





## Innovation meets Nobel Prize winning research

The UBS Multi Asset Engle SGD Index is an innovative index designed to provide dynamic exposure to US equities, U.S. 10-Year Treasury Notes and gold.

The Index provides multi asset diversification with risk weighted approach using innovative forward-looking rebalancing model developed by UBS in partnership Dr. Robert Engle.

Key facts	
Ticker	UBENMA6S
Website	indices.ubs.com/UBENMA6S
Backtest start date	June 18, 2008
Live date	July 16 2025
Currency	SGD
Asset class	Multi-asset
Return type	Excess return
Rebalancing	Daily
Calculation agent	MerQube, Inc
Index sponsor	UBS AG
Index fee	0.00% per year



Built in risk management

The Index targets a volatility of 6% using a mechanism called "Volatility control."



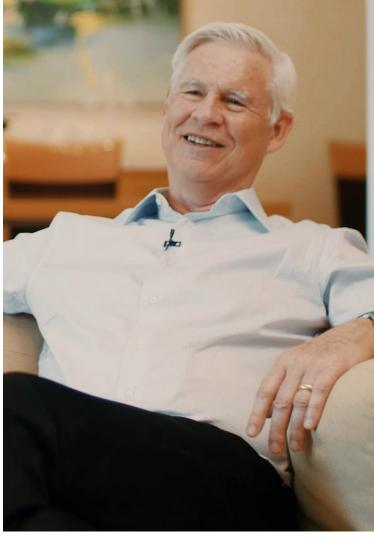


## Partnering with **Nobel Prize** winner

In 2003, Professor Robert F. Engle was awarded the Nobel Prize in Economic Sciences for his groundbreaking work in volatility modeling<sup>1</sup>. This work helped establish the foundation for time series analysis and helped systematize the study of volatility in the financial market.

UBS has a long history of partnering with Nobel Award winners through the Nobel Perspectives Initiative.

"The heart of a good volatility-control mechanism is a good forecast of volatility."



Robert F. Engle, PhD. 2003 Nobel Laureate in Economics Professor Emeritus of Finance at NYU Stern Co-Director, The Volatility and Risk Institute



One of Dr. Engle's most important contributions was his discovery of a method for analyzing unpredictable movements in financial market prices. Strong prediction of these volatile movements can potentially help manage risk more effectively.

Dr. Engle developed forward-looking statistical models of volatility that captured the tendency of stock prices and other financial variables' movements in various volatility regimes.

<sup>1</sup>Robert F. Engle III was awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel in 2003. His prize motivation is "for methods of analyzing economic time series with time-varying volatility (ARCH)". Source: https://www.nobelprize.org/prizes/economic-sciences/2003/engle/facts



## The right balance

The index invests in three asset classes to balance growth and provide diversification.



### US equities | Growth asset

S&P 500 futures

UBS US Equity Engle 10% Index

### US bonds | Defensive asset

U.S. 10-Year Treasury Notes futures

UBS US Dynamic Bond EMA Index

### Gold | Diversifying asset

Gold futures

UBS Gold Engle 10% Index

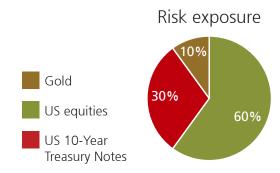


## Index construction

### Total risk target = 6%

Risk exposure

The index construction starts with a fixed risk exposure across three asset classes. Risk exposures are rebalanced monthly.



Target allocation

A dollar "target allocation" is calculated for each asset class based on the risk exposure contribution prescribed in Step 1. Target allocation depends on the asset risk level and cross-correlation between assets.





allocation per asset class

Under allocation

Over allocation

Final portfolio allocation

Finally, the index uses Dr. Engle's model to better forecast volatility and correlation across assets, adjusting allocation as financial market conditions change.

During high volatility periods, final portfolio allocation is reduced, while during low volatility periods allocation is increased, up to \$200.

The index aims to keep the final portfolio allocation within 6% risk target.







# Built in risk management and low volatility

The Index targets a risk level of 6% annualized volatility.

Unlike many volatility-controlled indices that rebalance based on backward-looking volatility calculations, the index uses an innovative forward-looking model that predicts volatility and adjusts allocation to a portfolio of S&P 500 futures, U.S. 10-Year Treasury Notes futures and gold futures.

### Bear market



When forecasted volatility is higher than 6%, the index will reduce the final portfolio allocation to less than \$100 to dampen volatility.

### Bull market



When forecasted volatility is lower than 6%, the index will increase the final portfolio allocation to more than \$100 up to \$200.





### **US** equities

## Growth asset

### S&P 500 futures

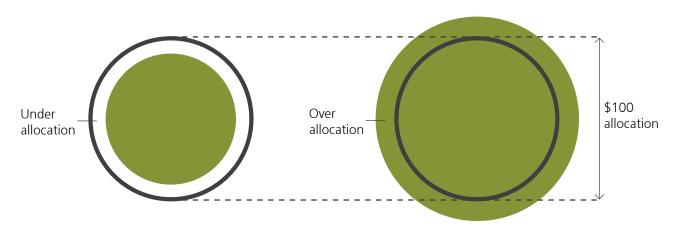
The US equities allocation provides exposure to the S&P 500 futures through **UBS US Equity Engle** 10% Index.





### **Engle volatility control**

The US equities allocation can be adjusted up and down intraday to maintain a 10% risk level. An embedded intraday momentum feature responds to sharp sell-offs and decreases allocation in periods of negative market conditions.



Risk level above 10% or market sell-off Target allocation will be less than \$100.

Risk level below 10% Target allocation will be more than \$100 and up to \$150.

### **US** bonds

# Defensive asset

### U.S. 10-Year Treasury Notes futures

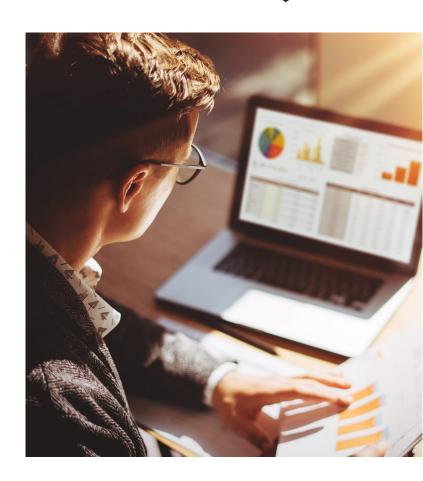
The US bonds allocation provides exposure to the U.S. 10-Year Treasury Notes futures through UBS US Dynamic Bond EMA Index.











### Bond returns have multiple drivers:



### Trend signal measures the momentum of the asset

Interest rates tend to exhibit trending behavior; the stronger the trend, the greater the strength of the trend factor.



## Carry signal measures the yield generated from holding an asset minus the cost of holding such asset

The steeper the curve, the greater the expected carry return, and the greater the strength of the signal.



### Value signal measures the price of the asset relative to its fundamental value

The stronger the value, the greater the strength of the value factor.



## Gold Diversifying asset

### Gold futures

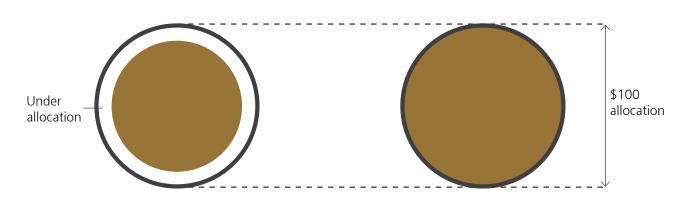
The gold allocation provides exposure to the gold futures through **UBS Gold Engle** 10% Index





### **Engle volatility control**

Gold allocation can be adjusted up and down intraday to maintain a 10% risk level.



Risk level above 10% Target allocation will be less than \$100.

Risk level below 10% Target allocation will be \$100

## Key index highlights



Diversified multi asset exposure

The Index provides diversification across asset classes without having to time the market.



Built in risk management and low volatility

Intraday observation and rebalancing enable the Index to react quickly to changing market conditions.



Innovative research in index construction

The Index utilizes innovative volatility and correlation forecasting models, powered by Dr. Engle's Nobel Prize winning research.









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