

Currency management – more important than ever as a result of the SNB’s decision!

On January 15, 2015 the Swiss National Bank (SNB) announced that it was abandoning the exchange rate floor of the Swiss franc against the euro. It justified this move with the expansionary monetary policy that was to be expected from the European Central Bank (ECB). Due to the historically low core inflation rate in Europe (at this time +0.6%), the ECB announced early on that it would start buying government bonds in the foreseeable future and therefore putting an increasing quantity of euros into circulation. The SNB would thus have been compelled to buy euros in even greater quantities and its balance sheet total would soon have exceeded Switzerland’s annual gross domestic product. Following the announcement that the floor rate against the euro was being abandoned, the exchange rate fell by more than 20% and at times even traded below parity.

At the same time, in order to support the euro indirectly and to make capital flows into Switzerland more unattractive, the SNB lowered the target band for the 3-month LIBOR to the -1.25% to -0.25% range. There have already been negative interest rates once before in Switzerland. In 1978/79 the Tomorrow Next interest rate (an interest rate for one-day interbank lending) fell to -0.288%. However, unlike then, the SNB’s latest studies show that it is not foreigners who are investing their money in Swiss francs. Rather it is Swiss investors who are bringing their assets back to Switzerland. The negative interest rates that have been introduced are intended to weaken this trend and to increase the attractiveness of foreign currencies. If interest rates were to continue to fall, the pressure on Swiss investors to place their money in one or more foreign currencies would increase again.

From these points of view currency management is becoming increasingly important. Above all, the focus here is on the direction in which a currency is forecast to move.

In what follows, we would like to show one way an indicator can be developed to determine the direction in which an exchange rate will move. Our method does not claim to be complete in any way, rather it is intended to give an insight into how foreign currency risks can be managed within the context of portfolio management.

In order to develop an indicator for the direction in which a currency will move, it is first of all necessary to define the “safe haven” in an exchange-rate pair. In exchange-rate pairs with the Swiss franc, we regard the latter as the safe haven. In the next step, we consider various theoretical approaches to explain exchange-rate equilibria. In practice, it can be seen that some of these attempted explanations work in many phases of the market, but not in all. It is therefore wise to diversify across different explanations.

Specifically, we distinguish between three types of approaches: (1) Theoretical approaches in the specialized literature, (2) fundamental data and (3) technical analysis.

The two theoretical approaches most used in the literature are “relative purchasing power parity” and “carry trade”. Let us first consider relative purchasing power parity. It compares the inflation rates of two countries. The theory states that the currency of the country with the higher inflation rate depreciates against the currency of the country with the lower inflation rate by the inflation differential. This approach is suitable for assessing long-term exchange-rate trends, however over the short term, its explanatory power is limited.

The second prominent approach in the literature is the so-called “carry trade”, which compares the interest rates of two countries. With this approach, the investor borrows money in one country with low interest rates and invests it in the other country at a higher interest rate. Interest-rate parity would lead one to expect that the interest-rate differential would be offset by an opposite movement in exchange rates. In practice it turns out that this is not always true. In many cases, although the exchange rate of the country with the higher interest rate falls, it does not do so to the full extent of the interest-rate differential. In the context of our indicator, we calculate the risk-adjusted interest-rate differential over the short and the long term. We then invest in the foreign currency if the risk-adjusted interest-rate differential is above its long-term average, and in the currency of the safe haven if it is not.

In the second category – fundamental data – we focus on the macroeconomic variables relevant to the exchange rate. They include the changes in the central banks’ balance-sheet totals, current-account balances, economic growth through measures of industrial production and earnings surprises of companies. Depending on the strength of, or change in the fundamental data, we prefer one currency over the other.

The third class of explanatory approaches is formed by technical analysis. In this class, we look at various quantitative approaches of statistics and behavioural economics. For example, moving averages of a currency pair. If a trend becomes established over time, we give preference to the currency with the most recent positive trend.

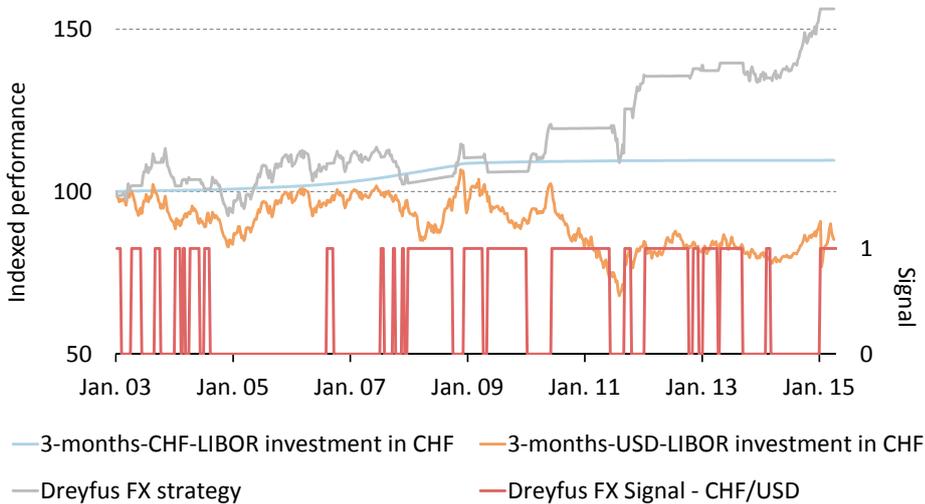
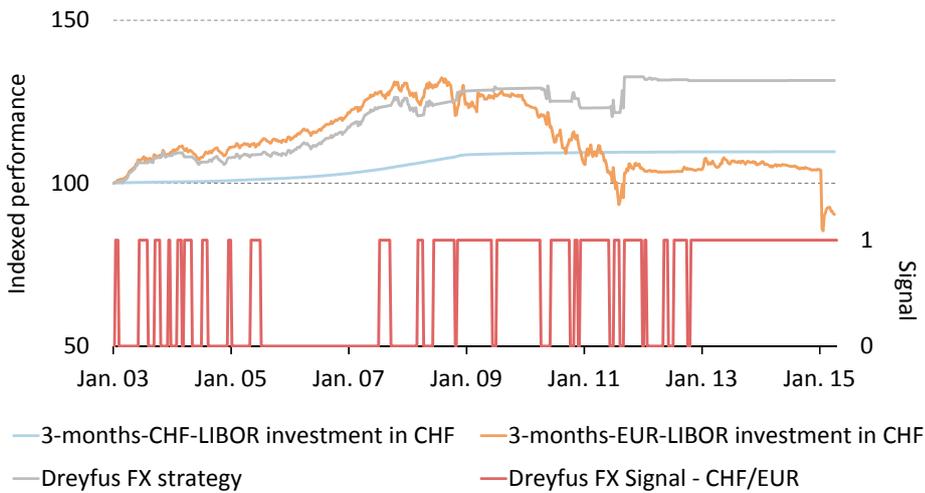
The sub-indicators of each category generate a binary signal, 0 or 1. It is 0 if investment in the foreign currency is preferred; on the other hand, it is 1 if risks appear and the safe haven is sought for investment. By aggregating the signals in the form of a simple average calculation, an indicator value between 0 and 1 is obtained. If the indicator is less than or

equal to 0.5, the foreign currency should be invested in. If it exceeds this threshold value, it is advisable to invest in the safe-haven currency.

We have applied this system to various currency pairs. All sub-indicators, decision-making rules and aggregation rules are absolutely identical, irrespective of the currency. In currency pairs with the Swiss franc technical analysis turns out not to be very meaningful, which is why we leave it out in this case.

The results show that a portfolio which invests in the currency indicated by the model achieves significantly better returns

than one permanently invested in a foreign or a domestic currency. This is illustrated for the exchange-rate pairs CHF/EUR in graph 1 and for CHF/USD in graph 2. The left-hand scale shows the performance of a trading strategy based on the Dreyfus FX indicator, a permanently foreign as well as a permanently domestic currency investment. The red line shows the model signal oscillating between 0 and 1, which respectively indicates a preference for the foreign and local currency. Currently our indicator is signalling a preference for CHF for both exchange-rate pairs.



The prices used in our analysis are end-of-period prices. The figures used for our valuation model are estimates referring to dates and therefore carry a risk. These are liable to change without notice. The usage of valuation models does not rule out the risk that fair valuations over a specific investment period cannot be attained. A complex multitude of factors influences price developments. Unforeseeable changes could, for instance, arise from technological innovations, general economic activities, exchange-rate fluctuations or changes in social values. This discussion of valuation methods makes no claim to be complete.