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As of May 31, 2024

# UBS Innovative Balanced Index

A rules-based index that uses early reads in US economic growth and inflation to inform an innovative balanced allocation

<mark>23707 (5/31/20</mark>24)



# Differentiated returns through alternative data and alternative asset strategies



## Alternative data for information edge, let the data speak "now"

As holding periods for institutional investors are shortening and investment decisions becoming more information driven, there is **high interest amongst investors to make sense of the explosion of data**.

Since 2014, UBS has been producing various indicators within its research division to provide investors with an information edge while using various alternative high-frequency big data sources, including privately purchased ones. We call this the power of alternative data.

Nowcasting is a type of forecasting that uses high-frequency data to assess the "now", rather than predict the future. UBS has pioneered multiple indicators within Evidence Lab, a division of UBS Research. For example, growth Nowcast aims at providing investors an information edge on US economic growth momentum.

An early view on changes in growth momentum can help investors better position themselves for market movements in the coming weeks when official economic data is released.



### Alternative assets for performance

Market dynamics can exhibit highly correlated behavior between stocks and bonds. Investors can benefit from **looking beyond traditional stock-bond portfolio** to one that includes alternatives, which can provide more diverse source of returns and better growth potential.<sup>1</sup>

**Alternative assets** can be simply defined as an alternative to publicly traded stocks and bonds, **seeking excess returns** at every point along the risk-reward spectrum<sup>2</sup>.

UBS has a long history in liquid alternatives, some flagship UBS commodity strategies having been live for 15 years or more with competitive live performance.



# Using alternative assets for differentiated returns from the world's largest wealth manager

The UBS Innovative Balanced Index (the "Index", "UBS-IBAL Index" or "UBSIBAL") aims at:



Using advanced reads into the **US macro environment** 

The Index adapts its allocation through early reads into the US macro economic environment using inflation expectations and growth Nowcast. Growth Nowcast is produced by UBS Evidence Lab, part of UBS Research, and the largest sell-side alternative data offering of its kind.

#### Producing differentiated returns through alternative assets

The Index provides access to US equity sectors, bonds and an alternative commodity strategy taking advantage of the supply/demand imbalances across 21 commodities<sup>1</sup>. The underlying commodity strategy is expected to perform best in high inflation environments with live performance since 2011.





#### Delivering smooth and stable returns

The Index seeks resilient returns in various rate environments by using a dynamic bonds allocation. Combined with the volatility risk control, these mechanisms aim at producing smooth and stable returns over the long run<sup>2</sup>.

## **About UBS**

**For over 160 years, clients have chosen to partner with UBS.** They have been drawn by our tradition of client-focused advice and services, and the strength of our capital.

Our long heritage of working alongside clients to help them succeed has made us one of the **strongest, most highly rated** global financial institutions.

Clients of our Investment Bank leverage the strength and understanding that UBS has built as the **world's** largest wealth manager and a diversified global asset manager.

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## UBS Innovative Balanced Index overview

The UBS Innovative Balanced Index is a rules-based index that leverages unique signals which aim to provide an early read into the US macro environment and inform an all-weather tactical allocation to equities, commodities and bonds.

The signals include US inflation expectations and a Nowcast of US economic growth, generated using key datasets from UBS Evidence Lab, the largest sell-side alternative data offering of its kind.

In addition, each one of the three asset sleeves is designed to produce less correlated returns while using simple components such as US equity sector indices, commodity futures and 10Y US Treasury futures.

The Index targets a volatility of 7% with the goal of providing smooth and stable returns over the long run.

## Index building blocks

# **Growth Nowcast & Inflation Expectation**



#### **Smart Equities**

- Select five US Equity sectors that are expected to perform best under the current growth and inflation regime
- Sector selection helps produce differentiated returns compared to benchmark equity indices

#### **Advanced Commodities**

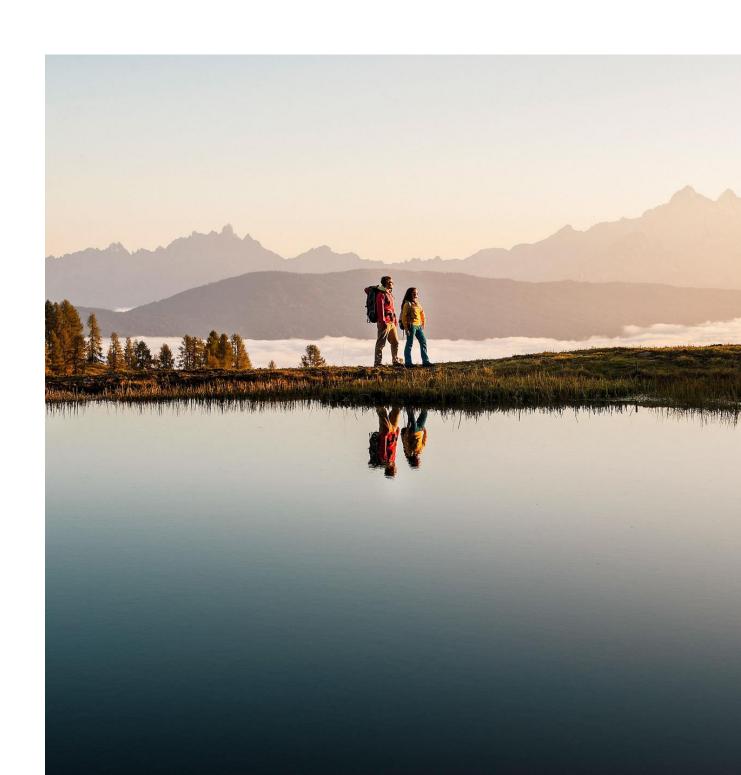
- Designed to harvest returns from supply and demand imbalances across 21 different commodities
- Live since 2011, uses UBS's expertise in commodity investing<sup>1</sup>
- Expected to perform better in high inflation regimes

#### **Dynamic Bonds**

- Dynamic allocation to 10Y US Treasury futures
- Designed to be resilient in a rising rate environment while allowing for bonds allocation in a declining rate environment

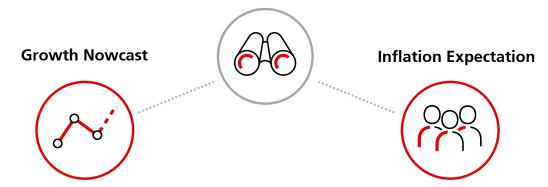


# Index construction



## Forward-looking indicators to inform allocations

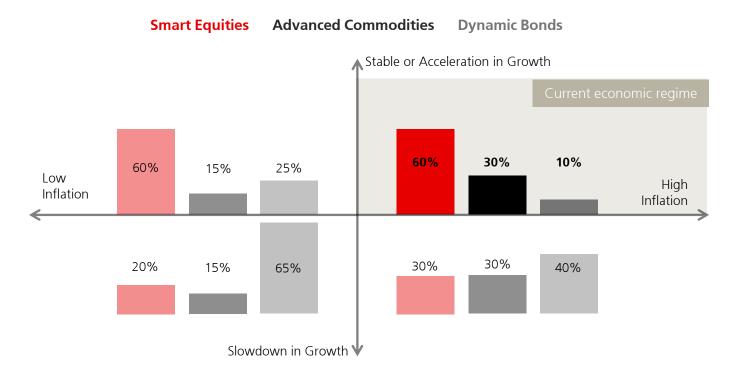
The allocation to the three asset sleeves utilizes a risk-based approach with target risk budgets based on two forward-looking indicators, updated on a monthly basis.



- Two states: Acceleration/Stability or Slowdown
- Leverages UBS Evidence Lab, part of UBS Research
- Potential to benefit from a market timing advantage by using alternative data sources
- Provides estimates often weeks before official data releases. 80% accuracy at Nowcasting the correct growth regime since the start of the backtest in 2010<sup>1, 2</sup>
- Two states: High or Low
- Uses market-implied inflation expectation to construct the inflation signal
- Incorporates most up-to-date information from market participants on current inflation expectations

### **Economic regimes and associated risk budgets**

Risk budgets are allocated every month across Smart Equities, Advanced Commodities and Dynamic Bonds depending on the growth and inflation regime combinations.





# UBS Evidence Lab & growth state Nowcast

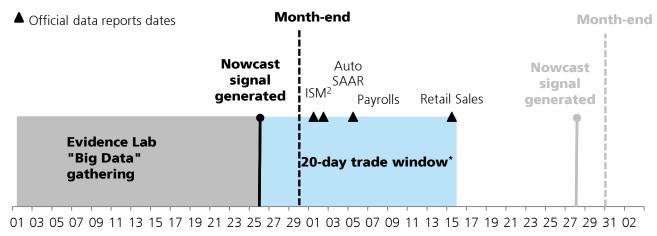


#### What is UBS Evidence Lab?

UBS Evidence Lab is a sell-side team of experts who work across 55+ specialized labs creating insight-ready datasets. The experts turn data into evidence by applying a combination of tools and techniques to harvest, cleanse, and connect billions of data items each month<sup>1</sup>.

### Why use Nowcast in UBS Innovative Balanced Index?

UBS Evidence Lab growth Nowcast and official data timeline



\*20-day is an approximation of the early trade window; actual early trade window might vary.

Non-traditional big data, such as credit card data, rail and shipping volumes, auto sales, air traffic, building permits, etc., are used to generate a Nowcast of several key monthly US economic indicators unconstrained by, and often weeks before, official data release cycles. The Nowcasts of these key indicators are subsequently used to derive a monthly growth state Nowcast to inform asset allocation of the Index.



#### Investment Edge

Strong evidence for the anticipatory investment signal embedded in UBS Evidence Lab data<sup>3</sup>.



#### Asset Allocation

Potential improvement in risk-adjusted return by adapting risk budgets based on Nowcasting signal and position allocation ahead of general market reactions.



#### Sector Rotation

Tactical sector rotation within Smart Equities sleeve ahead of general market reactions.



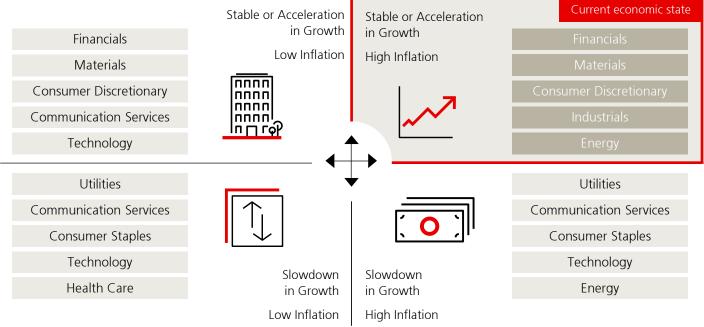
<sup>&</sup>lt;sup>2</sup> The Institute for Supply Management (ISM) Manufacturing Index indicates the level of demand for products through measuring ordering activity at factories.

<sup>&</sup>lt;sup>3</sup> Source: UBS Global Research, How to time the market with a US growth Nowcast, April 2, 2019

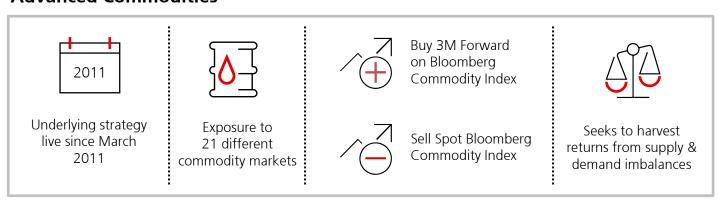
## Balanced multi-asset exposure

### **Smart Equities**

The Smart Equities sleeve aims to adapt its US equity sector exposures based on the growth Nowcast and market-implied inflation regimes.

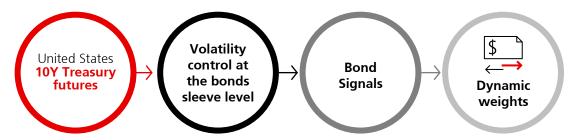


#### **Advanced Commodities**



## **Dynamic Bonds**

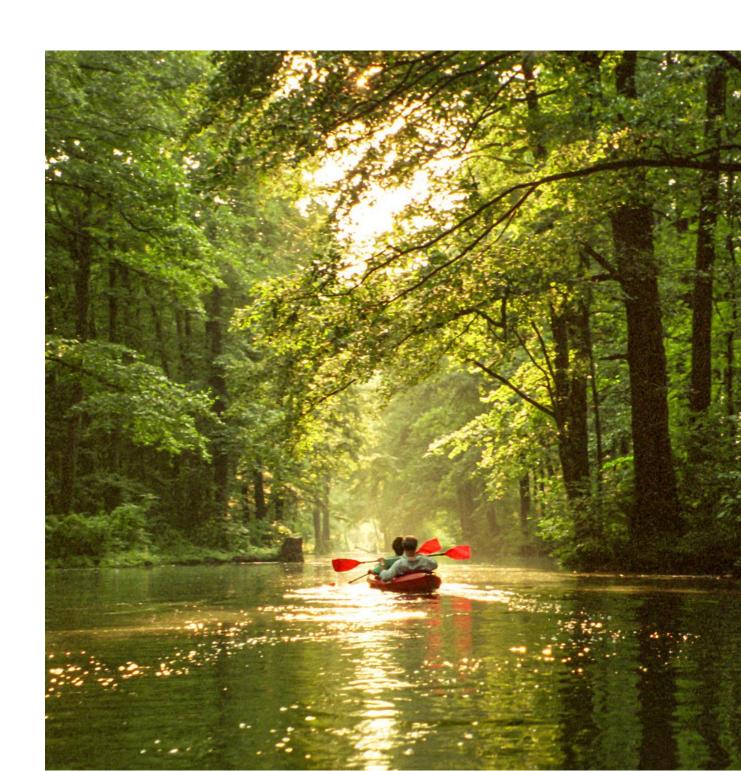
Dynamic Bonds sleeve provides exposure to 10Y US Treasury futures, with a dynamic weighting mechanism.



Exposure can dynamically respond and adapt to various rate regimes based on bond signals<sup>1</sup>, potentially making it more resilient in a rising rate environment.

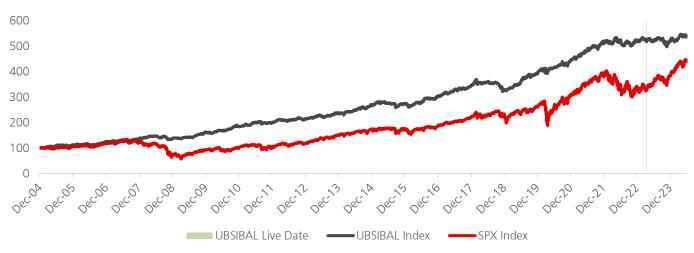


# Index performance



## Backtested performance\*

Range: December 2, 2004 - May 31, 2024



| Ticker                            | ker UBSIBAL Index   |  |  |  |
|-----------------------------------|---------------------|--|--|--|
| Website                           | www.ubs.com/ubsibal |  |  |  |
| Index Type                        | Excess Return       |  |  |  |
| Index Sponsor                     | or UBS AG           |  |  |  |
| <b>Calculation Agent</b>          | MerQube, Inc        |  |  |  |
| Backtest Start Date               | Dec 2, 2004         |  |  |  |
| Index Live Date                   | Mar 20, 2023        |  |  |  |
| Volatility Target                 | 7%                  |  |  |  |
| Maximum Exposure                  | 250%                |  |  |  |
| Rebalance Frequency               | Daily               |  |  |  |
| Index Deduction Rate <sup>1</sup> | 0.50% per year      |  |  |  |

| Year | UBSIBAL | SPX    |  |  |
|------|---------|--------|--|--|
| 2005 | 10.1%   | 3.0%   |  |  |
| 2006 | 11.0%   | 13.6%  |  |  |
| 2007 | 11.3%   | 3.5%   |  |  |
| 2008 | 0.4%    | -38.5% |  |  |
| 2009 | 13.8%   | 23.5%  |  |  |
| 2010 | 16.5%   | 12.8%  |  |  |
| 2011 | 9.5%    | 0.0%   |  |  |
| 2012 | 6.6%    | 13.4%  |  |  |
| 2013 | 10.5%   | 29.6%  |  |  |
| 2014 | 13.4%   | 11.4%  |  |  |
| 2015 | 0.4%    | -0.7%  |  |  |
| 2016 | 11.7%   | 9.5%   |  |  |
| 2017 | 14.8%   | 19.4%  |  |  |
| 2018 | -5.8%   | -6.2%  |  |  |
| 2019 | 23.2%   | 28.9%  |  |  |
| 2020 | 11.3%   | 16.3%  |  |  |
| 2021 | 15.7%   | 26.9%  |  |  |
| 2022 | -0.2%   | -19.4% |  |  |
| 2023 | 1.8%    | 24.2%  |  |  |
| 2024 | 2.5%    | 10.6%  |  |  |

Performance data colored in black represents full year of live performance data; all other annual performance data in grey is backtested (though note that 2023 includes live data starting March 20, 2023, the Index live date for UBSIBAL Index).

All UBS-IBAL Index performance data or data derived from such performance data, including data above and elsewhere in this material, prior to March 20, 2023, is based on hypothetical back-tested performance of the Index (not live performance). The Index live date was March 20, 2023. The results obtained from back-tested data should not be considered indicative of the actual results that might be obtained from an investment or participation in a financial instrument or transaction referencing the index. Actual results will vary, perhaps materially, from the simulated returns presented in this document.

<sup>\*</sup>See important disclosure concerning the use of back-tested data, embedded fees, as well as Selected Risk Considerations and other information, on pages 12-16. Back-tested data range for UBS-IBAL Index is December 2, 2004 – March 19, 2023, and live (historical) data range is March 20, 2023 – May 31, 2024.



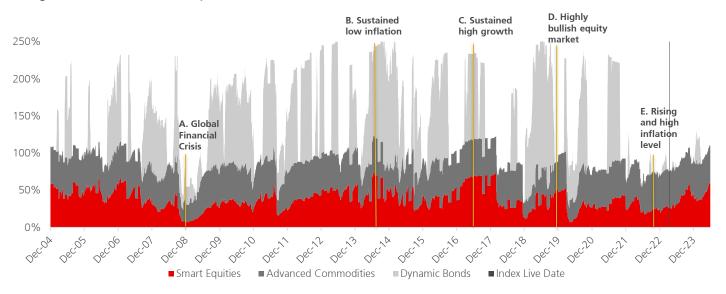
#### **Backtested Annualized Index Return and Volatility Summary**\*

Range: December 2, 2004 - May 31, 2024

|               | YTD (not annualized) | 1y     | 3у    | 5y     | 10y    | All   | Volatility since<br>Dec 2, 2004 |
|---------------|----------------------|--------|-------|--------|--------|-------|---------------------------------|
| UBSIBAL Index | 2.49%                | 5.06%  | 4.03% | 8.64%  | 8.04%  | 9.06% | 6.53%                           |
| SPX Index     | 10.64%               | 26.26% | 7.87% | 13.91% | 10.62% | 7.94% | 19.28%                          |

### **Backtested Index Component Weightings\***

Range: December 2, 2004 - May 31, 2024



Note: Weights shown above are stacked and are after applying signals and leverage.

## The Index Methodology in Action\*

Each letter below corresponds to the period marked with the letter in the chart above:

- A. 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 due to heightened volatility.
- B. During a low inflation period such as 2014, the Index would have had a larger allocation to bonds compared to the average bonds allocation historically. During that period, the bonds component outperformed equity and commodity components.
- C. During a high growth period such as 2017, the Index would have a higher allocation to equities.
- D. However, 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.
- E. During a high inflation period such as 2022, the Index would have had little to no allocation to bonds, which would help reduce the negative impact from rising rates.

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## Selected Risk Considerations

- 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.
- There is a potential for the underlying data to incorrectly Nowcast the key economic indicators and subsequently incorrectly determine the state of economic growth, which might then negatively impact the Index allocations and the Index performance.
- The Index has exposure to US equity, commodity and US Treasury 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 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.
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