

Index Solutions

A Matter of Weight

Newsletter No. 11



Our current newsletter is about weight, or more precisely the weighting of equities in an index. Non-market capitalization weighted indices are at present frequently marketed under the label “smart beta.” We use this term cautiously, as we do not consider market capitalization weighting to be a poor concept in itself. However, alternative weightings make certain factor premiums suitable for investment, thereby enabling the risk and return of the portfolio to be controlled more precisely.

Credit Suisse launched the first non-market capitalization weighted index funds for Swiss institutional investors back in 2011, the CSIF **Value Weighted**. Two further funds with alternative weightings have recently been launched:

- CSIF III World ex CH **Minimum Volatility** Index – Pension Fund
- CSIF III World ex CH **Quality** Index – Pension Fund

Find out more on the next few pages about the ideal weighting in an index portfolio. We wish you an interesting read.


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**Just as perfect as the original:
Credit Suisse index funds**

The extraordinary blue color of the Blue Morpho butterfly comes from the unique surface structure of its wings.

To make use of such feats of nature, you have to master the technique of replication. This is particularly true for the management of index funds. Credit Suisse draws on experience and technology to make the most important indexes investable for you as an institutional investor.

What Are Strategy Indices?

The prevailing concept today for equity indices is to weight all securities according to their market capitalization. Strategy indices deliberately deviate from market capitalization in their weighting in order to siphon off factor premiums or reduce the investment risk. A factor premium is a reward in the form of higher returns for holding equities with certain characteristics. Typical factor premiums can be seen for equities of small companies (small size), for favorably priced equities (value) and for financially sound growth securities (quality). Equity portfolios with the lowest possible overall risk (minimum volatility) have displayed not only a lower risk in the past 15 years but also a higher return than market capitalization weighted portfolios.

Strategy indices offer a cost-effective way of precisely controlling the risk and return of an equity portfolio. The subjective assessments of a fund manager have no bearing on the composition of the indices. The common feature of strategy indices is that they are designed in a rule-based manner and are fully transparent. Credit Suisse is for the first time offering the three strategies – Value, Quality and Minimum Volatility – in the



form of institutional funds according to Swiss law for pension funds. This enables us to combine innovative investment concepts with a proven form of implementation.

The New Strategy Index Funds

CSIF III World ex CH Minimum Volatility Index – Pension Fund

The underlying idea of the MSCI Minimum Volatility Index is to reduce the risk of the overall portfolio. The index contains an enhancement of the portfolio that prevents both a concentration of country and sector weightings and an excessive reallocation. As illustrated by the diagram below, the MSCI Minimum Volatility Index displays a considerable excess return over longer periods with lower volatility compared to the capitalization-weighted standard index.

The criteria of the MSCI Minimum Volatility Index at a glance:

- Beta < 1
- Lower volatility than the parent index
- Higher share of mid cap equities than the parent index
- Focus on equities with low security-specific risk

CSIF III World ex CH Quality Index – Pension Fund

The MSCI Quality Index identifies growth securities offering higher quality than the market average. The MSCI Quality Index contains the best 300 equities of the MSCI parent index. These are characterized by sound business models and robust competitive advantages. Historically the MSCI Quality Index also displays a significant excess return over longer periods with lower volatility compared to the capitalization-weighted standard index.

The criteria of the MSCI Quality Index at a glance:

- High return on equity (ROE)
- Stable earnings growth (standard deviation of the earnings growth per stock over five years)
- Low financial leverage (debt capital/equity capital)

CSIF World ex CH Value Weighted Index – Pension Fund

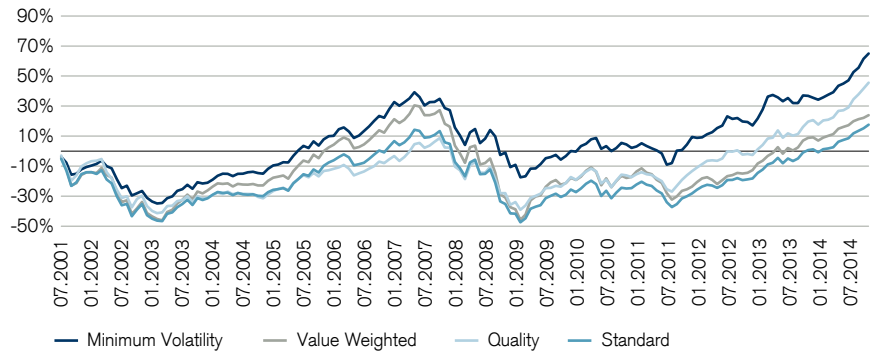
The MSCI Value Weighted Index weights its equities according to key fundamental figures from the balance sheet and income statement of the relevant companies. It contains a higher weighting of favorably valued equities (value) and equities of small enterprises (size). Like the other two indices, the MSCI Value Weighted Index historically displays a significant excess return over longer periods compared to the capitalization weighted standard index.

The criteria of the MSCI Value Weighted Index at a glance:

- Book value
- Sales
- Cash flow
- Earnings

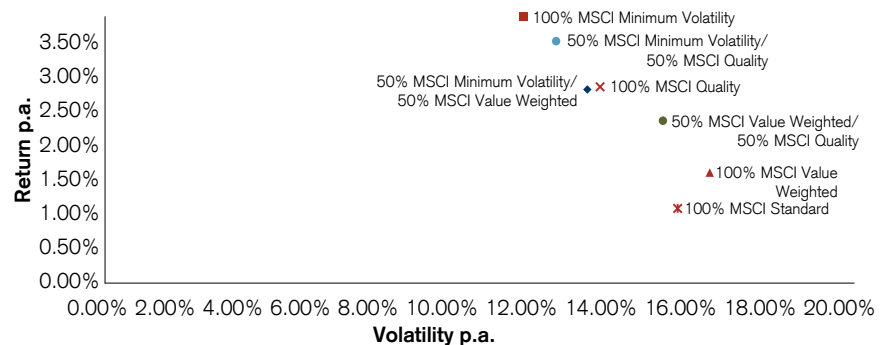
The following diagrams illustrate the performance and volatility of the global equity universe compared with the three indices **MSCI Minimum Volatility Index**, **MSCI Quality Index** and **MSCI Value Weighted Index**:

Accumulated Return of MSCI World ex CH Strategy Indices (Gross Return in CHF)



Data interval: June 2001 to November 2014
Sources: Factset, MSCI, Credit Suisse

MSCI World ex CH Indices



Data interval: June 2001 to November 2014
Sources: Factset, MSCI, Credit Suisse

All three alternative weighting schemes have one decisive feature in common: they decouple a security's weighting from the price. This direct dependency of price and weighting in the index is often cited as a drawback of capitalization weighting, as overvalued securities are systematically allocated a higher weighting and undervalued securities a correspondingly lower one in the index. Another important difference from capitalization weighted indices is the periodic reallocation and return to the target weightings. This rebalancing of the weightings within the strategy indices leads to an anticyclical positioning of the securities contained within them.

In the following table you will find the most important key figures for the individual indices compared to the MSCI World ex CH Standard Index:

	MSCI World ex CH Minimum Volatility Index	MSCI World ex CH Quality Index	MSCI World ex CH Value Weighted Index	MSCI World ex CH Standard Index
Total Return¹	3.80%	2.84%	1.61%	1.22%
Total Risk¹	12.52%	14.87%	17.30%	16.29%
Active Return¹	2.59%	1.62%	0.40%	–
Tracking Error (ex Post)¹	7.51%	4.26%	2.68%	–
Information Ratio¹	0.34	0.38	0.15	–
Universe	MSCI World ex CH	MSCI World ex CH	MSCI World ex CH	MSCI World ex CH
No. of Stocks	271	300	1597	1597
Security Weight Cap	1.50%	5.00%	–	–
Rebalance	Semi Annually	Semi Annually	Semi Annually	Quarterly
Turnover Cap one Way²	10.00%	–	–	–

¹ Annualized from June 2001 to November 2014, TR Gross CHF.

² Unilateral.

Historical performance indications and financial market scenarios are no guarantee for current or future performance.

Sources: Factset, MSCI, Credit Suisse

Combination of Strategy Indices: Control of Risk and Return

The three above-mentioned strategy index funds open up new opportunities for controlling risk and return: Portfolios can be deliberately targeted in favor of specific factor premiums such as value, quality and size. The Minimum Volatility strategy can be used to reduce significantly the risk of the portfolio while the equity component remains unchanged. As the relative returns of the strategies display little and in some cases even negative correlation with each other, a combination of several strategy index funds offers additional potential for diversification. A combination comprising a third each of Value Weighted, Quality and Minimum Volatility yields the MSCI Quality Mix Index that can be perfectly replicated with the three funds.

Objectives of a combination of strategy indices:

- Risk reduction and management of risk budget
- Return optimization
- Diversification across investment strategies
- Stability of excess returns (information ratio)

You will find a summary of all CSIFs on the following page.

Your contacts

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CSIF (CH) – All indexed funds at one glimpse

The issue (and redemption) spreads cover the transaction costs that arise from the purchase (and sale) of securities in the fund. This ensures that existing investors are always protected against investment costs caused by new investors.

Funds	Benchmark	Settlement	Subscription	Redemption
Equity Switzerland				
CSIF Switzerland Total Market Index Blue	Swiss Performance Index	T+2	0.02%	0.02%
CSIF Switzerland Large Cap Index	Swiss Market Index	T+2	0.01%	0.01%
CSIF Switzerland Small & Mid Cap Index	Swiss Performance Index Extra	T+2	0.05%	0.05%
CSIF Switzerland Index Blue	MSCI Switzerland	T+2	0.01%	0.01%
Equity International				
CSIF Eurozone Index	MSCI EMU	T+2	0.10%	0.03%
CSIF Europe ex Eurozone/CH Index	MSCI Europe ex EMU, ex Switzerland	T+2	0.44%	0.03%
CSIF Europe ex CH Index	MSCI Europe ex CH	T+2	0.27%	0.03%
CSIF Europe ex CH Index Blue	MSCI Europe ex CH	T+2	0.27%	0.03%
CSIF Europe Index	MSCI Europe Index	T+2	0.23%	0.03%
CSIF US Index Blue	MSCI USA	T+2	0.03%	0.03%
CSIF US Index Blue Pension Fund	MSCI USA	T+2	0.03%	0.03%
CSIF US Index Pension Fund	MSCI USA	T+2	0.03%	0.03%
CSIF Canada Index	MSCI Canada	T+2	0.03%	0.03%
CSIF Canada Index Blue	MSCI Canada	T+2	0.03%	0.03%
CSIF Japan Index	MSCI Japan	T+3	0.03%	0.03%
CSIF Japan Index Blue	MSCI Japan	T+3	0.03%	0.03%
CSIF Pacific ex Japan Index	MSCI Pacific ex Japan	T+3	0.06%	0.06%
CSIF Pacific ex Japan Index Blue	MSCI Pacific ex Japan	T+3	0.06%	0.06%
CSIF Emerging Markets Index Blue	MSCI Emerging Markets Index	T+3	0.18%	0.24%
CSIF World ex CH Index	MSCI World ex Switzerland	T+3	0.08%	0.03%
CSIF World ex CH Index Blue	MSCI World ex Switzerland	T+3	0.08%	0.03%
CSIF World ex CH Index Blue Pension Fund	MSCI World ex Switzerland	T+3	0.08%	0.03%
CSIF World ex CH Index Pension Fund	MSCI World ex Switzerland	T+3	0.08%	0.03%
CSIF World ex CH Small Cap Index Pension Fund	MSCI World ex Switzerland Small Cap	T+3	0.15%	0.10%
CSIF World ex CH Small Cap Index Blue	MSCI World ex Switzerland Small Cap	T+3	0.15%	0.10%
CSIF World ex CH Value Weighted Index Pension Fund	MSCI World ex Switzerland Value weighted	T+3	0.11%	0.04%
CSIF Europe ex CH Value Weighted Index	MSCI Europe ex CH Value weighted	T+2	0.27%	0.03%
CSIF US Value Weighted Index - Pension Fund	MSCI USA Value weighted	T+2	0.03%	0.03%
CSIF Japan Value Weighted Index	MSCI Japan Value weighted	T+3	0.03%	0.03%
CSIF III World ex CH Minimum Volatility Index – Pension Fund	MSCI World ex CH Minimum Volatility Index	T+3	0.07%	0.04%
CSIF III World ex CH Quality Index – Pension Fund	MSCI World ex CH Quality Index	T+3	0.09%	0.04%
Fixed Income CHF				
CSIF Switzerland Bond Index AAA-AA Blue	Swiss Bond Index AAA-AA Total Return	T+2	0.30%	0.00%
CSIF Switzerland Bond Index AAA-BBB Blue	Swiss Bond Index AAA-BBB Total Return	T+2	0.30%	0.00%
CSIF Switzerland Bond Index Domestic AAA-BBB Blue	Swiss Bond Index Domestic AAA-BBB Total Return	T+2	0.30%	0.00%
CSIF Switzerland Bond Index Foreign AAA-BBB Blue	Swiss Bond Index Foreign AAA-BBB Total Return	T+2	0.30%	0.00%
CSIF Switzerland Bond Index AAA-BBB 1–5 Y Blue	Swiss Bond Index AAA-BBB 1–5 Y Total Return	T+2	0.25%	0.00%
Fixed Income Foreign Currencies				
CSIF Bond EUR Index Blue	Citigroup World Government Bond Index EMU	T+2	0.10%	0.00%
CSIF Bond USD Index Blue	Citigroup US Government Bond Index	T+2	0.06%	0.00%
CSIF Bond GBP Index Blue	Citigroup United Kingdom Government Bond Index	T+2	0.06%	0.00%
CSIF Bond JPY Index Blue	Citigroup Japanese Government Bond Index	T+3	0.10%	0.10%
CSIF Bond World ex G4 Local Currencies Index Blue	Citigroup World ex EMU ex UK ex Japanese ex US ex Switzerland Government Bond Index	T+3	0.20%	0.00%
CSIF Bond World ex CH Index Blue	Citigroup World Government Bond Index World ex CH	T+3	0.09%	0.02%
CSIF Bond Emerging Markets Index Blue	JPM EMBI Global Diversified	T+3	0.60%	0.00%

CSIF (CH) – All indexed funds at one glimpse

CSIF Bond Aggregate USD Index	Barclays Global Aggr. USD	T+2	0.30%	0.00%
CSIF Bond Aggregate EUR Index	Barclays Global Aggr. EUR	T+2	0.18%	0.00%
CSIF Bond Aggregate GBP Index	Barclays Global Aggr. GBP	T+2	0.20%	0.00%
CSIF Bond Aggregate JPY Index	Barclays Global Aggr. JPY	T+3	0.10%	0.10%
CSIF Bond Global Aggregate ex G4 Local Currencies Index	Barclays Global Aggr. ex USD ex EUR ex JPY ex GBP ex CHF	T+3	0.28%	0.00%
CSIF Bond Global Aggregate ex CHF Index	Barclays Global Aggr. ex CHF	T+3	0.22%	0.02%
CSIF Bond Global Aggregate ex CHF 1–5 Y Index Blue	Barclays Global Aggregate 1–5 Y ex CHF	T+3	0.18%	0.02%
CSIF Bond Corporate EUR Index	Barclays Euro-Aggr. Corporates Index	T+2	0.40%	0.00%
CSIF Bond Global Corporate ex CHF Index Blue	Barclays Global Aggregate Corporates ex CHF	T+3	0.40%	0.00%
CSIF Bond EUR Fiscal Strength Index Blue	Barclays Euro Treasury Fiscal Strength Weighted Index	T+2	0.10%	0.00%
CSIF Bond World ex CHF Fiscal Strength Index Blue	Barclays Global Treasury ex CHF Fiscal Strength Weighted Index	T+3	0.09%	0.02%
CSIF Bond World ex CHF Fiscal Strength 1–5 Y Index Blue	Barclays Global Treasury ex CHF 1–5 Y Fiscal Strength Weighted Index	T+3	0.08%	0.02%
CSIF Inflation-Linked Bond World ex Japan ex Italy Index hedged CHF Blue	Barclays Capital World Government Inflation-Linked ex Japan ex Italy	T+3	0.12%	0.12%
CSIF Inflation-Linked Bond EUR ex Italy Index Blue	Barclays Capital Euro Government Inflation-Linked ex Italy	T+2	0.08%	0.08%
Real Estate				
CSIF Switzerland Real Estate Fund Index Blue	SXI Real Estate Funds	T+2	0.05%	0.05%
CSIF Europe ex CH Real Estate Index	FTSE EPRA/NAREIT Europe ex CH	T+2	0.30%	0.05%
CSIF North America Real Estate Index Pension Fund	FTSE EPRA/NAREIT North America	T+2	0.05%	0.05%
CSIF Asia Real Estate Index	FTSE EPRA/NAREIT Asia	T+3	0.08%	0.08%
CSIF World ex CH Real Estate Index Pension Fund	FTSE EPRA/NAREIT Developed ex Switzerland	T+3	0.10%	0.06%
Commodities				
CSIF Gold Blue	London Gold Fixing PM	T+2	0.05%	0.02%

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