

# Credit Suisse Swiss Pension Fund Index Q4 2016

**YTD 2016: 3.87%**

**Q4 2016: 0.63%**

Credit Suisse Swiss Pension Fund Index at all-time high at the end of the year

Allocation to alternative investments at all-time high; asset allocation to foreign bonds at all-time low

Increase in Swiss franc component



# Index versus Mandatory Minimum Rate of Return since January 2000

## After a Subdued Start to the Fourth Quarter, the Credit Suisse Swiss Pension Fund Index Developed Positively to End the Year at an All-Time High

In the reporting quarter the Pension Fund Index advanced by 1.00 point (0.63%) to reach an all-time high of 159.63 points as of December 31, 2016, from a baseline of 100 at the start of 2000. After slowing in October (-0.72%) the index recovered in November (0.16%) before staging a remarkable final surge in December (1.20%).

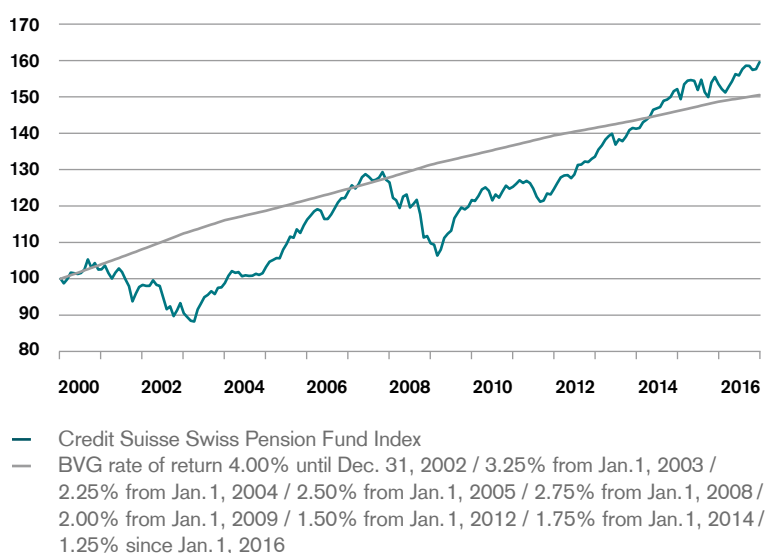
As in the previous quarter, the bulk of the advance for the Credit Suisse Pension Fund Index was due to foreign equities (0.93%); this was followed by real estate (0.16%), Swiss equities (0.15%), alternative investments (0.13%), and others (0.02%). Swiss bonds (-0.52%), liquidity (-0.18%), foreign currency bonds (-0.03%), and mortgages (-0.02%) made negative contributions.

A look back over the year shows that with the exception of liquidity all asset classes made a positive contribution, especially foreign equities (1.59%), real estate (1.20%), and Swiss bonds (0.43%).

The BVG mandatory minimum rate of return (1.25% p. a. since January 2016) rose by 0.47 points (0.31%) to 150.59 points in the reporting quarter, likewise from a baseline of 100 at the start of 2000. The return of the Credit Suisse Swiss Pension Fund Index is therefore 0.32% above the BVG requirement in the reporting quarter.

The annualized return on the Credit Suisse Swiss Pension Fund Index (since January 1, 2000) is 2.79% as of December 31, 2016. This contrasts with an annualized BVG mandatory minimum rate of return of 2.44%.

Chart 1a:



Scale: Index level

The Credit Suisse Swiss Pension Fund Index is calculated on the basis of the returns realized by Swiss pension funds (prior to deducting management costs) whose assets are held at Credit Suisse under a global custody arrangement. Asset management and advisory tasks, however, are performed by the pension funds themselves or by third parties. In its role as global custodian, Credit Suisse has no influence on the performance of individual pension funds.

**Table 1a: Credit Suisse Swiss Pension Fund Index**

Jan. 1, 2000–Dec. 31, 2016

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual return
2000	98.74	99.88	101.68	101.51	101.32	101.59	102.55	105.34	103.07	104.32	102.56	102.60	2.60%
2001	103.67	101.59	100.05	101.68	102.86	101.84	99.81	97.94	93.78	95.97	97.71	98.34	-4.15%
2002	98.03	98.04	99.58	98.32	98.06	94.85	91.62	92.43	89.71	91.36	93.28	90.49	-7.98%
2003	89.45	88.45	88.23	91.59	93.15	94.94	95.58	96.56	95.80	97.53	97.65	98.86	9.25%
2004	100.81	102.10	101.65	101.84	100.69	100.94	100.79	100.87	101.36	101.07	101.56	103.30	4.49%
2005	104.68	105.18	105.70	105.67	108.04	109.62	111.59	111.29	113.60	112.59	114.66	116.33	12.62%
2006	117.42	118.55	119.14	118.75	116.48	116.48	117.75	119.43	121.02	122.17	122.20	123.99	6.58%
2007	125.74	124.83	125.95	127.98	128.79	128.08	127.04	127.22	127.83	129.40	127.28	126.52	2.04%
2008	122.25	121.64	119.45	122.61	123.22	119.65	120.65	121.72	117.76	111.35	111.77	109.76	-13.25%
2009	109.40	106.38	108.02	111.24	112.43	113.27	116.69	118.21	119.61	119.10	119.84	121.68	10.86%
2010	121.42	122.79	124.59	125.15	124.24	121.57	123.23	122.32	124.06	125.64	124.77	125.33	3.01%
2011	126.09	127.10	126.37	126.95	126.32	124.84	122.56	121.22	121.52	123.47	123.19	124.63	-0.56%
2012	126.33	127.90	128.42	128.55	127.69	128.72	131.33	131.44	132.31	132.13	133.04	133.61	7.21%
2013	135.56	136.71	138.31	139.33	139.95	136.91	138.40	137.89	139.14	140.95	141.50	141.30	5.76%
2014	141.53	143.11	143.80	144.68	146.55	146.91	147.27	149.01	149.32	150.06	151.64	152.23	7.73%
2015	149.45	153.54	154.53	154.71	154.51	151.98	154.82	151.40	149.99	154.04	155.54	153.67	0.95%
2016	152.24	151.26	152.92	154.35	156.35	155.97	157.73	158.65	158.62	157.48	157.73	159.63	3.87%

**Table 1b: Performance Contribution (Monthly)**

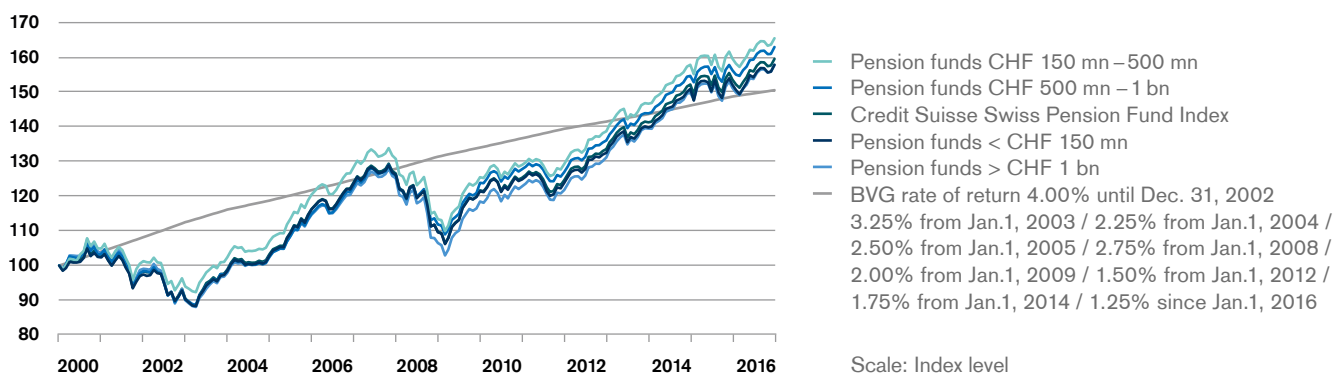
Credit Suisse Swiss Pension Fund Index (Jan. 1, 2016–Dec. 31, 2016)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
Liquidity	-0.14%	0.19%	0.16%	-0.05%	-0.18%	0.15%	0.04%	-0.09%	0.07%	-0.07%	-0.13%	0.02%	-0.04%
CHF bonds	0.32%	0.22%	-0.04%	-0.01%	0.08%	0.33%	0.06%	-0.02%	0.02%	-0.22%	-0.32%	0.02%	0.43%
Foreign currency bonds	0.18%	-0.12%	0.01%	0.08%	0.15%	0.00%	0.03%	0.12%	-0.05%	0.00%	-0.04%	0.01%	0.37%
Swiss equities	-0.71%	-0.48%	0.15%	0.34%	0.50%	-0.36%	0.28%	0.16%	-0.01%	-0.41%	0.07%	0.50%	0.01%
Foreign equities	-0.71%	-0.53%	0.64%	0.26%	0.59%	-0.44%	0.63%	0.32%	-0.10%	0.02%	0.55%	0.37%	1.59%
Alternative investments	0.03%	-0.07%	-0.05%	0.09%	0.08%	0.00%	-0.04%	0.06%	0.01%	0.04%	0.06%	0.03%	0.26%
Real estate	0.08%	0.13%	0.22%	0.23%	0.07%	0.07%	0.13%	0.04%	0.05%	-0.07%	-0.02%	0.26%	1.20%
Mortgages	0.02%	0.01%	-0.01%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	-0.01%	-0.01%	0.00%	0.02%
Other	-0.01%	-0.01%	0.01%	0.01%	0.01%	-0.01%	0.01%	0.01%	0.00%	-0.01%	0.01%	0.01%	0.04%
Total	-0.94%	-0.64%	1.10%	0.94%	1.29%	-0.24%	1.13%	0.58%	-0.01%	-0.72%	0.16%	1.20%	3.87%

**Chart 1b:**  
**Credit Suisse Swiss Pension Fund Index by Segment Size**

Chart 1b shows a breakdown by segment as follows:

< CHF 150 million, CHF 150–500 million, CHF 500 million–1 billion, and > CHF 1 billion.



**Table 1c: Performance**

Jan. 1, 2016–Dec. 31, 2016

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
Credit Suisse Swiss Pension Fund Index	-0.94%	-0.64%	1.10%	0.94%	1.29%	-0.24%	1.13%	0.58%	-0.01%	-0.72%	0.16%	1.20%	3.87%
Pension funds > CHF 1 bn	-0.90%	-0.51%	1.25%	0.74%	1.23%	-0.15%	1.19%	0.59%	0.03%	-0.60%	0.22%	1.20%	4.34%
Pension funds CHF 500 mn–1 bn	-0.82%	-0.22%	1.04%	0.69%	1.20%	0.06%	1.05%	0.51%	0.06%	-0.61%	0.01%	1.25%	4.28%
Pension funds CHF 150–500 mn	-0.91%	-0.62%	1.03%	0.90%	1.20%	-0.17%	1.14%	0.55%	-0.04%	-0.75%	0.17%	1.14%	3.68%
Pension funds < CHF 150 mn	-1.00%	-0.81%	1.09%	1.13%	1.43%	-0.41%	1.10%	0.63%	-0.03%	-0.78%	0.14%	1.27%	3.77%

**Table 1d: Annualized Performance**

Jan. 1, 2000–Dec. 31, 2016

	Annualized performance since January 1, 2000
Credit Suisse Swiss Pension Fund Index	2.79%
BVG rate of return	2.44%
Pension funds > CHF 1 bn	2.72%
Pension funds CHF 500 mn–1 bn	2.92%
Pension funds CHF 150–500 mn	3.01%
Pension funds < CHF 150 mn	2.72%

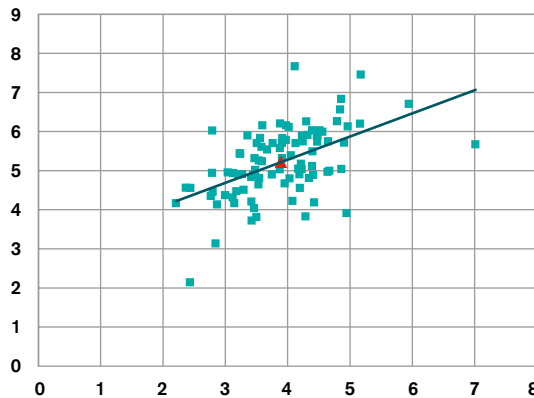
# Risk / Return Positions

## Five-Year Line – Annualized Return Falls Slightly in Reporting Quarter While Annualized Risk Continues to Fall

The line showing the five-year annualized risk/return positions of the individual pension funds (Chart 2a) shifted to the left in the fourth quarter of 2016 and moved slightly lower. The unweighted average annualized return fell to 5.08% in the reporting quarter (–0.39 percentage points), while the unweighted average annualized risk also fell to 3.89% (–0.04 percentage points; red triangle). The lower risk cannot be put down to the shift in the allocation alone.

As of December 31, 2016, just under 55% of pension funds had an annualized risk of less than 4%; as of September 30, 2016, it was 51%. There is just one pension fund that still has an annualized risk of more than 6%.

**Chart 2a:**  
Annualized Risk/Return Comparison; Five-Year View,  
Monthly Results from January 2012 to December 2016



y-axis: annualized return in percent (%)  
x-axis: annualized risk in percent (%)

**Table 2a: Key Figures**

Jan. 1, 2012–Dec. 31, 2016

	Risk	Return	Sharpe ratio
Credit Suisse Swiss Pension Fund Index	3.89%	5.08%	1.45
Pension funds > CHF 1 bn	3.85%	5.32%	1.51
Pension funds CHF 500 mn–1 bn	3.34%	5.13%	1.61
Pension funds CHF 150–500 mn	3.68%	5.07%	1.50
Pension funds < CHF 150 mn	4.22%	4.98%	1.32

**Table 2b: Return Bandwidths**

Jan. 1, 2012–Dec. 31, 2016

	Minimum	1st quartile	Median	3rd quartile	Maximum
Credit Suisse Swiss Pension Fund Index	2.16%	4.66%	5.19%	5.84%	7.67%
Pension funds > CHF 1 bn	4.22%	4.68%	5.48%	5.84%	7.67%
Pension funds CHF 500 mn–1 bn	4.15%	4.57%	4.91%	5.46%	5.91%
Pension funds CHF 150–500 mn	2.16%	4.92%	5.19%	5.71%	6.84%
Pension funds < CHF 150 mn	3.15%	4.57%	5.12%	6.04%	7.46%

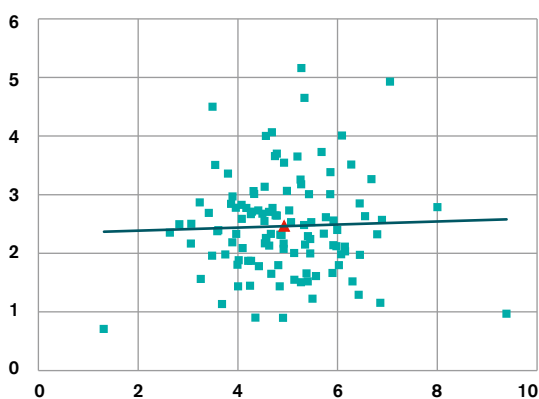
Our risk/return overview shows the two-year and five-year views. It should be noted that only portfolios that were part of the index for the entire observation period are included. For example, portfolios created on January 1, 2014, are not included in the five-year observation period (January 1, 2012–December 31, 2016) but do form part of the two-year observation period.

## Two-Year Line – Fall in Annualized Return and Slight Rise in Risk

Compared with Q3 2016, the two-year line (Chart 2b, January 1, 2015–December 31, 2016) fell noticeably and again shows a slightly rising gradient. The unweighted average annualized return (red triangle) fell significantly in the reporting quarter to finish at 2.40% (–0.67 percentage points), while the unweighted average risk was up marginally (+0.05 percentage points at 4.93%).

Here too, the higher risk cannot be put down solely to the shift in the allocation.

**Chart 2b:**  
Annualized Risk/Return Comparison; Two-Year View,  
Monthly Results from January 2015 to December 2016



y-axis: annualized return in percent (%)  
x-axis: annualized risk in percent (%)

### Table 2c: Key Figures

Jan. 1, 2015–Dec. 31, 2016

	Risk	Return	Sharpe ratio
Credit Suisse Swiss Pension Fund Index	4.93%	2.40%	0.69
Pension funds > CHF 1 bn	4.79%	2.63%	0.74
Pension funds CHF 500 mn–1 bn	4.30%	2.66%	0.75
Pension funds CHF 150–500 mn	4.63%	2.39%	0.74
Pension funds < CHF 150 mn	5.40%	2.28%	0.60

### Table 2d: Return Bandwidths

Jan. 1, 2015–Dec. 31, 2016

	Minimum	1st quartile	Median	3rd quartile	Maximum
Credit Suisse Swiss Pension Fund Index	0.71%	1.97%	2.38%	2.85%	5.17%
Pension funds > CHF 1 bn	1.13%	2.40%	2.64%	2.78%	5.17%
Pension funds CHF 500 mn–1 bn	1.44%	1.98%	2.17%	2.73%	4.66%
Pension funds CHF 150–500 mn	0.71%	2.15%	2.39%	2.85%	4.07%
Pension funds < CHF 150 mn	0.90%	1.66%	2.17%	3.06%	4.93%

# Asset Allocation

## Alternative Investments Component at Highest Level and Foreign Bonds Component at Lowest Level Since Index Began

The asset allocation as of December 31, 2016, shows a few interesting developments at the end of the year.

The alternative investments component increased significantly quarter-on-quarter to 6.16% (+0.28 percentage points) to stand at a record high at the end of the year.

Furthermore, the foreign equities component rose to 18.20% (+0.65 percentage points) to reach an eleven-year high. There was also an increase in liquidity (+0.22 percentage points to 4.88%) and Swiss equities (+0.14 percentage points to 13.31%).

The foreign bonds component was at a record low of 7.07% (-0.44 percentage points) at the end of the year. As in the prior quarter, there was also a reduction in CHF bonds (-0.76 percentage points to 24.29%). Only marginal decreases were shown by the mortgages component (-0.05 percentage points to 2.07%) and others (-0.03 percentage points to 1.02%). Real estate remained unchanged compared to the previous quarter at 23.00%.

Chart 4:

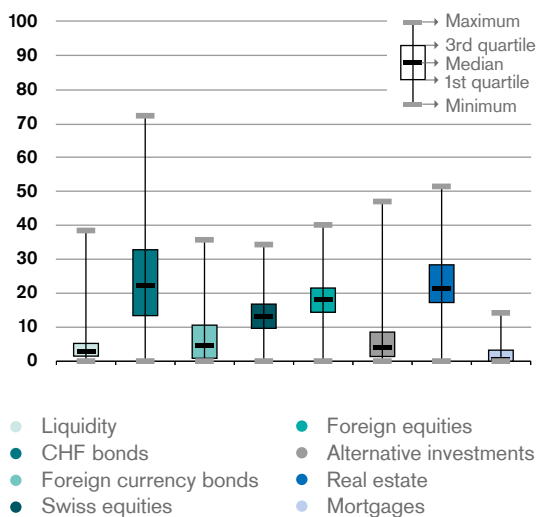
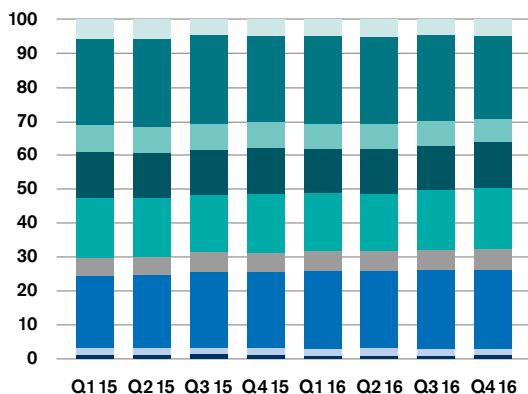


Chart 3:



	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
Liquidity	5.86	5.86	4.71	4.74	4.88	5.05	4.66	4.88
CHF bonds	25.27	25.89	25.91	25.44	25.85	25.86	25.05	24.29
Foreign currency bonds	7.94	7.63	7.82	7.59	7.37	7.34	7.51	7.07
Swiss equities	13.36	13.11	13.20	13.75	12.90	12.99	13.17	13.31
Foreign equities	17.80	17.38	16.85	17.30	17.32	16.94	17.55	18.20
Alternative investments	5.34	5.49	5.93	5.59	5.64	5.77	5.88	6.16
Real estate	21.00	21.35	22.15	22.37	23.05	22.92	23.00	23.00
Mortgages	2.07	2.01	2.01	2.01	2.05	2.08	2.12	2.07
Other	1.36	1.28	1.42	1.22	0.95	1.06	1.05	1.02

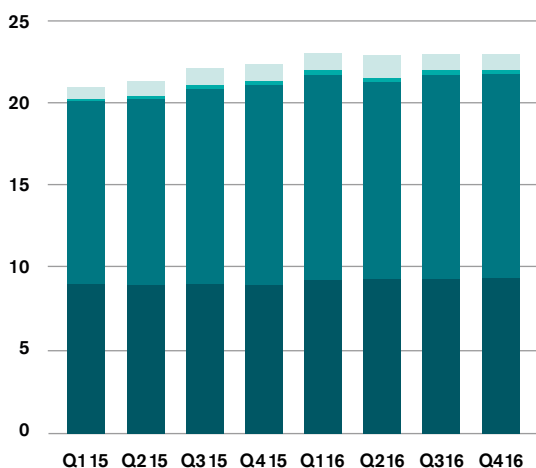
Scale: in percent (%)

### Slight Increase in Direct Investments in Swiss and Foreign Real Estate

In contrast with the previous quarter, the real estate asset class showed a slight shift from indirect investments in real estate to direct investments in real estate.

While the share of direct investments in real estate in Switzerland (+0.13 percentage points to 9.54%) and abroad (+0.02 percentage points to 0.31%) increased, the proportion of indirect real estate investments in Switzerland (–0.06 percentage points to 12.31%) as well as indirect real estate investments abroad (–0.09 percentage points to 0.84%) showed a decrease.

Chart 5:



	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
Foreign real estate, indirect	0.70	0.89	1.02	0.98	1.01	1.34	0.93	0.84
Foreign real estate, direct	0.15	0.15	0.20	0.26	0.28	0.28	0.29	0.31
Swiss real estate, indirect	11.07	11.25	11.82	12.10	12.42	11.88	12.37	12.31
Swiss real estate, direct	9.08	9.06	9.11	9.03	9.34	9.42	9.41	9.54

Scale: in percent (%)

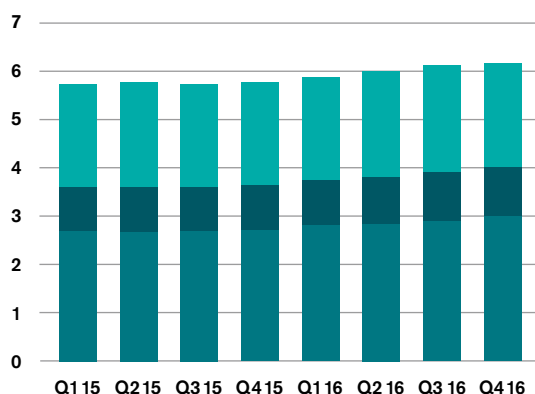


## Another Increase in Alternative Investments Allocation Leads to All-Time High

An increase in all categories led to an all-time high in alternative investments at the year-end.

The strongest increase was in the hedge funds category (+0.18 percentage points to 3.01%). The private equity component rose to 1.00% (+0.07 percentage points) and the commodities component to 2.15% (+0.02 percentage points).

Chart 6:



	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
Commodities	2.42	2.47	2.29	2.33	2.10	2.16	2.13	2.15
Private equity	0.73	0.77	0.93	0.64	0.94	0.91	0.93	1.00
Hedge funds	2.19	2.24	2.70	2.62	2.60	2.69	2.83	3.01

Scale: in percent (%)

## Modified Duration – Evidence of Normalization

The modified duration decreased again in the reporting quarter and stood at 6.01% as of December 31, 2016. This could be attributable to the yield curve, which rose again slightly at the long end.

Table 3a: Modified Duration<sup>1</sup>

Jan. 1, 2016–Dec. 31, 2016

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Credit Suisse Swiss Pension Fund Index	5.80	5.91	5.96	5.91	5.96	6.13	6.07	6.09	6.10	6.10	6.06	6.01
Pension funds > CHF 1 bn	5.66	5.81	5.91	6.01	6.00	6.20	6.12	6.13	6.18	6.17	6.13	6.09
Pension funds CHF 500 mn–1 bn	6.30	6.36	6.42	6.37	6.43	6.53	6.50	6.56	6.57	6.51	6.48	6.45
Pension funds CHF 150–500 mn	5.90	6.02	6.07	5.86	5.94	6.22	6.09	6.11	6.10	6.12	6.07	6.00
Pension funds < CHF 150 mn	5.70	5.79	5.80	5.82	5.84	5.92	5.92	5.93	5.94	5.95	5.91	5.85

<sup>1</sup> Note: The modified duration indicates the direct sensitivity of the bond price (in percentage terms) to a 1% change in the market interest rate. Only direct bond investments are used in calculating the modified duration; collective investments are excluded.

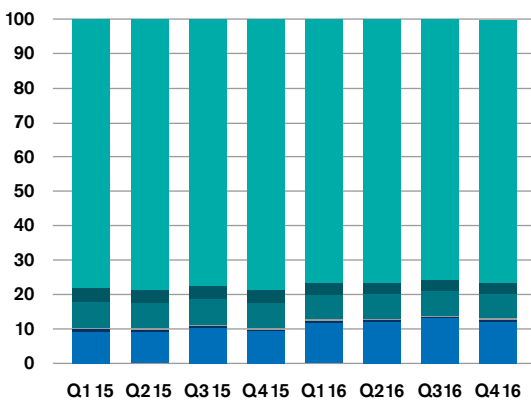
# Currency Allocation

## Noticeable Shift in Swiss Franc

The currency allocation in the fourth quarter of 2016 showed an increase in the CHF component to 76.38% (+0.76 percentage points) after a decline in the previous quarter. The USD (+0.03 percentage points to 7.06%) and GBP (+0.02 percentage points to 0.43%) components also rose again slightly compared with the previous quarter.

As in the previous quarter, the EUR component fell to 3.23% (-0.10 percentage points). The share of the remaining currencies fell compared with the preceding quarter to stand at 12.39% (-0.67 percentage points). The JPY currency showed only a marginal change versus the preceding quarter (-0.02 percentage points to 0.52%).

Chart 7:



	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16
● CHF	77.93	78.51	77.41	78.63	76.42	76.47	75.62	76.38
● EUR	4.21	3.86	3.85	3.68	3.59	3.46	3.33	3.23
● USD	7.39	7.36	7.39	7.37	7.10	7.04	7.03	7.06
● GBP	0.50	0.47	0.46	0.45	0.49	0.45	0.41	0.43
● JPY	0.63	0.52	0.54	0.57	0.51	0.47	0.54	0.52
● Other	9.34	9.28	10.35	9.30	11.88	12.11	13.06	12.39

Scale: in percent (%)

# 1 win shows ambition. **7 wins** prove competence.

We have once again won  
the following awards:

Best Swiss Global Custodian 2016  
Best European Global Custodian 2016

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**Important Note**

The Credit Suisse Swiss Pension Fund Index is calculated on the basis of the stated performance of the Swiss pension funds whose assets are held at Credit Suisse under a global custody arrangement. Asset management and advisory tasks, however, are performed by the pension funds themselves or by third parties. In its role as global custodian, Credit Suisse has no influence on the performance of individual pension funds. As a leading provider of global custodian services, Credit Suisse is able to prepare broadly-based and representative analyses of the Swiss pension fund business. At system level, the data provides a very up-to-date picture of current investment activities relating to second-pillar assets, since second-pillar pension funds (excluding institutions with complete coverage) manage around 80 percent of all such assets. When interpreting these figures, it must be kept in mind that the Credit Suisse Swiss Pension Fund Index is not an artificially constructed performance index but an index based on actual pension fund data. Consequently, the index is "alive," which significantly increases its informative value regarding the current investment behavior of Swiss pension funds. On the other hand, the fact that it is constantly revised limits the comparability of data over time. The index is nevertheless an up-to-date indicator, especially as highly accurate pension fund data remains difficult to obtain.