

# Multi- asset innovation

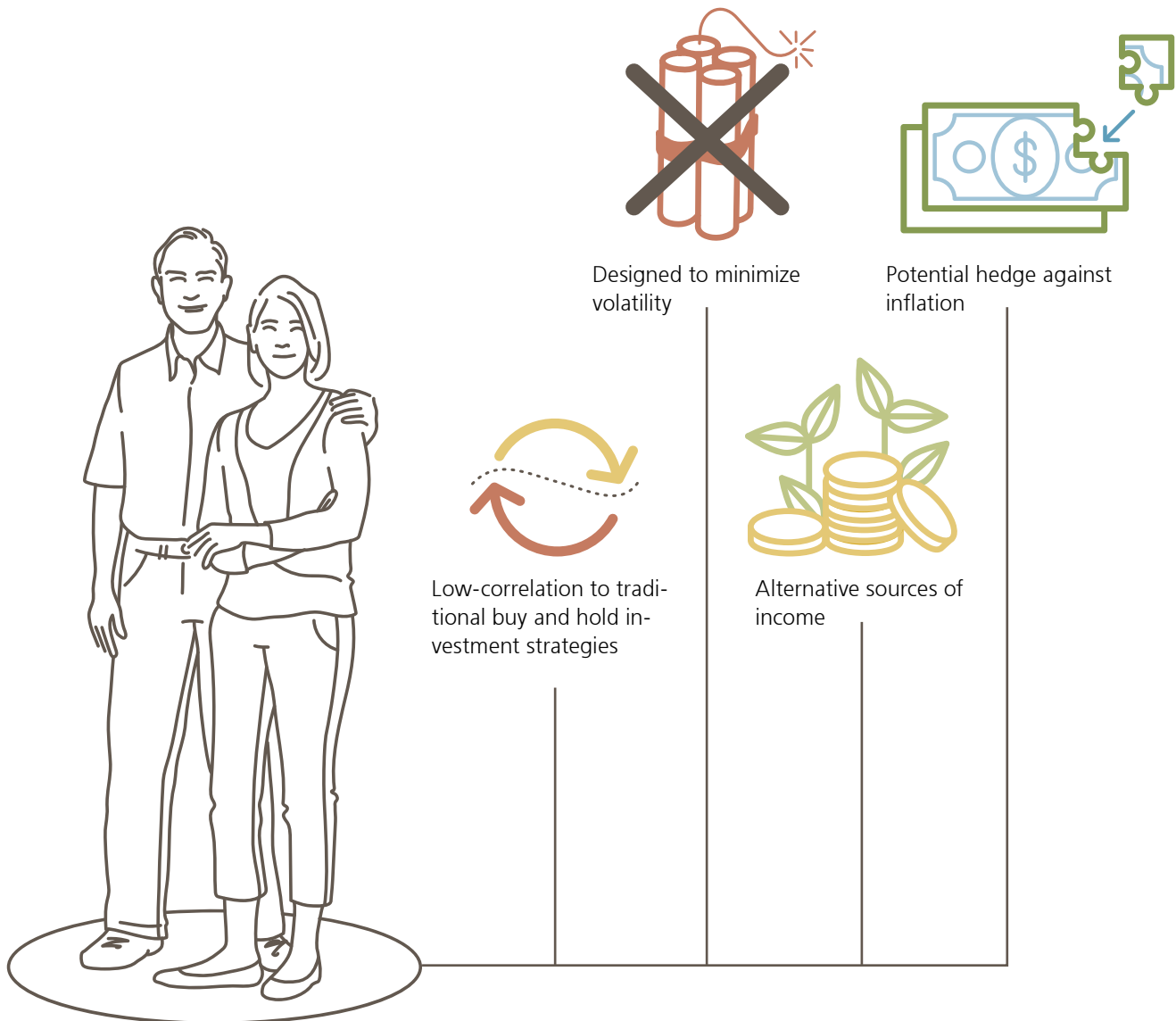
UBS Market  
Pioneers Index



# Capturing the benefits of a multi-asset allocation

## Why choose a multi-asset class indexing strategy?

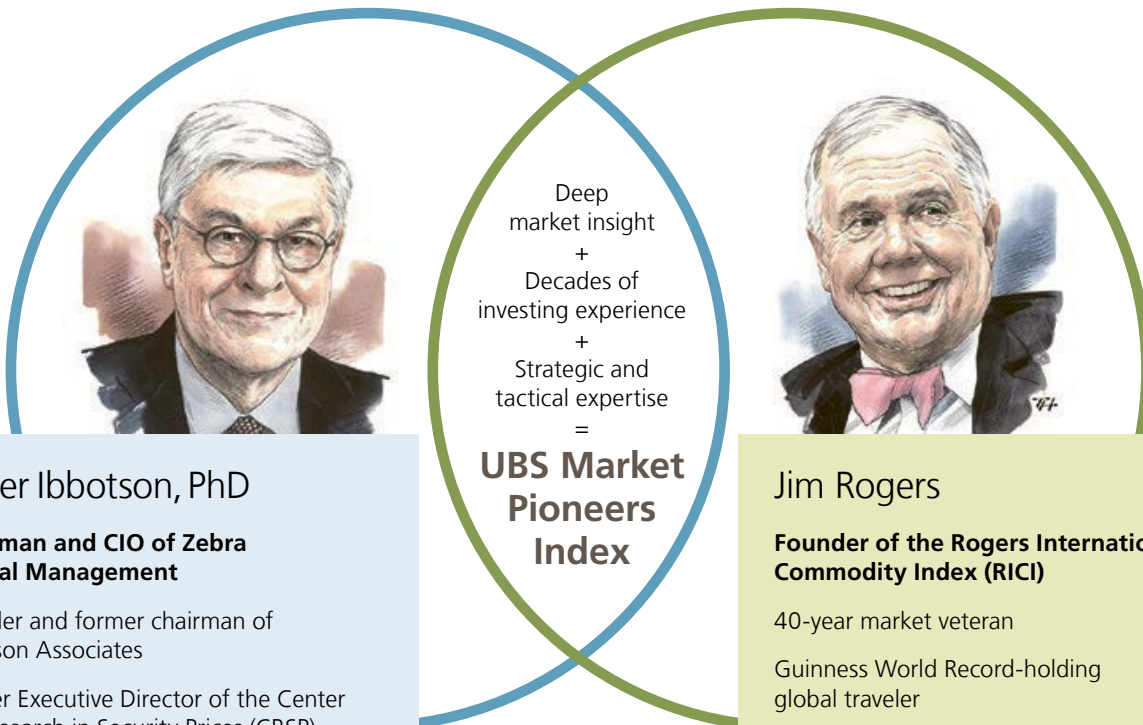
For individuals approaching and in retirement, managing market volatility, capturing harder-to-find excess return and outpacing inflation are all critical concerns. Adding risk-focused strategies to a portfolio can help individuals address these concerns, offering a range of potential long-term benefits.



# UBS Market Pioneers Index

## We brought together two great minds to build a singular strategy.

Roger Ibbotson and Jim Rogers share a legacy of innovation and a common sense market outlook. Each of these market pioneers has a distinct perspective and unique approach that complements the other.



### Roger Ibbotson, PhD

#### Chairman and CIO of Zebra Capital Management

Founder and former chairman of Ibbotson Associates

Former Executive Director of the Center for Research in Security Prices (CRSP)

Professor Emeritus of Finance, Yale University

PhD, University of Chicago

Co-author of *Stocks, Bonds, Bills, and Inflation*, the standard reference book for market performance and characteristics (Updated annually)

Nine time winner of CFA's Graham and Dodd Award

A pioneer in bridging academic research and industry practice on asset allocation



### Jim Rogers

#### Founder of the Rogers International Commodity Index (RICI)

40-year market veteran

Guinness World Record-holding global traveler

B.A., Yale University and Oxford

Author of several best-selling books, including:

- *Street Smarts* (2013)
- *A Bull in China: Investing Profitably in the World's Greatest Market* (2007)
- *Hot Commodities: How Anyone Can Invest Profitably* (2004)
- *Adventure Capitalist: The Ultimate Road Trip* (2003)
- *Investment Biker: Around the World with Jim Rogers* (1994)

A pioneer in global investing



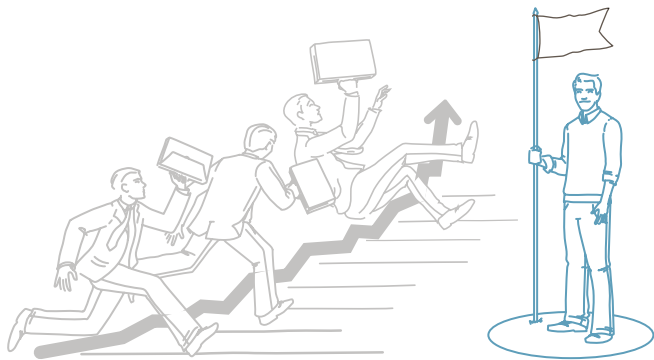
# A new way to think about equity allocation

## NYSE Zebra Edge U.S. Equity Index

### Popularity, and why it matters for investing

Ibbotson's premise is simple: "hot stocks" are overrated and tend to underperform over the long term.

His popularity metric upends the conventional risk/reward investment wisdom to find a more consistent and elegant explanation for both long-term market premiums and short-term security mispricings.



### Ibbotson's conclusion:

#### Avoid chasing hot stocks—boring is better.

Popular stocks are stocks with high turnover—names that are experiencing their "15 minutes of fame." Analyzing decades of market data\*, Ibbotson found that:

- More popular names historically have higher valuations relative to their fundamentals, but lower expected returns
- Less popular names have performed better and provided more stable price returns over time
- Investment strategies have benefitted from systematically removing popular and overly volatile stocks from their portfolios

"Avoiding popularity rewards the investor who has longer horizons—and is willing to be contrarian."

**Roger Ibbotson**

### Constructing the NYSE Zebra Edge

#### U.S. Equity Index

To put his strategy into practice, Ibbotson uses a straightforward, rules-based methodology.

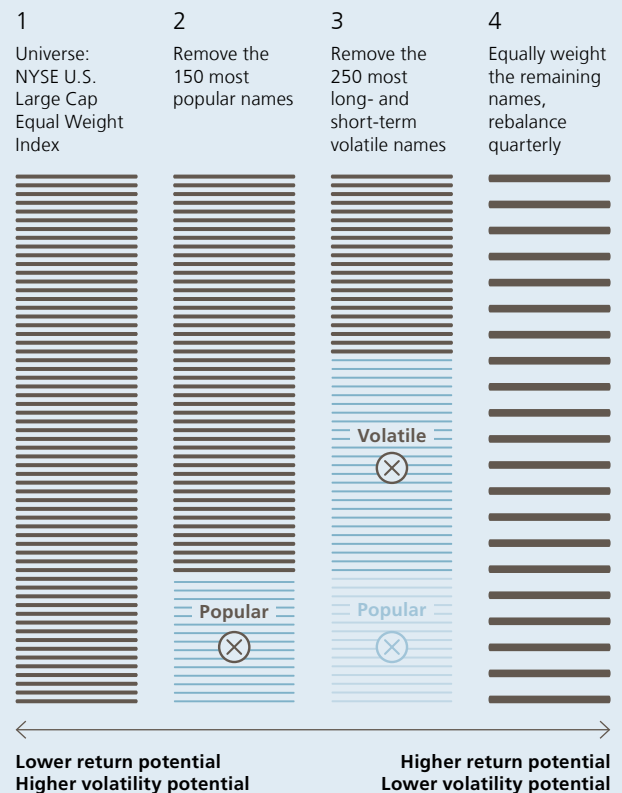


Chart is shown for illustrative purposes only and does not reflect actual portfolio allocations.

\*Risk and Return Within the Stock Market: What Works Best?  
Roger G. Ibbotson and Daniel Y.-J. Kim, 2014.

# Taking a common sense approach to commodities

## Jim Rogers Global Consumer Commodities Index™

### A focus on consumption

Unlike many other commodities strategies, which may focus on production or supply, Jim Rogers looks at global consumption patterns.

Why focus on consumption? In simple economic terms, when supply goes up, prices go down if demand remains constant. If demand increases, then prices will go up when supply is constant or falling. This approach is primed to take advantage of dramatic increases in global consumption, especially within fast-growing emerging economies.



### A three-part index construction methodology



#### Global:

Broad-based exposure to both developed and developing economies



#### Diversified:

A basket of 27 commodities consumed in the global economy across livestock, agriculture, energy and metals



#### Transparent and liquid:

The value of the basket is tracked using rolling futures contracts on exchange-traded commodities

"Commodities are real things that are always likely to be worth something to somebody."

**Jim Rogers**

### The value of commodities in a diversified portfolio

Investing in commodities can open up potential new return opportunities and may lessen volatility when added to a portfolio of equities and fixed income. Historically, commodities have offered:

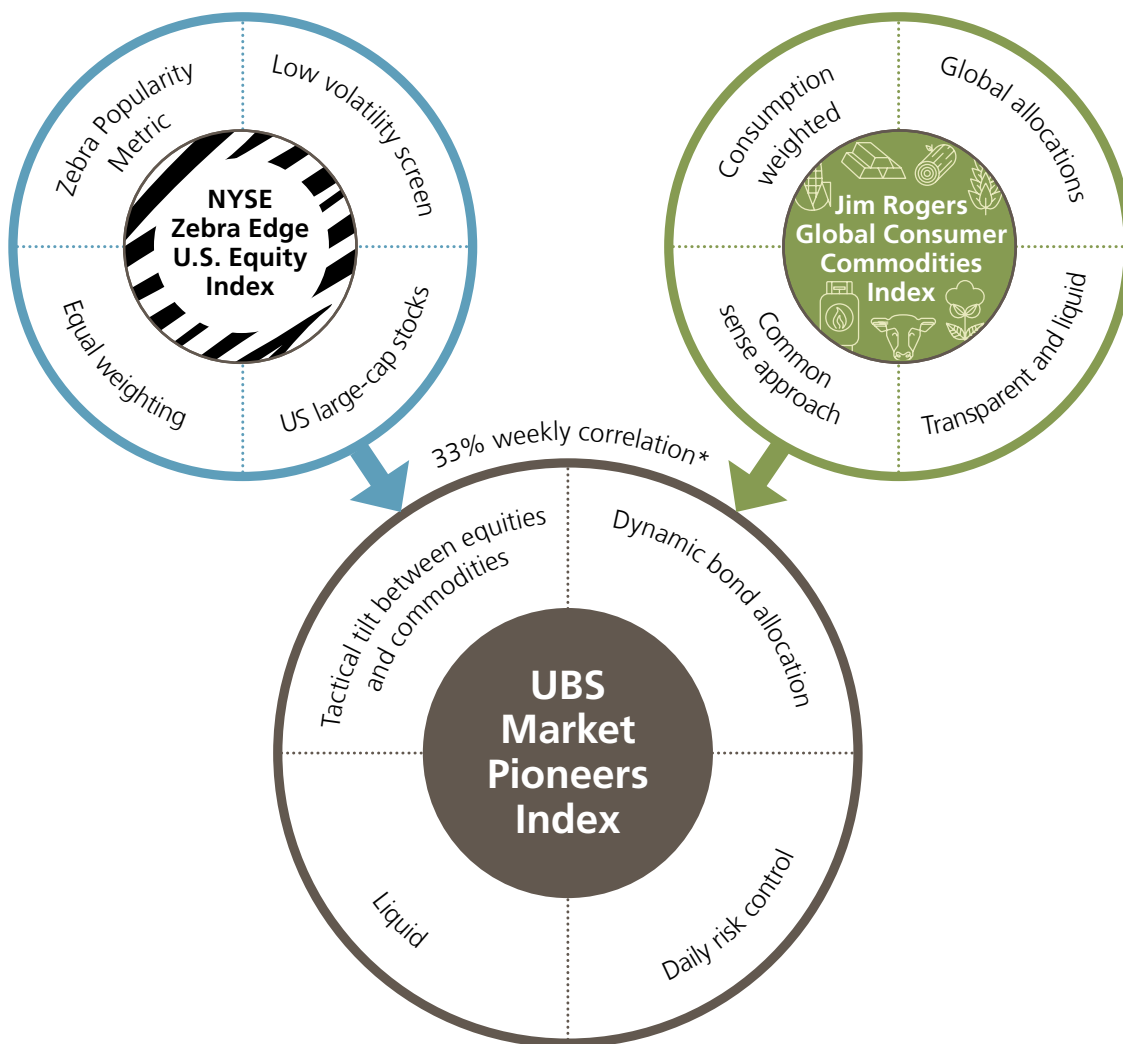
- Investment results and performance volatility similar to equities
- Low correlation to equities and fixed income with potential portfolio diversification benefits
- A potential hedge against inflation, with historical correlation to the Consumer Price Index (CPI)



# UBS Market Pioneers Index

Built on the insight and experience of Jim Rogers and Roger Ibbotson

With a historically low performance correlation between the equity and commodity component indices, the UBS Market Pioneers Index offers investors a compelling combination.



\*Source: NYSE and Bloomberg. Range: December 31, 1999 through September 30, 2016. Figure is based on backtested performance, which refers to simulated performance data provided as an illustration of how the indices would have performed during the relevant period had the relevant index administrator been calculating the relevant index using the current index methodology. Such simulated performance data has inherent limitations, as the simulated data is provided by the retroactive application of a backtested methodology. Simulated performance data is based on criteria applied retroactively with the benefit of hindsight and knowledge of factors that may have positively affected its performance, and may reflect a bias toward strategies that have performed well in the past. This data does not reflect actual performance, nor was a contemporaneous investment model run of the indices. No future performance of the indices can be predicted based on the simulated performance described herein.

# Two tactical allocations and risk control overlays are designed to maintain return and volatility targets in various market conditions.

## 1. Tactical Equity/Commodity Tilt

A tactical 75/25 equity/commodity tilt is rebalanced quarterly depending on market trends.



NYSE Zebra Edge  
U.S. Equity Index



Jim Rogers Global Consumer  
Commodities Index

Rolling 200-day relative strength  
measure **favors equities**



Rolling 200-day relative strength  
measure **favors commodities**

**Equity/commodity risk control** targets a 5% annualized volatility, subject to a 100% maximum exposure. When exposure is below 100%, the remaining allocation tracks the Tactical US 10-Year Treasury Futures strategy described below. Rebalanced daily.

## 2. Tactical Treasury Futures allocation

A tactical allocation to an index of US 10-Year Treasury Note Futures\*\* varies depending on market conditions.

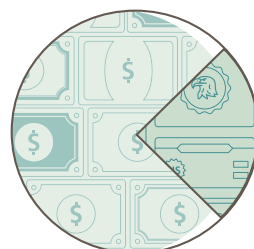


Index of US 10-Year  
Treasury Note Futures\*\*



Interest-free  
Cash Account

**100% Exposure**  
Index of US 10-Year Treasury Note  
Futures **above** its 100-day moving  
average for 5 consecutive days



**25% Exposure**  
Index of US 10-Year Treasury Note Fu-  
tures **below** its 100-day moving  
average for 5 consecutive days

## 3. Portfolio-level risk control

A final risk control overlay is applied to the combined tactical allocations.



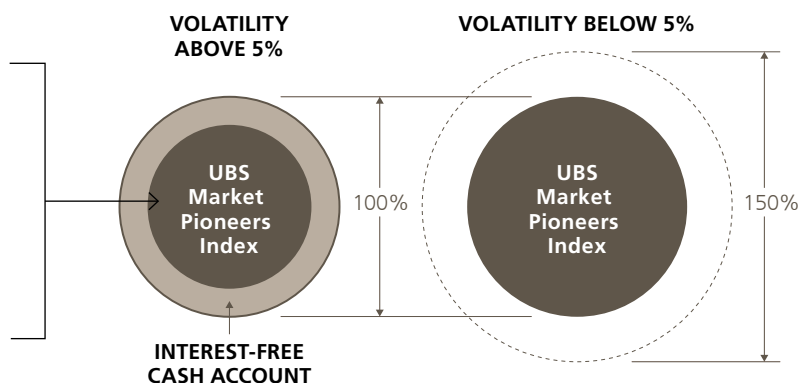
NYSE Zebra Edge  
U.S. Equity Index



Jim Rogers Global Consumer  
Commodities Index



Index of US 10-Year Treasury  
Note Futures\*\*

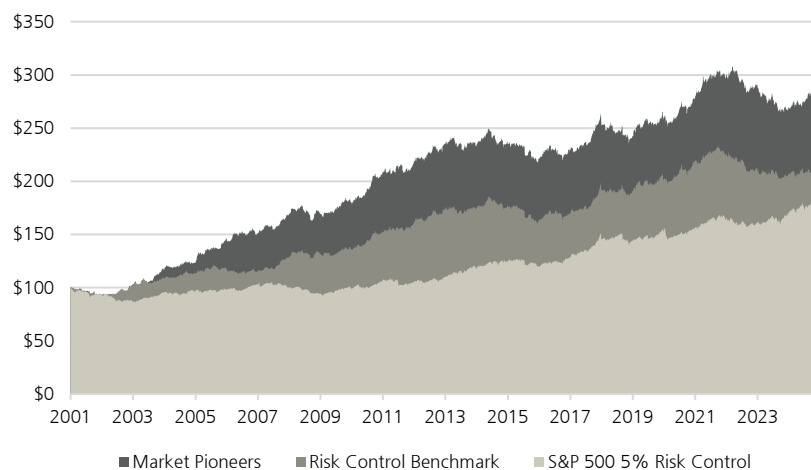


**Portfolio level risk control** manages exposure for the tactical equity/commodity tilt/US 10-Year Treasury Futures allocation subject to a 150% maximum. The UBS Market Pioneers Index exposure is reduced pro-rata when necessary in order to target a 5% annualized volatility. Rebalanced daily. A 0.75% per annum fee is deducted from the Index.

\*\* The official name of the US 10-Year Treasury Note Futures referred to in this material is the Solactive 10-Year US Treasury Future Index. The NYSE Zebra Index of U.S. Equity Index fully re-invests dividends, but performance is reduced by an annualized ICE 3-month Libor rate.

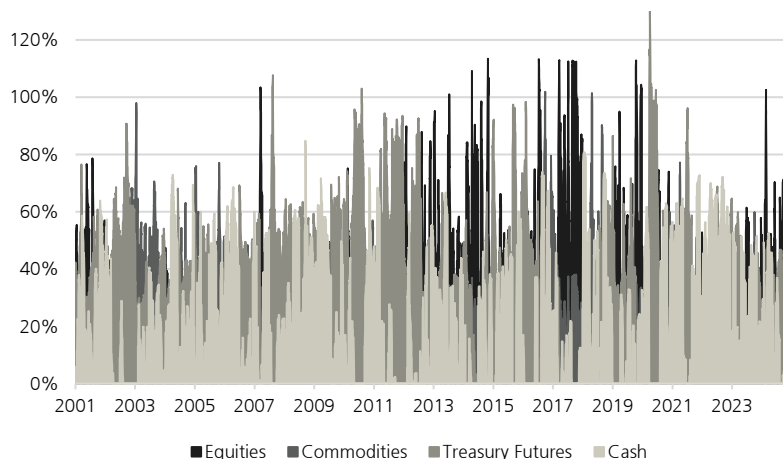
# Results

## Backtested Performance



	UBS Market Pioneers Index	Risk Control Strategy Benchmark	S&P 500 5% Risk Control Index
Annualized Return	4.27%	2.99%	2.46%
Volatility	5.34%	5.24%	5.08%
Return/Risk	0.80	0.57	0.48
Maximum Drawdown	-13.92%	-13.95%	-14.00%
1 Year Return	0.90%	-1.71%	6.21%
2 Year Annualized Return	-2.93%	-1.79%	5.97%
3 Year Annualized Return	-3.32%	-4.03%	2.06%
5 Year Annualized Return	0.96%	-0.18%	3.21%

## Backtested Allocations



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. Such simulated performance data has inherent limitations, as the simulated data is produced by the retroactive application of a backtested methodology. Simulated performance data is based on criteria applied retroactively with the benefit of hindsight and knowledge of factors that may have positively affected its performance, and may reflect a bias toward strategies that have performed well in the past. No future performance of the Index can be predicted based on the simulated performance described herein. Index performance is net of a 0.75% per annum index fee. **The UBS Market Pioneers Index went live on November 11, 2016. All Index data prior to that date is based on backtested performance.**

Range: February 6, 2001 – December 31, 2024. Source: Solactive, UBS, S&P Dow Jones and Bloomberg.

\*The Risk Control Strategy Benchmark makes the following changes within the UBS Market Pioneers Index in order to replicate how a similar 5% risk control strategy tracking major benchmarks would have performed:

- The equity component is replaced with the S&P 500 ER Index
- The commodities component is replaced with the S&P GSCI ER Index
- The Tactical Treasury Futures Allocation is replaced with the Solactive U.S. 10-Year Treasury Future Index

**All Risk Control Strategy Benchmark data is based on backtested performance.** Performance is net of a 0.75% per annum index fee.

\*\*The S&P 500 5% Risk Control Index ("SPRCI") tracks an excess return index. **The SPRCI went live on September 9, 2009. All data prior to that date is based on backtested performance.** Performance does not include any deduction of fees.

The term "backtested allocations" refers to simulated Index asset allocations provided as an illustration of the Index's asset allocations during the relevant period had the Index administrator been calculating the Index using the current Index methodology. Simulated Index data has inherent limitations, as the simulated data is produced by the retroactive application of a backtested methodology. This data does not reflect the Index's actual asset allocations over the relevant period. No future asset allocations of the Index can be predicted based on the simulated asset allocations described herein. **The UBS Market Pioneers Index went live on November 11, 2016. All Index data prior to that date is based on backtested simulations.**

Range: February 6, 2001 – December 31, 2024. Source: Solactive.



# Selected Risk Considerations

## **UBS Market Pioneers Index**

- The Index is not guaranteed to succeed at meeting its objectives.
- The Index has exposure to equities, commodities and fixed income markets.
- Financial products linked to the Index will be exposed to the risks of those products.
- Relative strength and trend-following strategies could underperform in a choppy or range bound market.
- The Index relies on risk control methodology, and could underperform indices that do not have a risk control overlay.
- Changes in allocations between equities, commodities and US 10-Year Treasury Futures are based on rolling historical market data.
- The Index is an excess return index and will not earn any cash re-investment 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.
- Index performance is reduced by a 0.75% per annum index fee.

## **NYSE Zebra Edge U.S. Equity Index**

- Exposure to equities market risk.
- Applying a volatility and popularity filter may cause the index to underperform other indexing strategies.
- Equal weighting of equity index components may underperform indices that use other weighting methodologies.
- Excess return indices will underperform if 3-month Libor rates experience a significant and consistent increase.
- The NYSE Zebra Edge U.S. Equity Index fully reinvests dividends, but performance is reduced by an annualized ICE 3-month Libor rate.

## **Jim Rogers Global Consumer Commodities Index**

- The Jim Rogers Global Consumer Commodities Index weights commodities based on global consumption patterns. In certain market environments, a consumption weighted index may underperform indices that utilize other component weighting methodologies.
- The Jim Rogers Global Consumer Commodities Index tracks commodities with further dated maturities. This enhanced roll methodology may cause the index to underperform indices or strategies that are composed of commodity futures with shorter-dated maturities.
- Commodity indexes may lose value for the following reasons:
  - The effects of weather.
  - The impact of government programs and policies.
  - National and international political, military, or economic events.
  - Increases in interest and exchange rates and other factors that may affect the supply of and demand for global commodities.
- Strategies linked to commodity indices composed of futures contracts, such as the Jim Rogers Global Consumer Commodities Index, may be impacted by the following:
  - Storage costs
  - Interest rates
  - Seasonality
  - Cost to roll futures

## **US 10-Year Treasury Note Futures Index**

- Subject to interest rate risk.
- May be impacted by cost to roll futures.
- The index is an excess return index and does not include exposure to an interest-bearing cash account.

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