Research

Appraising home bias exposure

Switzerland

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Introduction

This paper explores the investment impact of the large and persistent home bias in the equity allocations of the Swiss pension fund market since the global financial crisis.

For this study, we examined the characteristics, performance and return-to-risk profiles of the equity markets in Switzerland from 2008 through September 2019. We compare the findings of the Swiss market with those of other European markets and follow with a more comprehensive perspective of the impact of home bias in Switzerland.

These findings show that maintaining a home bias has been costly for Eurozone investors for most of the period, while it was beneficial in just over half of the 12 years examined for Swiss investors.

Overview

Despite the ongoing integration of the world's economies and financial markets, studies show that pension funds worldwide continue to skew their portfolios to domestic securities. There are several explanations for this persistent investor preference, including the desire to avoid exposure to exchange rate or political risks, the extra costs of hedging against these risks, regulatory barriers[1], brand familiarity and asset-liability matching needs.[2]

In this paper, we examine the investment effects of home bias in the equity allocations of Swiss pension funds from 2008 through September 2019. We measure its extent and analyze its effects over a 12-year period. The findings show that the risk-adjusted performance for Switzerland in aggregate for the 12 years was flat. However, closer inspection also revealed periods of significant differences in risk-adjusted returns, with 2013 and 2016 seen as standout periods. They also highlight that currency mattered, with the strength of the Swiss franc boosting returns for Swiss investors during the period.

Comparing Switzerland with other European equity markets show that Eurozone equity indexes have tended to consistently underperform the global index, in both absolute and risk-adjusted terms, with euro weakness exacerbating returns. Swiss investors had more to gain from home bias exposure than Eurozone investors, but only in just over half of the period of the 12 years examined.

We assess these results within the context of the recessionary environment and the extraordinary central-bank measures undertaken in response to the global financial crisis. We make the following observations:

- **Currency mattered.** During the multi-year Eurozone debt crisis, the euro depreciated from its 2009 peak, while the Swiss franc appreciated, benefiting from its status as a safe haven. To curb the appreciation of the franc and protect exports, the Swiss National Bank adopted unconventional measures in 2015 (moving to negative rates and unpegging the franc from the euro), which led to a modest depreciation

[1] Pension Markets in Focus 2017, OECD.
[2] Liberalising Foreign Investments by Pensions Funds: Positive and Normative Aspects, OECD Working Paper 5.3.

of the Swiss currency. A strong currency enhances the returns of domestic equities over those of overseas markets, and vice versa. Therefore, periods of Swiss franc appreciation would have benefited Swiss investors with a home bias.

- **US dominance.** Relative returns across global equity markets have faced stiff hurdles from the overwhelming outperformance of US equities, which make up 53% of the FTSE All-World Index. Our research[3] found that the FTSE USA produced higher risk-adjusted returns than the FTSE All-World ex US in 10 (or more than 80%) of the past 12 years.
- **Inherent concentrations.** Local equity markets tend toward large concentrations in certain industries (from oil to technology), as we illustrate in Table 1. The broad global index naturally diversifies these sector and economic exposures. Switzerland has the highest concentration among its European peers, with its top three industry representing 84% of its market. The top three industries in the FTSE All-World ex Eurozone represent almost half of the Swiss weighting equivalent (47%).[4] By definition, no single country can offer anywhere close to the depth and breadth of the world index.

Table 1 summarises the main findings for each region and evaluates the overall impact of a home bias from an investor's perspective.

Table 1: Summary of home-bias impact on investor outcomes

	Switzerland	France	Germany	Netherlands	Italy	Spain
Home-bias ratio	16x	29x	18x	50x	26x	67x
Industry concentration Top three industry exposures (% of index)	84%	58%	58%	65%	70%	66%
Domestic vs overseas revenue source % of revenue generated by market constituents domestically*	16%	35%	34%	22%	39%	35%
Relative outperformance in calendar years Number of years domestic equities outperformed overseas equities, in base currency	7/12yrs	3/12yrs	3/12yrs	5/12yrs	4/12yrs	5/12yrs
Return/risk ratio in % & calendar years Percentage & number of years domestic equities delivered better risk-adjusted returns.	58% (7/12yrs)	17% (2/12yrs)	17% (2/12yrs)	25% (3/12yrs)	25% (3/12yrs)	25% (3/12yrs)
Conclusion Was home bias positive or negative overall?	Neutral	Neutral	Negative	Negative	Negative	Negative

Source: FTSE Russell to September 30, 2019 (Q2 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures. *On December 31, 2017. For further information on Eurozone research, refer to FTSE Russell's Appraising home bias exposure – Eurozone, December 2019, https://content.ftserussell.com/sites/default/files/appraising_home_bias_exposure_eurozone_1.pdf.

[3] Appraising home bias, FTSE Russell https://www.ftserussell.com/research/appraising-home-bias-exposure-using-ftse-global-equity-index-series

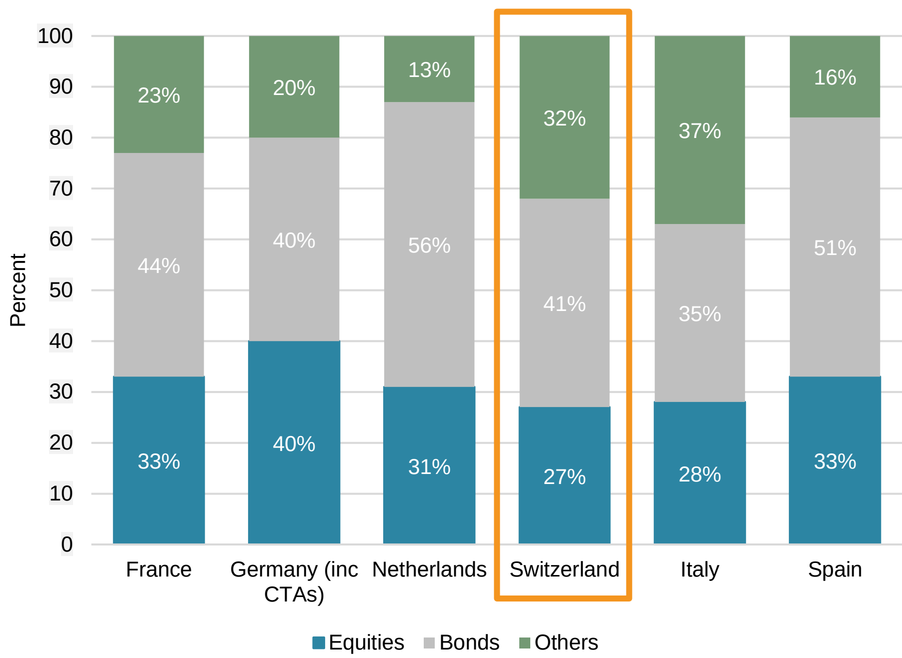
[4] Appraising Eurozone home bias, Eurozone, FTSE Russell.

Finally, for the purpose of this analysis, we used the FTSE All-World Index –a sub-index of the FTSE Global Equity Index Series (FTSE GEIS) that includes large and mid-cap developed and emerging companies – for its representation of the global universe of listed companies. An overview of the index is in the Appendix.

Comparing pension funds equity exposure in Europe

A recent study[5] showed that pension fund providers in France, Germany, Italy, the Netherlands, Spain and Switzerland allocated less than 50% of their overall assets to equities in 2018 (blue area in Chart 1). This represents a substantial downsizing of the equity allocation over the last 15 years. Note that in markets where equities used to be a dominant asset class some 10-years ago, some markets, such as Switzerland and Italy, have allocated as little as 27% and 28% respectively, more recently.

Chart 1: Pension funds estimated asset allocation in 2018 (%)



Source: Mercer European Asset Allocation Survey, 2018

Equities comprise roughly a third of the pension-fund allocations in the six European markets we studied.

[5] Source: Mercer European Asset Allocation Survey, 2018. https://www.uk.mercer.com/ourthinking/wealth/european-asset-allocation-survey-2019-e.html

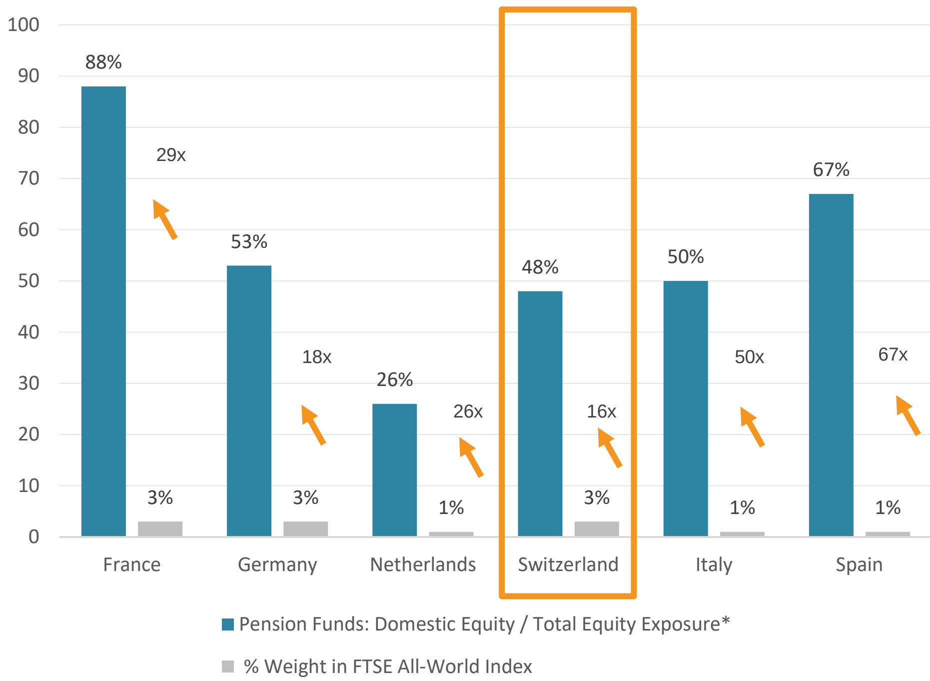
Domestic equity exposure

The same study estimated the percentage of domestic allocation within each region's total equity allocation in 2018. Using this data and comparing it with the weight of the respective markets in the FTSE All-World Index, we can gauge the size of the home bias within an equity allocation. The results are shown in Chart 2. The blue bar represents the estimated percentage of total equities allocated to domestic equities in 2018 and the grey bar shows the weight of the regional index in the FTSE All-World Index. The difference is converted into a ratio.

In Chart 2, Spain stands out for having the largest disparity between its allocation to domestic equities (67%) and its weight in the FTSE All-World Index (1%), which translates into a ratio of 67 times. By contrast, the disparity is smallest for Switzerland, with still a sizeable ratio of 16 times.

All of the European equity markets examined exhibit a large home bias relative to their weight in the global index.

Chart 2: Pension funds estimated allocation to domestic equities relative to total equity exposure and country weight in the FTSE All-World Index (%)



Source: FTSE Russell as of December 31, 2018, and Mercer European Asset Allocation Survey, 2018.

The 16× home-bias ratio for Switzerland is only marginally lower than that of Germany – but is by far among the lowest in Europe.

As this analysis reveals, home bias is pervasive across the major markets. But in considering the overall opportunity set, has it been good for investors? The next section provides a detailed review of the impact of home bias for Switzerland.

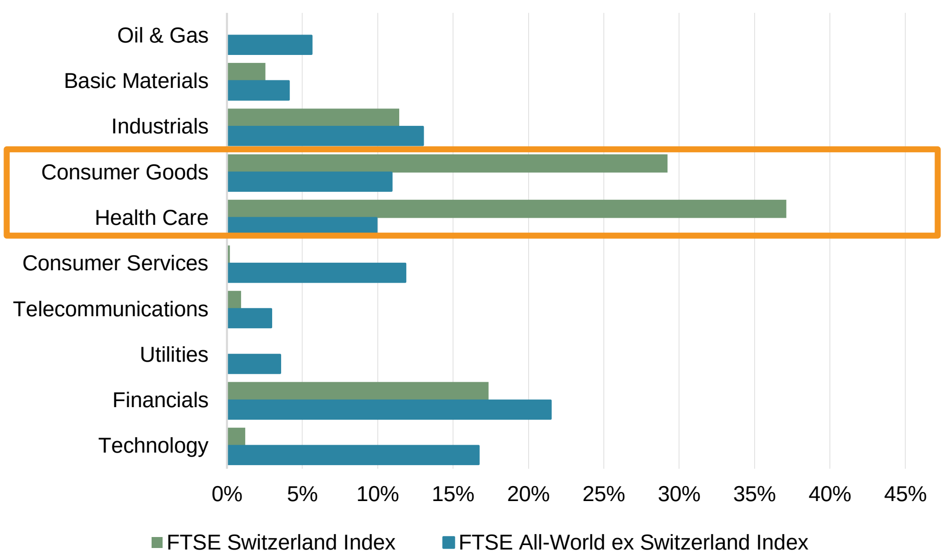
Country analysis – Switzerland

Understanding the Swiss equity market

In Chart 2, we saw that pension funds in Switzerland had allocated an estimated 48% of their total equities to the domestic market, a ratio of 16 times.

To better understand how home bias affects performance, it is illustrative to examine both the Industry Group (ICB) exposures and the composition of corporate revenue sources. Chart 3 shows that the Swiss equity market (represented by the FTSE Switzerland Index) is heavily concentrated in two prominent industries – health care and consumer goods. They account for more than 65% of the total market cap. The FTSE Switzerland Index is also significantly underweighted in technology and consumer services.

Chart 3: Switzerland and overseas industry exposure (%)

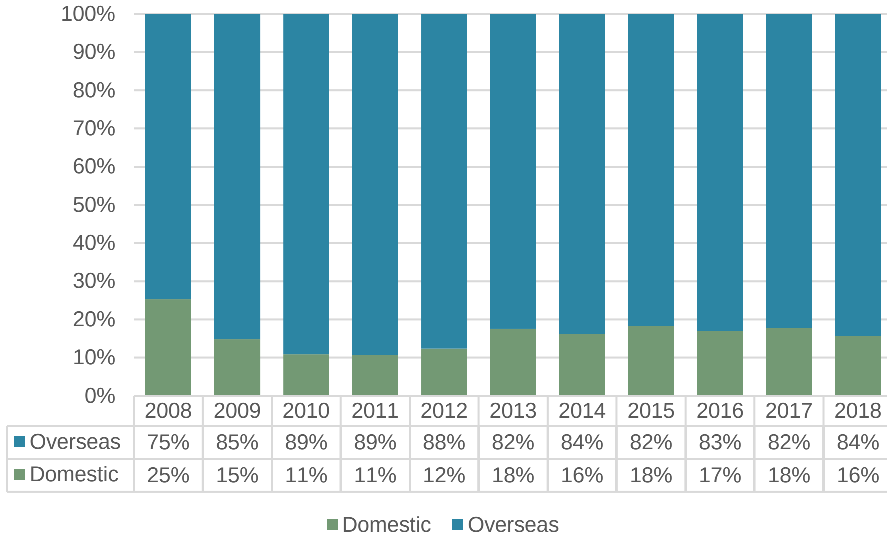


Source: FTSE Russell; data using FTSE Switzerland Index and FTSE All-World ex Switzerland Index as September 30, 2019, using the Industry Classification Benchmark.

The Swiss equity market is concentrated in health care and consumer goods relative to the global index.

By reviewing revenue sources, we see that Swiss equities have derived on average more than 80% of their revenues from international revenues consistently over the last 10 years (Chart 4).

Chart 4: Breakdown of the FTSE Switzerland Index by domestic and overseas revenues (%)

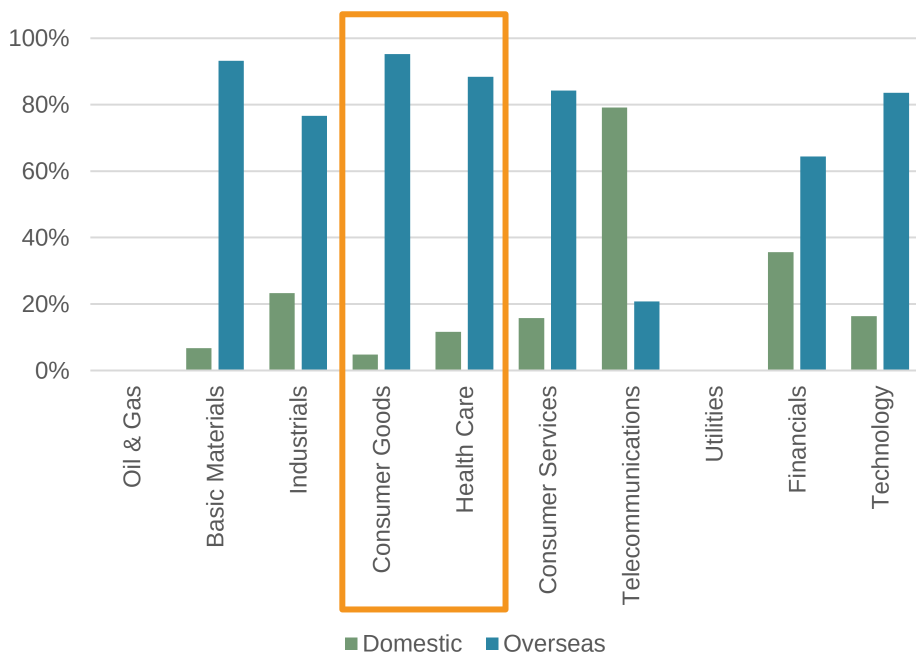


	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overseas	75%	85%	89%	89%	88%	82%	84%	82%	83%	82%	84%
Domestic	25%	15%	11%	11%	12%	18%	16%	18%	17%	18%	16%

Source: FTSE Russell as of September 30, 2019 (Q3 2019).

Moreover, examining the revenue breakdowns by industry, we find that both the largest industries (health care and consumer goods) are particularly dependent on international revenues (Chart 5).

Chart 5: FTSE Switzerland Index domestic and overseas revenues breakdown by industry (%)



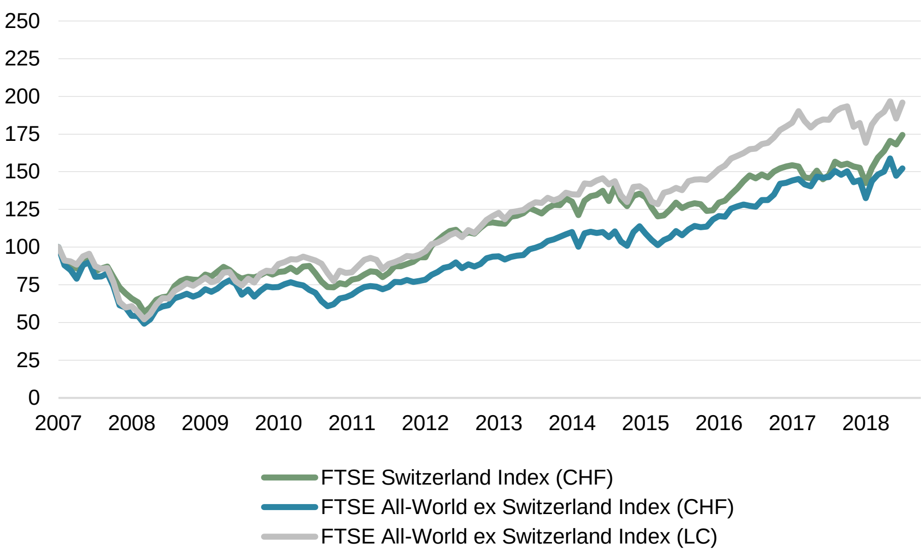
Source: FTSE Russell as of September 30, 2019 (Q3 2019), using Industry Classification Benchmark.

Assessing the effect of Swiss home bias: performance

In Chart 6, we compare the performance of Swiss equities (FTSE Switzerland) against the global index (FTSE All-World ex Switzerland), in Swiss franc and in local currency terms, to strip out the currency effect. A depreciating currency improves the overseas equities returns (in CHF) of a Swiss-based investor (and vice versa).

On a cumulative basis, international equities, in local currency terms (grey line), have outperformed Swiss equities (green line) over the last 12 years. The outperformance by international equities has been more pronounced in local currency than in Swiss franc, reflecting the fluctuations and relative appreciation of the franc from 2008 through to the unpegging of the franc versus the euro in 2015 (Chart 7). However, the following period saw the currency depreciate and the performances of Swiss and international equities diverge.

Chart 6: Cumulative total returns of the FTSE Switzerland Index (CHF) and the FTSE All-World ex Switzerland Index (CHF & local currency), rebased

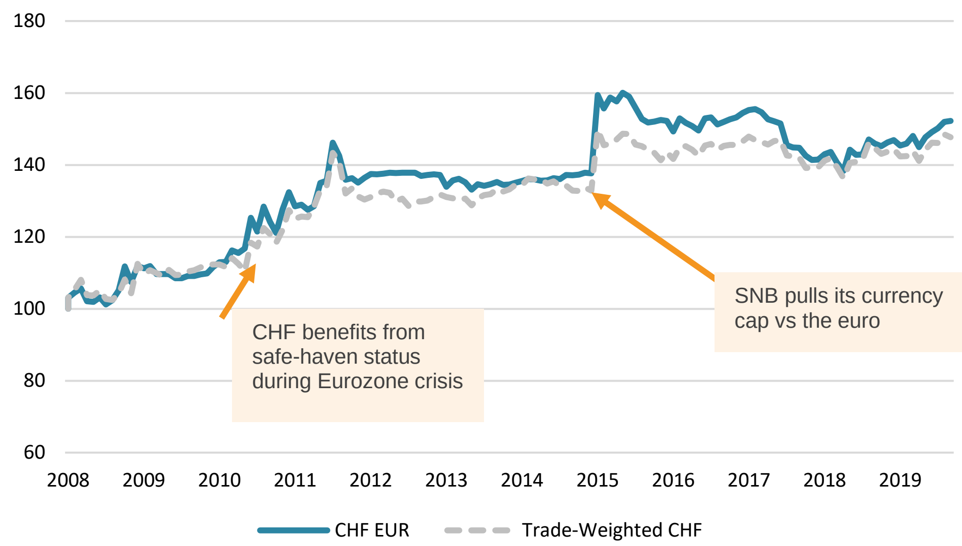


Source: FTSE Russell from December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

The gap in performance between Swiss and international equities has been highly influenced by fluctuations in the Swiss franc.

Chart 7 shows the trade-weighted movements of the Swiss franc against a basket of foreign currencies (grey dotted line) and against the euro (blue line). The Swiss franc had a dramatic surge in January 2015 after the Swiss National Bank unexpectedly removed the peg of 1.20 francs per euro, causing the franc to rally.

Chart 7: CHF EUR & Trade-Weighted CHF Index, rebased

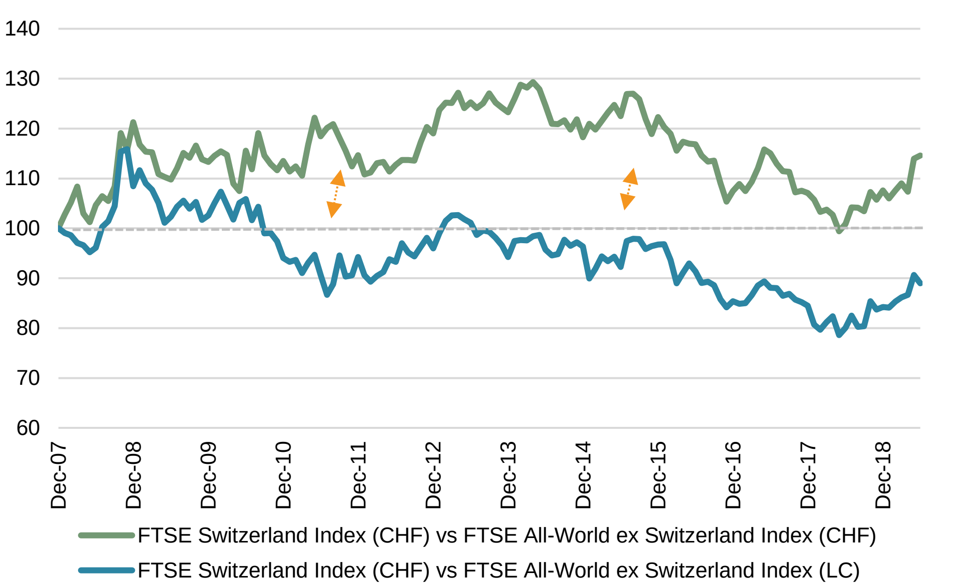


Source: FTSE Russell from December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

The trade-weighted performance shows the effect of unpegging the Swiss franc against the euro in 2015 and the depreciation which followed, until recently.

A closer inspection also reveals the widening gap in performance between Swiss and international equities, in local currency and Swiss franc terms. Swiss equities have underperformed international equities in local currency terms since the global financial crisis (blue line), but the appreciation of the franc significantly boosted Swiss returns for Swiss investors (green line).

Chart 8: Relative total returns of the FTSE Switzerland Index (CHF) vs the FTSE All-World ex Switzerland Index (CHF & local currency), rebased

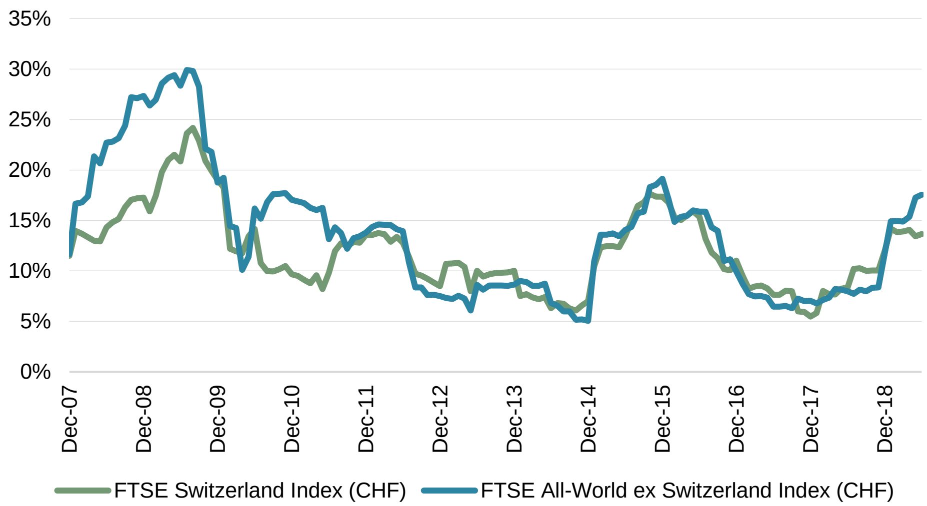


Source: FTSE Russell from December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Assessing the effect of Swiss home bias: risk and return

Since the global financial crisis, the volatility of Swiss and overseas equities has been similar (Chart 9).

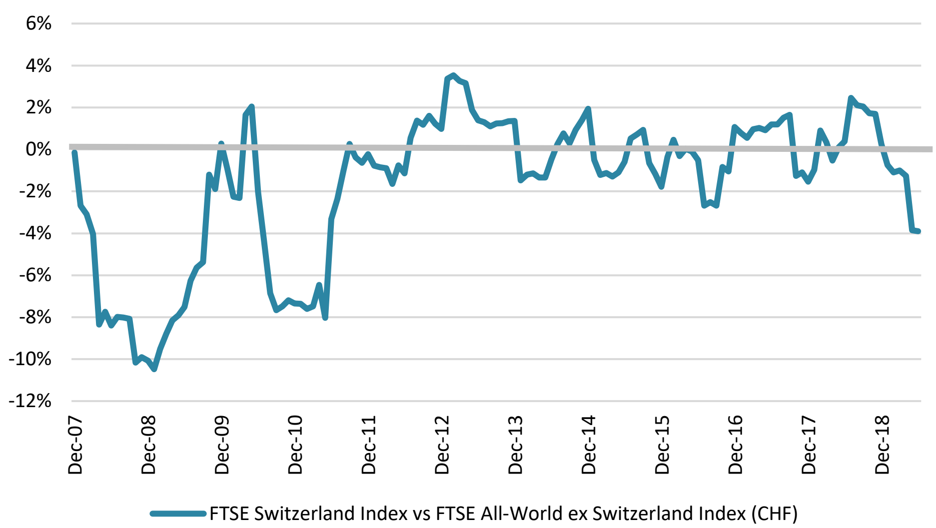
Chart 9: 1Y-rolling annualised volatility of the FTSE Switzerland Index (CHF) and the FTSE All-World ex Switzerland Index (CHF) − Absolute



Source: FTSE Russell from December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Chart 10 compares the relative volatility between overseas and Swiss equities. Except for the period from 2008 to 2010, the difference in volatility between the two indexes has been marginal, ranging between +/- 4%.

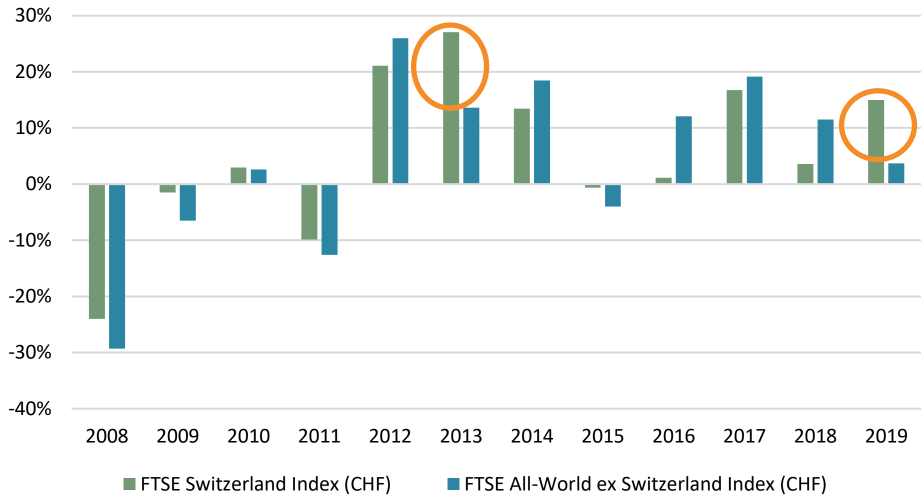
Chart 10: 1Y-rolling annualised volatility difference of the FTSE Switzerland Index (CHF) vs the FTSE All-World ex Switzerland Index (CHF) − Relative



Source: FTSE Russell from December 31, 2007 September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

On a rolling-returns basis, Swiss equity outperformance, notably in 2013 and 2019, coincided with periods of Swiss franc strength (Chart 11).

Chart 11: 1Y-rolling returns of the FTSE Switzerland Index vs the FTSE All-World ex Switzerland Index (CHF) − Absolute

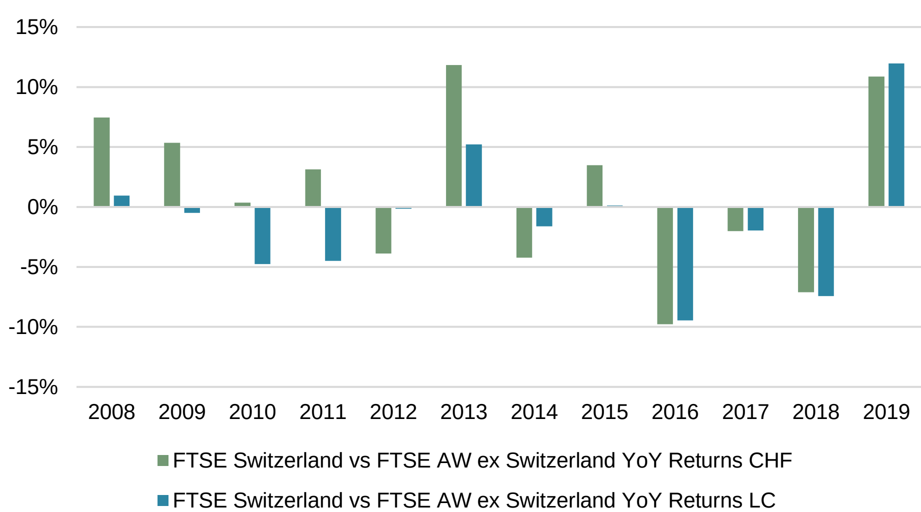


Swiss equities outperformed international equities in seven of the 12 years examined.

Source: FTSE Russell December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

The histogram in Chart 12 illustrates the significant impact of fluctuations in the Swiss franc on Swiss equity performance, as evidenced by the wide disparity in returns in Swiss francs (green bars) and local currency (blue bars). Swiss equities outperformed their overseas peers in 2008-2011, 2013 and 2015, when the Swiss franc was strong. Swiss equities underperformed international equities from 2016 to 2019, when the franc was weaker. Overall, Swiss equities outperformed international equities in seven of the 12 years examined, or 58% of the period.

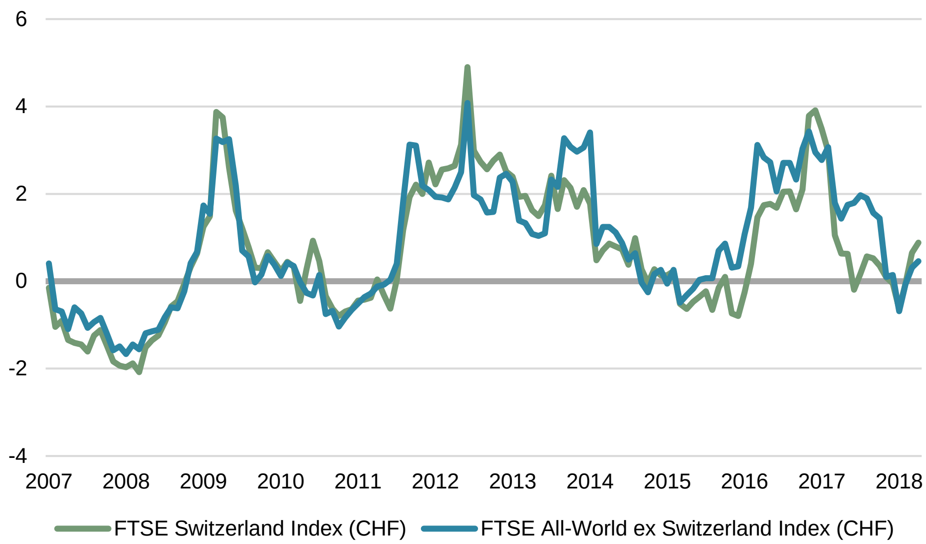
Chart 12: Year-on-year returns of the FTSE Switzerland Index (CHF) vs the FTSE All-World ex Switzerland Index (CHF & local currency) − Relative



Source: FTSE Russell to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Chart 13 illustrates a very similar return/risk profile between Swiss and international equities over the period examined.

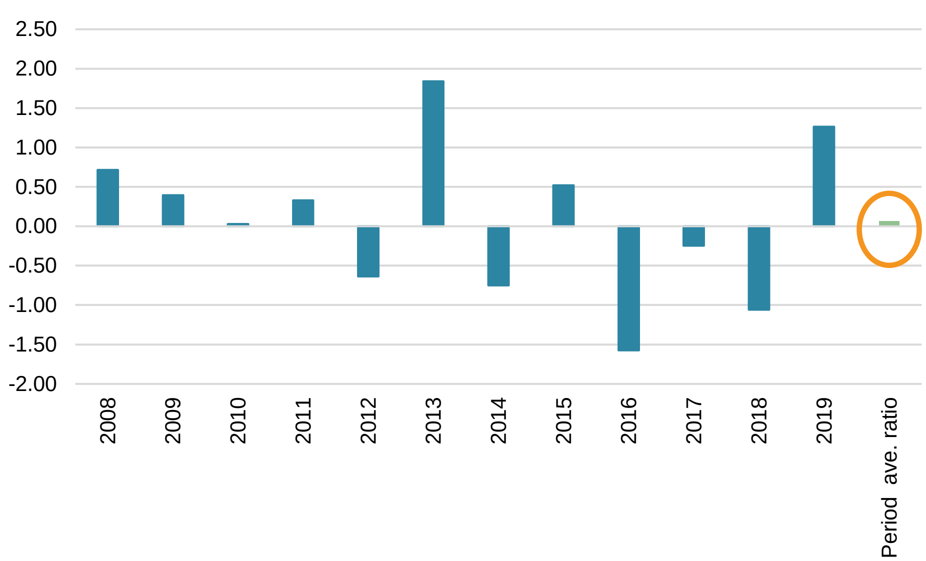
Chart 13: 1Y-rolling return/risk ratios of the FTSE Switzerland Index and the FTSE All-World ex Switzerland Index (CHF)



Source: FTSE Russell from December 31, 2007 to September 30, 2019 (Q3 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

The histogram in Chart 14 provides more details. It shows that overseas equities had better risk-adjusted returns than Swiss equities in seven of the 12 years (58% of the period), but for the total aggregate period, the ratio is flat. The standout years for Swiss investors were 2013 and YTD 2019.

Chart 14: Year-on-year return/risk ratio of the FTSE Switzerland Index versus the FTSE All-World ex Switzerland Index (CHF) – Relative



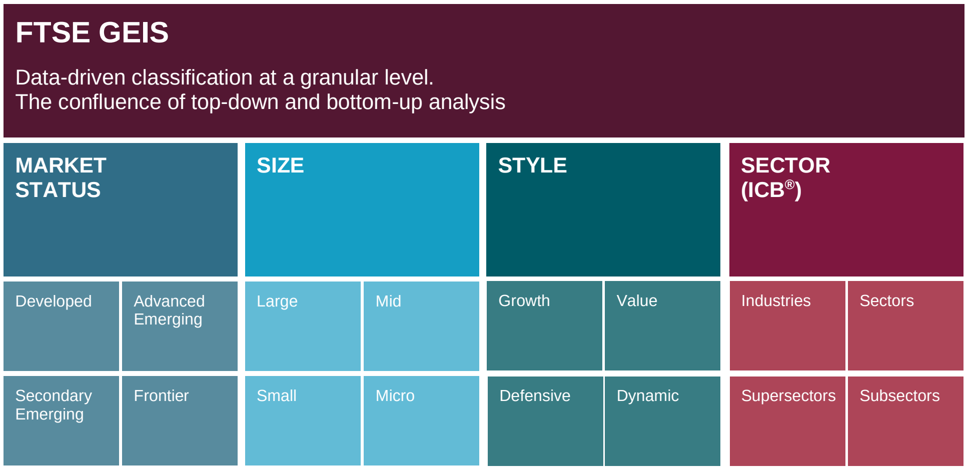
Source: FTSE Russell to September 30, 2019 (Q2 2019). Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Conclusion

By this analysis, we can conclude that a home bias to Swiss equities was generally mixed for Swiss investors. While the data showed that in just over half of the 12 years examined, Swiss equities have outperformed on a risk-adjusted basis, the cumulative effect reveals a more neutral impact in aggregate.

Appendix

The FTSE Global Equity Index Series (GEIS) covers about 99% of the global equity market. The Series provides a flexible building-block approach to meet the needs of market participants.



FTSE GEIS is divisible into modular subcomponents, such as the large and mid-cap FTSE All-World Index and the FTSE Global Small Cap Index, which combine into a large, mid and small-capitalisation index, the FTSE Global All Cap Index.

A wide range of other sub-indexes that further segments the market by size (including micro-cap), sectors, regions, and individual countries are also available, a sample of which is listed below:

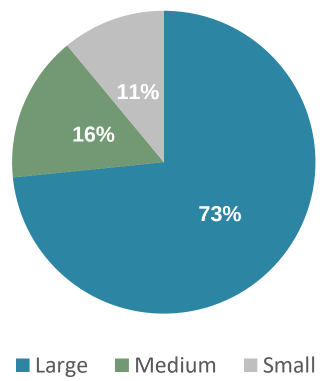
Index	FTSE Global Total Cap	FTSE Global All Cap	FTSE All-World	FTSE Global Small Cap	FTSE Global Micro Cap
Include cap segments	Large, Mid, Small, Micro	Large, Mid, Small	Large, Mid	Small	Micro
% of FTSE Global Total Cap Index	100%	98%	87%	11%	2%
Net Mcap (USDt)	53.7	52.6	47.0	5.6	1.1
Number of constituents	17,170	8,938	3,954	4,992	8,224

Source: FTSE Russell, data as of September 30, 2019.

Summary of the FTSE Global All Cap Index features

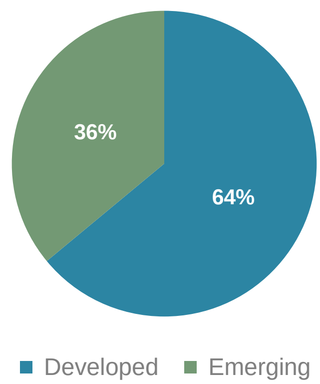
Charts 15 and 16 show the size and regional breakdown of the FTSE Global All Cap Index and Table 2 provides more granular segmentation, including the number of constituents. For the FTSE Global All Cap Index, 73% of the index is made up of large companies and 64% is classified as Developed.

Chart 15: FTSE Global All Cap Index − percentage of total market cap by size



Source: FTSE Russell as of September 30, 2019.

Chart 16: FTSE Global All Cap Index − percentage of total market cap segmented by Developed and Emerging companies



Source: FTSE Russell as of September 30, 2019.

Table 2: Further size and constituent numbers breakdown by Developed and Emerging

FTSE Global All Cap Index Composition Breakdown		
Index	**%**	**Constituent numbers**
Developed (of which)	64	5,692
Large	73	899
Medium	16	1,271
Small	11	3,522
Emerging (of which)	36	3,246
Large	80	891
Medium	11	889
Small	9	1,466
Total	**100%**	**8,938**

Source: FTSE Russell as of September 30, 2019

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FTSE Russell is a leading global provider of benchmarks, analytics and data solutions with multi-asset capabilities, offering a precise view of the markets relevant to any investment process. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for performance benchmarking, asset allocation, investment strategy analysis and risk management.

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