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Actuarial and Insurance Solutions

Financial Market Analysis at end-year 2014

15th January 2015

Audit. Tax. Consulting. Corporate Finance.

Contents

Executive Summary

Happy new year and welcome back to our Financial Market Analysis for insurers in Switzerland. We hope that this short publication will be a useful reference for insurance practitioners in Switzerland.

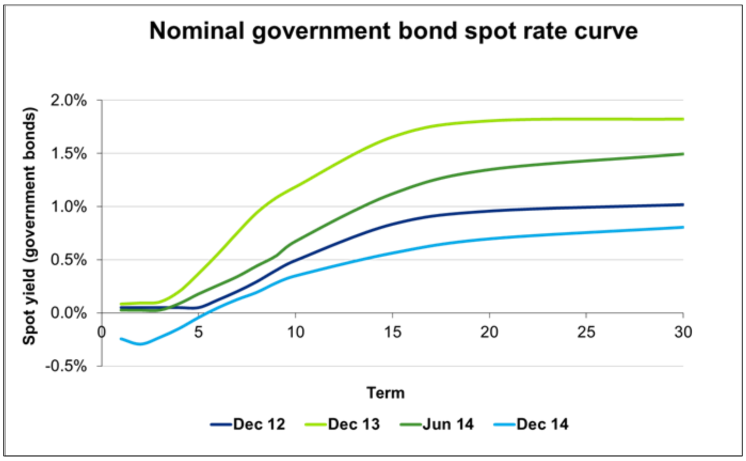
After their increase in 2013, Swiss interest rates decreased again markedly throughout 2014 and reached record lows, with a negative remuneration for government bonds and swaps with short maturities. This is in line with the decision of the SNB (Swiss National Bank) to introduce negative interest rates. The yields for Eurozone countries also decreased significantly in 2014, and for Germany even reached slightly negative values for short term bonds as well. However, government bond yields still remain high for countries like Spain and in particular Italy, implying a high remaining level of uncertainty in the Eurozone. After a decrease in 2013, the implied volatility for bonds strongly increased in 2014. Meanwhile, the main equity and property indices kept steadily increasing, as they have since 2012. Implied volatility for equities went back to values closer to December 2013 after their initial increase observed in the first half of 2014. Swiss inflation remained close to 0 in 2014, and the exchange rates of the Swiss Franc vis-à-vis the Euro remained close to the 1.20 CHF per EUR floor imposed by the SNB since 2011. However, the Swiss Franc declined markedly (about 10 %) against the US Dollar this year.

All in all, the current financial situation paints a mixed picture of extremely low (or even negative) bond yields, rising equity markets and high uncertainty. This creates great challenges for insurers, particularly for life insurance companies, who started tackling this problem by steering their portfolios away from traditional products with fixed guarantees towards unit linked products and risk & protection business. Next to these changes in products and to risk transfer measures, we believe that increasingly pro-active Asset & Liability Management (ALM) will be required for companies to maintain their valuations and solvency ratios at desired levels.

1 Interest Rates

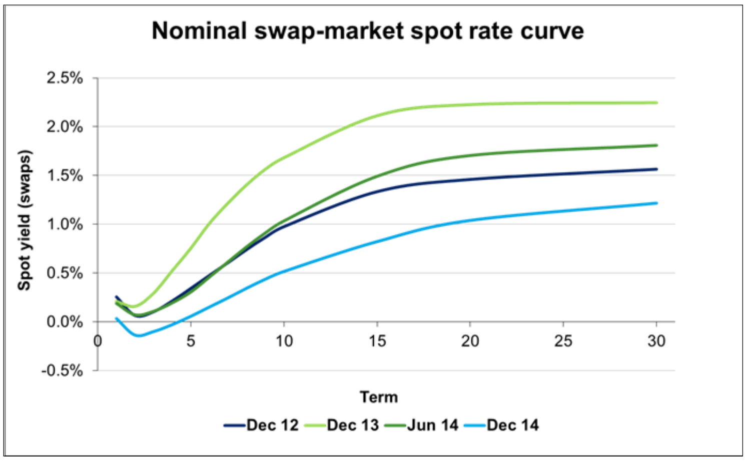
Switzerland

The yield curve for Swiss government bonds had significantly increased in 2013, which contributed positively to the Embedded Value and economic solvency of many insurers. However, this situation was reversed in 2014 with a step decrease of approximately 1.0% for maturities of 10 years and longer. Notably, short-term bonds (with a maturity up to 5 years) now show negative yields, in line with the decision of the SNB to apply negative interest rates. Therefore, we fear that life insurers in particular will face again an extremely difficult time, since interest rates are often the major driver of profitability for them.



(Source: Bloomberg)

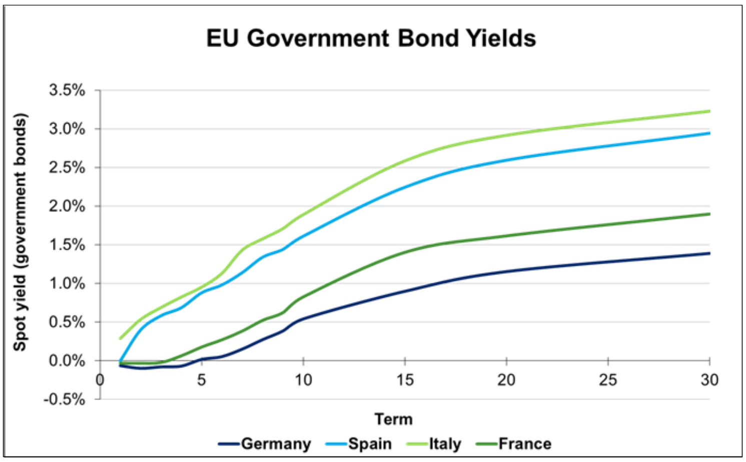
Swiss swap rates showed a development similar to government bonds in 2014: marked decrease, and negative yields for maturities up to 4 years. Since the decrease in swap rates in 2014 was even more marked than the one in government bonds rates, the spread between government and swap yields decreased.



(Source: Bloomberg)

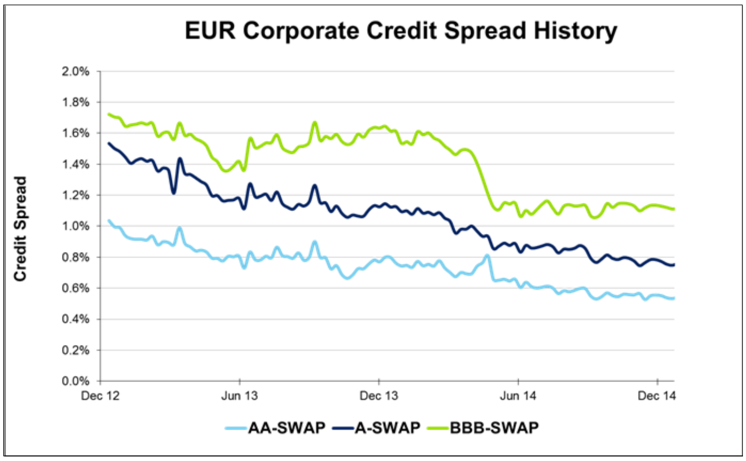
Eurozone

To get insights into the current government bond situation in the Eurozone, we looked at the yield curves of four major European economies: Germany, France, Spain and Italy. Remarkably, all the yield curves are significantly lower compared to the values in former years, implying an increasing stability in the Eurozone. German government bonds, similarly to Swiss bonds, also show negative yields for short terms. However, remaining uncertainty can be inferred from the still high yields observed for Spain and especially Italy.



(Source: Bloomberg)

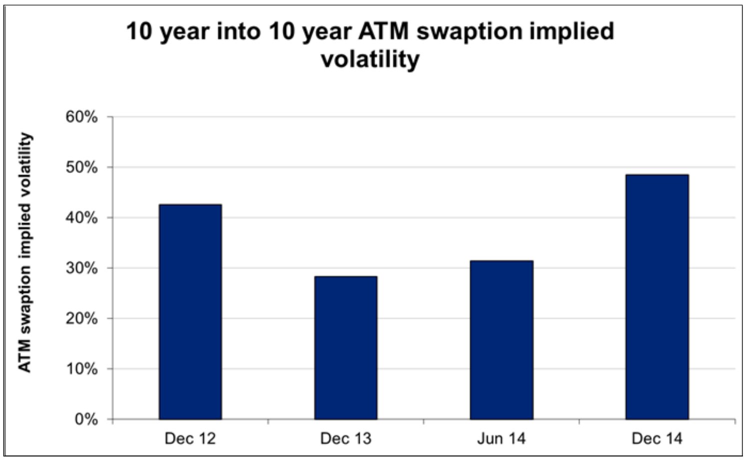
To highlight the situation in corporate bond markets, we analyzed the EUR credit spread history for 10-year corporate bonds rated AA, A and BBB as compared to the EUR swap yields. This spread has been decreasing slowly but persistently since end of 2012, due to a decrease in credit risk. We noticed that the spread has remained however almost constant since mid-year 2014. Unfortunately, a similar analysis for the Swiss market was not possible because of an insufficient number of corporate bonds.



(Source: Bloomberg)

Swaption implied volatility

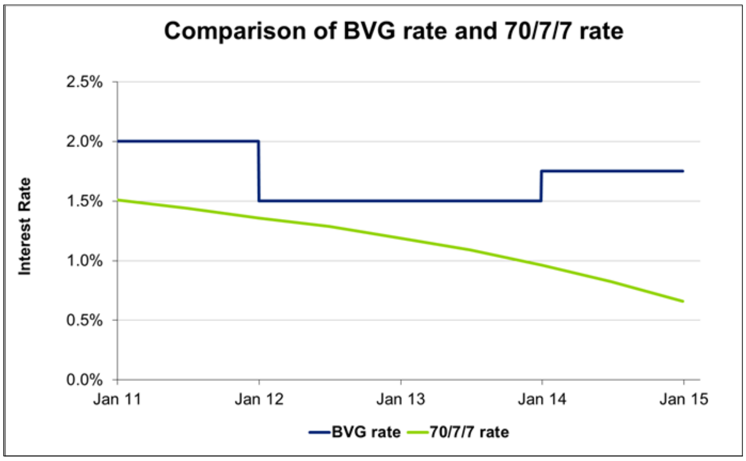
We defined a benchmark Swiss swaption to be 10 year into 10 year at-the-money (ATM) swaption, which is usually the longest option and swap term readily available in the market. This is one of the most important volatilities used to calculate the Time Value of Financial Options and Guarantees (TVFOG) in (life) insurance portfolios. Following the steep decrease in interest rates, this implied volatility increased significantly in 2014 and attained values close to the ones at the end of 2011.



(Source: Bloomberg)

Group pensions business (BVG savings process)

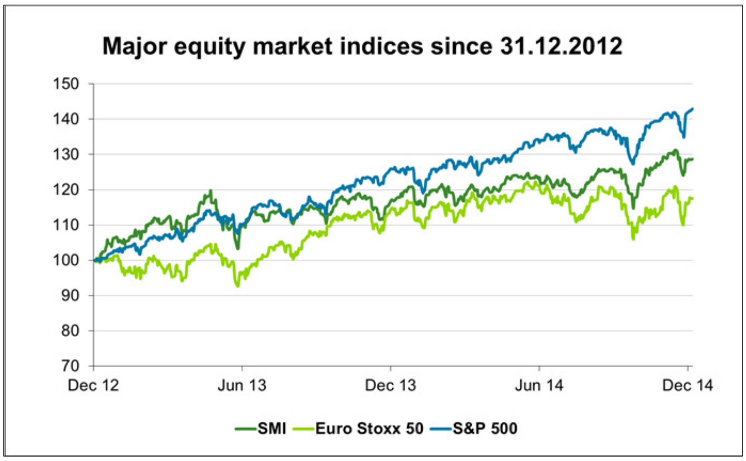
In group pensions business, the technical interest rate of the BVG (Berufliches Vorsorge-Gesetz) savings process is determined by the Swiss government as the outcome of a political process and is set to 1.75% for 2015. However, insurance companies also need to apply a forecasting rule for valuation and risk modelling purposes, such that this BVG interest rate is reasonable for different future economic scenarios. The Swiss Solvency Test SST suggested taking 70% of the 7-year average of 7-year par government yields to model the BVG rate. At the end of December 2014, applying the “70-7-7” rule produced an interest rate slightly above 0.7%, well below the actual BVG rate. Remarkably, the spread between the two is at its maximum since 2008.



(Source: Analysis by Deloitte)

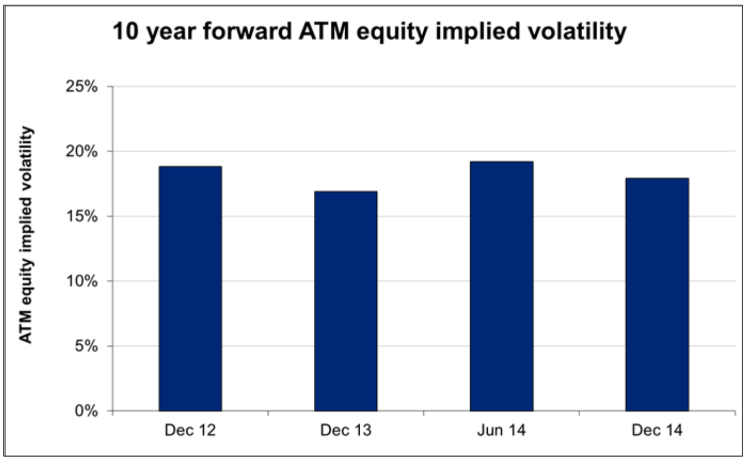
2 Equity Markets

Since mid-year 2012, major equity markets show a consistent upwards trend (although in the second half of 2014 a slight decrease was observed for the Euro Stoxx 50).



(Source: Bloomberg)

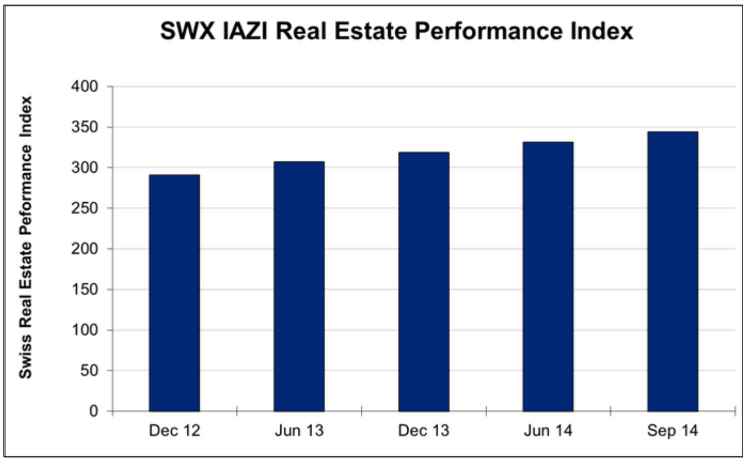
The implied volatility of the 10 year forward at-the-money equity option on the SMI ended the year 2014 with a value close to December 2013 after an initial increase observed in the first half of 2014.



(Source: Analysis by Deloitte)

3 Property Markets

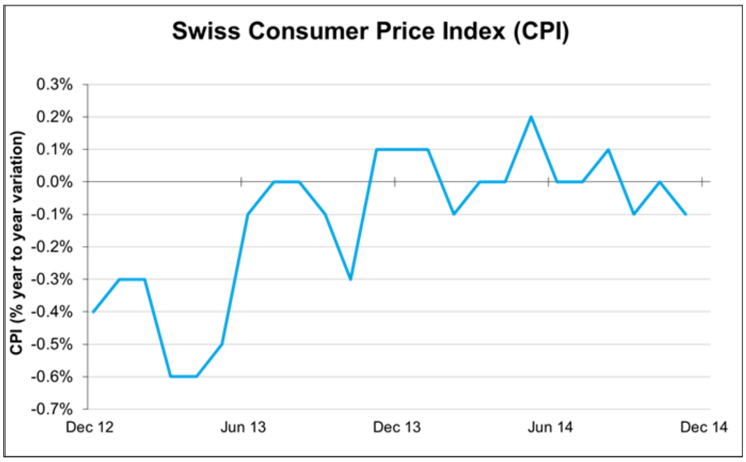
As Swiss real estate is also a material asset position in the balance sheet of most Swiss insurers, we analyzed the history of the IAZI index. This quarterly index takes into account the net cash flows and annual change in value of the underlying properties. Despite the cooling off of the Swiss real estate market, the index kept on steadily increasing until the third quarter of 2014 (last data point available at the time of writing).



(Source: Bloomberg, last data point available refers to September 2014)

4 Inflation

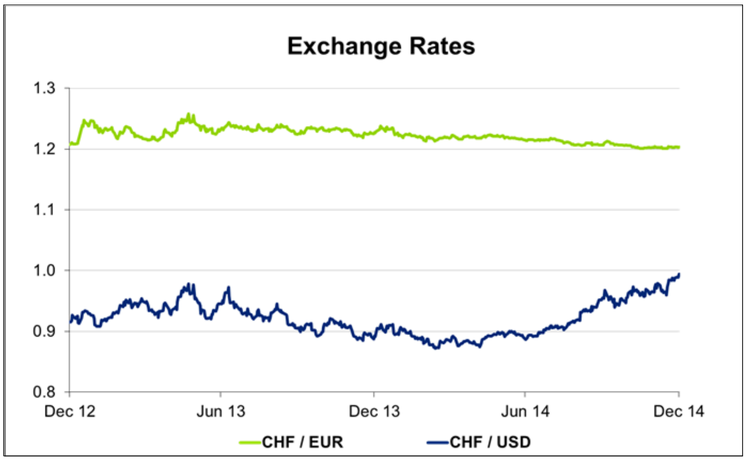
The development of the price inflation is of particular interest for insurers (as it is notably linked to expenses as well as to non-life claims). The Swiss Institute for Statistics publishes every month an estimation of the Consumer Price Index (CPI), which reflects the trend observed in the price of a selected basket of goods. After 2 years of mild deflation, inflation stabilized around 0 during 2014.



(Source: Bundesamt für Statistik, last data point available refers to November 2014)

5 Exchange Rates

The graph below depicts the development of two major currencies, the Euro and US Dollar, against the Swiss Franc since December 2012. The Swiss National Bank introduced a minimum exchange rate of 1.20 Swiss Francs per Euro in September 2011, and has been under constant pressure to defend this floor since. In lockstep with the Euro, the Swiss Franc declined markedly (about 10%) against the US Dollar in 2014. Please note that the SNB just discontinued the minimum exchange rate policy in a surprise move on 15 January 2015 (together with further interest rate cuts).



(Source: Bloomberg)

Appendix: about the authors

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Jérôme is a director in Deloitte's Actuarial and Insurance Practice in Zurich, within the life insurance team. He has 13 years of experience in the financial services industry – including 3 years working as a financial engineer in a bank.

He is a specialist of finance-related insurance topics such as market consistent valuation, Embedded Value, capital management and solvency models, and asset & liability management (ALM).

Jérôme is a qualified member of the Swiss and the French actuarial associations and is fluent in English, French and German.

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Andrea is a Consultant in Deloitte's Actuarial & Insurance Practice in Zurich. He holds a MSc from the University of Rome and a PhD from the University of Zurich.

He has a broad experience of different areas of the insurance business: pricing, reinsurance reserves review, Embedded Value calculation, and SST model development.

Andrea is studying to become a member of the Swiss Association of Actuaries and is fluent in Italian, English and German.