

Credit Suisse Swiss Pension Fund Index Q4 2022



Credit Suisse Swiss Pension Fund Index

Comparison of Swiss pension funds

Q4 2022: 1.83%

YTD 2022: -10.11%

- Slower economic growth and higher interest rates
- Significant fall in prices on equity markets
- Negative return contributions for all Pension Fund Index main asset classes in 2022

Market review

Worldwide economic activity slowed in 2022 and inflation rose. At the same time, global equity markets fell significantly. Yields on key government bonds rose, while the US dollar appreciated against the other leading currencies in 2022.

- Global economic growth slowed in 2022. Energy shortages as a result of Russia's invasion of Ukraine, tighter monetary policy, as well as weaker consumer and business confidence, weighed on economic growth in developed economies. High energy prices, supply bottlenecks, and tight labor markets caused inflation to rise. China's strict zero-COVID policies led to temporary lockdowns and restricted economic and social activity.
- Several major central banks tightened monetary policy significantly and raised interest rates. The US Federal Reserve (Fed), for example, increased its key interest rate from 0–0.25% to 4.25–4.50%; meanwhile, the European Central Bank (ECB) raised its interest rates from -0.5% to 2.0%. The Bank of England (BoE) and the Swiss National Bank (SNB) also implemented significant increases in interest rates. By contrast, the Bank of Japan (BoJ) stuck to its expansionary monetary policy. It did, however, take initial steps toward a tightening, by expanding the target range for ten-year yields at the end of December.
- Global equity markets fell by 16% in 2022 – the worst annual performance since 2008. This outcome was due to high inflation, the tightening of global monetary policy, and worries about a global recession. Most major equity markets in the industrialized and emerging markets posted negative returns. US equities fell by 19%, Swiss equities by 16%, and euro zone equities by 12%. Emerging market equities were down 15%, while Latin America – mainly thanks to Brazil – achieved the best performance of all emerging markets. Asian emerging-market equities shed 16%, mainly due to a weak performance in China, South Korea, and Taiwan. Energy was the only sector to post a positive performance in 2022, with an increase of 53%. The technology sector, on the other hand, came under pressure. Information technology, cyclical consumer goods, and communication services lost 30% or more. Global bank stocks were down 6% but outperformed global equities; European bank shares actually rose by 5%. Equity-market volatility, as measured by the Chicago Board Options Exchange Market Volatility Index (VIX), showed an increase at year-end.
- Total returns on fixed-income investments were negative. Interest rates nevertheless stabilized toward the end of the year, in view of a possible normalization of inflation and therefore fewer central-bank rate hikes. The euro and US yield curves inverted between 2 and 10-year maturities. By contrast, the yield curve for Switzerland remained flat. Emerging market government bonds underperformed global high-yield and investment-grade corporate bonds. Credit spreads narrowed toward the end of the year.
- The US dollar outperformed the other leading currencies in 2022 and was supported by the rise in key interest rates over the course of the year. In addition, economic and geopolitical uncertainties, as well as the corresponding deterioration in global risk sentiment, led to increased demand for the US dollar and the Swiss franc. Both performed positively against most major currencies. As for the rest of Europe, Russia's invasion of Ukraine had a negative impact on currencies. The value of the Japanese yen also fell significantly due to the increasing interest rate disadvantage, with the BoJ maintaining its expansionary policy throughout 2022. Most emerging market currencies recorded a below-average performance against the US dollar. The Brazilian real was the top performer, while the Turkish lira and the Argentine peso lost ground against the dollar.
- The Credit Suisse Commodity Benchmark rose by 25% in 2022. Energy markets increased significantly in the second

The Credit Suisse Swiss Pension Fund Index is calculated on the basis of the equally weighted gross returns (prior to deducting management costs) realized by 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.

half of 2022 and outperformed the benchmark. Russia's invasion of Ukraine led to a further shortage of supply on the energy markets – which had already been tight – at the beginning of 2022. However, the pressure on inventories began to ease as the year progressed. Agricultural prices

rose in 2022, but lagged behind the benchmark – as did industrial and precious metals. The tightening of monetary policy weighed on gold, while the slowdown in global industrial activity had a negative impact on industrial metals.

Credit Suisse Swiss Pension Fund Index: Year ends with positive quarter

■ The Pension Fund Index rose by 3.39 points, or 1.83%, in the quarter under review; this gives a change of –10.11% since the start of the year. The index stood at 188.62 points as of December 31, 2022, having risen from a baseline of 100 points at the beginning of 2000. In October and November there were gains of 2.01% and 1.84%, respectively; however, December saw losses once again (–1.98%).

■ The lion's share of the positive overall performance in the fourth quarter was attributable to equities (+1.47%). Swiss equities made a contribution of 0.62%, while foreign equities contributed 0.84%. Real estate (+0.25%) and liquidity (+0.14%) additionally boosted the quarterly result thanks to positive returns. While CHF bonds showed a mildly positive result (+0.03%), foreign currency bonds detracted (–0.04%). Alternative investments likewise made a negative contribution at –0.04%. The other asset categories failed to make much of an impact.

Table 1: Performance contribution (quarterly)

Credit Suisse Swiss Pension Fund Index (January 1, 2022–December 31, 2022)

	Q1 22	Q2 22	Q3 22	Q4 22	YTD
Liquidity	–0.03%	–0.11%	–0.07%	0.14%	–0.06%
CHF bonds	–1.39%	–1.11%	–0.61%	0.03%	–3.00%
Foreign currency bonds	–0.21%	–0.20%	–0.14%	–0.04%	–0.56%
Convertible bonds	–0.01%	–0.02%	0.00%	0.01%	–0.03%
Swiss equities	–0.83%	–1.56%	–0.66%	0.62%	–2.39%
Foreign equities	–1.00%	–2.42%	–0.93%	0.84%	–3.43%
Alternative investments	0.07%	–0.04%	–0.05%	–0.04%	–0.06%
Real estate	–0.05%	–0.72%	–0.02%	0.25%	–0.54%
Mortgages	–0.01%	–0.02%	0.00%	0.01%	–0.02%
Other	–0.01%	–0.02%	–0.01%	0.00%	–0.03%
Total	–3.47%	–6.22%	–2.49%	1.83%	–10.11%

Credit Suisse Swiss Pension Fund Index above BVG mandatory minimum rate of return over long term

■ The index of the BVG mandatory minimum rate of return (1% p.a. since January 1, 2017) rose by 0.40 points (+0.25%) to 159.86 points in the reporting quarter from a baseline of 100 in January 2000. The return of the Credit Suisse Swiss Pension Fund Index was therefore +1.58% above the BVG requirement in the fourth quarter of 2022.

■ The annualized return on the Credit Suisse Swiss Pension Fund Index (since January 1, 2000) amounted to 2.80% as of December 31, 2022. This contrasts with an annualized BVG mandatory minimum rate of return of 2.05%.

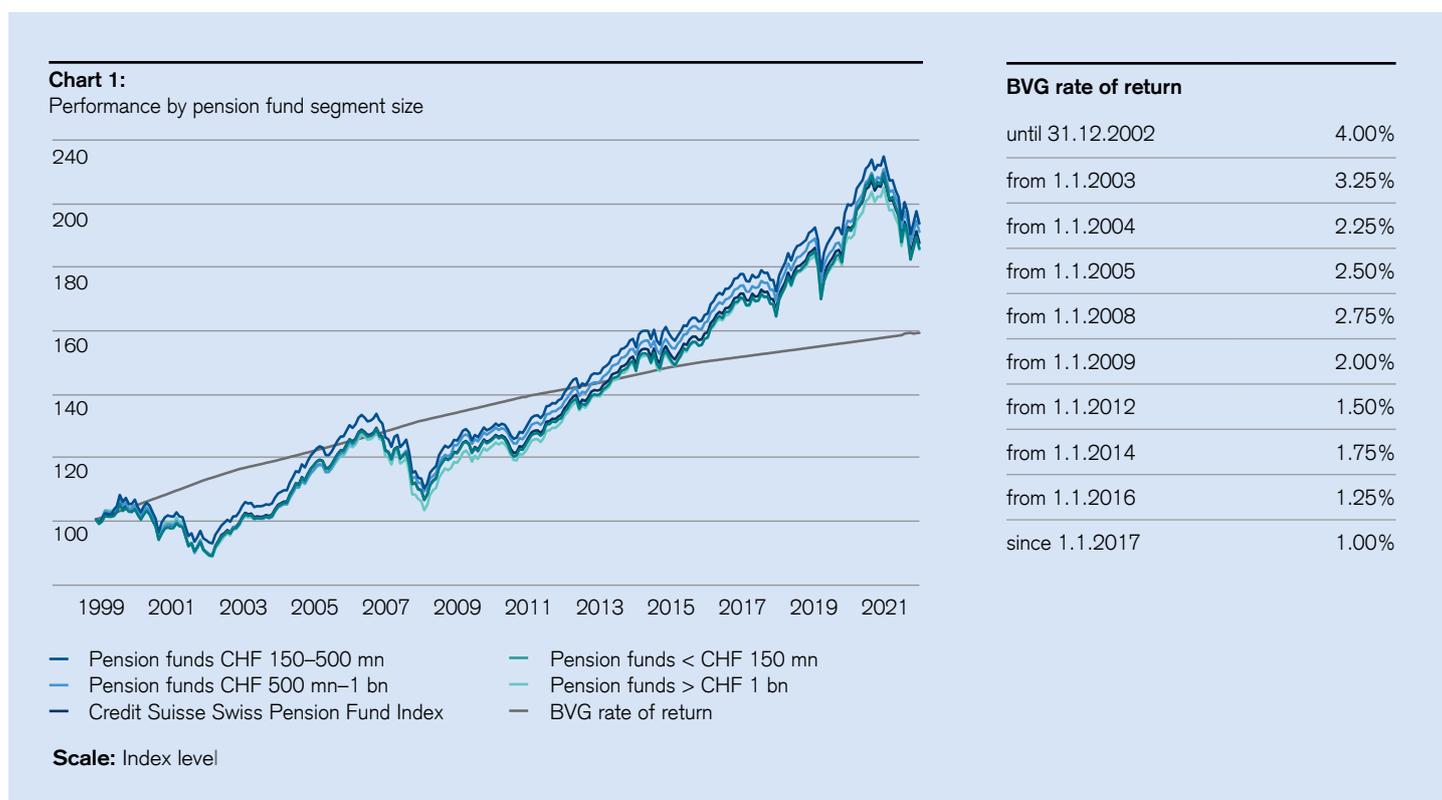


Table 2: Index level 2015–2022

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
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
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
2017	160.03	162.97	164.03	165.65	166.57	165.92	167.78	167.87	168.95	170.97	171.22	172.48
2018	172.42	170.25	170.20	172.40	171.44	171.65	173.73	172.82	173.03	170.69	170.63	166.96
2019	172.06	174.21	176.13	179.15	176.66	179.49	181.14	181.37	182.27	183.16	185.49	186.14
2020	187.09	182.86	172.81	178.56	181.12	182.65	184.03	185.99	186.43	184.18	191.06	193.79
2021	193.32	194.54	199.21	200.58	202.01	205.78	206.66	208.79	205.45	207.15	206.70	209.84
2022	205.93	202.17	202.57	199.70	197.36	189.96	195.45	192.31	185.23	188.95	192.44	188.62

Table 3: Monthly returns 2015–2022

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
2015	-1.83%	2.74%	0.64%	0.12%	-0.13%	-1.64%	1.87%	-2.21%	-0.93%	2.70%	0.97%	-1.20%	0.95%
2016	-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%
2017	0.26%	1.83%	0.65%	0.99%	0.55%	-0.39%	1.12%	0.06%	0.64%	1.20%	0.14%	0.74%	8.05%
2018	-0.04%	-1.26%	-0.03%	1.29%	-0.55%	0.12%	1.21%	-0.52%	0.12%	-1.35%	-0.04%	-2.15%	-3.20%
2019	3.05%	1.25%	1.10%	1.71%	-1.39%	1.60%	0.92%	0.13%	0.49%	0.49%	1.27%	0.35%	11.48%
2020	0.51%	-2.26%	-5.49%	3.33%	1.43%	0.84%	0.76%	1.07%	0.23%	-1.21%	3.73%	1.43%	4.11%
2021	-0.24%	0.63%	2.40%	0.69%	0.72%	1.86%	0.43%	1.03%	-1.60%	0.82%	-0.22%	1.52%	8.28%
2022	-1.86%	-1.83%	0.20%	-1.42%	-1.17%	-3.75%	2.89%	-1.61%	-3.68%	2.01%	1.84%	-1.98%	-10.11%

Table 4: Monthly returns 2022 by pension fund segment size

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
Credit Suisse Swiss Pension Fund Index	-1.86%	-1.83%	0.20%	-1.42%	-1.17%	-3.75%	2.89%	-1.61%	-3.68%	2.01%	1.84%	-1.98%	-10.11%
Pension funds > CHF 1 bn	-1.85%	-1.71%	0.14%	-1.36%	-1.10%	-3.49%	2.83%	-1.52%	-3.47%	1.97%	1.77%	-2.04%	-9.62%
Pension funds CHF 500 mn–1 bn	-1.74%	-1.76%	0.28%	-1.20%	-1.09%	-3.72%	2.74%	-1.54%	-3.61%	1.98%	1.83%	-1.83%	-9.48%
Pension funds CHF 150–500 mn	-1.83%	-1.79%	0.08%	-1.53%	-1.10%	-3.57%	2.90%	-1.62%	-3.58%	1.99%	1.86%	-1.99%	-9.96%
Pension funds < CHF 150 mn	-2.02%	-2.08%	0.41%	-1.44%	-1.44%	-4.42%	3.05%	-1.73%	-4.16%	2.09%	1.89%	-2.00%	-11.52%

Table 5: Annualized returns

January 1, 2000–December 31, 2022

	Annualized performance since January 1, 2000
Credit Suisse Swiss Pension Fund Index	2.80%
BVG rate of return	2.05%
Pension funds > CHF 1 bn	2.74%
Pension funds CHF 500 mn–1 bn	2.88%
Pension funds CHF 150–500 mn	2.94%
Pension funds < CHF 150 mn	2.75%

Performance by asset class

Monthly returns

Table 6: Credit Suisse Swiss Pension Fund Index in 2022

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
Liquidity	-2.31%	1.69%	0.03%	-4.54%	0.87%	0.98%	1.14%	-2.69%	0.03%	-2.72%	4.41%	1.97%	-1.46%
CHF bonds	-1.48%	-1.83%	-2.35%	-2.30%	-0.51%	-1.94%	2.86%	-2.71%	2.58%	0.30%	1.91%	-2.05%	-12.15%
Foreign currency bonds	0.05%	-3.09%	-1.96%	-0.16%	-0.83%	-3.71%	1.56%	-0.69%	-4.17%	1.50%	0.10%	-2.46%	-13.19%
Convertible bonds	-3.29%	-1.49%	-0.24%	-2.57%	-2.65%	-4.57%	2.80%	-0.08%	-4.22%	2.17%	1.83%	-1.47%	-13.24%
Swiss equities	-5.67%	-2.58%	2.28%	-0.16%	-4.20%	-7.40%	4.72%	-3.34%	-6.35%	4.89%	3.19%	-3.03%	-17.17%
Foreign equities	-3.33%	-3.72%	2.01%	-3.57%	-0.78%	-8.25%	6.00%	-1.71%	-8.78%	7.14%	3.81%	-5.91%	-17.12%
Alternative investments	0.80%	-0.45%	0.75%	1.80%	-0.81%	-1.48%	-0.31%	0.82%	-1.15%	0.94%	-0.85%	-0.70%	-0.69%
Real estate	0.09%	-0.71%	0.43%	-0.17%	-1.00%	-1.75%	1.34%	-0.30%	-1.12%	0.00%	0.38%	0.60%	-2.24%
Mortgages	-0.10%	-0.24%	-0.47%	-0.43%	-0.10%	-0.53%	0.88%	-0.73%	-0.35%	0.33%	0.53%	-0.32%	-1.55%
Other	-2.04%	-1.16%	0.10%	-0.77%	-0.96%	-4.01%	1.86%	-0.55%	-3.09%	2.32%	0.86%	-1.96%	-9.19%
Total	-1.86%	-1.83%	0.20%	-1.42%	-1.17%	-3.75%	2.89%	-1.61%	-3.68%	2.01%	1.84%	-1.98%	-10.11%

Note: In addition to cash, the liquidity asset class includes money market investments and FX forwards for currency hedging purposes.

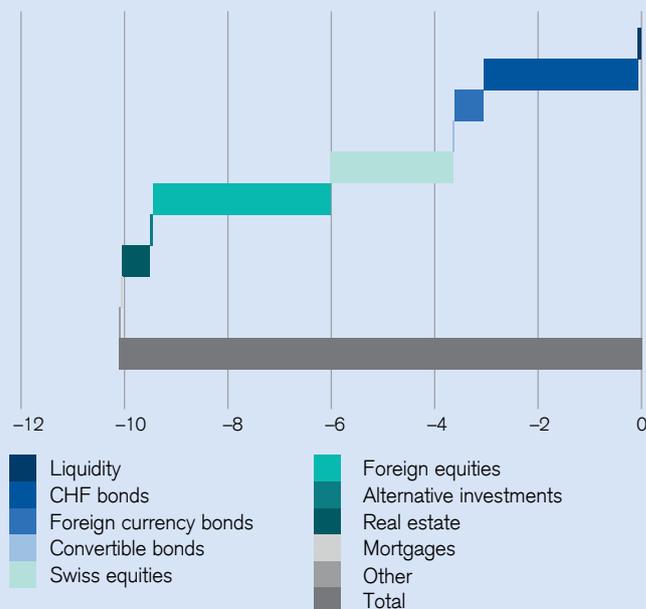
Table 7: Benchmark indices in 2022

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
CHF bonds SBI AAA-BBB 1-15Y (TR)	-1.16%	-1.66%	-2.04%	-1.50%	-0.41%	-1.52%	2.52%	-2.60%	-1.88%	0.77%	1.41%	-2.01%	-9.75%
Foreign currency bonds Bloomberg Global Aggr. (TR)	0.09%	-2.63%	-2.75%	-0.30%	-0.98%	-3.33%	1.60%	-1.57%	-4.33%	0.98%	-0.32%	-2.37%	-14.96%
Swiss equities SPI (TR)	-5.67%	-2.20%	2.42%	0.42%	-4.38%	-7.27%	4.42%	-3.06%	-5.98%	4.84%	2.87%	-3.27%	-16.48%
Foreign equities MSCI AC World ex Switzerland (NR)	-2.76%	-4.06%	2.48%	-3.05%	-1.04%	-8.58%	6.49%	-1.25%	-8.88%	7.89%	2.59%	-6.79%	-17.11%
Real estate direct/ investment foundations KGAST Immo-Index (Switzerland) (TR)	0.31%	0.34%	0.57%	0.29%	0.32%	0.36%	0.46%	0.49%	0.31%	0.47%	0.42%	0.42%	4.86%
Real estate funds SXI Real Estate Funds Broad (TR)	-0.19%	-3.45%	-0.56%	-1.13%	-4.42%	-6.01%	3.27%	-0.97%	-4.38%	-1.11%	1.56%	1.48%	-15.17%

Positive fourth-quarter return heavily driven by equities

- Swiss equities were highly positive (+4.96%) and ahead of the SPI (TR) benchmark index (+4.32%).
- Foreign equities were likewise very positive (+4.64%) and outperformed the benchmark MSCI AC World ex Switzerland (NR) (+3.17%).
- CHF bonds were mildly positive (+0.12%) but fell just short of the SBI AAA-BBB 1–15Y (TR) (+0.14%).
- Foreign currency bonds were negative (–0.89%) but outperformed the benchmark index Bloomberg Barclays Global Aggr. (TR) (–1.73%).
- Real estate was likewise positive (+0.98%), though lagged behind the benchmark (50% KGAST and 50% SXI Real Estate Funds Broad [TR]) (+1.62%).
- Liquidity (cash, money market investments, and FX forwards for currency hedging) posted a positive return (+3.58%) in the fourth quarter.

Chart 2:
Contribution waterfall YTD 2022



Scale: Return in percent (%)

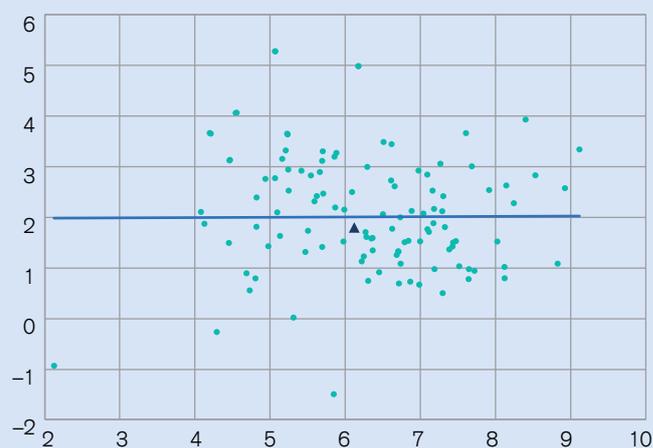
Risk/return positions

Five-year review: Falling annualized return in the reporting quarter, as annualized risk increases

- The unweighted average annualized return in Q4 2022 fell slightly by -0.05% percentage points to 1.80% compared with the third quarter of 2022 amid rising risk ($+0.16\%$ to 6.10%).
- The Sharpe ratio therefore deteriorated slightly from 0.43 to 0.40 .
- Pension funds with an investment volume of CHF 500 million to 1 billion exhibited the best risk/return ratio (Sharpe ratio of 0.43).
- Pension funds with an investment volume of more than CHF 1 billion showed the highest median return (2.41%).
- Pension funds with an investment volume of less than CHF 150 billion showed the lowest median return (1.73%).
- Pension funds with an investment volume of less than CHF 150 million showed the lowest Sharpe ratio (0.36).

Chart 3:

Annualized risk/return comparison; five-year view, monthly values from October 2017 – September 2022



X-axis: annualized risk in percent (%)
Y-axis: annualized return in percent (%)
▲: Credit Suisse Swiss Pension Fund Index

Table 8: Risk/return ratios

January 1, 2018–December 31, 2022

	Risk	Return	Sharpe ratio
Credit Suisse Swiss Pension Fund Index	6.10%	1.80%	0.40
Pension funds > CHF 1 bn	5.92%	1.80%	0.41
Pension funds CHF 500 mn–1 bn	5.88%	1.90%	0.43
Pension funds CHF 150–500 mn	5.92%	1.75%	0.40
Pension funds < CHF 150 mn	6.69%	1.77%	0.36

Table 9: Return bandwidths

January 1, 2018–December 31, 2022

	Minimum	1st quartile	Median	3rd quartile	Maximum
Credit Suisse Swiss Pension Fund Index	-1.47%	1.37%	1.90%	2.75%	5.29%
Pension funds > CHF 1 bn	0.71%	1.60%	2.41%	2.59%	3.34%
Pension funds CHF 500 mn–1 bn	0.75%	1.50%	2.17%	2.77%	3.68%
Pension funds CHF 150–500 mn	-1.47%	1.11%	1.83%	2.49%	5.29%
Pension funds < CHF 150 mn	0.04%	1.08%	1.73%	3.00%	5.00%

Note: The Sharpe ratio shows the return in excess of the risk-free interest rate divided by the volatility, which is a measure of its risk.

The risk/return figures in Table 8 are annualized values for the past five years. A portfolio only contributes to the return and risk of the index during the periods in which this portfolio is included in the index. The data points in Chart 3, by contrast, show the figures for the portfolios that were part of the index at the end of the reference quarter, regardless of the date they joined the index, as well as the figures for the index itself. The data points of recently added portfolios may have been removed if the annualization led to meaningless outliers.

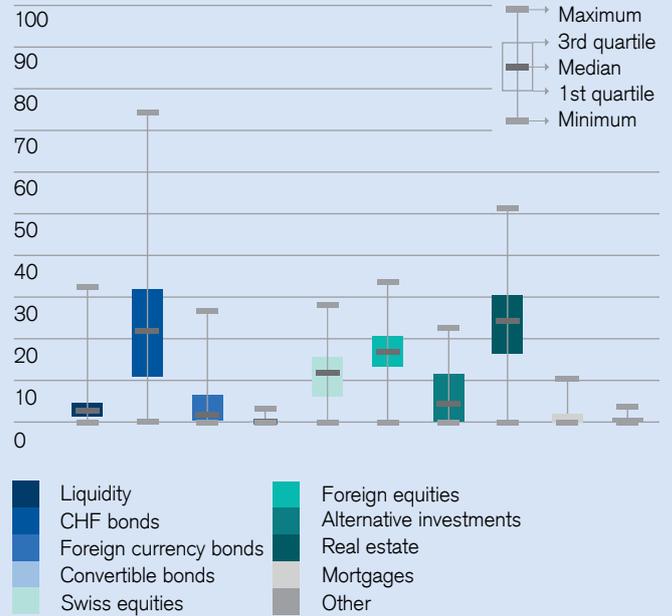
Asset allocation

Increases in equities and CHF bonds, decreases in real estate and alternative investments

- The rise in share prices led to a shift at the expense of other asset classes, in particular real estate and alternative investments, in the reporting quarter.
 - Foreign equities +0.69% to 18.63%
 - CHF bonds +0.35% to 25.25%
 - Convertible bonds +0.17% to 0.36%
 - Swiss equities +0.16% to 12.74%
 - Mortgages +0.05% to 2.08%
 - Liquidity –0.22% to 3.97%
 - Foreign currency bonds –0.32% to 3.84%
 - Real estate –0.43% to 25.92%
 - Alternative investments –0.45% to 6.86%

Chart 4:

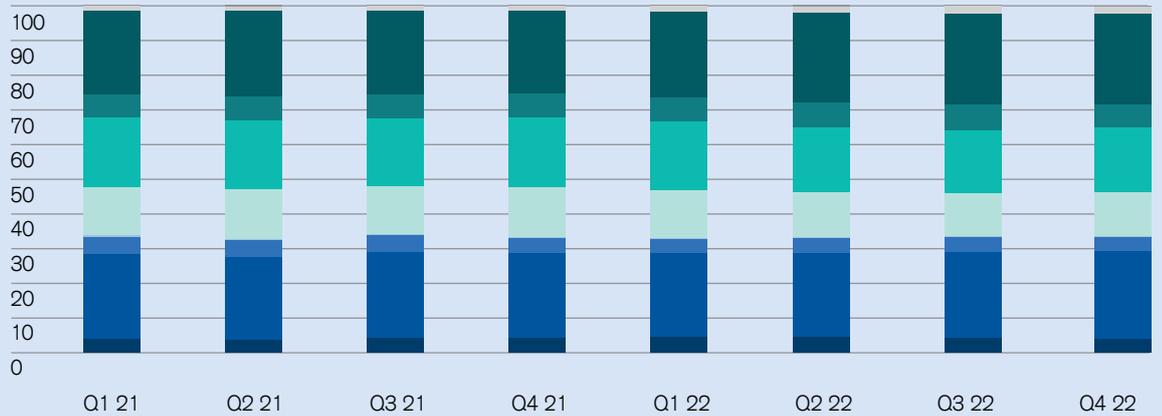
Asset allocation



Scale: In percent (%)

Chart 5:

Asset allocation at the end of the quarter for the last eight quarters



Scale: In percent (%)

■ Liquidity	3.84%	3.59%	4.12%	4.14%	4.33%	4.44%	4.19%	3.97%
■ CHF bonds	24.44%	24.03%	24.84%	24.41%	24.22%	24.39%	24.90%	25.25%
■ Foreign currency bonds	4.98%	4.71%	4.60%	4.43%	4.05%	4.18%	4.16%	3.84%
■ Convertible bonds	0.33%	0.32%	0.36%	0.26%	0.22%	0.20%	0.19%	0.36%
■ Swiss equities	13.83%	14.21%	13.76%	14.26%	13.82%	13.04%	12.58%	12.74%
■ Foreign equities	20.10%	19.88%	19.59%	20.09%	19.75%	18.42%	17.94%	18.63%
■ Alternative investments	6.69%	6.71%	6.74%	6.66%	6.83%	7.36%	7.31%	6.86%
■ Real estate	23.87%	24.66%	24.15%	23.84%	24.73%	25.72%	26.35%	25.92%
■ Mortgages	1.46%	1.42%	1.50%	1.54%	1.70%	1.91%	2.03%	2.08%
■ Other	0.45%	0.46%	0.36%	0.36%	0.34%	0.36%	0.36%	0.35%

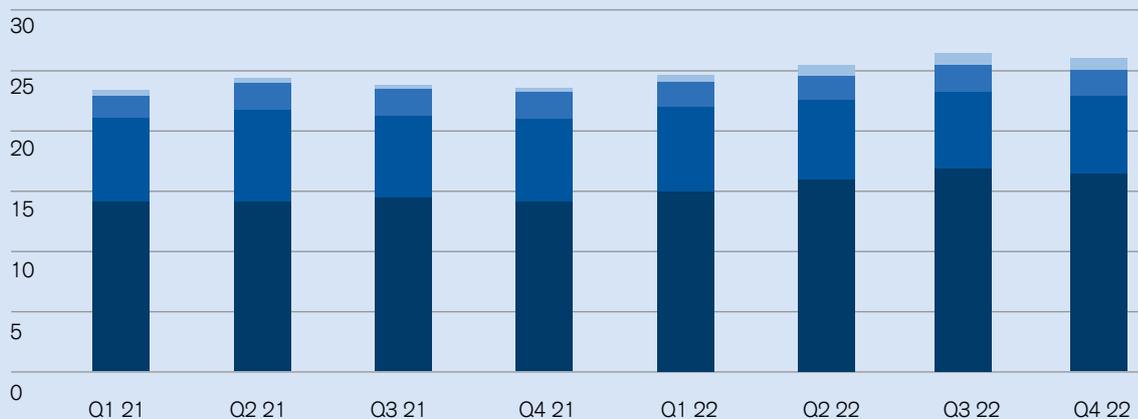
Decline in real estate

- The overall share of real estate was down as of the end of the fourth quarter of 2022 (−0.43% to 25.92%).
- Swiss real estate decreased overall (−0.31% to 22.81%). Direct real estate declined by −0.47% to 16.33%, while

indirect rose +0.16% to 6.48%.

- The share of foreign real estate decreased (−0.12% to 3.11%).

Chart 6:
Real estate allocation at the end of the quarter for the last eight quarters



Scale: In percent (%)

	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22
Swiss direct investments / investment foundations	14.46%	14.35%	14.42%	14.14%	14.89%	16.14%	16.80%	16.33%
Swiss investment funds	6.44%	7.32%	6.78%	6.81%	6.81%	6.52%	6.32%	6.48%
Foreign hedged	1.99%	2.04%	1.97%	1.96%	2.04%	2.10%	2.24%	2.18%
Foreign unhedged	0.98%	0.96%	0.98%	0.93%	1.00%	0.97%	0.99%	0.94%
Total	23.87%	24.66%	24.15%	23.84%	24.73%	25.72%	26.35%	25.92%

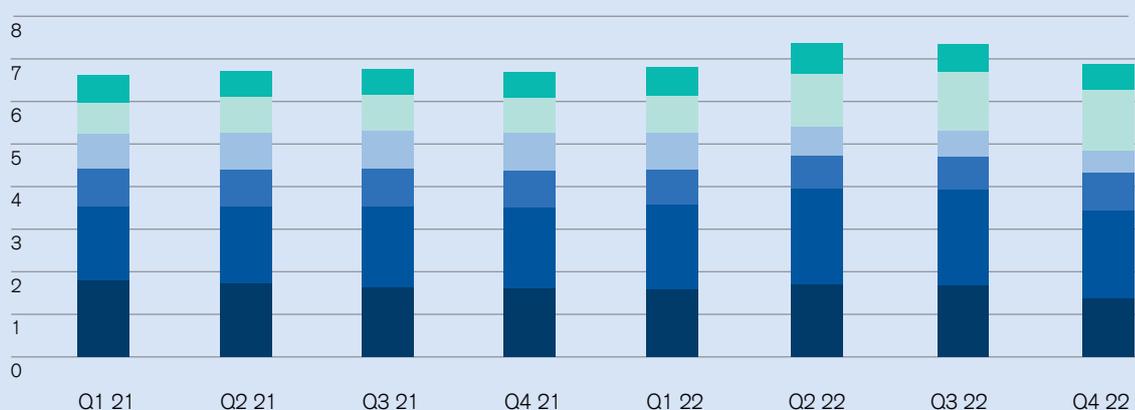
Increase in infrastructure

- The alternative investments component decreased compared with the previous quarter (−0.45% to 6.86%).
- Infrastructure was the only component to show an increase (+0.16% to 1.54%).

- Private equity (−0.28% to 1.97%), hedge funds (−0.20% to 1.46%), senior loans (−0.06% to 0.60%), insurance-linked (−0.06% to 0.55%), and commodities (−0.02% to 0.73%) all declined.

Chart 7:

Allocation of alternative investments at the end of the quarter for the last eight quarters



Scale: In percent (%)

	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22
Hedge funds	1.91%	1.89%	1.76%	1.63%	1.62%	1.69%	1.66%	1.46%
Private equity	1.63%	1.74%	1.84%	1.89%	2.01%	2.25%	2.25%	1.97%
Commodities	0.77%	0.75%	0.79%	0.79%	0.80%	0.78%	0.75%	0.73%
Insurance-linked	0.79%	0.73%	0.75%	0.73%	0.67%	0.67%	0.61%	0.55%
Infrastructure	0.90%	0.96%	0.97%	1.00%	1.06%	1.24%	1.38%	1.54%
Senior loans	0.69%	0.64%	0.64%	0.62%	0.67%	0.73%	0.66%	0.60%
Total	6.69%	6.71%	6.74%	6.66%	6.83%	7.36%	7.31%	6.86%

Modified duration

- The modified duration for the overall index was 4.83 as of December 31, 2022.
- Pension funds with assets between CHF 500 million and CHF 1 billion exhibited the highest modified duration (5.38) as of

the end of December 2022.

- The lowest modified duration as of the end of December 2022 (4.48) was observed in pension funds with investment assets of below CHF 150 million.

Table 10: Modified duration in 2022 (at month-end)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Credit Suisse Swiss Pension Fund Index	5.20	5.21	4.97	4.88	4.89	4.86	5.02	4.88	4.78	4.89	4.95	4.83
Pension funds > CHF 1 bn	5.42	5.47	5.23	5.19	5.40	5.34	5.66	5.50	5.37	5.35	5.35	5.22
Pension funds CHF 500 mn–1 bn	6.58	6.24	5.85	5.70	5.85	5.56	6.30	6.01	5.61	5.81	5.81	5.38
Pension funds CHF 150–500 mn	4.72	4.92	4.82	4.69	4.53	4.63	4.53	4.36	4.50	4.52	4.59	4.52
Pension funds < CHF 150 mn	3.99	3.94	3.67	3.52	3.43	3.40	3.73	3.61	3.58	4.57	4.58	4.48

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.

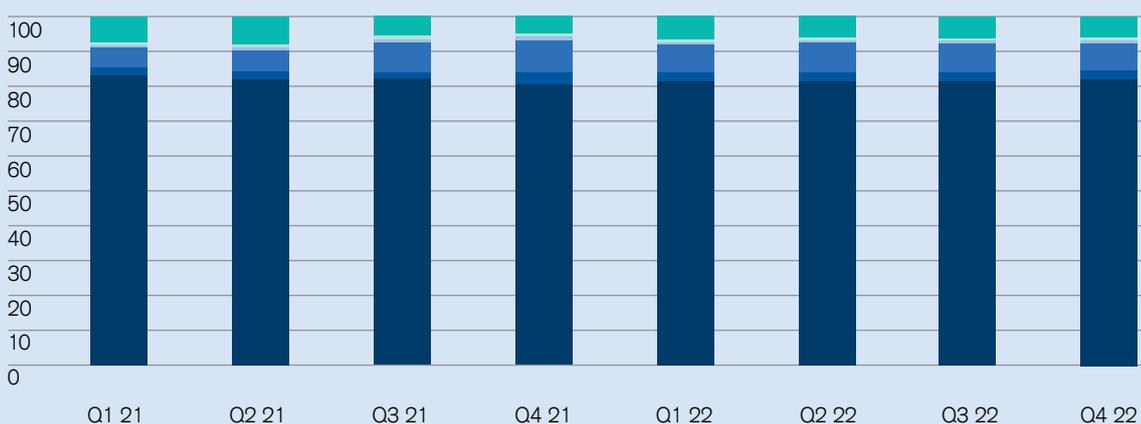
Currency allocation

Increase in Swiss franc component in fourth quarter of 2022

■ The reporting quarter saw a slight shift to the CHF component, the share of which rose to 82.89% (+0.19%). The USD (+0.17% to 7.90%), JPY (+0.04% to 0.72%), and GBP (+0.03% to 0.64%) components also gained slightly.

■ The EUR component remained unchanged at 2.31%, while other currencies (−0.41% to 5.56%) showed a decrease.

Chart 8:
Currency allocation for the last eight quarters



Scale: In percent (%)

	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22	Q4 22
■ CHF	80.13%	80.50%	81.30%	81.10%	81.42%	82.04%	82.70%	82.89%
■ EUR	2.44%	2.53%	2.53%	2.61%	2.47%	2.48%	2.31%	2.31%
■ USD	8.64%	8.36%	8.05%	8.47%	8.36%	7.89%	7.73%	7.90%
■ GBP	0.73%	0.73%	0.72%	0.71%	0.73%	0.72%	0.61%	0.64%
■ JPY	0.98%	0.85%	0.81%	0.78%	0.76%	0.72%	0.68%	0.72%
■ Other	7.09%	7.03%	6.60%	6.33%	6.26%	6.16%	5.97%	5.56%

Table 11: Foreign exchange rates against the CHF in 2022

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	YTD
EUR	0.73%	−1.27%	−0.64%	0.01%	0.28%	−2.53%	−2.97%	1.05%	−1.75%	2.58%	−0.82%	0.65%	−4.70%
USD	2.18%	−1.46%	0.31%	5.48%	−1.25%	−0.13%	−0.52%	2.47%	0.85%	1.68%	−4.80%	−2.89%	1.54%
GBP	1.22%	−1.45%	−1.57%	0.57%	−0.89%	−3.74%	−0.31%	2.02%	−3.25%	4.87%	−1.53%	−1.91%	−9.82%
JPY	2.12%	−1.42%	−4.82%	−1.20%	−0.53%	−5.43%	1.13%	−1.21%	−3.41%	−0.98%	1.41%	2.70%	−11.38%

Data source: Credit Suisse, unless otherwise specified.

Past performance and financial market scenarios are not reliable indicators of future results.

Sustainability analysis

Asset allocation by MSCI ESG rating

- The independent MSCI ESG rating is based on the MSCI ESG score (0–10). The "leader" category for the respective sector is shown in green (AAA and AA), while yellow depicts "average" (A–BB) and red is for "laggard" (B–CCC).
- The ESG leader category is very strongly represented in the Credit Suisse Swiss Pension Fund Index at 68.25% (+3.98%).
- An MSCI ESG rating of AA accounts for the biggest share of the overall index of all pension funds at 46.27%.

- The biggest rise at the end of the fourth quarter was in the AA category at 46.27% (+9.78%). This shift was primarily at the expense of the AAA category.
- The laggards – MSCI ESG ratings of B and CCC – account for by far the smallest share in all subindices.

Chart 9:
Asset allocation by MSCI ESG rating



Scale: In percent (%)

ESG Rating	Credit Suisse Swiss Pension Fund Index	Pension funds > CHF 1 bn	Pension funds CHF 500 mn–1 bn	Pension funds CHF 150–500 mn	Pension funds < CHF 150 mn
AAA	21.98%	20.22%	24.22%	21.29%	24.01%
AA	46.27%	40.79%	44.44%	49.56%	46.46%
A	18.28%	21.26%	19.25%	16.91%	17.19%
BBB	5.08%	5.96%	5.2%	4.50%	5.06%
BB	1.56%	1.61%	2.00%	1.29%	1.82%
B	0.16%	0.33%	0.16%	0.12%	0.07%
CCC	0.03%	0.04%	0.01%	0.01%	0.06%
Not rated	6.64%	9.80%	4.61%	6.33%	5.34%

Note: All sustainability analyses relate exclusively to the asset classes of equities and bonds.

Data source: MSCI, Credit Suisse

Distribution of average MSCI ESG ratings

- The percentage share of pension funds with an average MSCI ESG rating of AA increased compared with the previous quarter to 61,21% (+1.37%) as of December 31, 2022.
- 31.90% of the participating pension funds had an MSCI ESG rating of A.

- 0.86% of the pension funds had an average ESG rating of AAA.
- 6.03% received an average MSCI ESG rating of BBB.

Chart 10:
Relative number of average ESG ratings



Scale: In percent (%)

Note: All sustainability analyses relate exclusively to the asset classes of equities and bonds.

Data source: MSCI, Credit Suisse

Asset allocation by weighted average carbon intensity category (MSCI WACI)

- The weighted average carbon intensity is expressed in tons of CO2 emissions per USD million sales. This metric allows the carbon risk of equities and bonds to be measured.
- 36.18% of the overall index falls into the "very low" or "low" carbon intensity categories.

- The largest part of the investments is allocated to the "moderate" category. The allocation to the "very high" and "high" categories is relatively small in every segment size of the pension funds.

Chart 11:
Weighted average carbon intensity category according to MSCI



Scale: In percent (%)

Table 12: Asset allocation by weighted average carbon intensity category as of December 31, 2022

Category	Credit Suisse Swiss Pension Fund Index	Pension funds > CHF 1 bn	Pension funds CHF 500 mn-1 bn	Pension funds CHF 150-500 mn	Pension funds < CHF 150 mn
Very low	14.16%	18.88%	15.57%	13.48%	9.53%
Low	22.02%	20.71%	23.14%	21.68%	22.33%
Moderate	47.48%	38.71%	47.50%	50.52%	51.79%
High	4.39%	3.75%	4.35%	3.85%	6.10%
Very high	1.70%	1.34%	2.21%	1.50%	2.08%
Not rated	10.25%	16.62%	7.23%	8.97%	8.17%

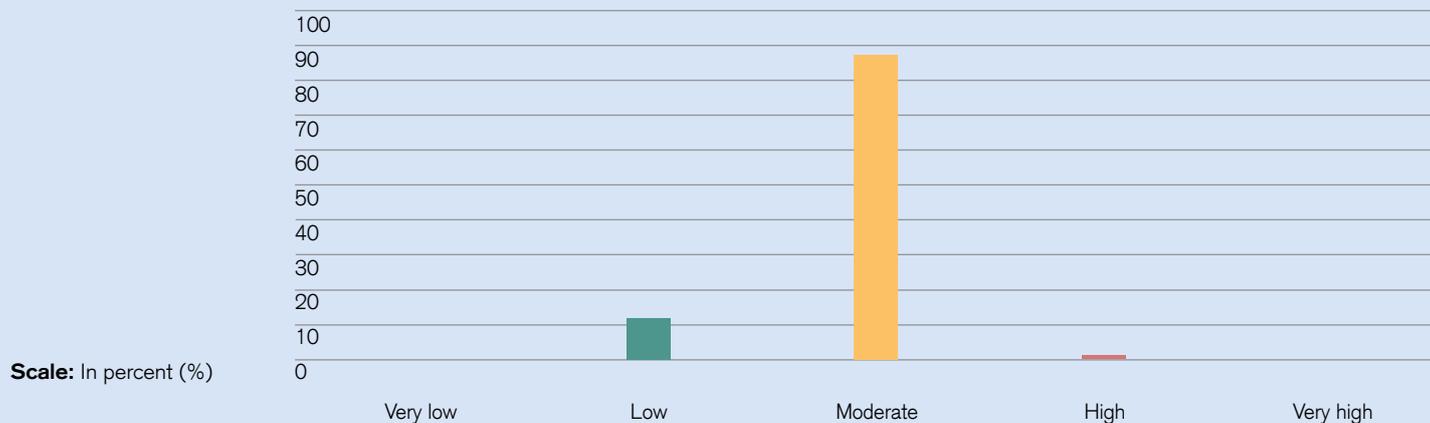
Note: All sustainability analyses relate exclusively to the asset classes of equities and bonds.

Data source: MSCI, Credit Suisse

Distribution of weighted average carbon intensity category according to MSCI

- The percentage share of pension funds with an average carbon intensity category of "low" is 11.71% (-1.04% compared with the previous quarter).
- The vast majority of pension funds (87.39%) were assigned to the "moderate" category.
- A minimal share of 0.90% of the participating pension funds were assigned to the average carbon intensity category of "high" as of December 31, 2022. There were no pension funds in the "very high" category.

Chart 12:
Relative number of average MSCI carbon intensity categories



Note: All sustainability analyses relate exclusively to the asset classes of equities and bonds.

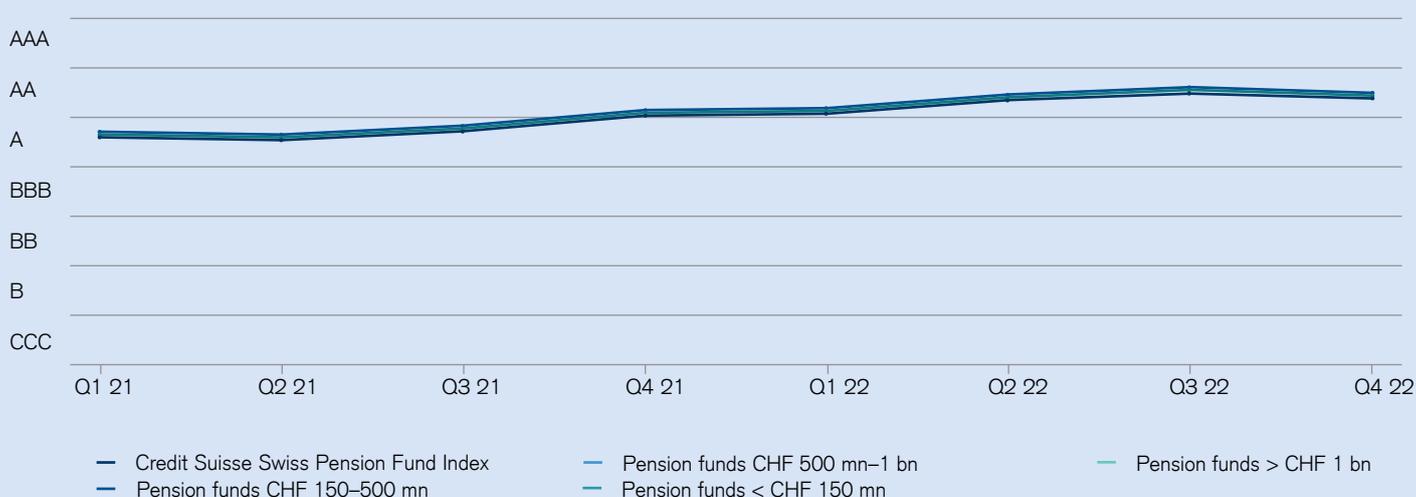
Data source: MSCI, Credit Suisse

Average MSCI ESG rating in last eight quarters

- The average MSCI ESG ratings showed a slightly falling trend as of the end of the fourth quarter of 2022.

Chart 13:

Average ESG rating at end of quarter



Average MSCI ESG score for the last eight quarters

	Q4 20	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22	Q3 22
■ Credit Suisse Swiss Pension Fund Index	6.56	6.53	6.75	6.95	7.16	7.57	7.73	7.63
■ Pension funds > CHF 1 bn	6.56	6.57	6.74	6.93	7.08	7.46	7.61	7.55
■ Pension funds CHF 500 mn–1 bn	6.66	6.61	6.81	6.99	7.17	7.56	7.79	7.68
■ Pension funds CHF 150–500 mn	6.51	6.47	6.73	6.95	7.20	7.62	7.74	7.65
■ Pension funds < CHF 150 mn	6.60	6.52	6.77	6.96	7.17	7.61	7.81	7.66

Note: All sustainability analyses relate exclusively to the asset classes of equities and bonds.

Data source: MSCI, Credit Suisse



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Global Custody Solutions

Uetlibergstrasse 231

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global.custody@credit-suisse.com

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