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## The impact of international spillovers on Swiss inflation and the exchange rate <sup>☆</sup>

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## ABSTRACT

Understanding the effects and transmission of international spillovers is key to ensuring that the best possible decisions are reached by central banks – particularly those of small open economies. This paper analyses the impact of international spillovers on Swiss inflation and the exchange rate, and examines the response of the Swiss National Bank (SNB) to these phenomena. In doing so, the paper compares the recent crisis period starting in mid-2008 with earlier decades. While the exchange rate absorbed a sizeable share of global inflationary pressure before the crisis, spillover effects transmitted through the exchange rate have been the principal cause of the significant decline in Swiss inflation since 2008. The SNB has therefore repeatedly adjusted its monetary policy – and resorted to some unconventional measures – in order to contain these spillover effects. These actions have so far kept the adverse effects of international spillovers on Swiss inflation at bay. However, as Switzerland's experience since the onset of the financial crisis shows, controlling inflation may occasionally become more difficult for small open economies.

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<sup>☆</sup> Opening remarks at conference on 'Spillovers of conventional and unconventional monetary policy: the role of real and financial linkages' held in Zurich on 9-10 July 2015. The conference was organised by the Swiss National Bank (SNB) together with the Bank for International Settlements (BIS), the Federal Reserve Bank of Dallas (FRBD) and the Centre for Economic Policy Research (CEPR).

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New insights into the effects and transmission of international spillovers are of particular interest to the central banking world and are especially relevant to the Swiss National Bank (SNB) as the central bank of a small open economy. Given that the SNB's economic forecasts are based on an international scenario, refining the understanding of international spillovers certainly enhances the quality of monetary policy assessments. This is key to ensuring that the best possible decisions are reached. As Switzerland has been on the receiving end of international spillovers in the recent past, my remarks focus on the importance of their effects on Swiss consumer prices and the exchange rate.

The pace of globalisation has increased dramatically in recent decades. Technological progress and the removal of barriers to trade and capital flows are just some of the factors driving this trend. Increased real and financial integration goes hand-in-hand with the risk of potentially major international spillovers. The financial and economic crisis and the ensuing European sovereign debt crisis have made this painfully clear for many countries. One example is the collapse of international trade after the bankruptcy of the US investment bank Lehman Brothers. Another example is the increase in investors' risk aversion which led to global financial market turmoil and large exchange rate movements.

Located at the very heart of Europe, Switzerland has not been immune to the consequences of these events. As a small open economy, the country's international ties are strong in many fields. In this regard, both real and financial linkages are relevant for monetary policy: Switzerland maintains numerous and deep trade links throughout the world. This is not just reflected in the ratio of exports to GDP, which amounts to around 50%; the ratio of imports to GDP is very high, too, at around 40%. As a result, around one-quarter of the Swiss consumer price index originates abroad.

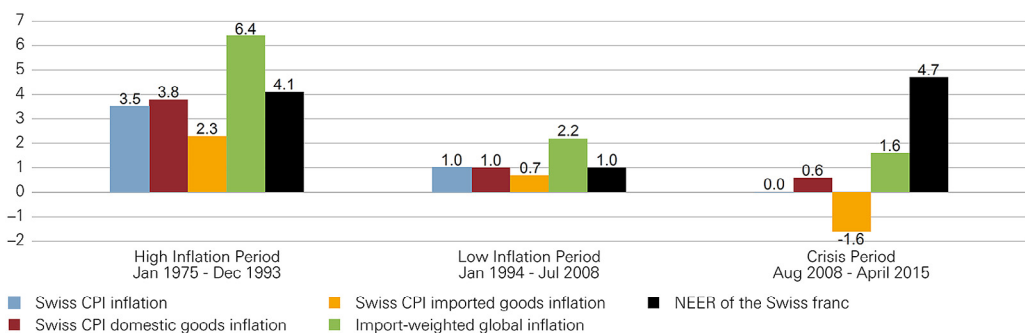
Moreover, the SNB pursues a price stability-oriented monetary policy within a framework of free movement of capital and flexible exchange rates. Against this backdrop, Swiss monetary policy is impacted both by the Swiss franc's historical status as a strong currency and by the fact that its relevance in the international financial system is far greater than the country's size alone would suggest.

The attractiveness of the Swiss franc as a safe haven currency reflects the political and monetary stability of the country and, as such, it is an asset for the Swiss economy. Equally, the strength of the currency has repeatedly put pressure on the export sector and the consumer price level. While trade openness and open capital accounts are features of many other small open economies, the safe haven status of the Swiss franc is unique to Switzerland. International spillover effects transmitting through the exchange rate consequently play a significant role for Switzerland – especially, but not exclusively, with respect to inflation dynamics.

I thus analyse the impact of international spillovers on Swiss inflation and the exchange rate, and consider the SNB's response to them. For this purpose, the recent 'Crisis Period' is compared with two earlier time periods. [Chart 1](#) illustrates the average year-on-year percentage changes in consumer prices and the nominal effective exchange rate.

### INFLATION MEASURES AND THE CHF NOMINAL EFFECTIVE EXCHANGE RATE

Average year-on-year change in %



Sources: OECD, SNB; author's calculations

**Chart 1.** Inflation measures and the CHF nominal effective exchange rate. Average year-on-year change in %.

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For each time period, the chart shows the average Swiss CPI inflation, Swiss domestic inflation, Swiss imported inflation and average global inflation. Global inflation is defined as the import-weighted average of the CPI inflation of 28 OECD countries, covering on average around 90% of Swiss imports. Finally, the average change in the nominal effective exchange rate of the Swiss franc versus 24 trading partners is shown.

The first period, the 'High Inflation Period', is shown on the left-hand side of [Chart 1](#). From 1975 to 1993, Swiss CPI inflation averaged 3.5%; global inflation averaged 6.4%. In other words, Swiss inflation was notably lower than global inflation, while the nominal effective exchange rate appreciated by 4.1%. The substantial appreciation absorbed a sizeable share of the global inflationary pressure being transmitted to imported goods inflation in Switzerland. As it reflected the lower inflation trend in Switzerland, the SNB welcomed the appreciation during this period. In real terms, the exchange rate essentially remained stable since the difference between global and Swiss inflation was roughly equivalent to the appreciation of the nominal effective exchange rate.

The second period, the 'Low Inflation Period' from 1994 to July 2008, is marked by a considerable decline in both global and Swiss inflation, supported by an increased – and successful – focus by many of the world's central banks on price stability. However, the SNB's quantitative target – annual inflation of below 2% – is more conservative than that of most other countries; in fact, Swiss inflation averaged 1% during this period. In light of this, the nominal effective exchange rate had to strengthen once again. In contrast to the earlier period, however, a slight appreciation was sufficient to absorb the lower global inflationary pressures. This period, which falls within the 'Great Moderation', seemed to take us deceptively close to an ideal world in which Switzerland was relatively unaffected by major adverse spillover effects.

During the third period, the 'Crisis Period' from August 2008 to April 2015, the value of the Swiss franc soared as in the earliest period. But in stark contrast to the past, the sharp nominal effective exchange rate appreciation in the 'Crisis Period' has been driven by large safe haven capital flows in the aftermath of the financial and economic crisis. This has resulted in a significantly overvalued Swiss franc. International spillover effects transmitted through the exchange rate have been the principal cause of the significant decline in imported inflation during this 'Crisis Period'. The other factor has been lower global inflation due to stalling economic activity around the world. As a result, prices of imported goods and services in Switzerland have fallen by an average of 1.6% per year since mid-2008. Furthermore, import competition has led to a dampening of domestic inflation, and overall CPI inflation has averaged 0%.

In the context of an overvalued Swiss currency, lower inflation in Switzerland than abroad, combined with a nominal weakening of the Swiss franc, leads to real exchange rate depreciation over time. Price cuts play an important role in the process of restoring the economy's price competitiveness over the medium term. At the same time, it is important to note that such a process poses enormous challenges for the Swiss economy.

The SNB has therefore repeatedly adjusted its monetary policy in order to contain spillover effects. After the onset of the financial crisis in 2008, the SNB cut interest rates to very low levels. Ultimately, faced with near-zero interest rates, an appreciating Swiss franc and a deteriorating economic outlook, the SNB had to resort to unconventional measures. Most prominently, it introduced a minimum exchange rate of CHF 1.20 per euro on 6 September 2011, which partially corrected the massive overvaluation of the Swiss franc. This decision enabled the SNB to counter an acute threat to the Swiss economy and ward off the risk of a deflationary development.

In early 2015, the SNB's Governing Board concluded that a minimum exchange rate of CHF 1.20 per euro was no longer sustainable given the strong spillovers from the diverging monetary policies of the world's leading currency areas, as well as the difficult situation in Greece and geopolitical tensions. On 15 January 2015, it therefore decided to discontinue the minimum exchange rate. At the same time, the interest rate on sight deposits was lowered to  $-0.75\%$  to make holding Swiss francs less attractive.

The CPI is now at the same level as it was seven years ago. Adverse effects of international spillovers on the Swiss CPI have so far been kept at bay through the use of unconventional measures. However, Switzerland's experience since the onset of the financial crisis confirms that controlling inflation may occasionally become more difficult for small open economies. Where conventional monetary policy

options are limited and a currency is overvalued due to large safe haven capital flows, temporary adverse spillover effects to inflation cannot be completely offset. Ultimately, most of the negative inflation Switzerland has experienced in recent years has been linked to lower imported goods prices. Inflation expectations have remained well-anchored, however, suggesting that the SNB's commitment to ensuring medium-term price stability remains credible even under these difficult conditions. Swiss monetary policy is nonetheless facing an exceptionally complex situation.

The SNB's current monetary policy factors in suboptimal inflation and the significantly overvalued Swiss franc. It is holding the interest rate on sight deposits at  $-0.75\%$  and has also made clear that it will remain active in the foreign exchange market, if necessary. The goal of this two-pronged approach is to make holding Swiss francs less attractive and thus to weaken the currency over time.