Swiss Structured Products Association

SSPA

SSPA Benchmarking Index

Background, Motivation and Objectives of the SSPA Benchmarking Index

Background

- **No established benchmark** for Structured Products
- **Limited visibility** of Structured Products and **insufficient penetration rate in portfolios**
- **Demand for greater transparency and traceability**
- Structured Products **lack a reference point** (compared to other asset classes)

Objectives

- Create a **credible track record** and **demonstrate Structured Products performance**
- Develop a representative, robust index composed of the **most demanded categories of Structured Products**
- Promote **market acceptance** and **additional product understanding** (awareness and education)
- Serve as a **reference point for reporting, analysis, marketing (in advisory and discretionary management portfolios) and communication**

Description of the Index / Family of indices

Products composing the index

- Basket of **12 products**
- Product category: **Worst-Of Barrier Reverse Convertibles**
- Underlying: **Euro Stoxx 50, S&P 500 and Nikkei 225 indices (Worst-Of)**
- Tenor: **1 year** (non-callable)
- Strike: **100%**; European Barrier: **70%** of the initial level of each underlying
- Coupon: **fixed coupon paid at maturity**

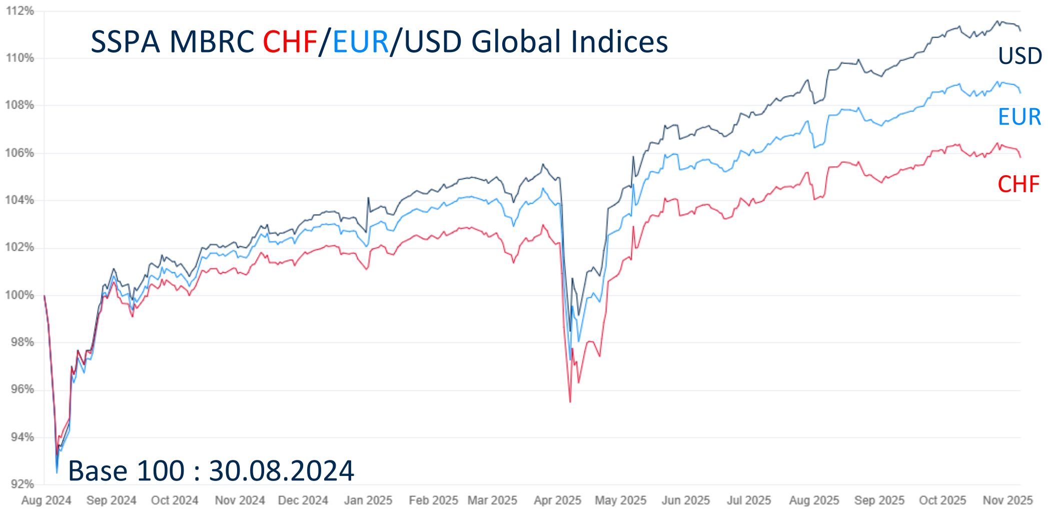
A clearly defined rulebook

- No actual issuance: zero-notional approach
- **One-year ramp-up period**
- **Monthly rolling strategy**: at each monthly redemption, **a new BRC is added to the index** (for an amount equal to nominal + coupon of the previous product)
- **Competitive bidding (to solve coupon)** through two Multi-Issuer Platforms - Deritrade and Evooq
- **Product valuations** based on **end-of-day quotes** performed by valuation agent Avaloq

Product Pricing methodology

Valuation of the indices

Ref. No.	Index	ISIN	Reuters Instrument Code (RIC)	Bloomberg Ticker	Value as of 10.11.25
1	SSPA MBRC CHF – Global Indices	DE000SL0RJT9	.SPBRCCHF	SPBRCCHF Index	105.80
2	SSPA MBRC EUR – Global Indices	DE000SL0RE17	.SPBRCEUR	SPBRCEUR Index	108.50
3	SSPA MBRC USD – Global Indices	DE000SL0RE09	.SPBRCUSD	SPBRCUSD Index	111.40



Target Groups

- **Investors** gain an objective tool for better decision-making
- **Advisors and asset managers** receive a consistent framework to assess risk and performance
- **Issuers** benefit from a neutral benchmark for product development
- **Regulators** obtain an additional dataset for market analysis

Risk & Return Profile

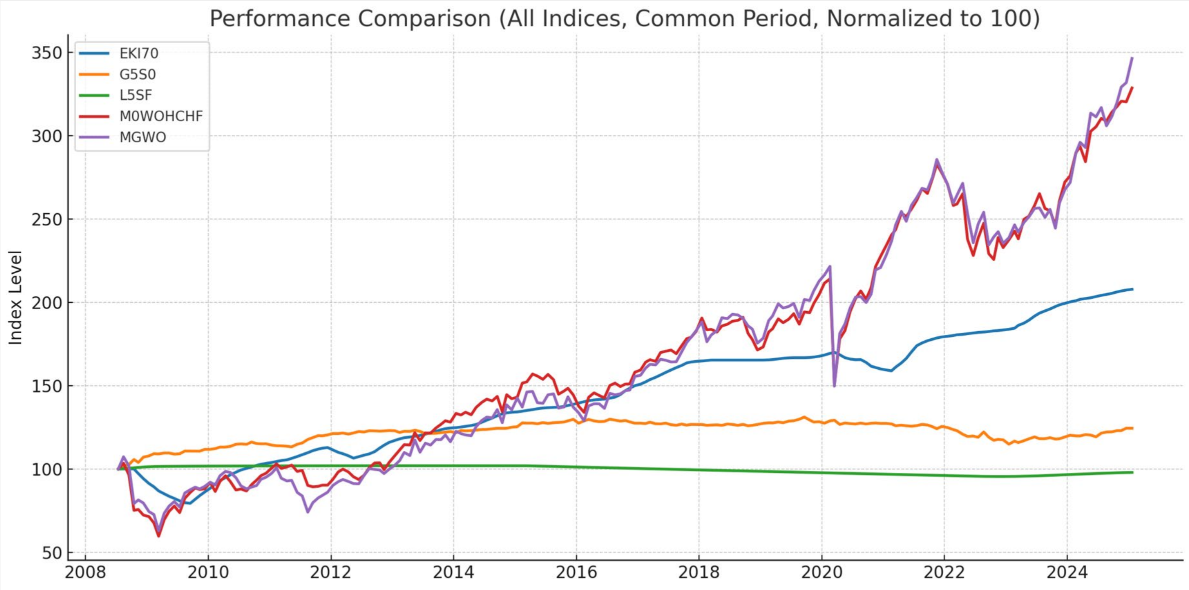
Benchmark Comparison

Backtest vs. Equity & Fixed Income Benchmarks

University of Zurich Study

Index Performance since 2008

All indices normalized to 100 as of 14.07.2008



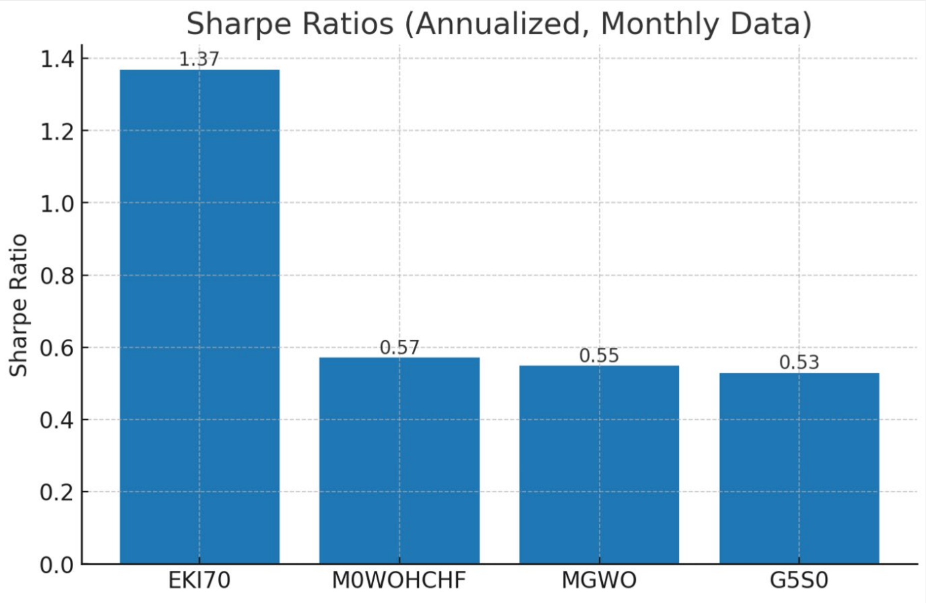
- SSPA Benchmark Index (70% European barrier)
- G5S0: ICE BofA 1–10Y Switzerland Government Index
- L5SF: ICE BofA CHF 3M Deposit Rate Index
- M0WOHCHF: MSCI World NTRI 100% Hedged CHF
- MGWO: MSCI World NTRI (unhedged)

Observations:

- **Balanced profile:** The SSPA Benchmark Index (70% EKI) positions itself between government bonds and equities. It delivers higher returns than bonds and cash while avoiding the volatility and drawdowns of equities.
- **Resilient growth path:** Performance is driven by steady coupon accruals, resulting in smoother index
- **Attractive risk/return trade-off:** While government bonds (G5S0) offered stability with low returns, and cash (L5SF) provided negligible yield, the 70% EKI combines enhanced income with controlled downside risk.
- **Equity benchmarks comparison:** Equities (M0WOHCHF, MGWO) strongly outperformed over the long run but at the cost of significantly higher volatility. The 70% EKI thus presents itself as a diversifying “middle ground” for investors.
- **Strategic relevance:** These characteristics underline the suitability of the 70% EKI as a transparent and representative benchmark for structured products, filling the gap between traditional fixed income and equity indices.

Sharpe Ratio Comparison

Risk-adjusted Performance



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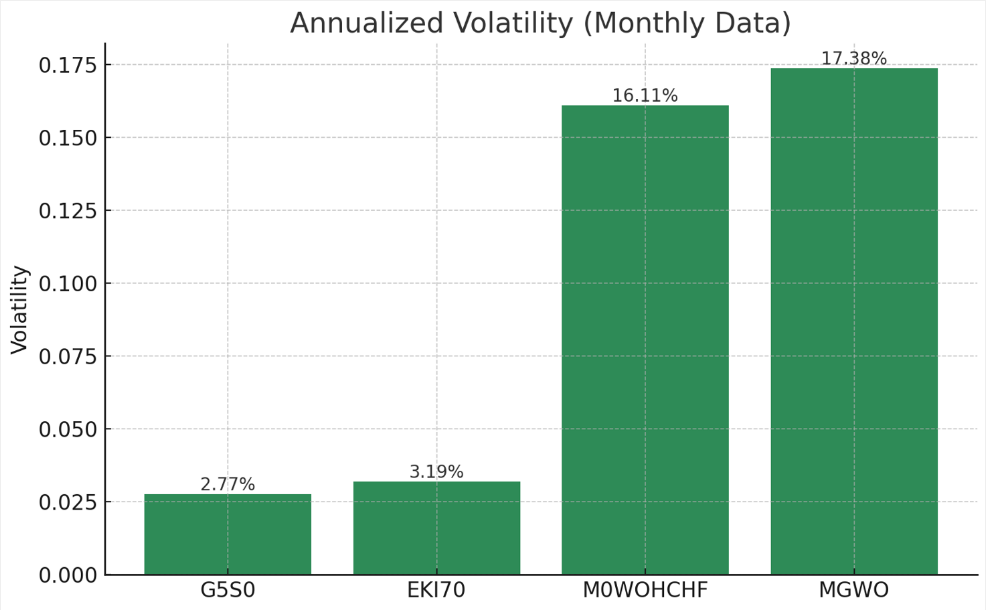
Observations:

- **Strong risk-adjusted returns:** The SSPA Benchmark Index (70% EKI) achieves a Sharpe Ratio well above all traditional benchmarks, underlining its efficient risk/return profile.
- **Comparison to bonds and cash:** Government bonds (G5S0) and cash (L5SF) delivered low Sharpe Ratios, reflecting limited excess return potential over risk-free rates.
- **Equity benchmarks (M0WOHCHF, MGWO):** Despite strong long-term returns, equities show lower Sharpe Ratios than the 70% EKI, highlighting higher volatility relative to return.
- **Diversification value:** The 70% EKI combines stable coupon accruals with reduced drawdowns, translating into superior risk-adjusted performance versus both bonds and equities.
- **Benchmark relevance:** These characteristics support the 70% EKI as a credible, transparent reference index—demonstrating structured products' ability to deliver enhanced income with competitive risk-adjusted outcomes.

Volatility Comparison

Annualized Volatility



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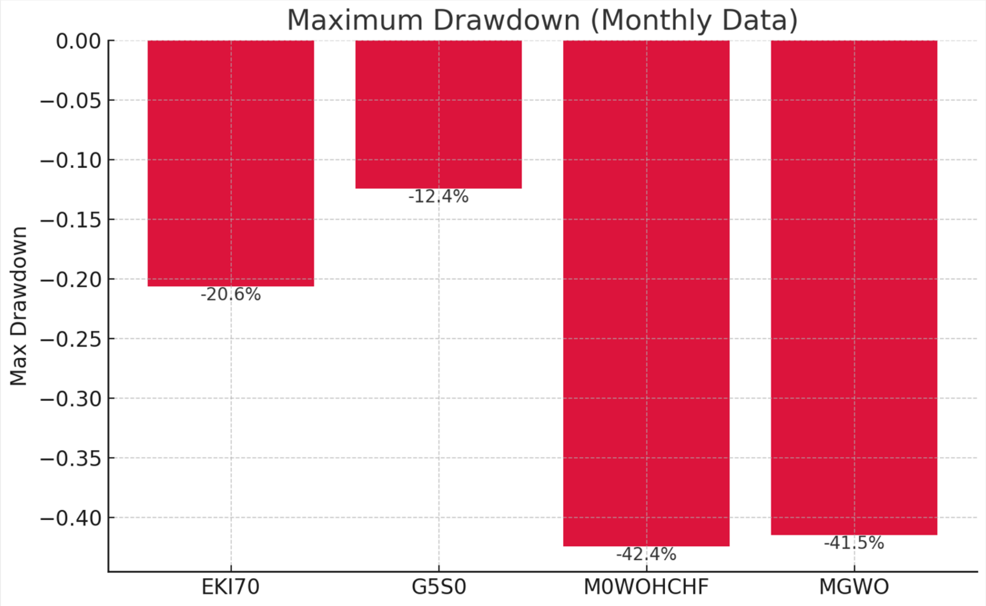
Observations:

- **Low risk profile:** The SSPA Benchmark Index (70% EKI) shows annualized volatility of ~3%, only slightly above government bonds (G5S0) at ~2.8%.
- **Substantially lower than equities:** Compared to global equity benchmarks (M0WOHCHF ~16%, MGWO ~17%), the 70% EKI exhibits a much smoother risk profile.
- **Attractive positioning:** This places the 70% EKI as a stable, low-volatility alternative that bridges the gap between fixed income and equities.
- **Benchmark relevance:** The low volatility underlines the suitability of the index as a representative performance measure for structured products, combining transparency with stability.

Drawdowns Over Time

Monthly Data



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Observations:

- **Balanced downside risk:** The SSPA Benchmark Index (70% EKI) shows a maximum drawdown of ~21%, significantly lower than equities (~42%) but higher than government bonds (~12%).
- **Crisis resilience:** During major stress periods (e.g. 2008, 2020), the index proved more resilient than global equities, limiting losses while still participating in market recovery.
- **Stable profile:** The drawdown pattern reflects the coupon-driven structure of the index, which avoids the sharp collapses seen in equity markets.
- **Positioning:** This underlines the benchmark's role as a middle ground – offering higher potential than bonds, but without the deep drawdowns of equities.
- **Relevance:** The controlled downside strengthens the case for the 70% EKI as a transparent benchmark for structured products, showcasing their defensive characteristics.

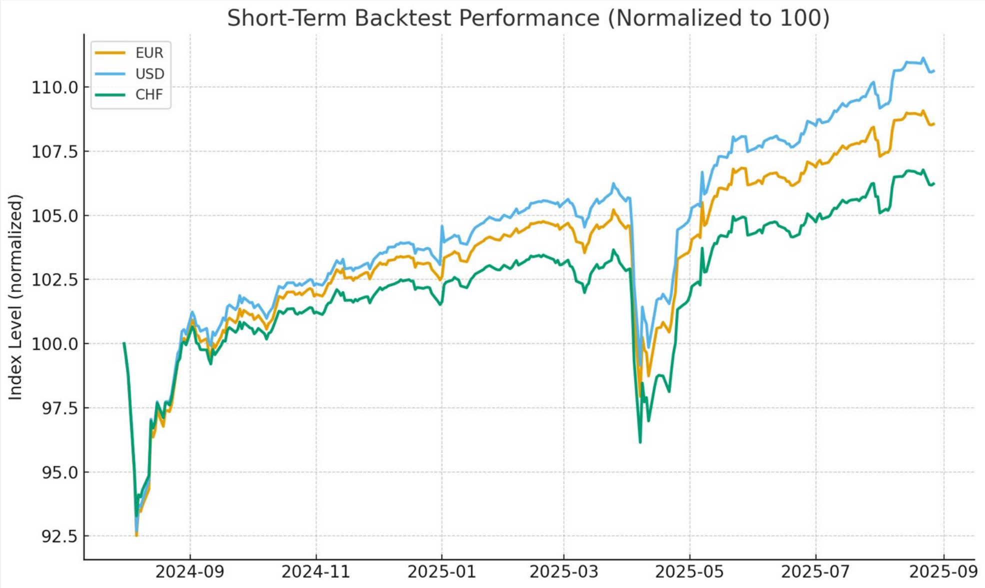
Risk-Adjusted Performance Overview

Return, Risk and Resilience

- **Performance:**
  - The SSPA Benchmark Index (70% EKI) has clearly outperformed government bonds (G5S0) and cash (L5SF) since 2008.
  - It positions itself between bonds and equities (M0WOHCHF, MGWO).
  - Less volatile than equities, but with higher returns than bonds.
- **Sharpe Ratio:**
  - At ~1.4, the 70% EKI delivers the highest risk-adjusted return.
  - Bonds (~0.5) and equities (~0.6) are significantly lower.
  - The index converts risk into return more efficiently.
- **Volatility:**
  - At ~3% annual volatility, the 70% EKI is only slightly above government bonds (~2.8%).
  - Significantly below equities (16–17%).
  - Confirms its role as a stable 'middle ground.'
- **Drawdowns:**
  - Maximum drawdown ~21%, much lower than equities (~42%) but higher than bonds (~12%).
  - Clearly more resilient than equities during crises (2008, 2020).
  - Controlled downside makes the index a credible benchmark.

Short Term Backtest

Ramp up Phase



- SSPA Benchmark Index (70% European barrier) quanto CHF, EUR, USD

Observations:

- **Balanced downside risk:** The SSPA Benchmark Index (70% EKI) shows a maximum drawdown of ~21%, significantly lower than equities (~42%) but higher than government bonds (~12%).
- **Short-Term Backtest (2024–25):** Metrics look attractive with 8% volatility, shallow drawdowns (−7%), and Sharpe ratios close to 1. However, this period covers only 7 months of relatively stable markets.
- **Key takeaway:** Short-term results are less representative. Long-term evidence across multiple market cycles proves the robustness of the 70% EKI as a benchmark – positioned between bonds and equities, with realistic risk-adjusted returns.

Index Overview

SSPA MBRC Index Family

Index Universe

SSPA MBRC Index Family

- Owner: **Swiss Structured Products Association (SSPA)**
- Administrator & Calculator: **Solactive AG**
- Objective: Represent a **basket of Multi-Asset Barrier Reverse Convertibles (MBRCs)**
- Base Date: **30 August 2024**, Base Value **100**
- Currencies: **CHF, EUR, USD**
- Management Fee: **1% p.a.**, deducted daily
- Calculation: **Daily**, based on independent valuations from Avaloq (Valuation Agent)
- Publication: **Solactive.com** and Boerse Stuttgart data feed

Eligibility Criteria / Issuer Requirements

- Product Type: *Multi-Asset Barrier Reverse Convertible*
- Underlyings: *Worst-of S&P 500, Euro Stoxx 50, Nikkei 225*
- Tenor: *1 year*, non-callable
- Strike: 100%|Barrier: 70% (*European, at maturity only*)
- Coupon: *Fixed, paid at maturity*
- Currencies: *CHF / EUR / USD*
- SSPA member
- Not a Special Purpose Vehicle (SPV)
- Credit rating ≥ A- (from at least two of Moody’s, S&P, Fitch)
- Actual issuance not required — *synthetic “zero-notional” approach*

Index Overview

Selection & Rebalancing

Calculation & Valuation

Selection Process / Rolling Structure

- Monthly selection and rebalancing (last business day each month)
- Product with **highest coupon** selected, subject to
  - ➢ Difference to 2nd-best coupon < 2 % (to avoid outliers)
  - ➢ Quotes from at least **three eligible issuers**
- If conditions not met → postponed by one calculation day
- 12 product lines, each with a 1-year maturity
- At each monthly redemption, the **maturing product** (principal + coupon) is **reinvested** into a new MBRC selected that month

Index Composition / Adjustments

- Sum of 12 monthly sub-indices (“investment lines”)
- Each sub-index valued daily at dirty price (including coupon)
- Total Index = weighted sum of all sub-indices – daily management fee
- No extraordinary rebalances
- Corporate actions handled under *Solactive Equity Index Methodology*
- Error corrections via *Solactive Correction Policy*
- Index values rounded to 2 decimals

Index Overview

Governance & Methodology

Index Governance / Key Principles

- **Index Committee** (Solactive) approves rule changes
- **Annual methodology review** under *Solactive Methodology Policy*
- Amendments or cessations governed by
  - *Methodology Policy*
  - *Termination Policy*
- Fully rule-based (no discretionary decisions)
- Transparent process, public announcements on solactive.com
- Index cessation only if underlying market no longer representative