Strategy Index ("CABNS")**, which has been live since March 2011.

- The CABNS Index is designed to generate alpha from inefficiencies across various commodity futures curves that persist due to structural features such as storage costs and supply-demand dynamics.
- The exposure to the CABNS Index is dynamically adjusted to target a volatility around 5%.
- The CABNS Index takes short positions in components of the Bloomberg Commodity Index and long positions in components of the Bloomberg Commodity Index 3 Month Forward. It excludes precious metals in both positions.
- Long positions are scaled monthly using a dynamic hedge ratio (between 0.5 and 1.5, aiming to be market neutral).

## Multi-Layer Volatility Control

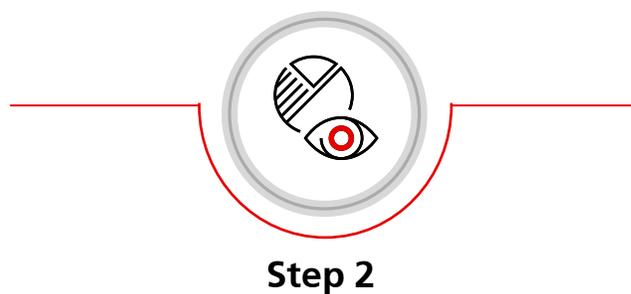
To target a volatility around 5% over the long term, the Index applies a multi-layer risk control that measures:

1. The volatility of the index sub-components and their correlations
2. The realized volatility of the final index itself



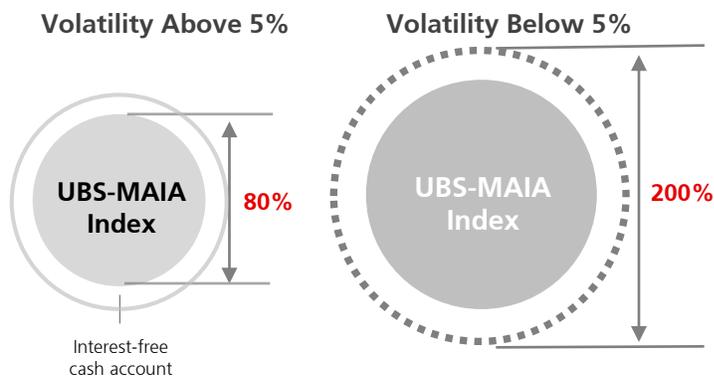
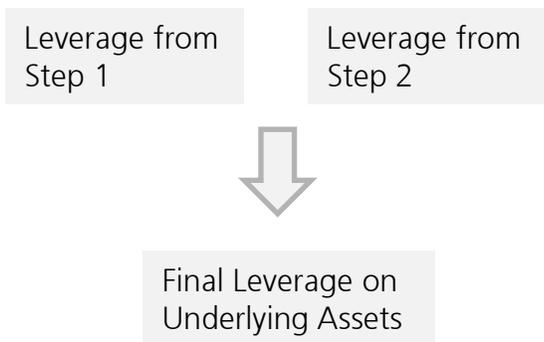
### Volatility of the sub-components

- Recent volatility of the sub-components are measured daily for Bonds and Commodities, and measured intraday for Equities.
- Each sub-component is designed to target a realized volatility of 5%.



### Volatility of the final Index

- Realized volatility of the Index itself is measured daily over multiple lookback windows.
- Both short-term and long-term volatility measures are used to determine the final leverage and aim to keep the final Index realized volatility in line with its 5% target over the long term.

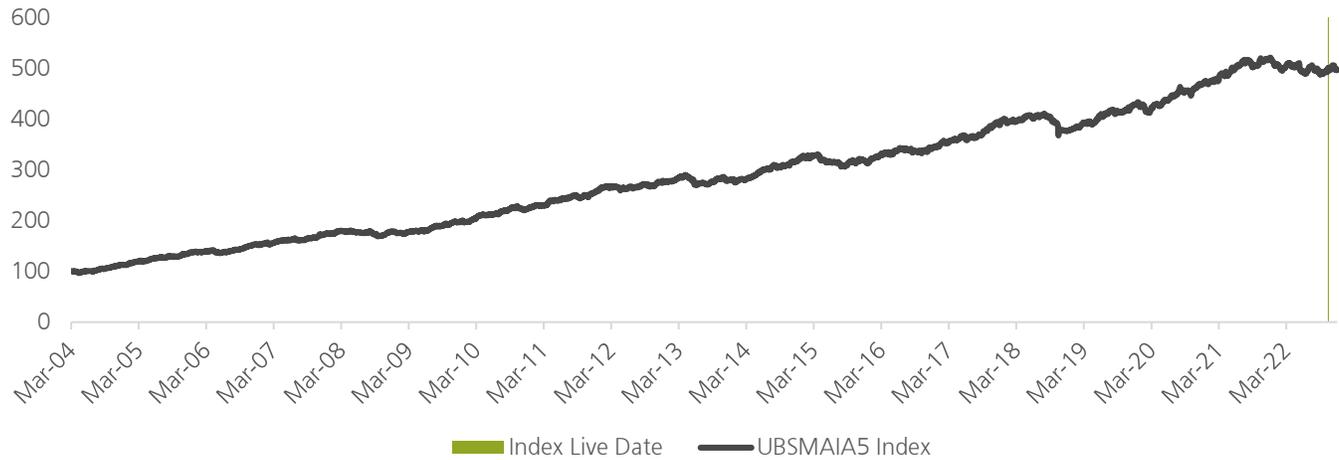


Leverage capped at 300%. Graphics for illustrative purposes only.

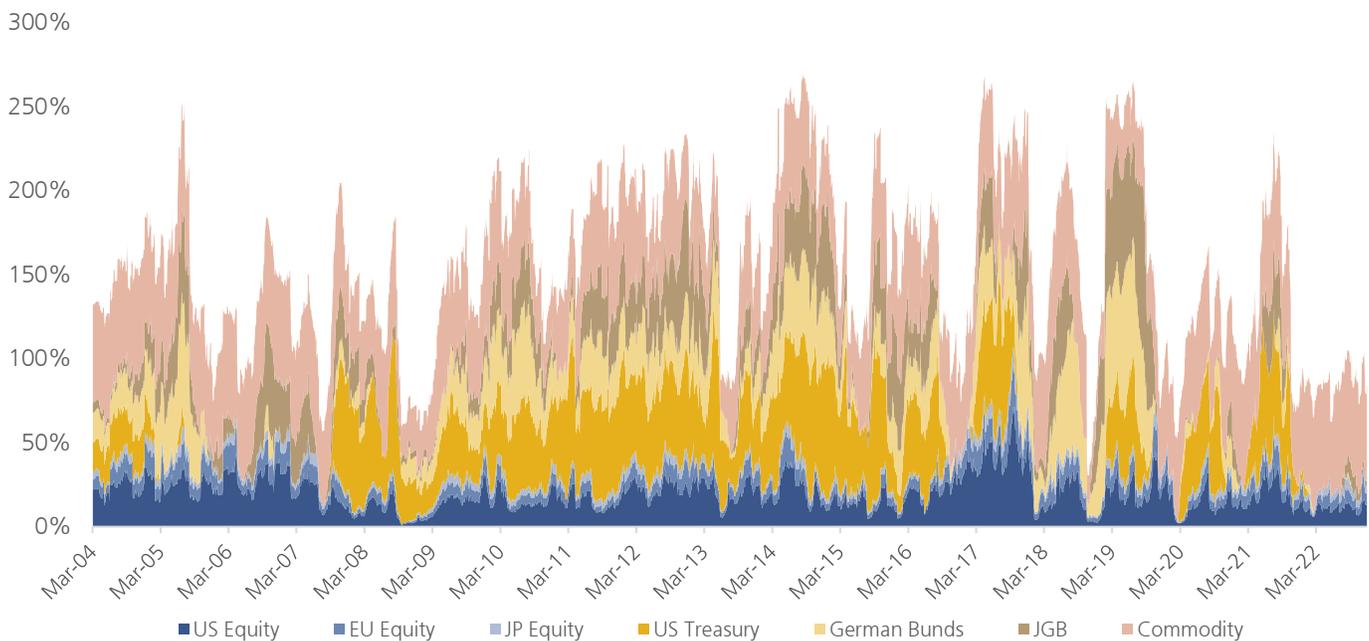
# Index Performance

## Live and Backtested Performance\*

Range: March 31, 2004 – December 30, 2022



## Live and Backtested Index Components Weightings\*



- During the financial crisis in 2008-2009, the Index would have had little to no exposure to equities and reduced exposures to bonds and commodities.
- During a low inflation period such as 2014-2015, the Index would have had a larger allocation to bonds compared to the average bonds allocation historically. During that period, the bond component outperformed equity and commodity components.
- However, during a rising or high inflation period such as 2021-2022, the Index would have had little to no allocation to bonds, which would help reduce the negative impact from rising rates. During the same period, the inflation regime would signal a higher risk budget for commodity component, which has performed well in a high inflation environment.
- In a highly bullish equity market such as during 2019, the Index would have underperformed benchmark equity indices, given the diversified multi-asset nature and the lower volatility.

Note: Weights shown above are at futures or sub-index level after applying signals and leverages. Weights are stacked and do not sum up to 100%.

\* See important disclosure on the following pages concerning the use of backtested data, as well as selected risk considerations and other information.

## Live and Backtested Index Return and Volatility Summary

Range: March 31, 2004 – December 30, 2022

	YTD	1y	3y	5y	10y	All
<b>Annualized Return</b>	-4.30%	-4.30%	5.12%	5.10%	6.12%	8.93%
<b>Volatility</b>	4.75%	4.75%	4.79%	5.04%	4.95%	4.84%
<b>Return/Risk</b>	-0.90	-0.90	1.07	1.01	1.24	1.85

The term “backtested performance” refers to simulated performance data provided as an illustration of how the Index would have performed during the relevant period had the Index administrator been calculating the Index using the current Index methodology. The “backtested index return and volatility summary”, and “backtested index components weightings”, are derived from simulated performance data and are provided as an illustration of how the Index would have performed and what the index components and weightings would have been, respectively, during the relevant period had the Index administrator been calculating the Index using the current Index methodology. Such simulated performance data has inherent limitations, as the simulated data is produced by the retroactive application of a backtested methodology.

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The UBS Multi Asset Inflation Aware Index went live on November 11<sup>th</sup>, 2022. All Index data prior to that date is based on backtested performance and any performance prior to index inception is hypothetical.

# Selected Risk Considerations

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- The Index is not guaranteed to succeed at meeting its objectives.
- The Index relies on a risk control methodology and could underperform indices that do not have a risk control overlay.
- The intraday rebalancing of the Index can lead to underperformance when markets exhibit non-trending behavior. For example, if equities included in the index experience a sharp decline followed by a sharp recovery within the same day, the intraday drawdown control mechanism may cause the Index to underperform similar indices that do not have such an intraday drawdown control mechanism.
- The Index has exposure to global equities, commodity and global bonds markets which may be volatile and decline in value.
- Financial products linked to the Index will be exposed to the risks of those products.
- Relative strength and trend-following strategies, including the Index, could underperform in mean-reverting markets.
- By design, multi-asset indices tend to have lower correlations to equity markets. Compared to equity-only strategies, a global diversified multi-asset strategy may underperform in highly bullish equity markets.
- Risks of multi-asset investing include but are not limited to market risk, credit risk, interest rate risk, and foreign exchange risk. Correlations of returns among different asset classes may deviate from historical patterns. Geopolitical events and policy shocks pose risks that can reduce asset returns. Valuations may be adversely affected during times of high market volatility, thin liquidity, and economic dislocation.
- The Index uses leverage which may amplify market movements in both directions. Investors may be overexposed to negative market conditions and therefore bear amplified losses.
- The Index is an excess return index and will not earn any cash reinvestment return.
- The Index has a limited operating history and may perform in unanticipated ways.
- Backtested performance and backtested allocations of the Index should not be taken as an indication of the future performance of, or future allocations of, the Index. The actual performance or component allocations of the Index may bear little relation to the backtested performance or backtested component allocations of the Index.
- Disruption events may impact the calculation of the Index.
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- The Index performance reflects (i) a 0.50% per annum Index fee and (ii) transaction (based on notional positions) and rebalancing (based on turnover) costs at rates that may vary based on the underlying assets at the Index level and also within certain underlying assets. Because certain costs are based on turnover, such costs are not predictable and may increase substantially in the future, especially during periods of market stress. The transaction and rebalancing costs will reduce the potential positive change in the level of the Index and increase the potential negative change in the level of the Index.
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