

# CS Quantitative Investment Strategies

## *Detailed Product Catalogue*

This material is solely directed at Professional Clients and Eligible Counterparties as defined by the FCA, and is not directed at, and should not be relied upon by, Retail Clients.

Quantitative Investment Strategies

March 2016

# What is Risk Premia Investing?

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- Risk Premia (used as the plural of Risk Premium), is now widely discussed and debated across the investor population, with many Asset Managers moving into the space and launching dedicated Risk Premia focused funds.
- Risk Premia as an investment is not a new concept, as many investors have been investing in them for decades via funds and asset managers that incorporate them directly in their strategies in one sense or another to generate their returns (such as FX- Carry as well as Trend in a Global Macro Fund). However as investor sophistication evolves and terminology crystalizes, Risk Premia are now becoming a primary focus of direct investment pursuit as opposed to being components and ingredients in other investments.
- Definitionally, a Risk Premium is the return an investor is expected to earn in excess of the risk-free rate, for bearing that specific risk. Sometimes it is simply referred to as *the return in excess of the risk-free rate of return that an investment is expected to yield*.
- Any investment that bears zero risk, should earn a return equal to the risk-free rate (as the name suggests), and if an investor desires to earn a return in excess of that, he/she would have to take (more) risk, with each specified risk earning an expected return commensurate with that specific risk. This extra return is the risk's "Risk Premium".
- Logic would dictate that investments with a higher risk associated with them would have a higher expected return and thus a higher Risk Premium. This is not always the case as, in some cases, external factors such as supply and demand imbalances may cause a distortion in the premium generated for certain types of risk.
- **Credit Suisse offers direct Risk Premia exposure through its range of Systematic Investment Strategies**

# Overview

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- Introduction to Systematic Investment Strategies at Credit Suisse
- Benefits of Risk Factor Investing
- Asset Allocation & Portfolio Construction
- CS Systematic Strategies in Detail

# What are Systematic Investment Strategies?

Systematic Investment Strategies (SIS) are rules-based investments designed to provide access to individual investment themes which are considered to be positioned in-between passive and active investments:

		Passive Investing	Systematic Investment Strategies	Active Management
Investment Themes	Beta	<ul style="list-style-type: none"> <li>Index trackers (typically market cap weighted)</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced stock picking &amp; weighting methodology (e.g. using HOLT / risk weighting etc.)</li> </ul>	<ul style="list-style-type: none"> <li>True “alpha” from manager stock picking ability</li> </ul>
	Alternatives	<ul style="list-style-type: none"> <li>Passive exposure to alternative asset classes (commodities / real estate etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Systematic extraction of alternative risk premia (e.g. volatility, FX carry, correlation etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Tactical implementation of risk premia extraction</li> </ul>
	Portfolio Hedging	<ul style="list-style-type: none"> <li>Typically through diversification using a range of passive investments</li> </ul>	<ul style="list-style-type: none"> <li>Access to alternative investments such as volatility / skew which tend to spike in distressed markets</li> <li>Systematic implementation of protection through put options</li> </ul>	<ul style="list-style-type: none"> <li>Tactical overlay of de-risking and investment in alternatives (e.g. volatility / skew investments )</li> <li>Tactical use of derivative instruments</li> </ul>
	Asset Allocation	<ul style="list-style-type: none"> <li>Fixed weighting approach between investments</li> </ul>	<ul style="list-style-type: none"> <li>Dynamic re-weighting between assets using a quantitative allocation mechanism (e.g. trend following / Markowitz / research driven)</li> </ul>	<ul style="list-style-type: none"> <li>Manager expertise used in allocating across the investment themes</li> </ul>

# Key Characteristics of CS Systematic Investment Strategies (SIS)

<b>Predictable</b>	Systematic strategies, by construction, follow a defined set of rules which allows their performance in different market conditions to be predictable
<b>Low Cost</b>	SIS typically incorporate lower fees than active management, with cost efficient execution managed by Credit Suisse (CS)
<b>Transparent Methodology</b>	Each strategy is governed by a set of defined rules. Rulebooks are available to investors upon request subject to the investors signing a non-disclosure agreement
<b>Daily liquidity</b>	SIS typically available with daily liquidity
<b>No “key person” risk</b>	Strategies are developed with reference to the CS expertise spanning across trading, structuring, research divisions and are not dependent upon expertise of any one individual
<b>Accessible through a range of wrappers</b>	SIS are typically available for investment in a range of instruments offered by the bank, including notes/certificates, swaps, funds and potentially in option format
<b>Customisable with low size requirements</b>	Bespoke solutions can be implemented on the Credit Suisse platform with relatively low minimum size requirements

# Systematic Investment Strategies at Credit Suisse

**Credit Suisse has over \$16 billion in Assets Under Management in Systematic Investments Strategies\***

## Product Development

- Collaborative effort across trading, structuring, research & quant analytics
- Trading teams provide market colour and identify tactical trade ideas
- Dedicated structuring desks for each asset class ensure that each idea is thoroughly researched and analysed for robustness and tradability
- Customised index solutions are available

## Trading & Execution

- CS's algorithmic index execution platform (QRM), provides liquidity, hedging and efficient execution across asset classes and regions
- QRM interfaces directly with (a) CS AES platform: the market leading equity execution platform, (b) CS multi-asset flow and structured trading books; and (c) Exchanges and clearing systems
- All execution levels used are fully transparent and available to investors

## Wrapping Solutions

- Credit Suisse can offer access to Systematic Investment Strategies in a variety of wrappers, including:
  - a) Certificates / Notes
  - b) Swaps
  - c) Warrants / Options
  - d) Funds / SPVs

## Systematic Investment Strategies

## Access to CS Intellectual Property

- SIS at CS facilitates access to CS proprietary technology, for example:
  - a) HOLT: a proprietary stock valuation framework used by over half of the world's largest asset managers
  - b) Global Risk Appetite Index: a measure developed by CS Global Research in 1997 to identify prevailing market sentiment

## Index Calculation Team

- Calculates over 10,000 daily indices across over 150 index families, with over 180 indices published live every 5 seconds
- Index Calculation Team is part of CS Research and thus independent from the trading desks
- Indices published to Bloomberg, Reuters and other vendors upon request

## Research and Analytics

- CS has a Global research team with dedicated analysis spanning geographies and asset classes.
- A dedicated derivatives strategy team works on constant monitoring and analysis of derivative markets
- The Index and Alpha Strategies team focuses on systematic investment strategies and releases regular publications and reports with analysis on the indices across the CS platform.

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# Background and Landscape

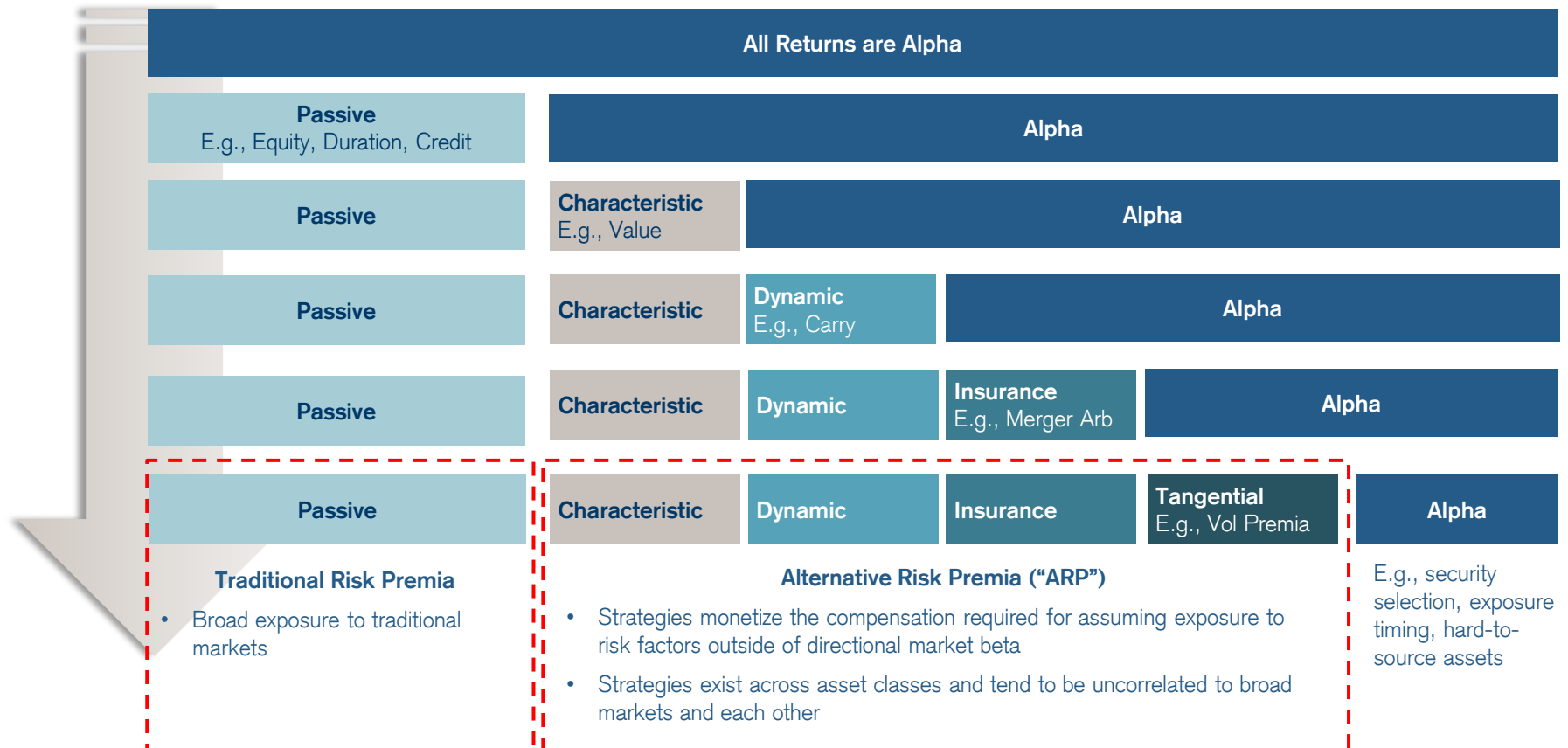
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- **Asset owners want strategies that, besides having a positive (expected) return also**
  - Diversify their dominant directional asset exposures (equity, credit)
  - Have transparency into the basic mechanics of their return drivers and commensurate risk profiles
  - Are liquid enough to be able to be risk managed appropriately by the investor (entry and exit)
  - Have fees that are commensurate with their scarcity and commoditization
  - Correspondingly, there is a move to allocate to “risk factors/premia” in addition to, or instead of, allocating purely to “assets”
  - Risk Factors/Premia should by nature be comparable across providers, and hence have more competitive fees
- **Investors are focusing on alpha-beta separation and don't want to pay high fees for “beta”**
- **Investors are aware of limitations to direct hedge fund investment**
  - Lack of transparency, therefore incomplete picture of exposure and risk profile for portfolio
  - Liquidity issues associated with LP investments
  - High inter-sector correlation within many strategy buckets
  - Lack of persistence of many individual managers
  - Capacity constraints and strategy degradation
  - Style drift from original mandates

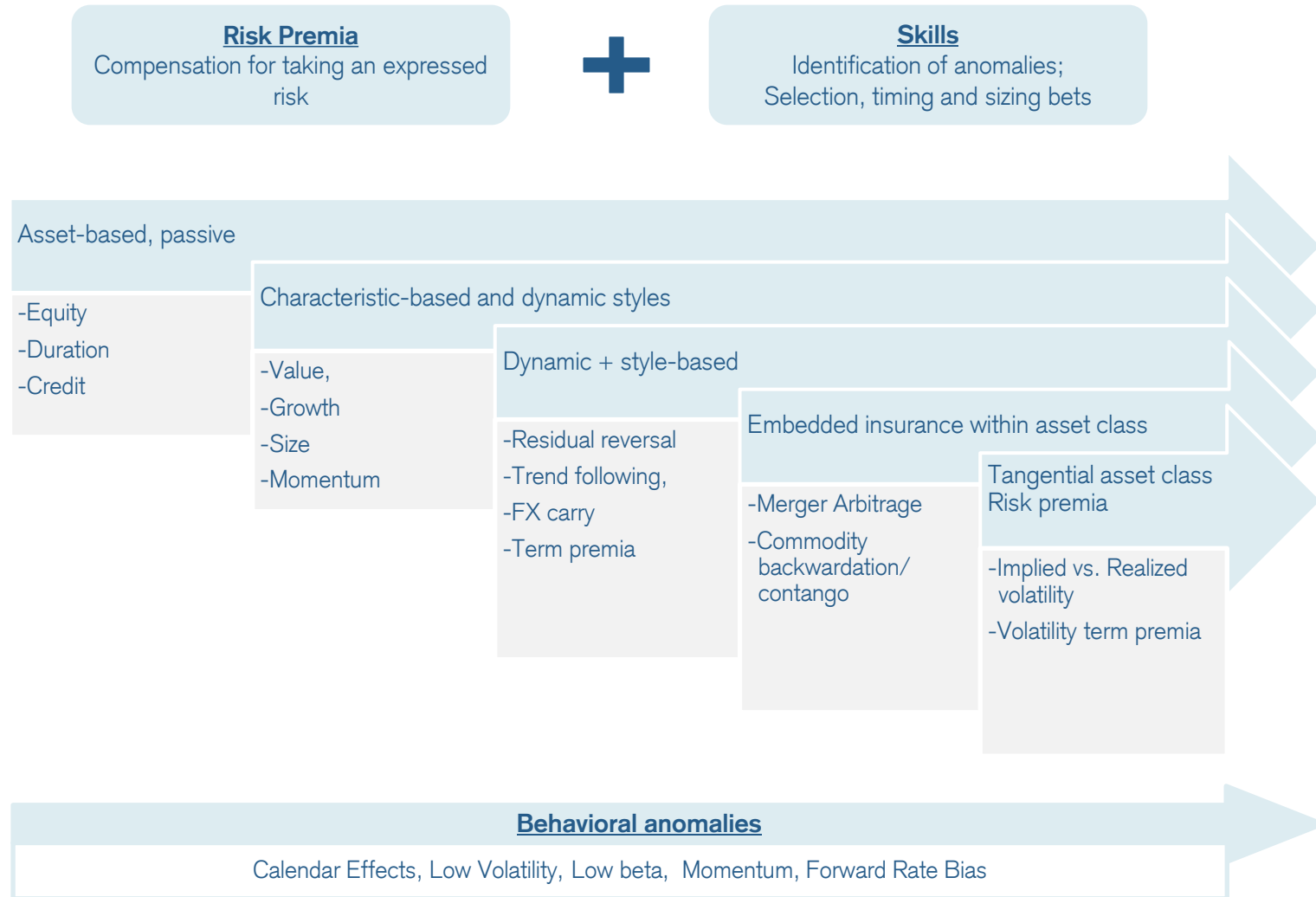


# The Understanding of Risk Premia Has Evolved Over Time

As markets have grown more sophisticated, it has become possible to identify risk factors outside of directional market beta



# Sources of return



# Risk Premia: Increased Opportunities to Enhance Performance

## Risk Premia Characteristics:

- Economically intuitive: Well understood and identified risk factors outside of directional market beta
- Liquid: Exposures can be increased or decreased quickly to manage risk
- Tend to be uncorrelated, persistent, accessible
- Attractive risk-adjusted returns: Standalone alternative risk premia tend to have a high Sharpe Ratio
- Portfolios of ARP tend to have even higher Sharpe Ratios because underlying components tend to be uncorrelated to each other

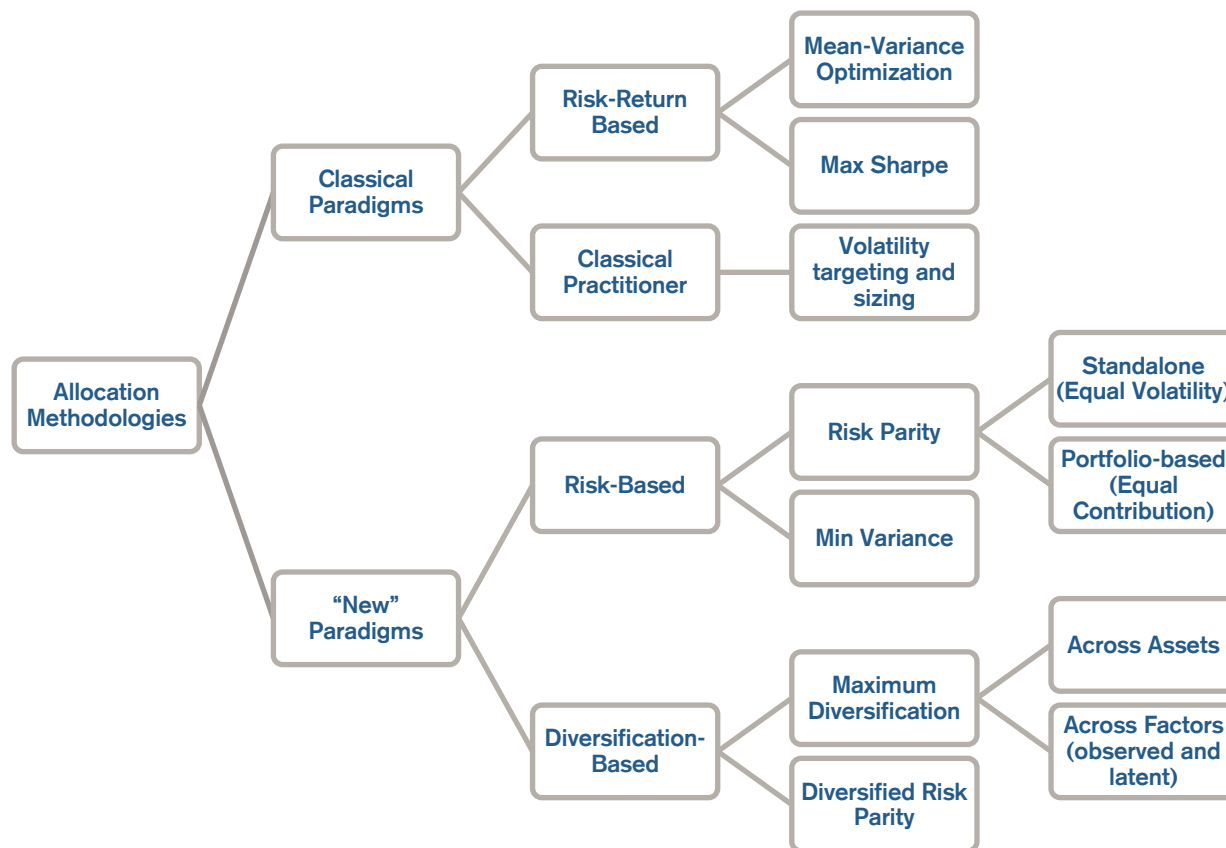
	Carry	Value	Trend/ Momentum	Insurance, Liquidity and Term Premia	Hedging	Volatility Premia
Thesis	Seeks to generate income by going long high yielding/short low yielding related assets	Seeks to monetize tendencies of certain assets to revert to their intrinsic and fundamental values/the mean reversion of correlations	Equity momentum seeks to monetize the tendency of previous winners to repeat. Trend seeks to monetize med-long term asset class trends	Seeks to capture tangential insurance premia (e.g. M&A) as well as natural supply/demand mechanics	Pays an insurance premium in order to generate positive returns in times of heightened market volatility	Seeks to monetize embedded price of optionality by trading difference between implied and realized volatility
Risk	Subject to sharp drawdowns during flight to quality events	Subject to losses when intrinsic values can't be identified/correlations break down during market turbulence	Subject to losses in sharp broad market reversals but recovers as signals stabilize in either direction	Subject to losses when markets break down and demand profile changes	Subject to losses in times of benign and rallying markets	Subject to severe losses in times when realized volatility spikes through implied

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# Approaches to Asset Allocation & Portfolio Construction



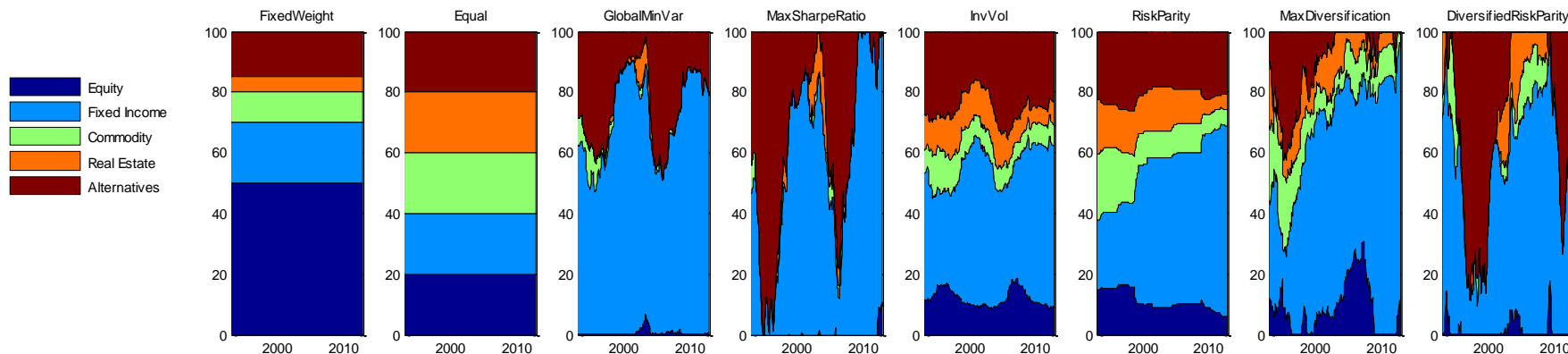
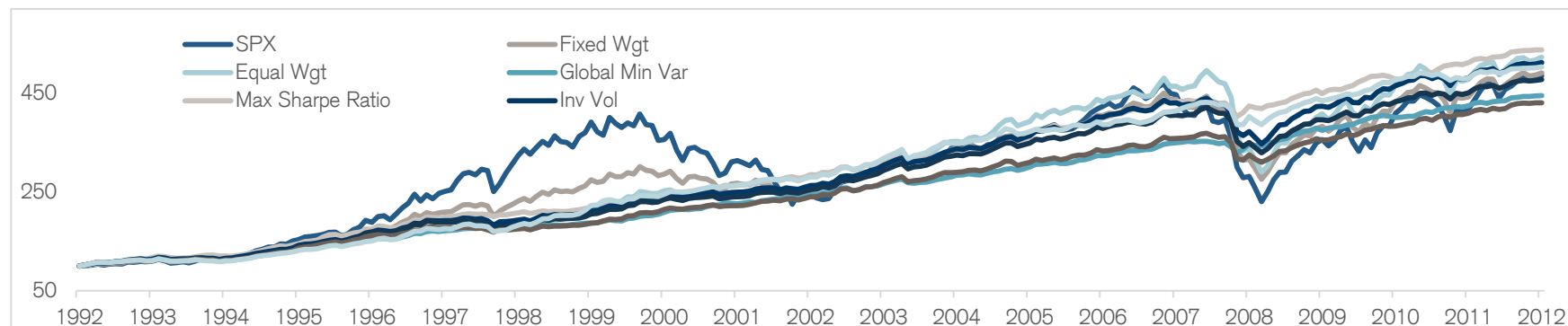
## Basic Approaches

- Equal Weight
- Equal Volatility
- Maximum Sharpe Ratio

## Considerations in Rebalancing:

- Optimizing Risk-Adjusted returns (e.g. Maximizing Sharpe Ratio) leads to contrarian trading
- Risk Parity approach leads to momentum trading (trend following)

# Allocation Methodologies: Examples



1993-2013	SPX	Fixed Wgt	Equal Wgt	Global Min Var	Max Sharpe Ratio	Inv Vol	Risk Parity	Max Diversification	Diversified Risk Parity
Return	8.2%	8.3%	8.6%	7.8%	8.8%	8.5%	8.1%	7.6%	8.4%
Volatility	15.1%	9.9%	9.6%	3.4%	4.1%	5.6%	5.9%	4.9%	5.3%
Sharpe	0.54	0.84	0.90	2.29	2.16	1.53	1.38	1.54	1.60
Max Drawdown	50.9%	38.7%	41.5%	6.8%	7.7%	20.9%	21.9%	15.9%	10.6%
Avg. Annl. Drawdown	11.1%	6.9%	6.1%	1.5%	1.9%	3.1%	3.3%	2.5%	2.7%

Sources: Credit Suisse Asset Management LLC.

For illustrative purposes only. Past performance (actual or simulated) is not an indicator of future performance

## CS Systematic Strategies in Detail

# Overview

Strategy	Bloomberg Ticker	Asset Class	Strategy	Signals
CS Short Variance Swap ER Index	CSVPSVE	Equity	Volatility Premia	Yes <sup>1</sup>
CS Vol Premium Opportunities m1 Europe Index	CSVPM1EE	Equity	Volatility Premia	Yes <sup>1</sup>
CS Vol Premium Opportunities m1 US Index	CSVPM1UE	Equity	Volatility Premia	Yes <sup>1</sup>
CS Vol Pro M2 Index	CSVPM2E	Equity	Volatility Premia	Yes <sup>1</sup>
CS Equity Volatility Call Spread Index	CSEVCSE	Equity	Volatility Premia	No
CS Equity Volatility Call Spread ts2 Index	CSEVCS2E	Equity	Volatility Premia	Yes – see CSEVCSE
CS VIX Alpha ER	CSEAVXAE	Equity	Volatility Premia	Yes <sup>1</sup>
CS Global Carry Selector II Index	GCSCS2UE	Equity	Volatility Premia	
CS Dividend Alpha Index	CSEADVAE	Equity	Liquidity/Term/Insurance	Yes <sup>1</sup>
CS Diversified Dividend Alpha ER USD	CSEADDUE	Equity	Liquidity/Term/Insurance	Yes
LAB Merger Arbitrage	CSLABME	Equity	Liquidity/Term/Insurance	Yes
CS Mean Reversion Index	CSEAMREE	Equity	Value	Yes
CS Adaptive Mean-Reversion Index ER on Russell 2000 TR	CSEAAMRR	Equity	Value	Yes
CS Adaptive Mean-Reversion Index ER on S&P 500 TR	CSEAAMRS	Equity	Value	Yes
Fixed Mean Reversion on Russell 2000	CSEAFMRR	Equity	Value	Yes
CS Fixed Mean-Reversion Index ER on S&P 500 TR	CSEAFMRS	Equity	Value	Yes
CS Long/Short Sector Rotation	CSEASRLS	Equity	Value	Yes
Credit Suisse Long/Short Liquid Excess Net Index	CSLABLE	Equity	Value	Yes
Credit Suisse Event Driven Liquid Index - Swap Series	CSLASED	Equity	Value	
HOLT Market Neutral	HSGMN	Equity	Value	Yes
HOLT Global Style Rotation Equity Hedged	HSGSREH	Equity	Value	Yes
RAII HOLT Relative Value	RAIIHRVU	Equity	Value	Yes
Managed Futures Liquid Index Net	CSLABMFE	Multi Asset	Trend / Momentum	Yes



# Overview

Strategy	Bloomberg Ticker	Asset Class	Strategy	Signals
Cross Asset Volatility Alpha	CSEAXVLE	Multi Asset/ Equity	Volatility Premia	Yes <sup>1</sup>
CS Volatility Alpha SPY ER	CSEAVESY	Equity	Volatility Premia	No
CS Volatility Alpha IWM ER	CSEAVEIW	Equity	Volatility Premia	No
CS Volatility Alpha EFA ER	CSEAVEEF	Equity	Volatility Premia	No
CS Volatility Alpha EEM ER	CSEAVEEE	Equity	Volatility Premia	No
CS Volatility Alpha EWZ ER	CSEAVEEW	Equity	Volatility Premia	No
CS Volatility Alpha GLD ER	CSEAVEGL	Equity/ Commodities	Volatility Premia	No
CS Volatility Alpha USO ER	CSEAVEUS	Equity/ Commodities	Volatility Premia	No
CS Volatility Alpha TLT ER	CSEAVETL	Equity/ Fixed Income	Volatility Premia	No
CS Volatility Alpha FXE ER	CSEAVEFE	Equity/ FX	Volatility Premia	No
CS Volatility Alpha FXY ER	CSEAVEFY	Equity/ FX	Volatility Premia	No
CS Term Premium Basket Index 2% Vol Control USD ER	CATPUSEA	Rates	Liquidity/Term/Insurance	Yes
CS Adaptive Term Premium Index USD ER	CATPUSEU	Rates	Liquidity/Term/Insurance	Yes
CS Adaptive Term Premium EUR ER	CATPEUEE	Rates	Liquidity/Term/Insurance	Yes
CS Tail Risk Overlay Protection Strategy ER	CSTSERUS	Rates	Momentum	Yes
CS Global Enhanced Momentum Strategy Excess Return USD	CSGMERUS	Rates	Momentum	Yes
CS Adaptive Term Premium Volatility Target 10% USD	CATPUXUS	Rates	Carry	Yes
Adaptive Volatility USD 1x	CSVIAB20	Rates	Volatility	Yes
Adaptive Volatility EUR 1x	CSVIUC20	Rates	Volatility	Yes
CS Swaption Vol Index Excess Return Roll on 20 <sup>th</sup>	CSVIUB20	Rates	Volatility	No
Credit Suisse Volatility Index Roll on 20 <sup>th</sup> EUR	CSVIUF20	Rates	Volatility	No
Credit Suisse Adaptive Volatility Atlantic Roll on 20 <sup>th</sup>	CSVIAX20	Rates	Volatility	Yes
Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20 <sup>th</sup> USD	CSVICX20	Rates	Volatility	Yes
Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20 <sup>th</sup> EUR	CSVIUX20	Rates	Volatility	Yes
Credit Suisse FX Metrics Carry Excess Return Index	FXMXCEUS	FX	Carry	Yes
FX Metrics: Emerging Markets	FXMXEEUS	FX	Carry	Yes
Credit Suisse FX Metrics Value Excess Return Index	FXMXVEUS	FX	Value	Yes
Credit Suisse FX Metrics Momentum Excess Return Index	FXMXMEUS	FX	Momentum	Yes

## Equity Volatility

# CS 1 Short Variance Swap ER Index

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	14 <sup>th</sup> December 2015	Bloomberg Ticker	CSVPSVE Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from the typical overpricing of implied volatility to the realised volatility of the market, by entering a short variance swap position, in accordance to a single signal.

## Description

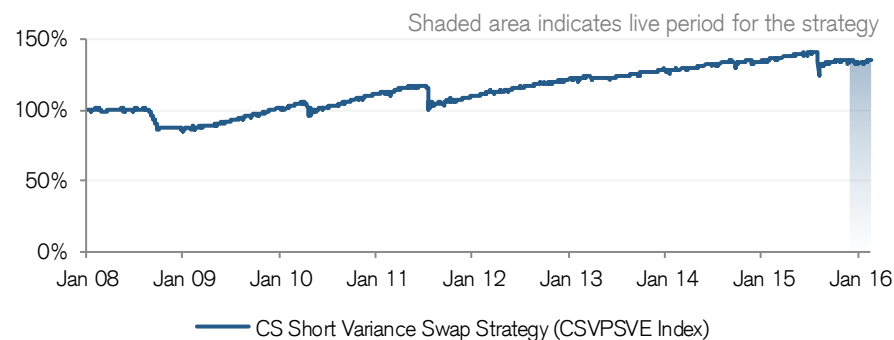
The strategy seeks to monetise the expensiveness of implied volatility vs realized volatility by providing exposure to an opportunistic notional short position in a variance swap on the S&P 500 Index.

On a daily basis, the index aims to initiate a notional short position in a variance swap on the S&P 500, with an expiry being the monthly listed expiry of S&P 500 options falling between one and two months in the future.

The index will only initiate the notional position if its implied bid strike is greater than the 20-day exponentially weighted realized volatility of the S&P 500, and is restricted to trading where the expiry dates of the variance swap fall in odd and even months, respectively.

Size sold (if signal on) is 0.025%. Max vega is 0.5% of the index level.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-1.0%	3.1%	3.7%	3.8%	5.7%
Annualised Volatility	11.0%	7.4%	9.3%	8.8%	5.6%
Sharpe Ratio	-0.09	0.42	0.40	0.43	1.03
Maximum Drawdown	-12.2%	-12.2%	-15.1%	-16.5%	-2.0%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.7%	1.4%	0.9%	1.7%	1.1%	0.3%	-1.3%	-9.5%	-0.5%	2.3%	0.6%	1.3%	-1.7%	n.a.
2012	1.3%	1.4%	1.4%	0.3%	0.5%	1.4%	0.3%	1.3%	0.9%	0.5%	0.8%	0.6%	11.1%	n.a.
2013	1.0%	0.0%	1.5%	-0.6%	-0.2%	-0.3%	1.2%	-0.1%	1.1%	1.1%	0.5%	0.7%	6.1%	n.a.
2014	-0.8%	1.5%	0.7%	-0.1%	1.0%	0.9%	-1.1%	2.5%	0.0%	-0.1%	0.8%	-0.8%	4.5%	n.a.
2015	-0.1%	2.1%	-0.1%	1.2%	0.6%	-0.3%	1.9%	-6.2%	0.9%	1.0%	0.5%	-0.4%	0.7%	n.a.
2016	-0.7%	0.5%											-0.1%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 18 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Short Variance Swap Strategy is live since 14 Dec 15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 18 Jan 2008

# Credit Suisse Volatility Premium Opportunities m1 Europe Index ER

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	06 <sup>th</sup> March 2015	Bloomberg Ticker	CSVPM1EE Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from the typical overpricing of implied volatility to the subsequent realised volatility of the market, by entering a short vanilla option position, delta hedged daily, in accordance with a single signal.

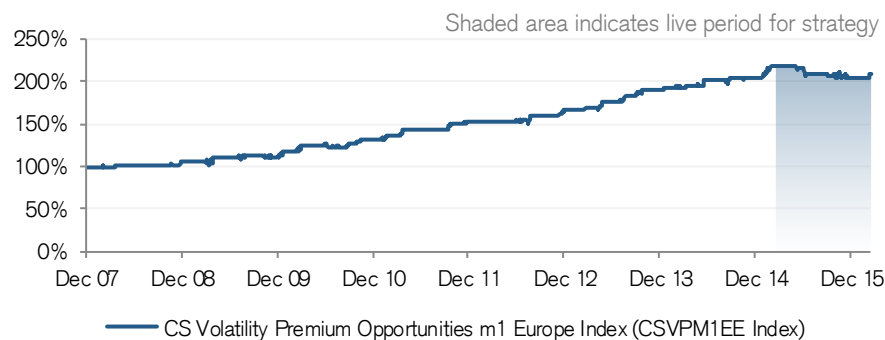
## Description

The strategy takes a short position in a listed call option on the EuroSTOXX 50 Index when the signal is activated. The listed option which has a delta closest to 15% is selected. The option maturity will be the earliest listed expiry from the position date, unless that expiry is less than 6 business days from the position date, in which case the next listed expiry will be selected.

The signal is monitored daily and is activated when the 20-day exponential moving average of the EuroSTOXX 50 Index is higher than the 20-day (non-exponential) moving average of the same equity index. If the signal is not activated, no position will be taken and any existing position will be unwound.

The exposure is limited to a maximum of 0.5% vega and 150% gamma of the index level.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-4.7%	7.8%	8.8%	9.4%	-4.7%
Annualised Volatility	5.8%	5.2%	4.9%	6.3%	5.8%
Sharpe Ratio	-0.81	1.51	1.78	1.49	-0.81
Maximum Drawdown	-7.3%	-7.3%	-7.3%	-7.3%	-7.3%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.7%	3.0%	0.0%	5.2%	-0.3%	0.0%	-0.3%	0.0%	-0.1%	5.3%	0.0%	1.0%	15.2%	n.a.
2012	0.2%	0.0%	-0.3%	0.0%	0.0%	0.7%	0.6%	3.6%	0.0%	-0.1%	0.8%	3.2%	9.0%	n.a.
2013	0.0%	0.0%	1.4%	-0.7%	5.2%	0.0%	1.6%	2.7%	1.8%	2.0%	0.0%	0.0%	14.7%	n.a.
2014	1.4%	1.3%	-1.3%	1.0%	0.0%	3.5%	0.0%	-0.4%	1.2%	0.0%	0.3%	0.0%	7.0%	n.a.
2015	3.0%	4.3%	0.0%	0.0%	-1.9%	-3.5%	1.2%	-0.3%	-1.0%	-0.5%	0.3%	-0.7%	0.7%	n.a.
2016	0.0%	-0.2%											-0.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Dec 07 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Premium Opportunities m1 Europe Index is live since 06 Mar '15, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 19 Dec 2007

# Credit Suisse Volatility Premium Opportunities m1 US Index ER

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	15 <sup>th</sup> April 2015	Bloomberg Ticker	CSVPM1UE Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from the typical overpricing of implied volatility to the subsequent realised volatility of the market, by entering a short vanilla option position, delta hedged daily, in accordance with a single signal.

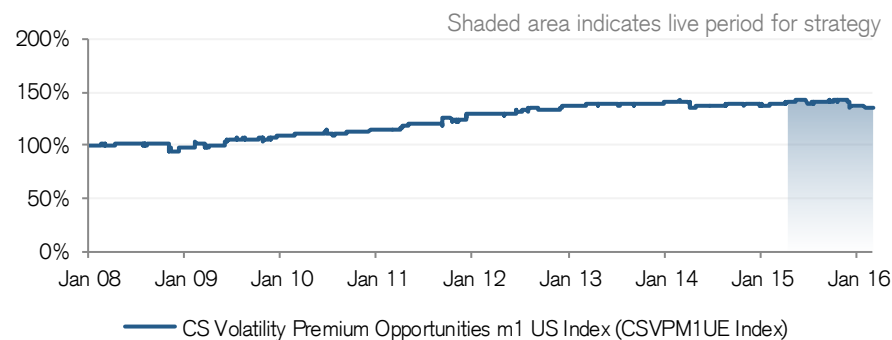
## Description

The strategy takes a short position in a listed put option on the S&P 500 Index when the signal is activated. The listed option which has a delta closest to 25% is selected. The option maturity will be the earliest listed expiry from the position date, unless that expiry is less than 6 business days from the position date, in which case the next listed expiry will be selected.

The signal is monitored daily and is activated when the 20-day exponential moving average of the S&P 500 Index is higher than the 20-day (non-exponential) moving average of the same equity index. If the signal is not activated, no position will be taken and any existing position will be unwound.

The exposure is limited to a maximum of 0.5% vega and 125% gamma of the index level.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-1.9%	-0.4%	3.4%	3.9%	-3.5%
Annualised Volatility	4.8%	3.8%	4.6%	5.7%	5.0%
Sharpe Ratio	-0.39	-0.11	0.75	0.68	-0.70
Maximum Drawdown	-5.4%	-5.4%	-5.4%	-8.6%	-5.4%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.0%	0.0%	-0.1%	3.7%	1.3%	-0.1%	0.2%	0.0%	3.8%	-1.7%	0.5%	5.0%	13.2%	n.a.
2012	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.1%	2.2%	-0.9%	0.3%	-0.1%	2.5%	5.5%	n.a.
2013	0.0%	-0.2%	0.8%	0.2%	-0.1%	0.0%	-0.1%	0.0%	0.4%	0.5%	0.2%	-0.1%	1.6%	n.a.
2014	0.9%	0.8%	0.0%	-4.5%	1.5%	0.0%	0.0%	0.4%	0.2%	-0.6%	1.0%	-0.9%	-1.3%	n.a.
2015	0.0%	0.9%	0.0%	1.8%	0.5%	-1.7%	0.8%	0.0%	0.6%	0.2%	0.6%	-4.5%	-1.0%	n.a.
2016	0.0%	0.0%											0.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 03 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Premium Opportunities m1 US Index is live since 15 Apr '15, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 03 Jan 2008

# Credit Suisse Volatility Premium Opportunities m2 Index

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	06 <sup>th</sup> March 2015	Bloomberg Ticker	CSVPM2E Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from the typical overpricing of short term VIX futures by entering a short position in 1-month duration VIX futures in accordance with a single signal.

## Description

The strategy takes a short position in a 1-month duration VIX future when the signal is activated. The 1-month duration position comprises some exposure to the front and second month VIX futures, adjusted daily to maintain the 1-month duration.

The signal is monitored daily and is activated when the 1-month implied volatility of the S&P 500 Index is above the 5-day realised volatility of the same equity index. If the signal is activated, the size of the exposure taken is proportional to the percentage range of the current implied-volatility spread relative to the same spread over the past 20 business days. A higher percentage rank indicates a great opportunity and thus a larger position is taken. The maximum vega exposure of the index is 1% of the index value.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-2.7%	2.4%	5.8%	8.5%	-2.7%
Annualised Volatility	8.0%	6.2%	8.3%	9.3%	8.0%
Sharpe Ratio	-0.34	0.39	0.71	0.92	-0.34
Maximum Drawdown	-11.5%	-11.5%	-11.5%	-16.3%	-11.5%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	2.8%	-0.1%	1.7%	2.4%	1.7%	0.5%	-0.1%	-0.3%	-6.4%	4.6%	2.8%	4.3%	13.9%	n.a.
2012	4.0%	1.9%	1.2%	-1.6%	-5.5%	0.9%	4.7%	-0.1%	3.4%	1.0%	0.2%	1.1%	11.2%	n.a.
2013	2.1%	-1.8%	0.6%	0.7%	-0.4%	-0.3%	3.0%	-0.2%	1.2%	0.4%	1.1%	0.2%	6.6%	n.a.
2014	-0.9%	-0.2%	0.6%	0.2%	1.9%	2.0%	-2.1%	0.5%	-0.3%	1.2%	0.8%	-2.7%	0.9%	n.a.
2015	1.5%	2.0%	-1.1%	1.6%	0.7%	-0.5%	3.9%	-4.4%	-3.0%	2.6%	-1.5%	1.7%	3.2%	n.a.
2016	-5.2%	0.9%											-4.4%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Dec 07 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Premium Opportunities m2 Index is live since 06 Mar 15, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 19 Dec 2007

# Credit Suisse Equity Volatility Call Spread Index

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	23 <sup>rd</sup> March 2015	Bloomberg Ticker	CSEVCSE Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from both the typical overpricing of VIX futures and the typical overpricing of implied volatility priced into options on the VIX Index relative to the subsequent VIX realised volatility.

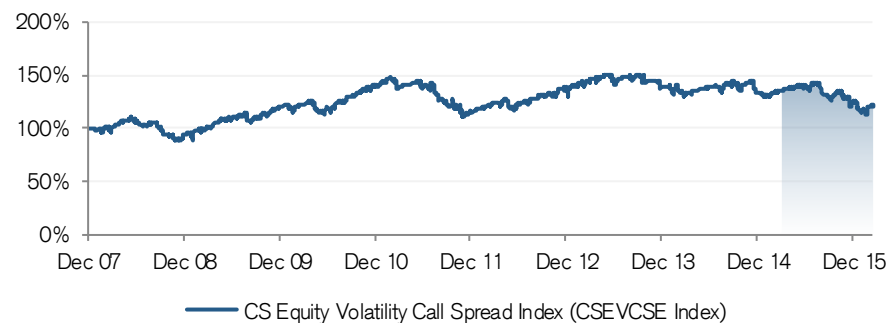
## Description

The strategy takes a short position in a call spread on the VIX at each monthly VIX options expiry date. The strategy implements this position through a short call option on the listed strike closest to the level of the front month VIX future and a long call position in the option with a strike 3 volatility points higher.

This strategy does not utilise any signals and thus the short call spread position is taken systematically every month and held until its expiry the following month.

The position is sized at inception to have a vega of 3% of the prevailing index level on both the short and log legs, i.e. at inception the position is vega neutral by construction.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-9.7%	-5.6%	-3.4%	2.4%	-11.2%
Annualised Volatility	13.2%	12.3%	13.1%	13.3%	13.5%
Sharpe Ratio	-0.74	-0.46	-0.26	0.18	-0.83
Maximum Drawdown	-21.7%	-25.8%	-25.8%	-25.8%	-21.7%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	2.2%	2.6%	-5.0%	1.5%	2.0%	-2.5%	-0.5%	-9.1%	-5.8%	0.3%	-5.8%	0.9%	-18.4%	n.a.
2012	4.0%	2.2%	2.1%	2.3%	-6.5%	4.2%	0.1%	3.2%	2.5%	-0.5%	5.6%	-1.6%	18.3%	n.a.
2013	3.6%	-0.1%	4.3%	1.2%	1.1%	-4.4%	4.0%	-2.6%	2.8%	-3.2%	0.5%	-4.0%	2.5%	n.a.
2014	-3.3%	0.6%	-1.5%	1.7%	1.6%	1.1%	-1.6%	3.4%	-0.2%	-0.2%	1.8%	-7.6%	-4.5%	n.a.
2015	-2.4%	3.6%	1.3%	0.9%	2.4%	-1.9%	3.4%	-7.4%	-3.3%	5.1%	-4.3%	-2.7%	-5.9%	n.a.
2016	-5.6%	1.8%											-3.9%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Dec 07 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Equity Volatility Call Spread Index is live since 23 Mar '15, any data shown prior to the live date is simulated. The Index returns are net of a 0.25% p.a. calculation fee. Proforma date: 19 Dec 2007

# Credit Suisse VIX Options Call Spread ts2 Index

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	23 <sup>rd</sup> March 2015	Bloomberg Ticker	CSEVCS2E Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from both the typical overpricing of VIX futures and the typical overpricing of implied volatility on the VIX Index through short VIX call spread position in accordance with a single signal.

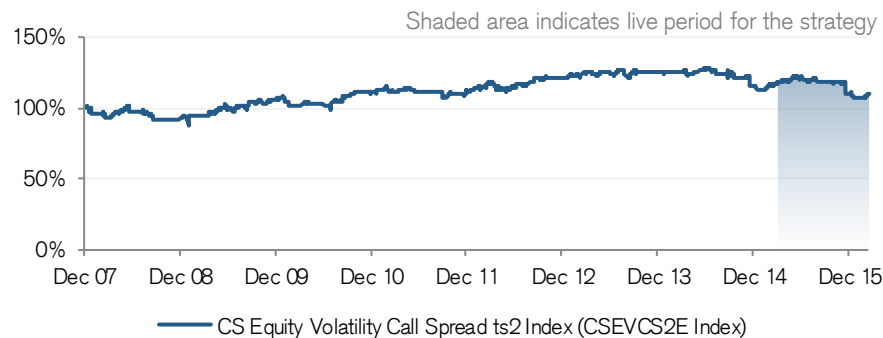
## Description

When the signal is activated, the strategy takes a short position in a call spread on the VIX Index (VIX) at each monthly VIX options expiry date. The strategy implements this position through a short call option on the listed strike closest to the level of the front month VIX future and a long call position in the option with a strike 3 volatility points higher.

The signals is run daily and is activated if the VIX term structure is concave. The position is only maintained if the signal is activated. The positions are rolled to the next expiry from 7-business days before the listed expiry date.

The position is sized at inception to have a vega of 3% of the prevailing index level on both the short and log legs, i.e. at inception the position is vega neutral by construction.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-6.1%	-4.3%	-0.5%	1.1%	-7.4%
Annualised Volatility	8.4%	7.6%	7.6%	8.4%	8.5%
Sharpe Ratio	-0.72	-0.56	-0.06	0.13	-0.87
Maximum Drawdown	-12.7%	-16.4%	-16.4%	-16.4%	-12.7%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	2.2%	-1.6%	0.1%	2.1%	-0.7%	-1.6%	0.0%	0.0%	-3.3%	1.8%	0.0%	1.9%	0.7%	n.a.
2012	2.5%	0.8%	2.2%	-3.4%	-0.8%	3.0%	-0.3%	2.1%	2.3%	-0.1%	0.0%	0.0%	8.4%	n.a.
2013	1.8%	-0.5%	2.3%	-1.6%	1.8%	-1.7%	2.7%	-4.5%	2.4%	0.7%	0.0%	0.0%	3.2%	n.a.
2014	0.8%	0.0%	-0.1%	-1.5%	2.2%	1.1%	-3.2%	-0.2%	-0.2%	-1.5%	0.1%	-6.2%	-8.5%	n.a.
2015	-1.3%	3.3%	1.2%	0.9%	2.4%	-2.2%	0.8%	-1.7%	0.0%	-0.2%	0.2%	-6.4%	-3.3%	n.a.
2016	-2.5%	0.2%											-2.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Dec 07 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Equity Volatility Call Spread ts2 Index is live since 23 Mar '15, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 19 Dec 2007



# CS VIX Alpha ER

Asset Class	Equities
Risk Premia	Volatility Premia

Live Date	9 <sup>th</sup> Jun 2015	Bloomberg Ticker	CSEAVXAE Index
Benchmark	n.a.		

## Objective

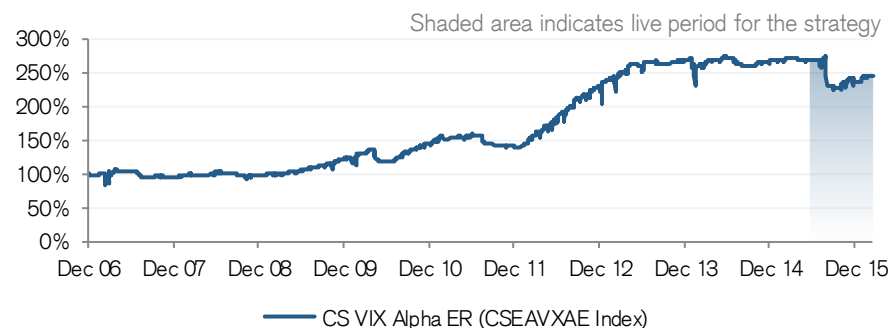
The Index seeks to harvest the premium that may comprise a portion of the price of the exchange-traded call options on the VIX Index and the term structure premium that may be embedded in VIX futures.

## Description

Each month, the Index will hypothetically sell an out-of-the-money one-month call option on the VIX Index and then hypothetically repurchase that option the following month, prior to its expiration date. Thus the Index will benefit if the subsequently-realized volatility is less than the volatility implied by the price the option is hypothetically traded at, as well as if the subsequent value of VIX futures of the same expiry is less than the VIX futures price when the options are hypothetically traded.

Along with the short position in a call option, the Index will simultaneously establish a long position on a further-out-of-the-money call option on the VIX Index such as to avoid losing more than 100% of the notional.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-10.1%	-0.4%	9.9%	10.2%	-12.0%
Annualised Volatility	14.9%	12.7%	16.1%	17.0%	17.2%
Sharpe Ratio	-0.68	-0.03	0.62	0.60	-0.70
Maximum Drawdown	-17.9%	-17.9%	-17.9%	-18.3%	-17.9%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	3.8%	1.7%	0.6%	2.1%	-0.2%	1.2%	-0.8%	-7.9%	-2.0%	0.1%	-0.3%	-0.5%	-2.6%	n.a.
2012	1.6%	6.5%	6.3%	6.2%	-0.5%	9.4%	0.7%	6.7%	5.4%	0.0%	8.1%	0.5%	63.4%	n.a.
2013	4.4%	-3.0%	7.8%	4.1%	0.2%	0.1%	1.3%	-0.3%	-0.6%	1.0%	1.0%	0.2%	17.0%	n.a.
2014	-8.2%	6.0%	2.3%	0.2%	0.9%	0.8%	-3.1%	-1.4%	0.1%	1.6%	0.0%	0.9%	-0.4%	n.a.
2015	0.1%	1.5%	0.0%	-0.9%	-0.1%	-0.2%	-0.4%	-13.3%	-2.0%	2.9%	2.8%	-1.3%	-11.3%	n.a.
2016	3.8%	-0.7%											3.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Dec 06 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS VIX Alpha ER is live since 09 Jun 15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 19 Dec 2006

# Credit Suisse Global Carry Selector II Index – USD Excess Return

<b>Asset Class</b>	Equities
<b>Risk Premia</b>	Volatility Premia

<b>Live Date</b>	15 <sup>th</sup> June 2012	<b>Bloomberg Ticker</b>	GCSCS2UE Index
<b>Benchmark</b>	n.a.		

## Objective

The CS Global Carry Selector Index is an equity volatility arbitrage strategy which aims to extract alpha by selling 3-month variance swaps across global equity markets.

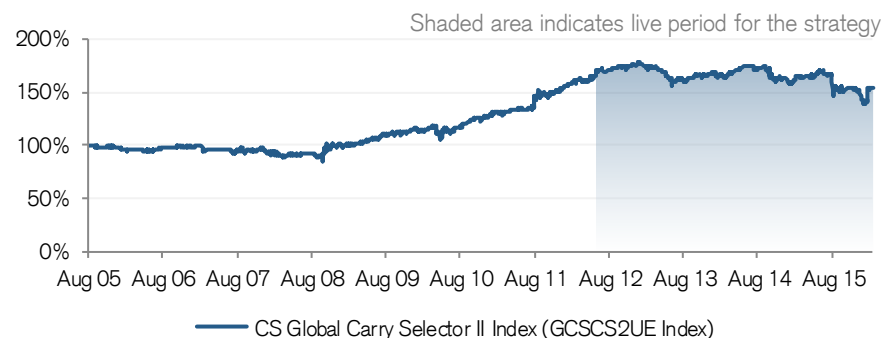
## Description

The strategy takes a short position in a 3-month variance swap each month, on either the S&P 500, EuroSTOXX 50, DAX or Nikkei 225 Index and tactically invests in long forward starting variance swaps.

Each month the strategy uses a volatility momentum indicator to select one of the four global indices for shorting the 3-month variance swap.

The strategy employs a bi-weekly term-structure risk indicator to determine the need to go long protection in the form of forward starting variance swaps.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
<b>Annualised Return</b>	-6.0%	-4.0%	3.4%	4.2%	-2.0%
<b>Annualised Volatility</b>	13.6%	9.9%	10.1%	10.0%	9.2%
<b>Sharpe Ratio</b>	-0.44	-0.40	0.34	0.43	-0.22
<b>Maximum Drawdown</b>	-18.9%	-20.7%	-21.6%	-21.6%	-21.6%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
<b>2011</b>	2.6%	0.7%	0.0%	2.0%	0.6%	-0.8%	1.2%	8.4%	1.0%	-0.5%	2.8%	1.5%	<b>20.7%</b>	n.a.
<b>2012</b>	2.5%	2.1%	1.4%	-0.3%	0.7%	4.4%	-0.7%	0.5%	1.9%	0.5%	0.3%	-0.3%	<b>13.9%</b>	n.a.
<b>2013</b>	1.1%	-2.1%	0.4%	-1.4%	-3.7%	-3.5%	2.3%	-1.5%	2.1%	1.3%	0.3%	1.0%	<b>-3.8%</b>	n.a.
<b>2014</b>	-2.1%	1.9%	0.1%	1.7%	1.5%	0.8%	-1.3%	0.0%	0.6%	-5.7%	0.1%	0.4%	<b>-2.1%</b>	n.a.
<b>2015</b>	-3.5%	3.8%	-0.5%	0.2%	0.9%	2.6%	-1.7%	-6.6%	-1.8%	0.1%	0.7%	-1.8%	<b>-7.5%</b>	n.a.
<b>2016</b>	-8.0%	10.4%											<b>1.6%</b>	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Aug 05 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Global Carry Selector II Index is live since 15 Jun 12, any data shown prior to the live date is simulated. The Index returns are net of a 0.50%p.a. calculation fee. Proforma date: 19 Aug 2005

Equity Liquidity / Term / Insurance

# Credit Suisse Dividend Alpha Index – Excess Return

Asset Class	Equities
Risk Premia	Liquidity / Term / Insurance

Live Date	11 <sup>th</sup> October 2013	Bloomberg Ticker	CSEADVAE Index
Benchmark	n.a.		

## Objective

The CS Dividend Alpha Index aims to provide isolated exposure to the dividend risk premium through exposure to dividend futures on the EuroSTOXX 50 Index.

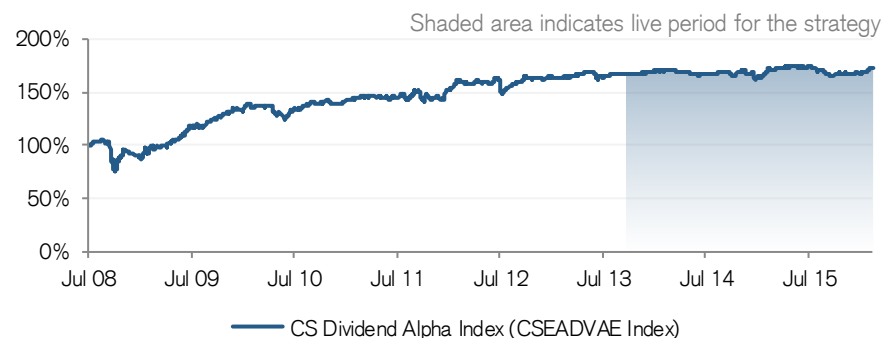
## Description

The dividend risk premium represents the compensation investors require, to bear the risk of dividend cuts. The introduction of listed dividend futures on the EuroSTOXX 50 Index has made it possible to isolate exposure to the dividend risk premium in a transparent and liquid format.

The CS Dividend Alpha index aims to provide exposure to this risk premium by taking a long position in dividend futures between one and two years before their maturity where the dividend risk premium is typically prevalent.

The market beta component of this position is hedged on a daily basis through (predominantly short) positions in the EuroSTOXX 50 Index.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	0.9%	1.9%	3.6%	7.5%	1.5%
Annualised Volatility	3.8%	4.5%	6.1%	9.3%	4.3%
Sharpe Ratio	0.23	0.42	0.59	0.81	0.36
Maximum Drawdown	-5.7%	-5.7%	-9.2%	-28.5%	-5.7%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	3.1%	1.6%	0.6%	-0.1%	-0.3%	-0.1%	0.1%	-1.3%	5.5%	-3.9%	-0.7%	-0.4%	3.8%	n.a.
2012	7.1%	4.4%	-1.4%	1.2%	-1.0%	1.0%	-7.1%	5.2%	1.5%	3.2%	-0.3%	-1.2%	12.4%	n.a.
2013	1.0%	0.6%	0.0%	1.9%	1.0%	-2.8%	0.1%	1.6%	0.3%	-0.1%	-0.3%	0.9%	4.3%	n.a.
2014	1.2%	-0.3%	0.1%	-0.3%	-1.3%	-0.8%	0.8%	-0.3%	1.4%	-2.0%	2.6%	-1.4%	-0.5%	n.a.
2015	-2.1%	3.7%	1.0%	1.1%	0.5%	-0.6%	0.4%	-2.3%	-1.5%	-0.4%	0.0%	0.0%	-0.4%	n.a.
2016	0.6%	2.3%											2.9%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 21 Jul 08 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Dividend Alpha Index is live since 11 Oct '13, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 21 Jul 2008

# Credit Suisse Diversified Dividend Alpha ER USD

Asset Class	Equities
Risk Premia	Liquidity / Term / Insurance

Live Date	31 <sup>st</sup> October 2014	Bloomberg Ticker	CSEADDUE Index
Benchmark	n.a.		

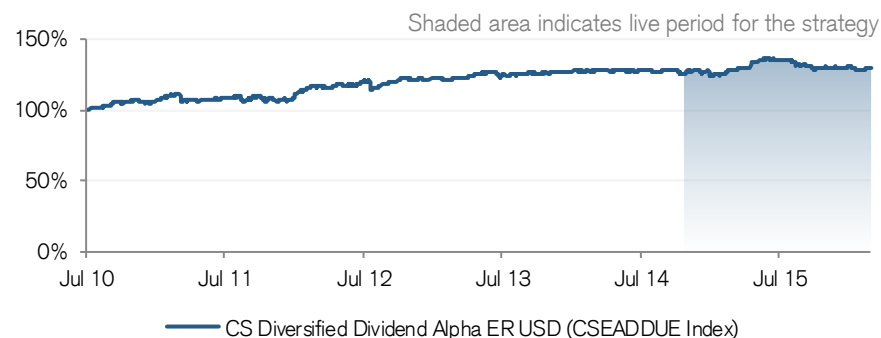
## Objective

The CS Diversified Dividend Alpha ER USD Index aims to provide exposure to the dividend risk premium in global equity market.

## Description

The CS Diversified Dividend Alpha ER USD takes a long position in the CS Dividend Alpha Index and the CS Japan Dividend Alpha Index.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.3%	2.2%	3.2%	4.8%	2.6%
Annualised Volatility	3.8%	3.8%	5.0%	4.9%	4.3%
Sharpe Ratio	0.34	0.58	0.64	0.99	0.60
Maximum Drawdown	-6.1%	-6.1%	-6.1%	-6.1%	-6.1%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	3.3%	2.1%	-4.2%	0.0%	0.7%	1.0%	0.4%	-2.4%	3.6%	-2.2%	-0.5%	-0.1%	1.4%	n.a.
2012	6.3%	3.1%	-1.1%	2.3%	-0.9%	1.5%	-4.2%	3.7%	1.5%	2.3%	-0.6%	-0.9%	13.1%	n.a.
2013	0.6%	0.4%	0.2%	2.1%	1.3%	-1.8%	0.1%	1.2%	0.3%	0.1%	0.0%	0.7%	5.2%	n.a.
2014	0.4%	-0.2%	0.1%	0.1%	-0.2%	-0.1%	0.8%	-1.0%	0.9%	-1.9%	1.7%	-1.1%	-0.5%	n.a.
2015	-1.2%	2.3%	1.0%	3.2%	2.2%	-0.4%	-0.4%	-2.0%	-1.2%	-0.7%	0.0%	0.1%	2.7%	n.a.
2016	-1.0%	0.5%											-0.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 08 Jul 10 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Diversified Dividend Alpha ER USD is live since 31 Oct 14, any data shown prior to the live date is simulated. The Index returns are net of a 0.25%p.a. calculation fee. Proforma date: 08 Jul 2010

# Credit Suisse LAB Merger Arbitrage

## Asset Class

Equities

## Risk Premia

Liquidity / Term / Insurance

## Live Date

31<sup>st</sup> December 2009

## Bloomberg Ticker

CSLABME Index

## Benchmark

n.a.

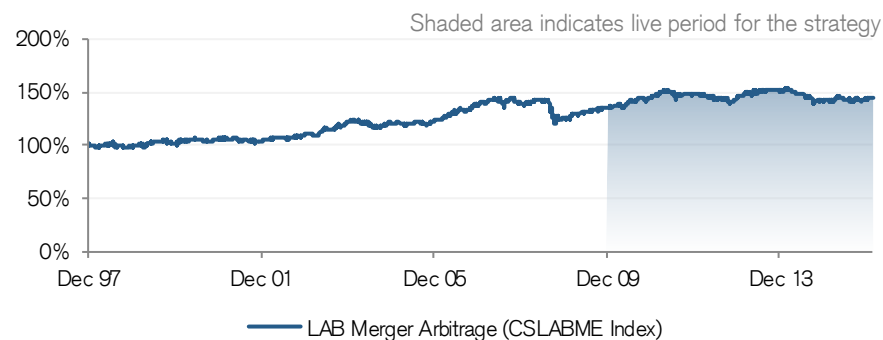
## Objective

Aims to gain broad exposure to the merger arbitrage strategy using a pre-defined quantitative methodology to gain exposure to a set of announced merger deals.

## Description

The Credit Suisse Liquid Alternative Beta Indices reflect the returns of dynamic baskets of liquid, investable market factors selected and weighted in accordance with algorithms that aims to approximate returns that are typical of individual hedge fund strategies or a diversified universe of hedge funds. The indices are valued daily and are constructed using an objective and rules-based methodology.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.6%	-0.9%	-0.4%	2.1%	1.2%
Annualised Volatility	3.9%	4.4%	4.4%	5.0%	4.3%
Sharpe Ratio	0.42	-0.20	-0.08	0.42	0.28
Maximum Drawdown	-3.6%	-9.3%	-9.3%	-17.3%	-9.3%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.6%	0.6%	1.3%	1.2%	0.2%	-0.8%	-0.8%	-0.8%	-0.9%	1.4%	0.3%	-0.8%	2.4%	n.a.
2012	0.4%	0.1%	-0.4%	-0.3%	-1.7%	-0.9%	0.4%	-0.1%	-0.9%	-1.5%	0.8%	1.2%	-3.1%	n.a.
2013	2.3%	-0.1%	2.3%	-0.5%	1.2%	-0.9%	1.2%	-0.1%	1.0%	-0.4%	0.3%	0.1%	6.4%	n.a.
2014	-1.0%	1.3%	-0.7%	-0.7%	-1.6%	-0.1%	0.0%	-1.6%	-1.1%	-1.7%	1.1%	-0.5%	-6.5%	n.a.
2015	-0.4%	0.9%	-0.9%	1.7%	-0.1%	-0.3%	-0.8%	-0.5%	-0.2%	1.6%	-1.2%	1.3%	1.1%	n.a.
2016	0.3%	0.2%											0.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 Dec 97 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The LAB Merger Arbitrage is live since 31 Dec 09, any data shown prior to the live date is simulated. The Index returns are net of a 0.50% p.a. calculation fee. Proforma date: 31 Dec 1997

## Equity Value

# Credit Suisse Mean Reversion Index on EuroSTOXX50

Asset Class	Equities
Risk Premia	Carry

Live Date	31 <sup>st</sup> March 2014	Bloomberg Ticker	CSEAMREE Index
Benchmark	n.a.		

## Objective

The strategy aims to benefit from short term mean reversion in the European equity market by taking long or short positions on the EuroSTOXX 50 Index on a daily basis.

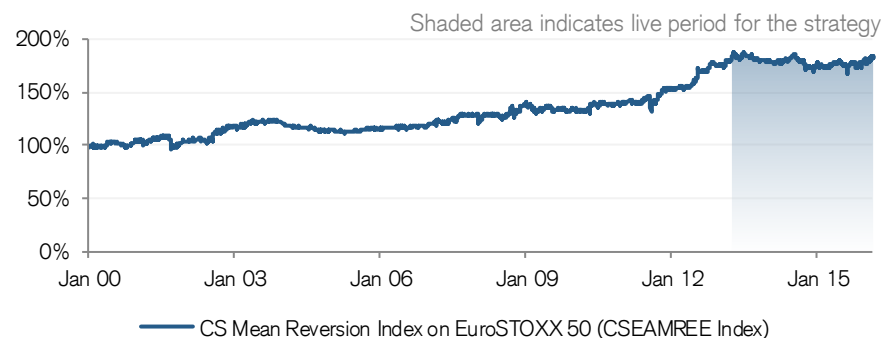
## Description

The size and direction of the position taken each day is based on the recent performance of global equity markets (represented by the S&P 500 and EuroSTOXX50 Indices):

- A long position is taken if the most recent 5-day performance of the global equity markets has been negative and a short position otherwise.
- The size of the position is determined with reference to the magnitude of the 5-day performance and is further normalized by the prevailing implied volatility level for the global equity markets.

The size of the position is subject to a cap at 50% and floor at -50% of the index notional to avoid over-leveraged positions.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	6.4%	1.0%	5.2%	3.8%	1.0%
Annualised Volatility	8.6%	7.1%	7.4%	7.6%	7.2%
Sharpe Ratio	0.74	0.13	0.69	0.50	0.13
Maximum Drawdown	-7.2%	-10.7%	-10.7%	-12.5%	-10.7%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.7%	2.0%	-1.3%	-2.0%	1.9%	2.2%	1.9%	-5.9%	5.1%	3.6%	2.5%	-0.5%	10.2%	n.a.
2012	-0.5%	0.7%	0.7%	0.3%	0.6%	2.7%	6.2%	-0.2%	-1.2%	4.3%	0.3%	-0.6%	13.9%	n.a.
2013	0.3%	2.1%	-0.4%	4.2%	-1.7%	1.7%	-1.2%	0.0%	-2.2%	-0.3%	0.4%	-0.7%	2.1%	n.a.
2014	0.0%	-1.5%	1.9%	-0.1%	0.7%	0.6%	1.6%	-2.9%	0.5%	-4.5%	0.0%	1.3%	-2.5%	n.a.
2015	0.0%	-1.1%	1.1%	1.5%	0.8%	0.5%	-1.3%	-1.7%	2.9%	-2.5%	0.9%	2.2%	3.0%	n.a.
2016	0.3%	2.1%											2.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 03 Jan 00 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Mean Reversion Index on EuroSTOXX 50 is live since 27 Mar 13, any data shown prior to the live date is simulated. The Index returns are net of a 0.50%p.a. calculation fee. Proforma date: 03 Jan 2000



# CS Adaptive Mean Reversion Index ER on Russell 2000 TR

Asset Class	Equities
Risk Premia	Value

Live Date	25 <sup>th</sup> June 2013	Bloomberg Ticker	CSEAAMRR Index
Benchmark	n.a.		

## Objective

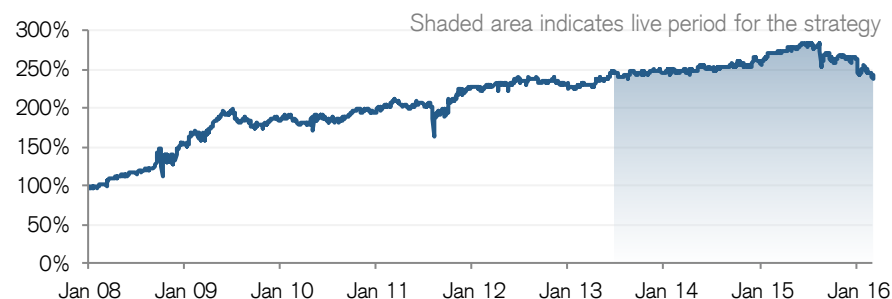
The Credit Suisse Adaptive Mean-Reversion Index is a rule-based index that seek to generate positive returns by capturing short-term mean-reversion that the Russell 2000 TR may exhibit from time to time.

## Description

The Index attempts to provide a long exposure to the underlying equity index after the equity index has decreased in value, and attempts to provide a short exposure to the equity index after the equity index has increased in value: "buy the dips and sell the rallies".

In addition, the exposure to the underlying equity index will be adjusted for changes in short-term realized volatility.

## Historical Performance Analysis



— CS Adaptive Mean-Reversion Index Excess Return on Russell 2000 TR (CSEAAMRR Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-10.5%	1.9%	2.8%	11.4%	-0.8%
Annualised Volatility	12.4%	9.8%	14.4%	17.1%	9.8%
Sharpe Ratio	-0.85	0.19	0.20	0.67	-0.08
Maximum Drawdown	-16.2%	-16.2%	-22.8%	-23.4%	-16.2%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	4.0%	1.2%	0.3%	-2.5%	0.5%	1.9%	-1.6%	-4.9%	3.1%	7.4%	3.5%	2.8%	16.4%	n.a.
2012	-0.1%	0.9%	1.0%	0.9%	-0.6%	3.3%	-1.7%	1.5%	-2.0%	0.4%	-1.5%	0.6%	2.5%	n.a.
2013	-2.7%	2.8%	-1.2%	2.2%	1.8%	3.3%	-2.5%	2.5%	-1.2%	0.1%	1.1%	-0.7%	5.4%	n.a.
2014	1.2%	-0.8%	0.6%	0.2%	2.3%	-1.0%	0.3%	0.4%	0.9%	-0.9%	0.9%	2.0%	6.3%	n.a.
2015	2.7%	0.8%	1.5%	-0.2%	1.9%	1.2%	-1.2%	-6.1%	1.3%	1.4%	-1.5%	0.4%	2.0%	n.a.
2016	-5.3%	-2.5%											-7.7%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 02 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Mean-Reversion Index Excess Return on Russell 2000 TR is live since 25 Jun 13, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 02 Jan 2008

# CS Adaptive Mean Reversion Index ER on S&P 500 TR

Asset Class	Equities
Risk Premia	Value

Live Date	25 <sup>th</sup> June 2013	Bloomberg Ticker	CSEAAMRS Index
Benchmark	n.a.		

## Objective

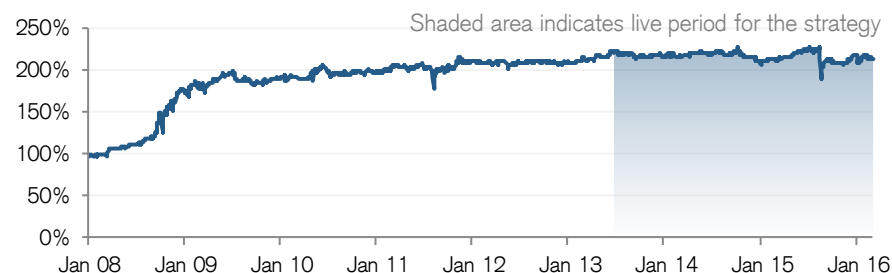
The Credit Suisse Adaptive Mean-Reversion Index is a rule-based index that seek to generate positive returns by capturing short-term mean-reversion that the S&P 500 TR may exhibit from time to time.

## Description

The Index attempts to provide a long exposure to the underlying equity index after the equity index has decreased in value, and attempts to provide a short exposure to the equity index after the equity index has increased in value: "buy the dips and sell the rallies".

In addition, the exposure to the underlying equity index will be adjusted for changes in short-term realized volatility.

## Historical Performance Analysis



— CS Adaptive Mean-Reversion Index Excess Return on S&P 500 TR (CSEAAMRS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.1%	0.4%	0.8%	9.8%	-1.4%
Annualised Volatility	14.9%	9.9%	10.9%	13.3%	10.2%
Sharpe Ratio	0.07	0.04	0.07	0.74	-0.14
Maximum Drawdown	-16.7%	-17.2%	-17.2%	-17.2%	-17.2%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.5%	0.4%	1.7%	-1.8%	0.7%	1.8%	-2.5%	-0.9%	2.3%	1.4%	1.2%	0.6%	6.4%	n.a.
2012	-0.2%	-0.2%	-0.1%	0.9%	-1.9%	1.3%	-0.4%	1.0%	-0.1%	-1.1%	-0.4%	1.7%	0.3%	n.a.
2013	-1.3%	3.0%	-0.9%	2.0%	0.0%	2.9%	-1.7%	0.2%	-2.0%	0.2%	1.0%	-0.7%	2.4%	n.a.
2014	0.8%	-0.8%	1.1%	0.8%	0.2%	-0.3%	0.6%	-1.0%	1.5%	-2.4%	-0.5%	-2.5%	-2.7%	n.a.
2015	0.7%	0.2%	1.5%	0.4%	2.6%	0.6%	0.4%	-8.5%	4.2%	-2.2%	-0.2%	4.7%	3.7%	n.a.
2016	-1.1%	-0.4%											-1.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 02 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Mean-Reversion Index Excess Return on S&P 500 TR is live since 25 Jun 13, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 02 Jan 2008

# CS Fixed Mean Reversion Index ER on Russell 2000 TR

Asset Class	Equities
Risk Premia	Value

Live Date	25 <sup>th</sup> June 2013	Bloomberg Ticker	CSEAFMRR Index
Benchmark	n.a.		

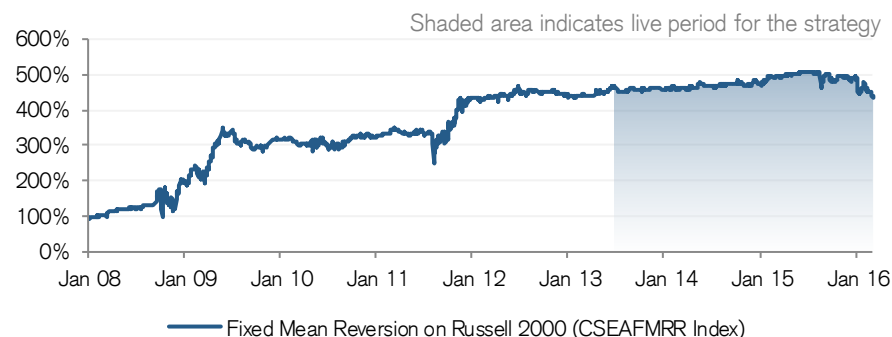
## Objective

The Credit Suisse Adaptive Mean-Reversion Index is a rule-based index that seek to generate positive returns by capturing short-term mean-reversion that the Russell 2000 TR may exhibit from time to time.

## Description

The Index attempts to provide a long exposure to the underlying equity index after the equity index has decreased in value, and attempts to provide a short exposure to the equity index after the equity index has increased in value: "buy the dips and sell the rallies".

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-10.4%	0.1%	4.9%	19.9%	-1.9%
Annualised Volatility	12.5%	9.1%	19.7%	32.0%	9.3%
Sharpe Ratio	-0.84	0.01	0.25	0.62	-0.21
Maximum Drawdown	-15.0%	-15.0%	-29.0%	-44.8%	-15.0%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	3.1%	1.3%	0.1%	-2.1%	0.6%	1.6%	-1.9%	-7.2%	9.4%	12.3%	9.0%	5.1%	33.8%	n.a.
2012	-0.1%	0.8%	0.9%	1.1%	-0.4%	4.2%	-2.6%	1.4%	-1.1%	0.2%	-1.7%	0.4%	2.9%	n.a.
2013	-1.8%	1.9%	-1.0%	1.0%	1.6%	2.6%	-2.8%	1.9%	-1.1%	0.0%	0.9%	-0.5%	2.7%	n.a.
2014	1.3%	-1.0%	0.6%	0.5%	2.1%	-1.0%	0.3%	0.4%	0.6%	-1.5%	0.9%	1.0%	4.0%	n.a.
2015	2.6%	0.9%	1.1%	0.0%	1.2%	0.7%	-0.9%	-4.3%	1.9%	1.6%	-1.6%	0.5%	3.6%	n.a.
2016	-5.2%	-3.7%											-8.7%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 02 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Fixed Mean Reversion on Russell 2000 is live since 25 Jun 13, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 02 Jan 2008

# CS Fixed Mean Reversion Index ER on S&P 500 TR

**Asset Class** Equities

**Risk Premia** Value

**Live Date** 25<sup>th</sup> June 2013

**Bloomberg Ticker** CSEAFMRS Index

**Benchmark** n.a.

## Objective

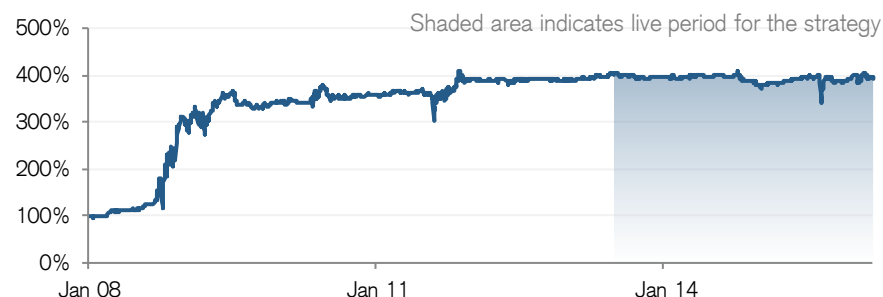
The Credit Suisse Adaptive Mean-Reversion Index is a rule-based index that seek to generate positive returns by capturing short-term mean-reversion that the S&P 500 TR may exhibit from time to time.

## Description

The Index attempts to provide a long exposure to the underlying equity index after the equity index has decreased in value, and attempts to provide a short exposure to the equity index after the equity index has increased in value: "buy the dips and sell the rallies".

In addition, the exposure to the underlying equity index will be adjusted for changes in short-term realized volatility.

## Historical Performance Analysis



CS Fixed Mean-Reversion Index Excess Return on S&P 500 TR (CSEAFMRS Index)

	1Y	3Y	5Y	Proforma	LIVE
<b>Annualised Return</b>	3.4%	0.2%	1.5%	18.3%	-0.9%
<b>Annualised Volatility</b>	14.5%	9.2%	12.9%	25.4%	9.6%
<b>Sharpe Ratio</b>	0.23	0.02	0.12	0.72	-0.10
<b>Maximum Drawdown</b>	-14.6%	-16.4%	-18.4%	-36.2%	-16.4%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
<b>2011</b>	0.9%	0.3%	1.2%	-1.2%	0.5%	1.0%	-2.6%	-2.2%	6.0%	2.7%	2.2%	0.8%	<b>9.7%</b>	n.a.
<b>2012</b>	-0.2%	-0.2%	0.0%	0.8%	-1.6%	1.4%	-0.4%	0.8%	0.0%	-0.8%	-0.5%	1.1%	<b>0.4%</b>	n.a.
<b>2013</b>	-0.9%	1.9%	-0.7%	1.1%	-0.2%	2.1%	-1.7%	0.1%	-1.3%	-0.1%	0.7%	-0.5%	<b>0.5%</b>	n.a.
<b>2014</b>	0.6%	-0.9%	0.7%	0.6%	0.2%	-0.2%	0.3%	-0.7%	0.9%	-3.3%	-0.4%	-1.9%	<b>-4.1%</b>	n.a.
<b>2015</b>	0.8%	0.2%	1.1%	0.2%	1.6%	0.4%	0.2%	-5.9%	6.8%	-2.8%	-0.1%	4.1%	<b>6.3%</b>	n.a.
<b>2016</b>	-0.8%	-0.6%											<b>-1.4%</b>	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 02 Jan 08 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Fixed Mean-Reversion Index Excess Return on S&P 500 TR is live since 25 Jun 13, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 02 Jan 2008

# CS Long / Short Sector Rotation

Asset Class	Equities
Risk Premia	Value

Live Date	21 <sup>st</sup> December 2012	Bloomberg Ticker	CSEASRLS Index
Benchmark	n.a.		

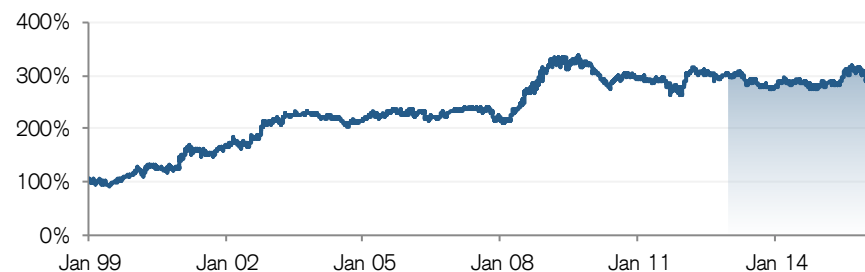
## Objective

The Credit Suisse Equity Long-Short Sector Rotation Index (the "Index") is a rule-based market neutral index that seeks to generate positive returns through a sector rotation strategy.

## Description

The Index utilizes data implicit in equity options prices to determine allocations to individual sectors of the equity market. The Index adopts long, short, or no exposure to the 10 major S&P Sector Indices based on option market signals derived from the implied volatility and skew of the stock components of the Sector Indices.

## Historical Performance Analysis



— CS Long/Short Sector Rotation (CSEASRLS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-6.0%	-3.7%	-1.7%	6.0%	-3.6%
Annualised Volatility	10.1%	8.5%	8.9%	12.3%	8.4%
Sharpe Ratio	-0.59	-0.44	-0.19	0.49	-0.43
Maximum Drawdown	-17.4%	-17.4%	-17.4%	-22.5%	-17.4%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-0.7%	1.0%	-2.2%	0.2%	0.5%	-0.4%	2.0%	-4.6%	-6.6%	4.3%	-0.4%	-4.0%	-10.8%	n.a.
2012	11.4%	4.1%	2.5%	-3.5%	1.0%	0.5%	-1.4%	0.7%	-1.6%	-1.2%	1.2%	1.1%	14.9%	n.a.
2013	-1.3%	0.7%	1.8%	-2.2%	-5.5%	2.9%	0.0%	-3.3%	-1.5%	1.6%	-2.4%	-0.2%	-9.1%	n.a.
2014	2.5%	2.9%	1.9%	-2.9%	-0.4%	2.3%	-1.3%	-0.2%	-1.6%	-1.4%	-1.2%	0.5%	1.1%	n.a.
2015	3.6%	-1.5%	2.1%	-2.3%	0.6%	2.3%	6.3%	1.4%	0.2%	0.0%	-1.5%	-1.1%	10.3%	n.a.
2016	-11.0%	-1.3%											-12.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 04 Jan 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Long/Short Sector Rotation is live since 21 Dec 12, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 04 Jan 1999

# CS Long/Short Liquid Excess Net Index

Asset Class	Equities
Risk Premia	Value

Live Date	24 <sup>th</sup> March 2008	Bloomberg Ticker	CSLABLE Index
Benchmark	n.a.		

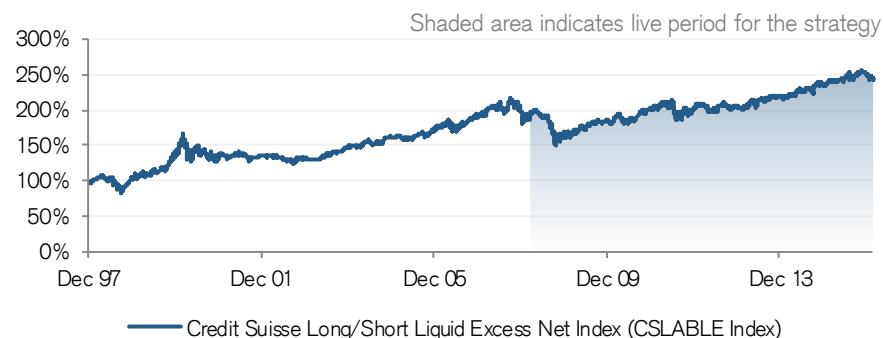
## Objective

The index aims to track the performance of the CS L/S Equity Hedge Fund Index by allocating weights to non-hedge fund, transparent market factors.

## Description

The strategy reflects the return of a dynamic basket of liquid, investable market factors selected and weighted in accordance with an Algorithm which aims at approximating the aggregate returns of the universe of long/short hedge funds. The Algorithm has been pre-determined by CS's Index Committee taking into consideration extensive quantitative research into alternative beta.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.4%	6.1%	3.5%	5.0%	3.5%
Annualised Volatility	6.0%	5.9%	8.5%	10.7%	9.4%
Sharpe Ratio	0.24	1.03	0.41	0.47	0.37
Maximum Drawdown	-4.9%	-5.3%	-13.3%	-30.4%	-25.2%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.6%	1.6%	1.1%	2.8%	-1.0%	-0.4%	-1.7%	-3.7%	-4.4%	5.9%	-0.6%	-0.1%	-0.4%	n.a.
2012	2.5%	2.2%	-0.2%	-1.1%	-3.7%	1.3%	0.3%	2.0%	1.3%	-2.1%	-0.4%	1.4%	3.3%	n.a.
2013	-1.0%	-1.1%	1.6%	2.4%	0.4%	-1.6%	3.6%	-1.1%	1.2%	2.1%	0.5%	0.2%	7.2%	n.a.
2014	-1.8%	1.4%	0.6%	0.6%	1.8%	0.9%	-0.6%	2.3%	-1.0%	1.9%	2.1%	-0.6%	7.8%	n.a.
2015	-1.3%	2.5%	0.1%	-0.5%	1.2%	-1.4%	4.6%	-1.4%	-0.9%	3.6%	0.1%	0.1%	6.7%	n.a.
2016	-2.4%	-0.8%											-3.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 Dec 97 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Long/Short Liquid Excess Net Index is live since 24 Mar 08, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 31 Dec 1997

# CS Event Driven Liquid Index – Swap Series

Asset Class	Equities
Risk Premia	Value

Live Date	31 <sup>st</sup> October 2013	Bloomberg Ticker	CSLASED Index
Benchmark	n.a.		

## Objective

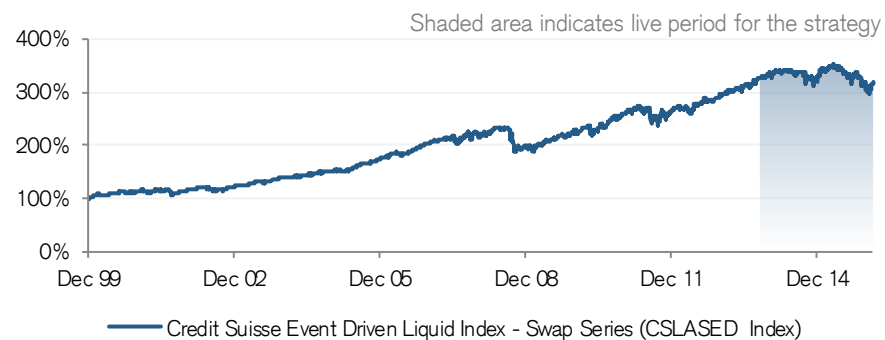
The Index aims to approximate the aggregate returns of the universe of event driven hedge fund managers.

## Description

The Credit Suisse Event Driven Liquid Index – Swap Series (“Index”) is a benchmark which reflects the return of a dynamic basket of liquid, investable market factors selected and weighted in accordance with an Algorithm which aims at approximating the aggregate returns of the universe of event driven hedge funds.

The Algorithm has been pre-determined by an Index Committee taking into consideration extensive quantitative research into alternative beta.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-6.8%	2.0%	3.8%	7.5%	-1.0%
Annualised Volatility	9.2%	8.2%	9.1%	8.2%	8.6%
Sharpe Ratio	-0.74	0.24	0.42	0.91	-0.11
Maximum Drawdown	-15.3%	-15.3%	-15.3%	-20.4%	-15.3%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.0%	2.2%	1.4%	1.3%	-0.5%	-1.3%	-1.1%	-3.6%	-5.2%	7.8%	-1.6%	1.9%	1.8%	n.a.
2012	2.6%	2.1%	-1.2%	0.6%	-3.7%	4.4%	0.8%	1.4%	1.0%	0.6%	0.8%	1.3%	11.0%	n.a.
2013	1.8%	0.6%	1.6%	0.9%	0.6%	0.0%	2.8%	-1.6%	2.5%	2.6%	1.1%	0.5%	14.2%	n.a.
2014	-0.2%	2.4%	0.1%	-0.4%	0.1%	0.6%	-2.7%	2.0%	-1.5%	-2.1%	0.0%	-0.2%	-2.0%	n.a.
2015	1.7%	4.6%	-0.9%	1.4%	0.3%	-2.0%	-0.9%	-2.1%	-3.4%	4.4%	-2.0%	-2.5%	-1.8%	n.a.
2016	-2.5%	0.6%											-1.9%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 Dec 99 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Event Driven Liquid Index - Swap Series is live since 31 Oct '13, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 31 Dec 1999

# CS HOLT Market Neutral Index

Asset Class	Equities
Risk Premia	Value

Live Date	1 <sup>st</sup> September 2007	Bloomberg Ticker	HSGMN Index
Benchmark	n.a.		

## Objective

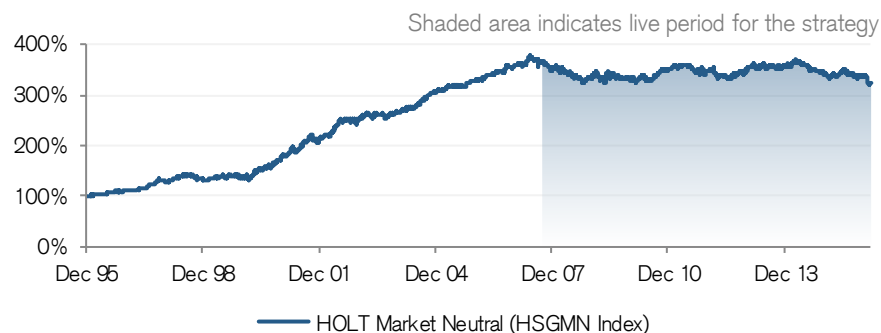
Approximately 75 stocks are held on the expectation that their share prices will go up (long position) and the same number of stocks are held on the expectation their share prices will go down (short position).

## Description

The index is constructed according to the following process:

- A global selection pool of 750 stocks is grouped into 10 sectors and ranked according to the HOLT stock selection framework, to select the top ranking 10% of stocks in each sector.
- The short portfolio is constructed by pairing the best ranked stocks with the worst ranked stocks in the same sector and region.
- The construction process ensures market neutrality, so there is no currency, sector or region bias.
- The index is equally weighted and rebalanced on a quarterly basis

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-4.7%	-3.6%	-1.8%	5.9%	-1.6%
Annualised Volatility	4.6%	4.8%	5.1%	6.0%	5.5%
Sharpe Ratio	-1.02	-0.75	-0.36	0.99	-0.29
Maximum Drawdown	-8.5%	-13.8%	-13.8%	-15.1%	-13.8%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.8%	-0.7%	1.1%	0.7%	-0.4%	-0.5%	-1.3%	-0.9%	-1.0%	2.1%	-2.4%	1.2%	-0.6%	n.a.
2012	0.0%	-1.3%	-2.7%	1.4%	-0.3%	-1.5%	1.3%	-0.7%	1.4%	1.4%	0.1%	1.6%	0.5%	n.a.
2013	2.3%	-0.6%	-1.7%	2.1%	1.0%	-2.4%	1.3%	-0.7%	-1.4%	0.1%	2.0%	0.1%	2.1%	n.a.
2014	0.0%	1.7%	1.2%	-0.4%	-1.7%	-0.7%	-0.8%	-0.9%	-1.1%	-0.2%	-0.4%	-1.6%	-4.8%	n.a.
2015	-1.4%	0.4%	0.8%	-0.2%	2.2%	0.9%	-1.8%	-0.5%	-1.3%	-1.0%	1.2%	-0.1%	-0.9%	n.a.
2016	-2.0%	-2.0%											-4.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 07 Dec 95 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The HOLT Market Neutral is live since 01 Sep 07, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 07 Dec 1995



# HOLT Global Style Rotation Equity Hedged

Asset Class	Equities
Risk Premia	Value

Live Date	1 <sup>st</sup> April 2010	Bloomberg Ticker	HSGSREH Index
Benchmark	n.a.		

## Objective

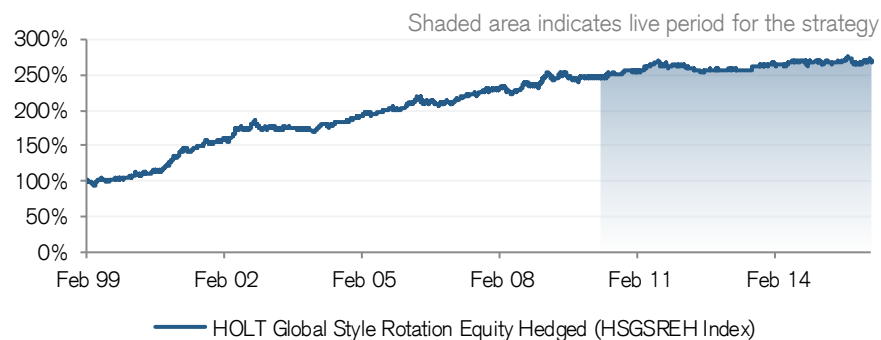
Aims to isolate the alpha of the HOLT Global Style Rotation Index by taking a long position in the Index and a short position in the MSCI World Index.

## Description

The strategy comprises 2 components:

- A long investment in the CS Global Style Rotation Index which invests in different equity styles depending on the stage of the economic cycle.
    - The CS HOLT framework is then used to screen the universe of stocks for characteristics appropriate to the stage of the economic cycle.
    - The highest-ranking stocks from the universe are selected and the pool of stocks is then filtered down to the largest companies by market capitalisation.
  - The short portfolio consists of short MSCI World Futures positions
- The index is equally weighted and is rebalanced quarterly

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	0.6%	1.3%	1.0%	6.0%	1.4%
Annualised Volatility	3.6%	3.3%	3.3%	5.0%	3.3%
Sharpe Ratio	0.16	0.38	0.30	1.20	0.43
Maximum Drawdown	-4.1%	-4.1%	-6.5%	-9.2%	-6.5%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-0.1%	0.1%	2.0%	0.8%	0.9%	1.0%	0.1%	-1.4%	-1.5%	0.7%	1.1%	-0.7%	3.0%	n.a.
2012	0.1%	-0.9%	-0.1%	-1.2%	-0.3%	-1.2%	1.1%	0.0%	0.4%	0.1%	-0.5%	-0.4%	-2.8%	n.a.
2013	1.2%	-0.3%	0.1%	-0.9%	0.2%	0.1%	1.0%	1.0%	0.5%	0.0%	0.2%	0.4%	3.5%	n.a.
2014	-0.2%	0.1%	0.3%	-0.4%	1.3%	0.4%	-0.4%	1.0%	-0.2%	-0.2%	-0.4%	0.5%	1.8%	n.a.
2015	-0.6%	0.1%	0.2%	-1.0%	0.9%	0.2%	0.6%	0.8%	0.0%	-2.5%	-0.5%	1.0%	-0.8%	n.a.
2016	0.6%	1.2%											1.8%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 04 Feb 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The HOLT Global Style Rotation Equity Hedged is live since 01 Apr 10, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 04 Feb 1999

# RAII HOLT Relative Value

Asset Class	Equities
Risk Premia	Value

Live Date	28 <sup>th</sup> April 2011	Bloomberg Ticker	RAIIHRVU Index
Benchmark	n.a.		

## Objective

The strategy aims to isolate the alpha from the asset allocation and optimised equity allocation of the Credit Suisse RAI HOLT strategy by taking a long position in the strategy and a short position in a balanced benchmark.

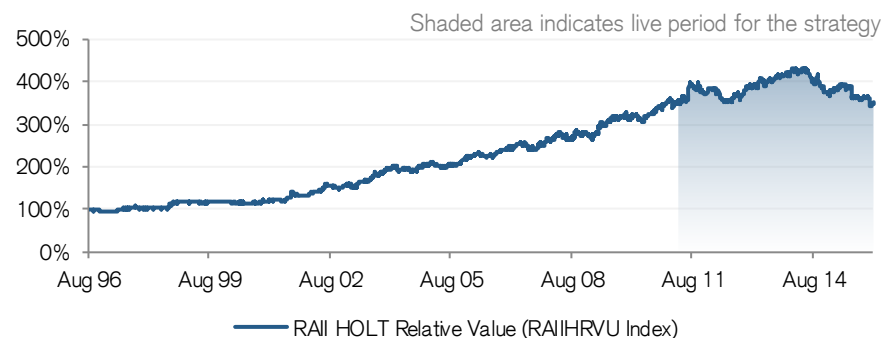
## Description

The strategy allocates daily between a long component (RAII HOLT Total Return) and a static short component (equally weighted portfolio of MSCI Global equities and cash).

On any given day, the RAI HOLT Total Return strategy may have between 0% and 100% allocation to equities, and thus the RAI HOLT Relative Value strategy may be net long, as well as net short equities, resulting in a net exposure to equity markets between -50% and +50%.

An additional volatility control mechanism aims to keep the volatility of the strategy at or around 10%.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-7.5%	-3.6%	-0.4%	6.6%	-0.5%
Annualised Volatility	7.7%	7.4%	8.0%	7.6%	7.9%
Sharpe Ratio	-0.97	-0.49	-0.05	0.87	-0.06
Maximum Drawdown	-13.2%	-20.8%	-20.8%	-20.8%	-20.8%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.2%	1.7%	-1.3%	1.3%	-1.0%	0.8%	2.7%	7.6%	-2.4%	1.7%	-3.5%	-1.6%	7.1%	n.a.
2012	1.3%	2.2%	-1.2%	0.1%	-5.3%	-1.3%	0.1%	-0.1%	2.4%	1.1%	0.3%	2.7%	2.0%	n.a.
2013	2.8%	-1.0%	0.7%	2.6%	0.8%	-3.0%	3.0%	-1.1%	2.9%	1.0%	0.6%	0.6%	10.1%	n.a.
2014	-0.5%	3.2%	0.1%	-0.3%	0.0%	-0.3%	-2.0%	-3.1%	-2.1%	-0.8%	-1.6%	-2.8%	-9.8%	n.a.
2015	0.5%	1.0%	-0.4%	1.0%	2.0%	-1.0%	-0.3%	-7.1%	0.9%	0.0%	-0.8%	0.6%	-3.9%	n.a.
2016	-0.3%	-3.7%											-4.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 30 Aug 96 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The RAI HOLT Relative Value is live since 28 Apr 11, any data shown prior to the live date is simulated. The Index returns are net of a 1.00%p.a. calculation fee. Proforma date: 30 Aug 1996

## Cross Asset Trend / Momentum

# CS LAB Managed Futures Excess Return

Asset Class	Multi-Asset
Risk Premia	Trend / Momentum

Live Date	31 <sup>st</sup> January 2011	Bloomberg Ticker	CSLABMFE Index
Benchmark	n.a.		

## Objective

Aims to gain broad exposure to a managed futures strategy using a quantitative methodology to invest in a liquid, diversified and broadly representative set of futures and commodity index products.

## Description

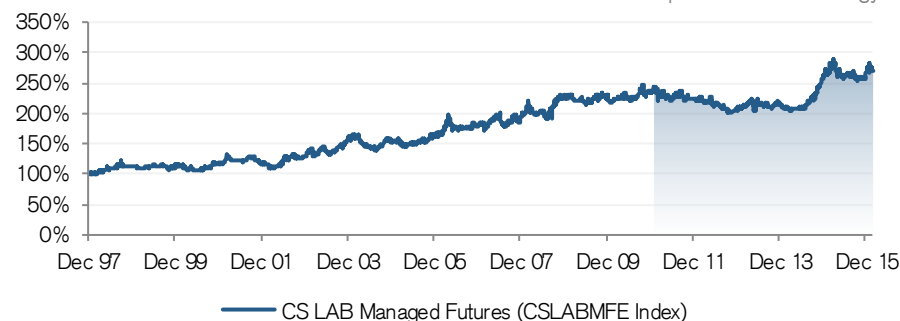
The strategy seeks to capitalize on market trends by systematically trading 18 futures daily across a range of asset classes, including: Equities, Fixed Income, Commodities and Currencies.

The model is a medium- to long-term model which seeks to capture the majority of Managed Futures returns while limiting some volatility incurred during short term swings in the market and reducing transaction costs inherent in frequent trading.

For each instrument, Credit Suisse compares the moving average of 5 day prices with the moving averages of prices over 16 different time horizons (3 months, 4 month, 5 months ... up to 18 months).

## Historical Performance Analysis

Shaded area indicates live period for the strategy



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-0.5%	8.5%	2.6%	5.6%	2.7%
Annualised Volatility	11.6%	10.3%	10.0%	10.4%	10.0%
Sharpe Ratio	-0.04	0.82	0.26	0.54	0.27
Maximum Drawdown	-11.7%	-11.7%	-16.2%	-19.0%	-17.7%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.1%	1.0%	-3.7%	2.9%	-3.6%	-3.1%	3.1%	0.0%	2.0%	-4.2%	0.4%	0.0%	-5.4%	n.a.
2012	-0.4%	0.9%	-1.5%	-1.3%	2.4%	-5.7%	1.3%	-1.6%	-1.4%	-2.5%	-0.7%	1.6%	-8.5%	n.a.
2013	2.1%	0.1%	1.4%	2.0%	-0.5%	0.6%	-1.3%	-0.8%	-0.4%	-0.5%	3.0%	1.0%	6.8%	n.a.
2014	-3.5%	-0.4%	-1.3%	0.1%	0.4%	0.0%	0.2%	3.2%	4.2%	1.1%	7.2%	3.5%	15.1%	n.a.
2015	8.1%	-1.4%	4.2%	-4.0%	0.8%	-4.5%	2.6%	-1.8%	2.3%	-3.9%	2.0%	-0.7%	2.9%	n.a.
2016	3.2%	3.0%											6.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 Dec 97 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS LAB Managed Futures is live since 31 Jan 11, any data shown prior to the live date is simulated. The Index returns are net of a 0.50%p.a. calculation fee. Proforma date: 31 Dec 1997

## Cross Asset Volatility

# Cross Asset Volatility Alpha Index – Excess Return

<b>Asset Class</b>	Multi-Asset
<b>Risk Premia</b>	Volatility Premia

<b>Live Date</b>	28 <sup>th</sup> Feb. 2015	<b>Bloomberg Ticker</b>	CSEAXVLE Index
<b>Benchmark</b>	n.a.		

## Objective

The Index aims to capture alpha resulting from the implied-to-realized volatility risk premium across asset classes.

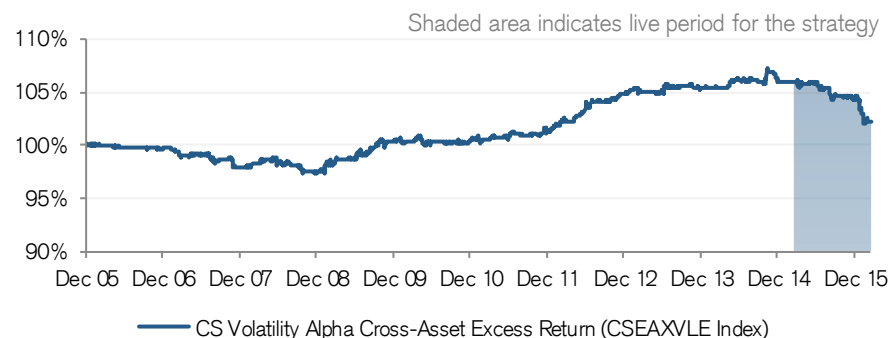
## Description

The index aims to monetize the volatility risk premium by systematically selling put options on ETF underlyings with approximately one month till expiration. These options are then delta-hedged daily based on observable market inputs.

XVOL employs a proprietary algorithm to dynamically allocate to a number of these single-name indices based on the spread between implied and realized volatility compared to their historical levels for each asset.

XVOL is built on top of ten single-name indices that implements the delta-hedged short options strategy for assets in the equities, bonds, commodities, and currency space.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
<b>Annualised Return</b>	-3.5%	-0.9%	0.3%	0.2%	-3.5%
<b>Annualised Volatility</b>	1.6%	1.3%	1.2%	1.2%	1.6%
<b>Sharpe Ratio</b>	-2.23	-0.70	0.25	0.17	-2.21
<b>Maximum Drawdown</b>	-3.9%	-4.9%	-4.9%	-4.9%	-3.9%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
<b>2011</b>	-0.4%	0.4%	0.3%	0.0%	0.1%	0.4%	-0.1%	-0.1%	0.0%	0.0%	0.1%	0.2%	<b>0.9%</b>	n.a.
<b>2012</b>	0.5%	0.4%	-0.1%	0.3%	0.4%	0.8%	0.2%	0.1%	0.0%	0.2%	0.4%	0.0%	<b>3.3%</b>	n.a.
<b>2013</b>	0.5%	-0.2%	0.0%	0.0%	0.0%	0.5%	-0.1%	-0.1%	0.2%	0.1%	-0.2%	0.0%	<b>0.6%</b>	n.a.
<b>2014</b>	0.0%	0.0%	-0.1%	0.2%	0.4%	0.0%	0.2%	0.0%	-0.2%	1.0%	-0.2%	-0.8%	<b>0.5%</b>	n.a.
<b>2015</b>	-0.1%	0.0%	-0.3%	0.3%	0.1%	-0.4%	-0.1%	-0.7%	-0.1%	0.0%	0.1%	0.0%	<b>-1.2%</b>	n.a.
<b>2016</b>	-1.7%	-0.7%											<b>-2.4%</b>	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 16 Dec 05 to 07 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha Cross-Asset Excess Return is live since 28 Feb 15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 16 Dec 2005

# CS Volatility Alpha SPY ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVESY Index
Benchmark	n.a.		

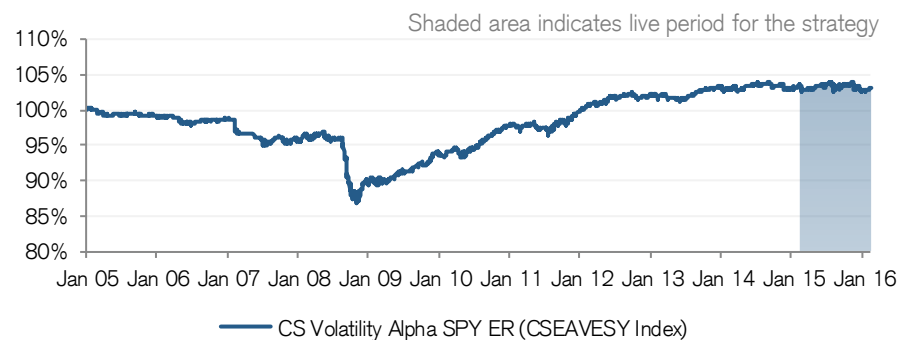
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on SPY ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the SPY ETF and hedges delta exposure on daily basis by notionally buying and selling SPY shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the SPY. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-0.2%	0.3%	1.1%	0.3%	-0.5%
Annualised Volatility	2.5%	1.8%	1.9%	2.4%	2.5%
Sharpe Ratio	-0.08	0.18	0.58	0.11	-0.19
Maximum Drawdown	-1.3%	-1.4%	-1.9%	-13.3%	-1.3%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.3%	0.0%	-0.2%	0.2%	0.4%	-0.9%	-0.2%	0.3%	0.3%	0.5%	0.5%	0.7%	1.9%	n.a.
2012	0.7%	0.5%	0.3%	-0.1%	0.5%	0.2%	0.0%	0.4%	0.2%	-0.1%	-0.4%	0.0%	2.3%	n.a.
2013	0.5%	-0.3%	0.2%	-0.4%	0.0%	0.0%	0.1%	0.1%	0.6%	0.5%	0.1%	0.0%	1.3%	n.a.
2014	-0.3%	0.3%	0.3%	-0.5%	0.6%	0.2%	-0.1%	0.2%	0.0%	-0.3%	0.1%	-0.5%	-0.1%	n.a.
2015	0.1%	0.5%	-0.8%	0.4%	0.2%	0.0%	0.4%	-0.5%	-0.3%	0.6%	0.3%	-0.5%	0.4%	n.a.
2016	-0.6%	0.3%											-0.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jan 05 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha SPY ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 20 Jan 2005

# CS Volatility Alpha IWM ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEIW Index
Benchmark	n.a.		

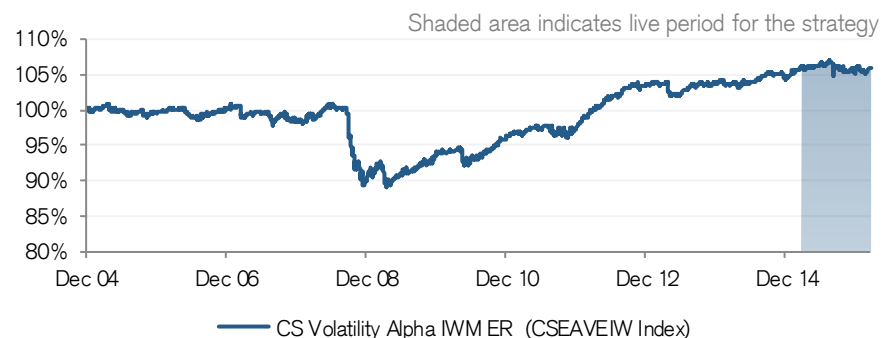
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on IWM ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the IWM ETF and hedges delta exposure on daily basis by notionally buying and selling IWM shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the IWM. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-0.2%	0.7%	1.8%	0.5%	-0.2%
Annualised Volatility	3.1%	2.3%	2.3%	2.9%	3.0%
Sharpe Ratio	-0.06	0.30	0.78	0.18	-0.06
Maximum Drawdown	-2.1%	-2.1%	-2.1%	-11.7%	-2.1%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.5%	0.0%	0.2%	0.3%	0.3%	0.1%	-0.3%	-0.9%	0.3%	-0.3%	0.2%	1.3%	1.7%	n.a.
2012	1.1%	0.7%	0.6%	0.4%	1.0%	0.1%	0.2%	1.1%	0.2%	0.7%	-0.7%	0.2%	5.7%	n.a.
2013	0.2%	-0.2%	0.3%	-1.5%	-0.1%	0.6%	0.3%	0.1%	0.6%	0.0%	-0.2%	0.2%	0.2%	n.a.
2014	-0.2%	0.1%	0.3%	-0.3%	0.2%	0.1%	0.2%	0.6%	0.3%	-0.2%	0.0%	-0.4%	0.8%	n.a.
2015	0.5%	0.8%	-0.4%	0.5%	0.1%	-0.2%	0.8%	-0.9%	-0.1%	-0.5%	0.4%	0.4%	1.5%	n.a.
2016	-0.9%	0.7%											-0.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 16 Dec 04 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha IWM ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 16 Dec 2004



# CS Volatility Alpha EFA ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEEF Index
Benchmark	n.a.		

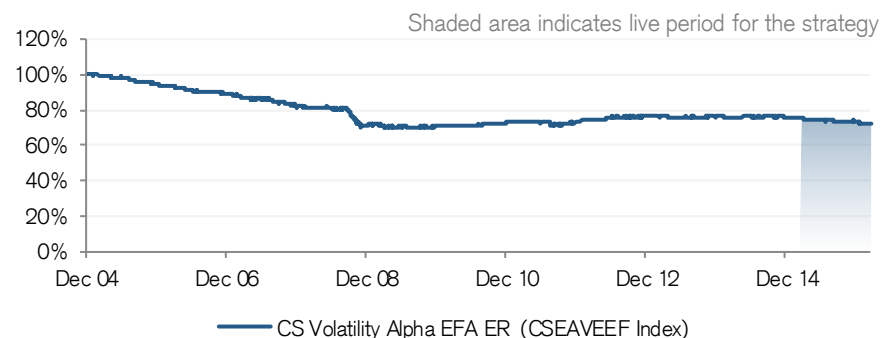
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on EFA ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the EFA ETF and hedges delta exposure on daily basis by notionally buying and selling EFA shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the EFA. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-4.8%	-2.0%	-0.4%	-2.9%	-4.8%
Annualised Volatility	2.2%	1.8%	2.2%	2.8%	2.2%
Sharpe Ratio	-2.19	-1.12	-0.17	-1.02	-2.20
Maximum Drawdown	-5.0%	-6.1%	-6.4%	-30.3%	-5.0%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.2%	0.0%	-0.1%	0.0%	0.5%	-0.5%	-0.2%	-1.6%	-0.5%	0.6%	0.5%	1.5%	0.4%	n.a.
2012	0.9%	0.6%	0.2%	0.1%	0.8%	0.5%	0.1%	0.2%	-0.1%	0.1%	0.0%	0.2%	3.8%	n.a.
2013	0.4%	-0.4%	0.3%	-0.7%	-0.5%	0.3%	0.4%	-0.1%	-0.3%	0.5%	0.3%	-0.2%	-0.1%	n.a.
2014	-0.2%	0.0%	-0.5%	0.4%	0.4%	-0.4%	-0.1%	0.3%	0.2%	-0.5%	0.4%	-0.8%	-0.8%	n.a.
2015	-0.2%	0.1%	-1.3%	0.1%	-0.3%	-0.7%	0.4%	-0.6%	-0.9%	0.6%	0.4%	-1.1%	-3.6%	n.a.
2016	-1.2%	0.1%											-1.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 16 Dec 04 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha EFA ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 16 Dec 2004

# CS Volatility Alpha EEM ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEEE Index
Benchmark	n.a.		

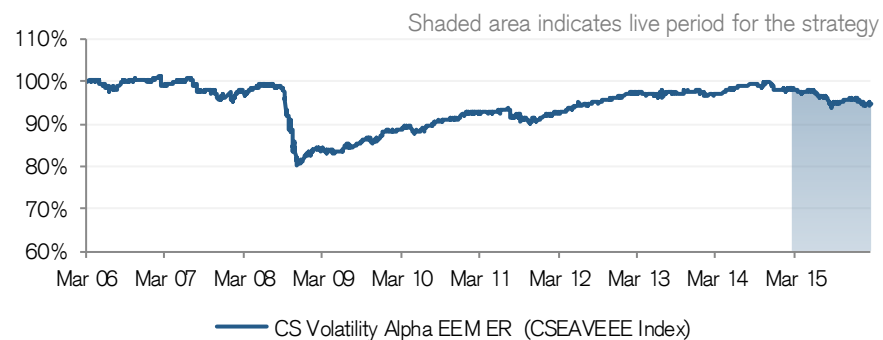
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on EEM ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the EEM ETF and hedges delta exposure on daily basis by notionally buying and selling EEM shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the EEM. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-3.7%	-1.0%	0.4%	-0.5%	-3.7%
Annualised Volatility	2.7%	2.4%	2.6%	4.2%	2.7%
Sharpe Ratio	-1.38	-0.43	0.14	-0.13	-1.38
Maximum Drawdown	-4.4%	-6.0%	-6.0%	-20.7%	-4.4%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.4%	0.5%	-0.3%	0.1%	0.2%	0.4%	-0.2%	-1.3%	-1.0%	-0.4%	0.2%	1.0%	-0.6%	n.a.
2012	0.7%	0.5%	0.0%	0.8%	0.6%	0.2%	0.4%	0.6%	0.0%	0.7%	0.3%	0.2%	5.2%	n.a.
2013	0.5%	0.4%	0.1%	-0.5%	0.1%	0.3%	0.1%	0.0%	-0.3%	0.7%	0.0%	0.3%	1.6%	n.a.
2014	-1.1%	0.1%	0.2%	0.7%	0.3%	0.9%	-0.3%	0.8%	-0.5%	0.5%	-0.1%	-1.5%	0.1%	n.a.
2015	-0.1%	0.4%	-0.5%	-0.3%	0.3%	-0.9%	-0.4%	-2.1%	0.3%	1.0%	0.1%	0.4%	-1.8%	n.a.
2016	-1.5%	0.3%											-1.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 16 Mar 06 to 07 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha EEM ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 16 Mar 2006

# CS Volatility Alpha EWZ ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEEW Index
Benchmark	n.a.		

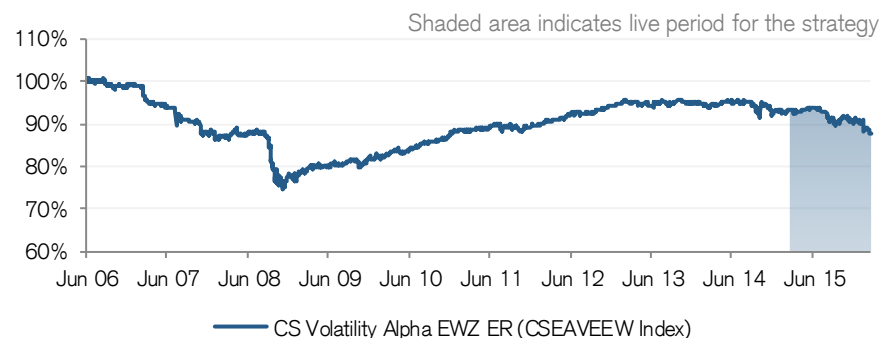
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on EWZ ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the EWZ ETF and hedges delta exposure on daily basis by notionally buying and selling EWZ shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the EWZ. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-6.1%	-2.6%	-0.2%	-1.3%	-6.1%
Annualised Volatility	3.9%	3.8%	3.5%	4.9%	3.8%
Sharpe Ratio	-1.59	-0.68	-0.05	-0.27	-1.58
Maximum Drawdown	-6.8%	-8.4%	-8.4%	-26.0%	-6.8%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.9%	-0.2%	0.4%	0.2%	0.0%	0.9%	-0.1%	-0.1%	-0.6%	-0.7%	0.9%	0.6%	2.1%	n.a.
2012	0.5%	0.7%	0.0%	0.7%	0.6%	0.1%	0.2%	0.7%	0.0%	0.8%	0.6%	0.0%	4.9%	n.a.
2013	0.8%	0.5%	0.0%	-0.8%	-0.2%	0.7%	0.2%	-0.6%	0.3%	0.7%	-0.3%	-0.1%	1.1%	n.a.
2014	-0.6%	-0.5%	0.4%	0.7%	0.1%	-0.2%	-0.2%	0.5%	-1.2%	0.6%	-0.6%	-1.0%	-1.9%	n.a.
2015	-0.7%	1.0%	-0.3%	-0.3%	0.8%	0.0%	-0.8%	-1.7%	-1.4%	2.1%	-0.9%	0.1%	-2.4%	n.a.
2016	-1.2%	-1.2%											-2.4%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 15 Jun 06 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha EWZ ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 15 Jun 2006

# CS Volatility Alpha GLD ER

Asset Class	Equity/ Commodities
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEGL Index
Benchmark	n.a.		

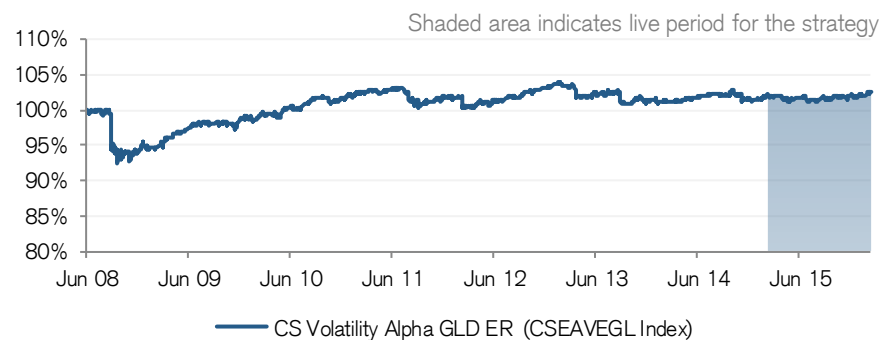
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on GLD ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the GLD ETF and hedges delta exposure on daily basis by notionally buying and selling GLD shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the GLD. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	0.6%	-0.3%	0.0%	0.3%	0.2%
Annualised Volatility	1.4%	1.8%	2.0%	3.0%	1.5%
Sharpe Ratio	0.44	-0.15	0.00	0.11	0.17
Maximum Drawdown	-0.9%	-2.7%	-3.1%	-7.7%	-1.2%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.3%	0.6%	0.2%	-0.2%	0.2%	0.4%	-0.1%	-1.6%	-0.8%	0.6%	0.2%	0.3%	0.2%	n.a.
2012	-0.1%	-1.3%	0.3%	0.5%	0.1%	0.0%	0.2%	0.4%	0.1%	0.7%	0.2%	0.3%	1.4%	n.a.
2013	0.4%	-0.3%	0.2%	-1.7%	0.2%	0.0%	0.0%	0.5%	-1.4%	0.0%	0.8%	-0.7%	-2.0%	n.a.
2014	-0.1%	0.3%	-0.2%	0.2%	0.1%	0.2%	0.3%	0.3%	-0.3%	0.2%	-0.6%	-0.3%	0.2%	n.a.
2015	0.0%	0.8%	-0.1%	-0.7%	0.2%	0.0%	-0.2%	0.0%	0.3%	0.3%	0.0%	0.1%	0.7%	n.a.
2016	0.0%	0.3%											0.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 19 Jun 08 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha GLD ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 19 Jun 2008

# CS Volatility Alpha USO ER

**Asset Class** Equity/ Commodities

**Risk Premia** Volatility Premia

**Live Date** 28<sup>th</sup> Feb 2015

**Bloomberg Ticker** CSEAVEUS Index

**Benchmark** n.a.

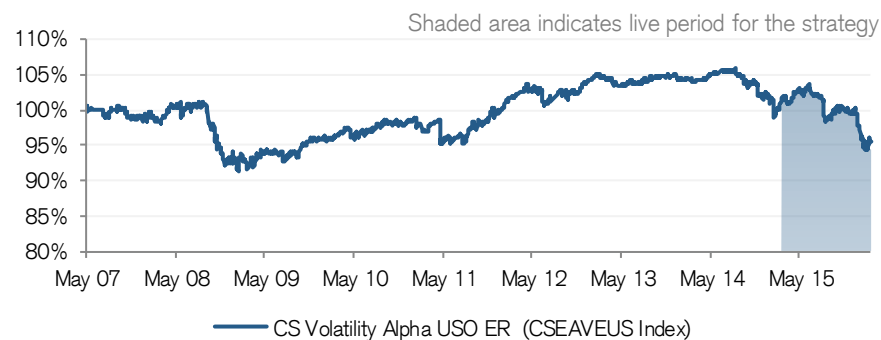
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on USO ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the USO ETF and hedges delta exposure on daily basis by notionally buying and selling USO shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the USO. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
<b>Annualised Return</b>	-6.0%	-3.0%	-0.3%	-0.5%	-4.9%
<b>Annualised Volatility</b>	4.8%	3.6%	3.7%	3.9%	4.7%
<b>Sharpe Ratio</b>	-1.27	-0.83	-0.08	-0.13	-1.03
<b>Maximum Drawdown</b>	-9.1%	-10.9%	-10.9%	-10.9%	-9.1%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
<b>2011</b>	-0.9%	-0.1%	0.7%	0.6%	-2.6%	-0.1%	0.5%	0.7%	0.3%	1.0%	1.1%	0.6%	<b>1.8%</b>	n.a.
<b>2012</b>	1.0%	0.9%	0.6%	1.1%	-0.6%	-1.8%	0.5%	0.7%	0.1%	0.2%	0.2%	1.0%	<b>3.9%</b>	n.a.
<b>2013</b>	0.9%	-0.2%	-0.2%	-0.7%	-0.2%	0.8%	-0.4%	0.2%	0.5%	0.3%	0.0%	0.1%	<b>1.1%</b>	n.a.
<b>2014</b>	-0.7%	0.1%	-0.1%	0.1%	0.7%	0.4%	-0.2%	0.5%	-1.6%	-0.1%	-1.7%	0.4%	<b>-2.3%</b>	n.a.
<b>2015</b>	-2.3%	0.3%	0.6%	1.1%	0.1%	0.9%	-1.3%	-3.1%	0.7%	0.7%	0.0%	-0.1%	<b>-2.4%</b>	n.a.
<b>2016</b>	-3.9%	-1.1%											<b>-4.9%</b>	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 17 May 07 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha USO ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 17 May 2007

# CS Volatility Alpha TLT ER

**Asset Class** Equity/ Commodities

**Risk Premia** Volatility Premia

**Live Date** 28<sup>th</sup> Feb 2015

**Bloomberg Ticker** CSEAVETL Index

**Benchmark** n.a.

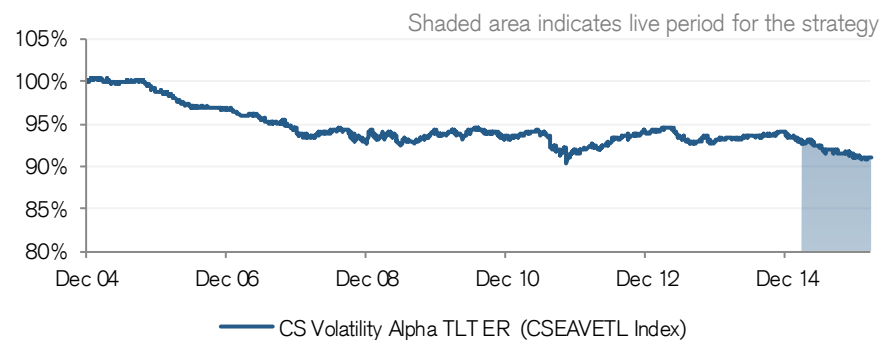
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on TLT ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the TLT ETF and hedges delta exposure on daily basis by notionally buying and selling TLT shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the TLT. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
<b>Annualised Return</b>	-2.0%	-1.1%	-0.6%	-0.8%	-2.1%
<b>Annualised Volatility</b>	1.4%	1.4%	1.6%	1.6%	1.5%
<b>Sharpe Ratio</b>	-1.37	-0.81	-0.36	-0.50	-1.44
<b>Maximum Drawdown</b>	-2.6%	-4.1%	-4.1%	-10.0%	-2.6%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
<b>2011</b>	0.4%	0.2%	0.4%	0.0%	0.2%	-0.4%	-0.4%	-1.1%	-0.9%	-0.6%	0.7%	-0.1%	<b>-1.7%</b>	n.a.
<b>2012</b>	0.6%	0.3%	0.0%	-0.1%	0.2%	0.8%	0.0%	0.3%	0.0%	0.2%	0.3%	-0.2%	<b>2.5%</b>	n.a.
<b>2013</b>	0.2%	0.1%	0.4%	0.1%	-1.1%	-0.3%	-0.4%	-0.3%	0.3%	0.7%	-0.8%	0.2%	<b>-0.8%</b>	n.a.
<b>2014</b>	0.1%	0.3%	-0.2%	0.2%	0.2%	0.1%	-0.2%	0.2%	0.0%	0.3%	0.2%	-0.5%	<b>0.7%</b>	n.a.
<b>2015</b>	-0.4%	-0.2%	-0.3%	0.1%	-0.4%	-0.7%	0.2%	-0.3%	-0.3%	0.1%	0.0%	-0.5%	<b>-2.8%</b>	n.a.
<b>2016</b>	0.0%	0.0%											<b>0.0%</b>	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 16 Dec 04 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha TLT ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 16 Dec 2004

# CS Volatility Alpha FXE ER

Asset Class	Equity
Risk Premia	Volatility Premia

Live Date	28 <sup>th</sup> Feb 2015	Bloomberg Ticker	CSEAVEFE Index
Benchmark	n.a.		

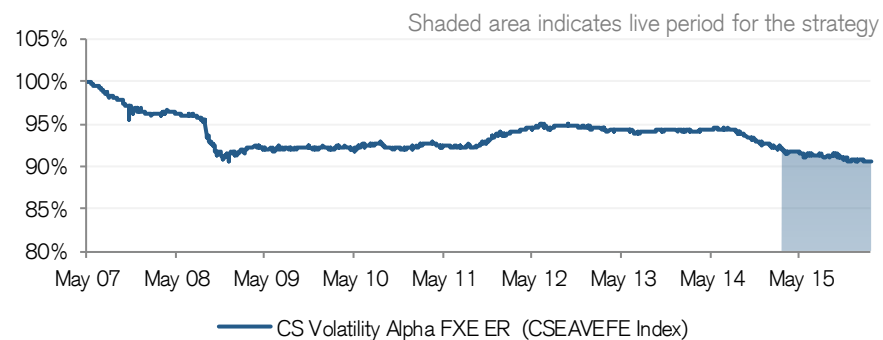
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on FXE ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the FXE ETF and hedges delta exposure on daily basis by notionally buying and selling FXE shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the FXE. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-1.6%	-1.4%	-0.4%	-1.1%	-1.7%
Annualised Volatility	1.2%	1.0%	1.0%	1.5%	1.2%
Sharpe Ratio	-1.35	-1.43	-0.46	-0.72	-1.41
Maximum Drawdown	-1.7%	-4.3%	-4.8%	-9.5%	-1.8%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.1%	0.3%	0.2%	-0.3%	-0.1%	-0.1%	0.0%	0.4%	-0.2%	0.2%	0.5%	0.6%	1.7%	n.a.
2012	0.0%	0.3%	0.3%	0.3%	0.0%	0.4%	-0.4%	0.3%	0.0%	0.2%	-0.2%	0.0%	1.0%	n.a.
2013	-0.1%	-0.1%	-0.3%	0.1%	0.0%	0.0%	-0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	-0.5%	n.a.
2014	-0.1%	0.1%	0.0%	0.2%	0.1%	-0.1%	0.0%	-0.1%	-0.5%	-0.6%	-0.4%	-0.3%	-1.6%	n.a.
2015	-0.4%	-0.2%	-0.6%	0.1%	-0.2%	-0.2%	-0.1%	-0.4%	0.4%	-0.1%	-0.2%	-0.2%	-2.1%	n.a.
2016	0.0%	-0.3%											-0.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 17 May 07 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha FXE ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 17 May 2007

# CS Volatility Alpha FXY ER

## Asset Class

Equity

## Risk Premia

Volatility Premia

## Live Date

28<sup>th</sup> Feb 2015

## Bloomberg Ticker

CSEAEFY Index

## Benchmark

n.a.

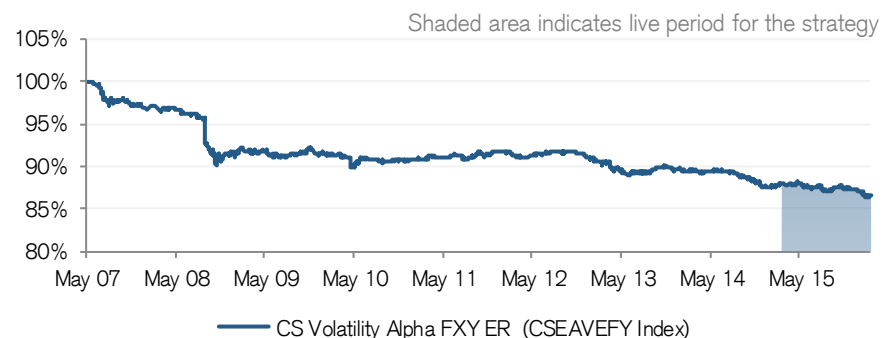
## Objective

The Index seeks to harvest volatility premium that may exist in the price of exchange-traded options on FXY ETF.

## Description

The strategy notionally sells on a monthly basis 1M options on the FXY ETF and hedges delta exposure on daily basis by notionally buying and selling FXY shares according to a Black-Scholes-style formula, in an attempt to minimize the sensitivity of the option price to the movements in the price of the FXY. The goal is to monetize the volatility premium and to benefit when the volatility realized after the sale and prior to the expiration of the options turns out to be less than the volatility implied by the price at which the options were sold.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-1.5%	-1.5%	-1.0%	-1.6%	-1.4%
Annualised Volatility	1.4%	1.3%	1.2%	1.8%	1.4%
Sharpe Ratio	-1.05	-1.17	-0.82	-0.91	-0.99
Maximum Drawdown	-2.0%	-4.6%	-6.0%	-13.7%	-2.0%

## (Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.2%	0.0%	0.5%	-0.2%	0.1%	0.2%	-0.1%	-0.2%	0.3%	-0.2%	0.4%	0.3%	1.1%	n.a.
2012	-0.1%	-0.3%	-0.2%	0.0%	0.3%	0.1%	0.1%	0.2%	-0.2%	0.1%	-0.2%	-0.4%	-0.7%	n.a.
2013	-0.4%	-0.4%	0.1%	-0.8%	-0.6%	0.0%	0.2%	-0.1%	0.4%	0.4%	0.0%	-0.2%	-1.6%	n.a.
2014	-0.2%	0.1%	-0.2%	0.0%	0.2%	-0.1%	-0.2%	0.0%	-0.5%	-0.5%	-0.2%	-0.7%	-2.4%	n.a.
2015	0.0%	0.3%	-0.1%	0.1%	-0.1%	-0.4%	0.1%	-0.5%	0.0%	0.5%	-0.2%	-0.1%	-0.3%	n.a.
2016	-0.5%	-0.6%											-1.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 17 May 07 to 07 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Volatility Alpha FXY ER is live since 28 Feb '15, any data shown prior to the live date is simulated. The Index returns are gross of fees. Proforma date: 17 May 2007



**Rates Liquidity / Term / Insurance**

# CS Adaptive Term Premium Basket Index 2% Vol Control USD ER

Asset Class	Rates
Risk Premia	Liquidity / Term / Insurance

Live Date	01 <sup>st</sup> January 2011	Bloomberg Ticker	CATPUSEA Index
Benchmark	n.a.		

## Objective

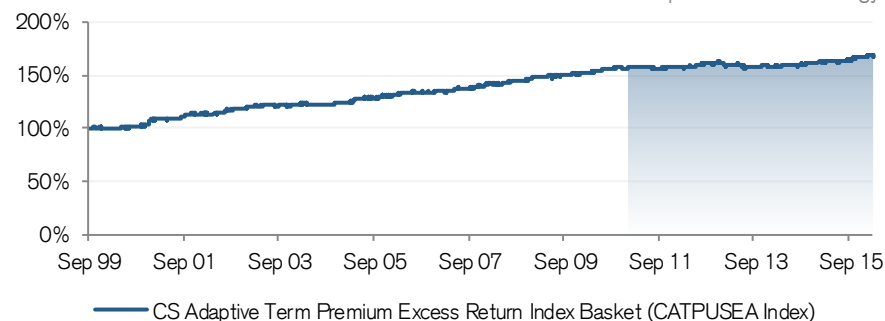
The strategy seeks to exploit the bias between forward and realized short-term rates.

## Description

The Credit Suisse Adaptive Term Premium Index (ATPI) uses a multi signal model to capture forward rate bias by taking long positions in USD and EUR money market futures (3m Eurodollar and Euribor futures) while aiming to identify periods in which to protect the strategy from potential losses by taking tactical short positions.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	3.7%	1.8%	1.3%	3.2%	1.5%
Annualised Volatility	2.1%	2.3%	2.2%	2.2%	2.2%
Sharpe Ratio	1.75	0.78	0.61	1.49	0.69
Maximum Drawdown	-1.6%	-3.3%	-4.3%	-4.3%	-4.3%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	1.6%	-0.1%	-0.2%	0.3%	-0.1%	0.0%	-0.4%	-0.5%	0.2%	-0.1%	0.5%	0.6%	1.7%	n.a.
2012	-0.4%	0.0%	0.0%	0.7%	-0.3%	0.4%	1.1%	0.2%	0.2%	-0.3%	0.3%	-0.1%	1.9%	n.a.
2013	-1.6%	0.6%	-0.2%	0.8%	-1.0%	-1.0%	0.1%	0.0%	0.4%	0.4%	0.4%	-0.5%	-1.7%	n.a.
2014	0.0%	-0.1%	-0.2%	0.6%	0.6%	-0.1%	-0.7%	0.9%	0.4%	0.5%	0.2%	-0.1%	1.8%	n.a.
2015	0.7%	0.1%	0.3%	0.0%	0.1%	-0.1%	0.3%	0.4%	0.9%	0.6%	0.3%	-0.5%	3.0%	n.a.
2016	1.3%	0.1%											1.4%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 01 Sep 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Term Premium Excess Return Index Basket is live since 01 Jan 11, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 01 Sep 1999

# CS Adaptive Term Premium Index USD ER

## Asset Class

Rates

## Risk Premia

Liquidity / Term / Insurance

## Live Date

01<sup>st</sup> January 2011

## Bloomberg Ticker

CATPUSEU Index

## Benchmark

n.a.

## Objective

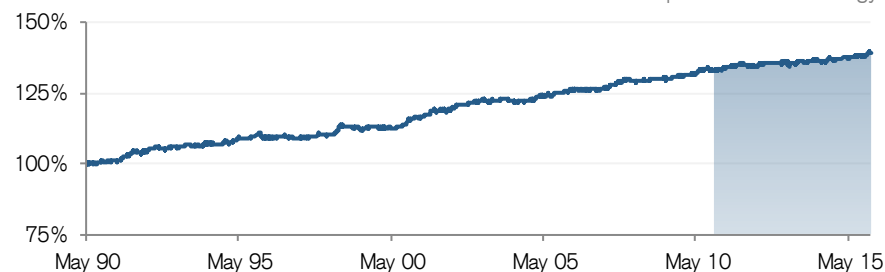
The strategy seeks to exploit the bias between forward and realized short-term rates.

## Description

The Credit Suisse Adaptive Term Premium Index (ATPI) uses a multi signal model to capture forward rate bias by taking long positions in USD money market futures (3m USD Libor futures) while aiming to identify periods in which to protect the strategy from potential losses by taking tactical short positions.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— CS Adaptive Term Premium Index USD ER (CATPUSEU Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.5%	0.8%	0.8%	1.3%	0.9%
Annualised Volatility	1.1%	1.2%	1.1%	1.1%	1.1%
Sharpe Ratio	1.44	0.66	0.74	1.16	0.76
Maximum Drawdown	-0.7%	-1.3%	-1.3%	-1.9%	-1.3%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.2%	0.0%	0.0%	0.4%	0.1%	0.1%	0.1%	0.3%	0.2%	0.0%	0.3%	0.2%	1.8%	n.a.
2012	-0.5%	-0.1%	0.0%	0.1%	-0.3%	0.2%	0.5%	0.0%	0.1%	-0.1%	0.1%	-0.1%	0.1%	n.a.
2013	-0.1%	0.2%	-0.2%	0.6%	-0.5%	-0.3%	0.1%	0.0%	0.4%	0.2%	0.2%	-0.4%	0.3%	n.a.
2014	0.3%	0.1%	-0.1%	0.3%	0.1%	-0.2%	-0.5%	0.3%	-0.1%	0.6%	0.1%	-0.3%	0.6%	n.a.
2015	0.4%	-0.2%	0.3%	0.1%	0.1%	0.1%	0.1%	0.3%	0.2%	-0.1%	-0.2%	-0.3%	0.8%	n.a.
2016	1.0%	0.0%											1.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 May 90 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Term Premium Index USD ER is live since 01 Jan 11, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 31 May 1990

# CS Adaptive Term Premium Index EUR ER

Asset Class	Rates
Risk Premia	Liquidity / Term / Insurance

Live Date	01 <sup>st</sup> January 2011	Bloomberg Ticker	CATPEUEE Index
Benchmark	n.a.		

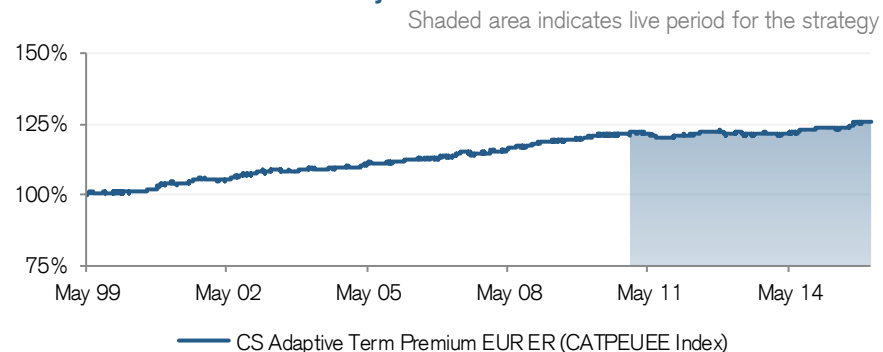
## Objective

The strategy seeks to exploit the bias between forward and realized short-term rates.

## Description

The Credit Suisse Adaptive Term Premium Index (ATPI) uses a multi signal model to capture forward rate bias by taking long positions in EUR money market futures (3m Euribor futures) while aiming to identify periods in which to protect the strategy from potential losses by taking tactical short positions.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	2.0%	1.2%	0.7%	1.4%	0.7%
Annualised Volatility	1.2%	1.1%	1.1%	1.1%	1.1%
Sharpe Ratio	1.57	1.04	0.59	1.27	0.65
Maximum Drawdown	-0.9%	-1.3%	-2.0%	-2.1%	-2.1%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.9%	-0.1%	-0.2%	-0.1%	-0.3%	-0.1%	-0.4%	-0.6%	0.0%	0.0%	0.1%	0.2%	-0.6%	n.a.
2012	0.2%	0.1%	0.0%	0.4%	0.1%	0.1%	0.5%	0.1%	0.0%	-0.1%	0.1%	0.1%	1.6%	n.a.
2013	-1.1%	0.5%	-0.1%	0.3%	-0.1%	-0.6%	0.1%	0.0%	0.2%	0.2%	0.2%	-0.1%	-0.6%	n.a.
2014	-0.3%	-0.2%	0.0%	0.2%	0.3%	0.1%	-0.1%	0.5%	0.5%	-0.1%	0.1%	0.2%	1.2%	n.a.
2015	0.2%	0.2%	0.0%	-0.1%	-0.1%	-0.1%	0.2%	0.1%	0.6%	0.7%	0.5%	-0.3%	1.8%	n.a.
2016	0.4%	0.1%											0.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 28 May 99 to 08 Mar '16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Term Premium EUR ER is live since 01 Jan 11, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 28 May 1999

## Rates Trend / Momentum

# CS Tail Risk Overlay Protection Strategy ER

## Asset Class

Rates

## Risk Premia

Trend / Momentum

## Live Date

31<sup>st</sup> January 2011

## Bloomberg Ticker

CSTSERUS Index

## Benchmark

n.a.

## Objective

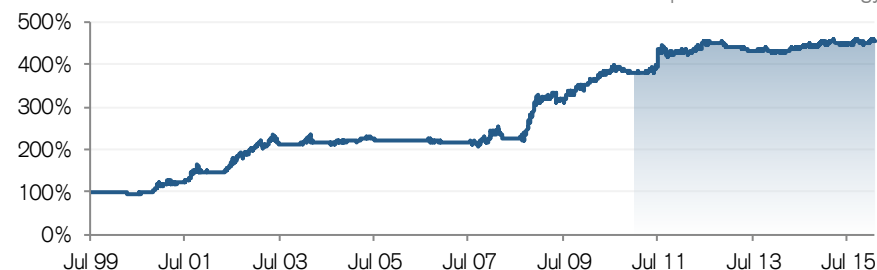
The strategy seeks to capture market tail-events by strategically allocating to long rates instruments.

## Description

The Credit Suisse Tail Risk Overlay Protection Strategy (CS TOPS) trades US and euro zone bond futures with tenors ranging from 3 months to 10 years when the model detects upward momentum in these futures. The strategy focuses on upward momentum in interest rate futures prices because the goal is to mitigate one-sided tail risk.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— CS Tail Risk Strategy USD (CSTSERUS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.8%	1.2%	3.7%	9.6%	3.6%
Annualised Volatility	4.7%	3.9%	5.4%	8.9%	5.4%
Sharpe Ratio	0.38	0.30	0.68	1.08	0.67
Maximum Drawdown	-3.1%	-3.9%	-6.3%	-13.1%	-6.3%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-0.7%	0.3%	-0.7%	0.6%	1.2%	-1.2%	5.4%	6.0%	1.4%	-1.7%	0.1%	1.2%	12.3%	n.a.
2012	0.9%	-0.1%	-1.2%	1.5%	1.9%	-1.4%	4.1%	-0.3%	-0.3%	-0.6%	0.1%	-0.2%	4.4%	n.a.
2013	-2.0%	0.0%	0.0%	0.5%	-1.8%	-0.4%	0.0%	0.0%	0.1%	0.6%	0.4%	-1.8%	-4.3%	n.a.
2014	0.5%	-0.2%	-0.6%	0.6%	1.5%	0.1%	-0.3%	1.6%	0.1%	-0.6%	0.9%	-0.2%	3.5%	n.a.
2015	2.1%	-0.5%	0.3%	-0.4%	-0.2%	-0.6%	0.2%	0.0%	1.0%	0.1%	0.2%	-1.4%	0.9%	n.a.
2016	1.6%	0.9%											2.5%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 30 Jul 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Tail Risk Strategy USD is live since 31 Jan 11, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 30 Jul 1999

# CS Global Enhanced Momentum Strategy Excess Return USD

## Asset Class

Rates

## Risk Premia

Trend / Momentum

## Live Date

01<sup>st</sup> January 2012

## Bloomberg Ticker

CSGMERUS Index

## Benchmark

n.a.

## Objective

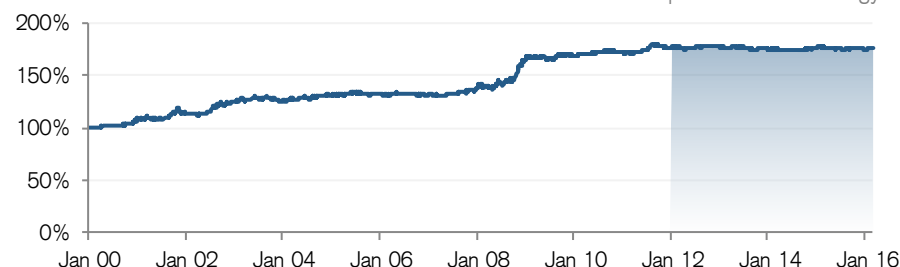
The strategy seeks to capture the trending behaviour observed in the interest rate instruments.

## Description

The Global Enhanced Momentum Strategy (GEMS) uses a systematic trend-following mechanism to allocate daily long/short positions in interest rate swaps across different currencies.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse Global Enhanced Momentum Strategy Excess Return USD (CSGMERUS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-0.2%	0.0%	0.5%	3.6%	-0.1%
Annualised Volatility	1.6%	1.6%	1.7%	3.1%	1.6%
Sharpe Ratio	-0.10	-0.01	0.30	1.16	-0.03
Maximum Drawdown	-1.5%	-2.9%	-3.8%	-5.2%	-2.9%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-0.2%	0.0%	-0.3%	0.4%	0.8%	0.4%	1.3%	1.5%	0.0%	-0.6%	-0.5%	0.0%	2.8%	n.a.
2012	0.7%	-0.3%	-0.7%	-0.5%	0.4%	0.0%	1.1%	0.0%	0.0%	-0.1%	0.2%	0.0%	0.7%	n.a.
2013	-0.2%	-0.5%	0.0%	0.5%	-0.6%	0.7%	-0.9%	-0.7%	0.0%	0.6%	0.2%	-0.4%	-1.2%	n.a.
2014	-0.3%	-0.1%	-0.3%	-0.4%	0.2%	-0.2%	0.0%	0.3%	0.1%	0.2%	0.4%	0.3%	0.4%	n.a.
2015	1.0%	-0.6%	-0.2%	-0.3%	-0.1%	-0.2%	-0.4%	0.3%	0.3%	0.2%	-0.2%	-0.7%	-0.8%	n.a.
2016	0.3%	0.8%											1.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 04 Jan 00 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Global Enhanced Momentum Strategy Excess Return USD is live since 01 Jan 12, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 04 Jan 2000

## Rates Carry



# CS Adaptive Term Premium Volatility Target 10% USD

Asset Class	Rates
Risk Premia	Carry

Live Date	01 <sup>st</sup> April 2014	Bloomberg Ticker	CATPUXUS Index
Benchmark	n.a.		

## Objective

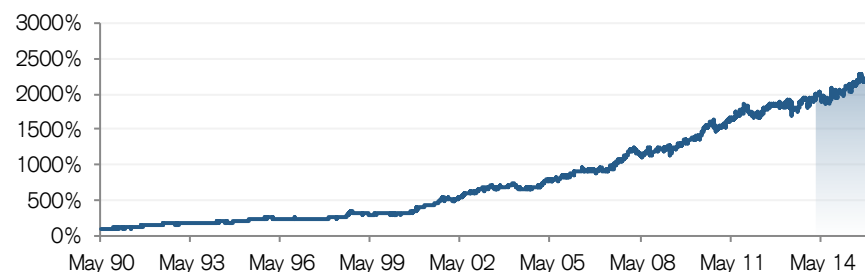
CS Adaptive Term Premia Index systematically exploits the persistent positive bias between implied forward rates and realized rates at the front end of the LIBOR yield curves

## Description

The strategy identifies situations to go long or short interest rate futures conditioned on the momentum of changes in rates, the slope of the yield curve, and volatility in the rates market. It features a risk targeting mechanism with a volatility target of 10.0%

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— CS Adaptive Term Premium Volatility Target 10% USD (CATPUXUS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	16.0%	7.7%	8.2%	12.9%	9.4%
Annualised Volatility	10.7%	12.2%	11.3%	11.1%	11.4%
Sharpe Ratio	1.49	0.63	0.73	1.17	0.83
Maximum Drawdown	-6.6%	-12.2%	-12.2%	-17.8%	-7.8%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	2.1%	0.3%	0.4%	3.7%	1.5%	0.6%	1.2%	2.5%	1.6%	-0.3%	2.6%	2.1%	19.8%	n.a.
2012	-4.6%	-0.6%	0.1%	0.8%	-2.8%	2.5%	5.2%	0.5%	1.5%	-1.1%	0.7%	-0.9%	0.8%	n.a.
2013	-0.6%	2.3%	-1.9%	5.9%	-5.2%	-2.6%	1.4%	-0.2%	4.1%	1.9%	1.7%	-3.7%	2.5%	n.a.
2014	2.8%	1.1%	-1.3%	3.3%	1.4%	-1.9%	-5.2%	2.6%	-1.3%	6.0%	1.3%	-3.1%	5.2%	n.a.
2015	4.2%	-1.8%	2.9%	0.6%	1.3%	0.6%	0.7%	2.5%	1.8%	-1.0%	-1.6%	-2.6%	7.9%	n.a.
2016	10.1%	-0.2%											9.9%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 31 May 90 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Adaptive Term Premium Volatility Target 10%USD is live since 01 Apr 14, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 31 May 1990

## Rates Volatility

# Credit Suisse Adaptive Volatility USD 1x

## Asset Class

Rates

## Risk Premia

Volatility

## Live Date

1<sup>st</sup> March 2009

## Bloomberg Ticker

CSVIAB20 Index

## Benchmark

n.a.

### Objective

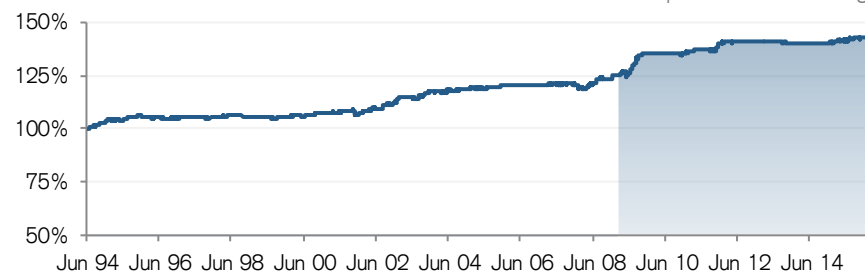
The Credit Suisse Adaptive Volatility Index is designed to maximize risk-adjusted returns through diversification across rates markets

### Description

The Credit Suisse Adaptive Volatility USD Index is designed to maximize risk-adjusted returns through diversification across USD rates markets that have had a persistent bias between implied and realized volatility over the last 15 years. It is a rule-based, fully transparent strategy with fixed bid-offers, trading only highly liquid instruments. The strategy is unlevered.

### Historical Performance Analysis

Shaded area indicates live period for the strategy



— Adaptive Volatility USD 1x (CSVIAB20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.1%	0.3%	0.9%	1.6%	1.8%
Annualised Volatility	0.8%	0.7%	0.8%	1.3%	1.2%
Sharpe Ratio	1.34	0.44	1.14	1.27	1.49
Maximum Drawdown	-0.5%	-0.7%	-1.1%	-2.4%	-2.4%

### (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.5%	0.1%	0.3%	0.3%	0.1%	-0.1%	0.2%	0.0%	-0.2%	-0.2%	1.2%	1.3%	3.6%	n.a.
2012	0.2%	0.4%	-0.1%	-0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.9%	n.a.
2013	-0.1%	0.0%	0.1%	0.0%	0.0%	-0.2%	0.0%	0.0%	-0.4%	0.1%	0.0%	0.0%	-0.6%	n.a.
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
2015	0.0%	0.2%	0.3%	0.1%	0.1%	-0.1%	0.6%	-0.2%	0.3%	0.0%	0.1%	0.1%	1.6%	n.a.
2016	0.1%	-0.3%											-0.3%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jun 94 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Adaptive Volatility USD 1x is live since 01 Mar 09, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jun 1994

# Credit Suisse Adaptive Volatility EUR 1x

Asset Class	Rates
Risk Premia	Volatility

Live Date	1 <sup>st</sup> September 2012	Bloomberg Ticker	CSVIUC20 Index
Benchmark	n.a.		

## Objective

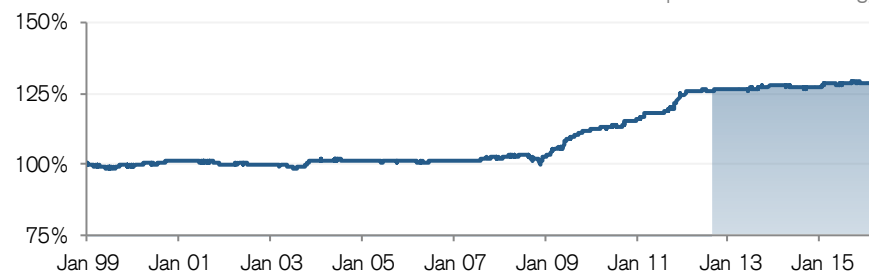
The Credit Suisse Adaptive Volatility Index is designed to maximize risk-adjusted returns through diversification across rates markets

## Description

The Credit Suisse Adaptive Volatility EUR Index is designed to maximize risk-adjusted returns through diversification across EUR rates markets that have had a persistent bias between implied and realized volatility over the last 15 years. It is a rule-based, fully transparent strategy with fixed bid-offers, trading only highly liquid instruments. The strategy is unlevered.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Adaptive Volatility EUR 1x (CSVIUC20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	0.3%	0.6%	2.0%	1.5%	0.7%
Annualised Volatility	0.8%	0.7%	1.0%	1.0%	0.7%
Sharpe Ratio	0.33	0.85	2.05	1.45	1.01
Maximum Drawdown	-0.6%	-0.7%	-0.7%	-3.4%	-0.7%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.4%	0.8%	0.9%	0.3%	0.0%	0.2%	-0.3%	0.6%	0.6%	0.5%	1.3%	1.7%	7.2%	n.a.
2012	0.7%	0.8%	0.4%	0.1%	-0.2%	0.3%	-0.1%	-0.1%	0.0%	0.5%	0.0%	0.0%	2.5%	n.a.
2013	0.0%	-0.1%	0.1%	-0.1%	-0.1%	-0.3%	0.5%	-0.1%	0.2%	0.4%	0.0%	0.2%	0.8%	n.a.
2014	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	0.0%	-0.2%	-0.2%	0.3%	0.1%	0.0%	-0.2%	n.a.
2015	0.1%	0.7%	0.1%	0.0%	0.2%	-0.4%	0.5%	-0.1%	0.1%	0.0%	0.1%	-0.2%	1.2%	n.a.
2016	-0.1%	0.1%											0.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jan 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Adaptive Volatility EUR 1x is live since 01 Sep 12, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jan 1999

# CS Swaption Vol Index USD Excess Return Roll on 20th

Asset Class	Rates
Risk Premia	Volatility

Live Date	01 <sup>st</sup> March 2009	Bloomberg Ticker	CSVIUB20 Index
Benchmark	n.a.		

## Objective

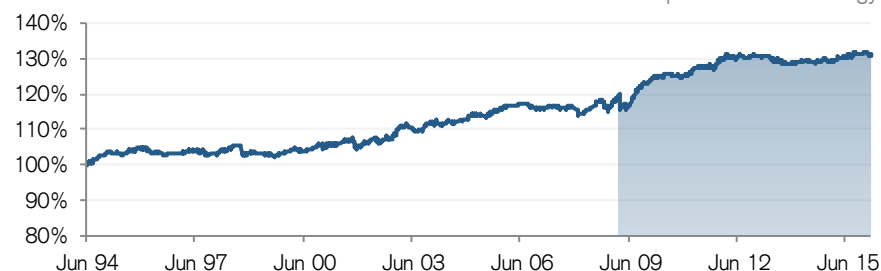
The strategy seeks to harvest the volatility premium that may exist in the USD rates market.

## Description

The Credit Suisse Swaption Volatility Index ("CSVI") aims to monetize the spread between implied and realized volatility in the USD interest rate market via the sale of one-month-into-ten-year swaption straddles and delta-hedging the position on a daily basis until expiry. This strategy is the simple USD version 1x leverage.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— CS Swaption Vol Index Excess Return Roll on 20th (CSVIUB20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.3%	0.1%	0.8%	1.3%	1.4%
Annualised Volatility	1.3%	1.3%	1.3%	1.8%	2.0%
Sharpe Ratio	0.99	0.11	0.60	0.70	0.71
Maximum Drawdown	-0.9%	-2.1%	-2.2%	-3.8%	-3.8%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.5%	0.2%	0.6%	0.7%	0.4%	-0.3%	0.4%	-0.1%	-0.1%	-0.2%	0.8%	0.6%	3.6%	n.a.
2012	0.4%	0.8%	-0.2%	-0.4%	-0.1%	0.6%	-0.1%	-0.3%	-0.2%	0.3%	0.2%	0.2%	1.2%	n.a.
2013	-0.3%	-0.1%	0.2%	0.2%	-0.8%	-0.4%	0.1%	0.0%	-0.8%	0.2%	-0.2%	0.5%	-1.5%	n.a.
2014	-0.3%	0.2%	0.2%	0.1%	-0.1%	0.1%	-0.1%	0.0%	-0.1%	0.3%	0.3%	-0.3%	0.4%	n.a.
2015	-0.2%	0.1%	0.4%	0.3%	0.2%	-0.1%	0.6%	-0.4%	0.6%	0.0%	0.1%	0.3%	1.8%	n.a.
2016	0.1%	-0.7%											-0.6%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jun 94 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The CS Swaption Vol Index Excess Return Roll on 20th is live since 01 Mar 09, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jun 1994

# CS Swaption Vol Index EUR Excess Return Roll on 20th

Asset Class	Rates
Risk Premia	Volatility

Live Date	01 <sup>st</sup> September 2012	Bloomberg Ticker	CSVIUF20 Index
Benchmark	n.a.		

## Objective

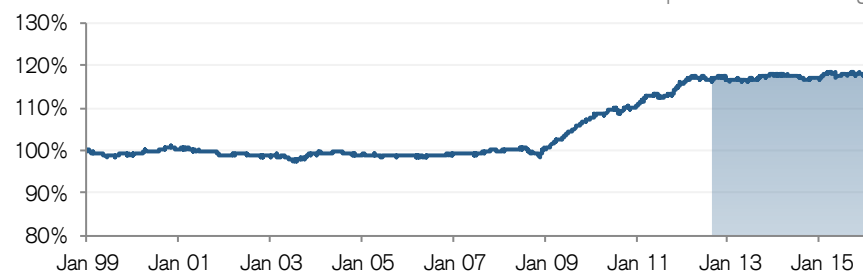
The strategy seeks to harvest the volatility premium that may exist in the EUR rates market.

## Description

The Credit Suisse Swaption Volatility Index ("CSVI") aims to monetize the spread between implied and realized volatility in the EUR interest rate market via the sale of one-month-into-ten-year swaption straddles and delta-hedging the position on a daily basis until expiry. This strategy is the simple USD version 1x leverage.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse Volatility Index Roll on 20th EUR (CSVIUF20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-0.1%	0.4%	1.1%	1.0%	0.3%
Annualised Volatility	1.2%	1.0%	1.1%	1.0%	1.0%
Sharpe Ratio	-0.11	0.37	1.02	1.00	0.30
Maximum Drawdown	-1.2%	-1.4%	-1.4%	-3.5%	-1.4%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.4%	0.8%	0.9%	0.3%	0.0%	0.3%	-0.6%	0.3%	0.3%	0.3%	0.8%	0.9%	4.8%	n.a.
2012	0.4%	0.8%	0.4%	0.1%	-0.4%	0.2%	-0.3%	-0.2%	-0.1%	0.6%	0.1%	0.0%	1.8%	n.a.
2013	-0.8%	0.1%	0.3%	-0.1%	-0.2%	-0.2%	0.5%	-0.2%	0.3%	0.4%	0.0%	0.4%	0.4%	n.a.
2014	-0.3%	0.0%	0.1%	0.0%	0.0%	-0.2%	-0.1%	-0.3%	-0.4%	0.3%	0.1%	0.0%	-0.8%	n.a.
2015	0.1%	0.7%	0.3%	0.0%	0.4%	-0.9%	0.5%	-0.2%	0.2%	-0.1%	0.2%	-0.4%	0.8%	n.a.
2016	-0.1%	0.1%											0.0%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jan 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Volatility Index Roll on 20th EUR is live since 01 Sep 12, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jan 1999

# Credit Suisse Adaptive Volatility Atlantic X Index Roll on 20th

Asset Class	Rates
Risk Premia	Volatility

Live Date	01 <sup>st</sup> June 2015	Bloomberg Ticker	CSVIAX20 Index
Benchmark	n.a.		

## Objective

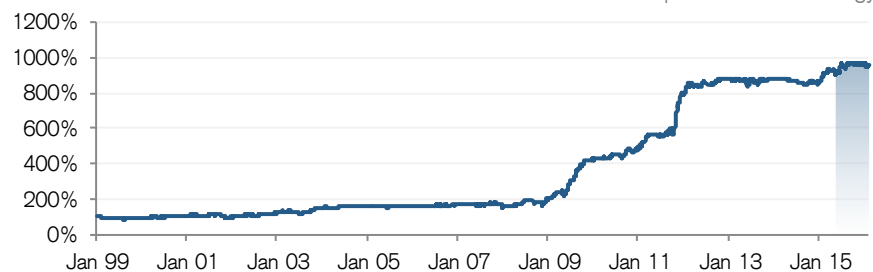
The strategy seeks to harvest the volatility premium that may exist in the USD and EUR rates markets.

## Description

The Credit Suisse Adaptive Volatility Atlantic Index ("CSAVI") aims to monetize the spread between implied and realized volatility in the USD and EUR interest rate markets via variable exposure to the sale of one-month-into-ten-year swaption straddles and delta-hedging the position on a daily basis until expiry. This strategy is 10x leverage with 50% EUR and 50% USD.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse Adaptive Volatility Atlantic Roll on 20th (CSVIAX20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	5.2%	3.0%	13.0%	14.1%	2.6%
Annualised Volatility	6.1%	5.2%	7.2%	9.7%	6.4%
Sharpe Ratio	0.85	0.58	1.81	1.45	0.40
Maximum Drawdown	-3.6%	-5.5%	-6.0%	-17.1%	-3.3%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	4.4%	4.3%	6.1%	2.9%	0.3%	0.3%	-0.7%	2.4%	1.7%	1.1%	12.9%	14.0%	61.0%	n.a.
2012	4.3%	6.0%	1.2%	-0.8%	-0.5%	1.8%	-0.3%	-0.6%	-0.3%	3.2%	0.7%	0.5%	16.1%	n.a.
2013	-0.8%	-0.6%	0.9%	-0.3%	-0.6%	-2.7%	2.8%	-0.7%	-1.4%	2.3%	0.0%	0.8%	-0.4%	n.a.
2014	0.0%	0.0%	-0.3%	-0.1%	-0.2%	-0.5%	-0.2%	-0.9%	-1.4%	1.1%	0.5%	-0.1%	-2.1%	n.a.
2015	0.5%	3.9%	2.1%	0.5%	1.5%	-2.4%	5.2%	-1.9%	1.9%	0.1%	0.7%	-0.3%	12.4%	n.a.
2016	-0.1%	-1.5%											-1.6%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jan 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Adaptive Volatility Atlantic Roll on 20th is live since 01 Jun 15, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jan 1999

# Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20th USD

Asset Class	Rates
Risk Premia	Volatility

Live Date	01 <sup>st</sup> March 2009	Bloomberg Ticker	CSVICX20 Index
Benchmark	n.a.		

## Objective

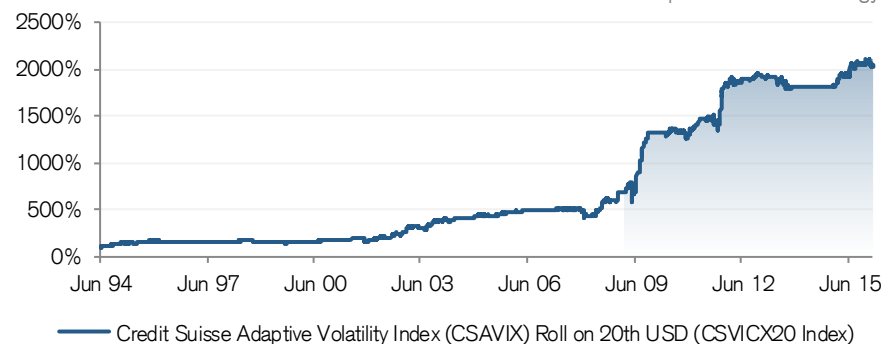
The strategy seeks to harvest the volatility premium that may exist in the USD rates market.

## Description

The Credit Suisse Adaptive Volatility Index ("CSAVI") monetizes the systematic bias between implied and realized volatility in the USD interest rate market via variable exposure to the sale of one-month-into-ten-year swaption straddles and delta-hedging the position on a daily basis until expiry. This strategy is 10x leverage.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	10.1%	2.2%	8.0%	14.9%	17.0%
Annualised Volatility	8.1%	6.5%	7.8%	13.0%	12.4%
Sharpe Ratio	1.24	0.34	1.03	1.15	1.38
Maximum Drawdown	-4.6%	-7.4%	-11.2%	-24.8%	-24.8%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	4.8%	1.2%	2.9%	3.2%	0.8%	-0.8%	1.9%	-0.4%	-2.1%	-1.8%	12.5%	11.7%	38.1%	n.a.
2012	2.1%	3.9%	-1.0%	-2.0%	1.0%	1.3%	0.6%	0.0%	-0.6%	1.3%	1.1%	0.8%	8.6%	n.a.
2013	-1.6%	-0.4%	0.5%	0.0%	0.0%	-2.5%	0.4%	-0.2%	-4.1%	1.0%	0.1%	0.0%	-6.7%	n.a.
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.a.
2015	0.2%	1.6%	3.0%	1.3%	1.0%	-0.8%	5.9%	-2.2%	2.7%	0.2%	0.6%	1.3%	15.4%	n.a.
2016	0.6%	-3.5%											-2.9%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jun 94 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20th USD is live since 01 Mar 09, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jun 1994



# Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20th EUR

Asset Class	Rates
Risk Premia	Volatility

Live Date	01 <sup>st</sup> September 2012	Bloomberg Ticker	CSVIUX20 Index
Benchmark	n.a.		

## Objective

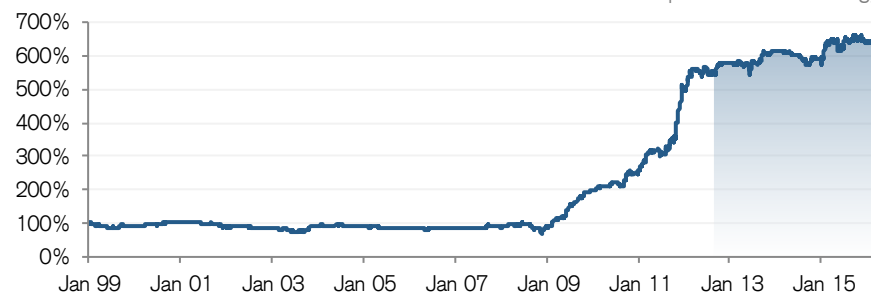
The strategy seeks to harvest the volatility premium that may exist in the EUR rates market.

## Description

The Credit Suisse Adaptive Volatility Index ("CSAVI") monetizes the systematic bias between implied and realized volatility in the EUR interest rate market via variable exposure to the sale of one-month-into-ten-year swaption straddles and delta-hedging the position on a daily basis until expiry. This strategy is 10x leverage.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20th EUR (CSVIUX20 Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	0.4%	3.8%	17.8%	11.5%	4.7%
Annualised Volatility	7.7%	7.0%	9.5%	10.5%	6.8%
Sharpe Ratio	0.05	0.54	1.89	1.10	0.70
Maximum Drawdown	-5.8%	-7.4%	-7.4%	-34.9%	-7.4%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	4.0%	7.6%	9.2%	2.5%	-0.2%	1.5%	-3.1%	5.1%	5.5%	4.1%	13.1%	16.3%	86.6%	n.a.
2012	6.5%	8.1%	3.5%	0.5%	-2.0%	2.2%	-1.1%	-1.2%	0.1%	5.1%	0.3%	0.2%	23.9%	n.a.
2013	0.0%	-0.8%	1.2%	-0.7%	-1.1%	-2.9%	5.3%	-1.2%	1.4%	3.7%	-0.2%	1.6%	6.2%	n.a.
2014	0.0%	0.0%	-0.7%	-0.2%	-0.4%	-1.1%	-0.4%	-1.8%	-2.7%	2.3%	0.9%	-0.1%	-4.1%	n.a.
2015	0.7%	6.3%	1.3%	-0.3%	2.0%	-3.9%	4.6%	-1.5%	1.2%	0.0%	0.9%	-1.9%	9.3%	n.a.
2016	-0.7%	0.5%											-0.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 20 Jan 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse Adaptive Volatility Index (CSAVIX) Roll on 20th EUR is live since 01 Sep '12, any data shown prior to the live date is simulated. The Index returns are gross of Index swap fee, and net of embedded hedging costs. Proforma date: 20 Jan 1999

## FX Carry/ Value/ Momentum

# Credit Suisse FX Metrics Carry Excess Return Index

Asset Class	FX
Risk Premia	Carry

Live Date	01 <sup>st</sup> March 2010	Bloomberg Ticker	FXMXCEUS Index
Benchmark	n.a.		

## Objective

The strategy seeks to capture the fact that forwards of relatively higher yielding currencies tend to be undervalued.

## Description

For baskets of both EM and G10 currencies, allocate long positions to high yielding currencies and vice versa for short.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse FX Metrics Carry Excess Return Index (FXMXCEUS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-9.0%	-5.2%	-2.3%	3.3%	-1.7%
Annualised Volatility	10.6%	8.2%	7.5%	7.8%	7.5%
Sharpe Ratio	-0.85	-0.63	-0.31	0.43	-0.22
Maximum Drawdown	-14.3%	-20.4%	-20.4%	-25.4%	-20.4%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-2.3%	0.3%	1.9%	0.9%	-0.7%	-0.5%	-1.3%	-1.1%	-4.0%	3.9%	-1.2%	1.1%	-3.0%	n.a.
2012	2.1%	2.4%	-2.6%	-0.5%	-1.2%	1.5%	1.0%	-1.0%	-0.2%	-0.1%	0.1%	1.8%	3.2%	n.a.
2013	0.8%	0.5%	0.9%	0.7%	-3.1%	-2.3%	-1.5%	-2.6%	1.8%	0.5%	-0.3%	-2.0%	-6.7%	n.a.
2014	-1.3%	1.8%	3.1%	0.1%	0.7%	0.5%	0.6%	1.9%	-2.4%	1.4%	-0.2%	-0.5%	5.9%	n.a.
2015	-2.5%	0.0%	-1.3%	-0.1%	-0.6%	-1.3%	-2.5%	-4.3%	-2.4%	3.5%	2.1%	-2.7%	-11.8%	n.a.
2016	-1.1%	-0.5%											-1.6%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 14 Jun 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse FX Metrics Carry Excess Return Index is live since 01 Mar 10, any data shown prior to the live date is simulated. The Index returns are net of fees. Proforma date: 14 Jun 1999

# Credit Suisse FX Metrics: Emerging Markets

Asset Class	FX
Risk Premia	Carry

Live Date	01 <sup>st</sup> March 2010	Bloomberg Ticker	FXMXEEUS Index
Benchmark	n.a.		

## Objective

The Credit Suisse FX Metrics Index (FXMX) is a set of currency portfolios that replicate widely used macro-driven strategies.

## Description

Conversion trade: Long a basket of EM currencies and short a basket of G10 currencies

## Historical Performance Analysis

Shaded area indicates live period for the strategy



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	-3.7%	-3.3%	-3.2%	0.7%	-2.7%
Annualised Volatility	5.7%	5.4%	5.5%	5.8%	5.4%
Sharpe Ratio	-0.65	-0.61	-0.58	0.12	-0.50
Maximum Drawdown	-7.4%	-12.4%	-18.2%	-23.4%	-19.0%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	-0.1%	0.0%	1.7%	0.1%	-1.7%	0.5%	-2.5%	-1.1%	-4.5%	0.1%	-1.0%	-1.8%	-10.1%	n.a.
2012	3.7%	1.7%	-0.5%	-0.5%	-3.4%	1.8%	-0.2%	-0.6%	0.8%	0.2%	0.0%	0.9%	3.6%	n.a.
2013	0.3%	0.7%	-0.9%	1.2%	-1.1%	0.2%	-0.9%	-1.2%	-0.1%	1.2%	-0.9%	-0.7%	-2.1%	n.a.
2014	-2.2%	0.8%	1.1%	0.3%	0.8%	-0.8%	0.1%	0.2%	-0.2%	1.4%	0.7%	-1.7%	0.4%	n.a.
2015	-0.1%	-1.2%	-1.2%	-0.4%	0.2%	0.1%	0.2%	-1.6%	-2.0%	0.6%	-0.2%	-1.4%	-6.8%	n.a.
2016	0.3%	-0.4%											-0.2%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 14 Jun 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The FX Metrics: Emerging Markets is live since 01 Mar 10, any data shown prior to the live date is simulated. The Index returns are net of fees. Proforma date: 14 Jun 1999

# Credit Suisse FX Metrics Value Excess Return Index

Asset Class	FX
Risk Premia	Value

Live Date	01 <sup>st</sup> March 2010	Bloomberg Ticker	FXMXVEUS Index
Benchmark	n.a.		

## Objective

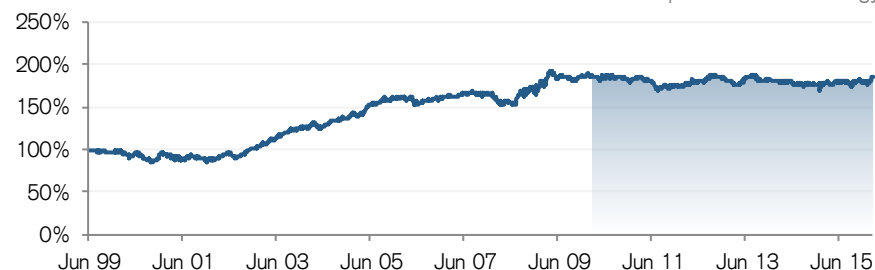
The strategy seeks to capture the mean reversion in currencies to levels based on the fundamental strengths of their economies.

## Description

Mean Reversion: Using an econometric model based on countries' fundamentals (economic data), the strategy allocates long positions to "cheap" currencies and vice versa for shorts.

## Historical Performance Analysis

Shaded area indicates live period for the strategy



— Credit Suisse FX Metrics Value Excess Return Index (FXMXVEUS Index)

	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	3.6%	1.3%	0.1%	3.8%	-0.1%
Annualised Volatility	6.4%	5.3%	5.0%	6.3%	4.9%
Sharpe Ratio	0.57	0.25	0.01	0.60	-0.02
Maximum Drawdown	-4.5%	-9.8%	-9.8%	-15.6%	-9.8%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	2.1%	1.0%	-0.5%	-1.1%	-0.7%	-1.5%	-3.0%	-0.5%	2.5%	-2.4%	1.5%	0.3%	-2.4%	n.a.
2012	-0.1%	1.0%	1.1%	1.0%	-0.5%	0.8%	0.2%	1.2%	2.1%	-1.1%	0.0%	-0.4%	5.5%	n.a.
2013	-2.1%	-0.3%	-1.9%	0.1%	1.9%	2.7%	0.8%	0.2%	-2.9%	0.1%	1.0%	-0.5%	-1.2%	n.a.
2014	-0.8%	-0.5%	-0.2%	0.2%	0.6%	-2.4%	-0.1%	-0.1%	0.6%	-0.5%	0.2%	-0.8%	-3.8%	n.a.
2015	0.7%	0.7%	0.5%	-0.2%	1.0%	0.4%	-0.4%	-1.0%	-1.3%	1.9%	0.7%	-0.3%	2.7%	n.a.
2016	0.9%	0.9%											1.8%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 14 Jun 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse FX Metrics Value Excess Return Index is live since 01 Mar 10, any data shown prior to the live date is simulated. The Index returns are net of fees. Proforma date: 14 Jun 1999

# Credit Suisse FX Metrics Momentum Excess Return Index

Asset Class	FX
Risk Premia	Trend/ Momentum

Live Date	01 <sup>st</sup> March 2010	Bloomberg Ticker	FXMXMEUS Index
Benchmark	n.a.		

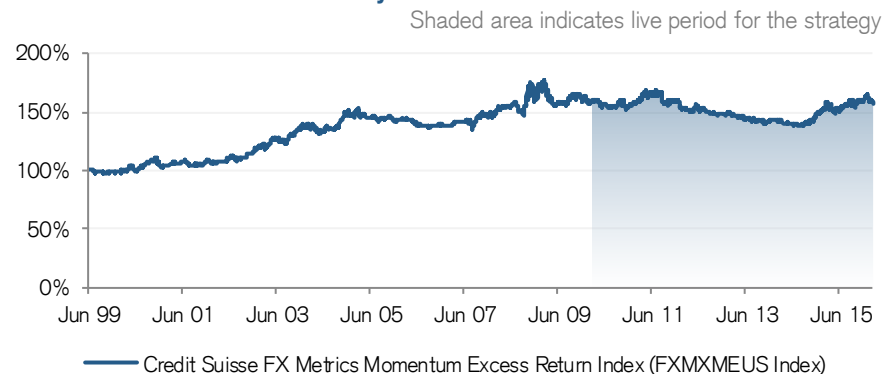
## Objective

The strategy seeks to capture the trending behaviour observed in the FX instruments.

## Description

The strategy uses the medium term trends as a signal and allocates long positions to currencies in upward trends and vice versa for shorts.

## Historical Performance Analysis



	1Y	3Y	5Y	Proforma	LIVE
Annualised Return	1.0%	2.2%	-0.3%	2.8%	-0.1%
Annualised Volatility	8.0%	5.6%	6.0%	6.9%	6.1%
Sharpe Ratio	0.12	0.40	-0.05	0.40	-0.02
Maximum Drawdown	-7.0%	-7.0%	-18.5%	-22.3%	-18.5%

## (Actual and Simulated) Monthly Performance

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	Benchmark
2011	0.5%	1.3%	1.2%	4.2%	-1.9%	0.2%	1.3%	-1.2%	-5.1%	-0.8%	1.7%	0.0%	1.1%	n.a.
2012	-2.9%	-0.8%	-1.0%	-1.0%	3.7%	-3.2%	0.9%	-1.4%	-1.3%	0.0%	-0.1%	0.0%	-7.0%	n.a.
2013	1.1%	-1.6%	-0.1%	-0.5%	-0.8%	-0.5%	-0.8%	0.3%	-0.4%	-1.0%	-0.5%	1.3%	-3.4%	n.a.
2014	0.1%	-0.4%	-1.2%	-0.6%	-0.2%	-0.6%	-0.3%	0.4%	1.2%	0.7%	1.1%	3.3%	3.6%	n.a.
2015	3.0%	-0.1%	2.1%	-3.3%	1.5%	-0.4%	1.9%	1.6%	1.1%	-1.4%	2.1%	-0.3%	8.1%	n.a.
2016	1.2%	-0.8%											0.4%	n.a.

Source: Credit Suisse, Bloomberg. All figures based on data from 14 Jun 99 to 08 Mar 16. Past performance (actual or simulated) is not an indicator of future performance. The Credit Suisse FX Metrics Momentum Excess Return Index is live since 01 Mar 10, any data shown prior to the live date is simulated. The Index returns are net of fees. Proforma date: 14 Jun 1999