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Embargo
9 April 2024, 6:30 pm

Interest rates and foreign exchange interventions: Achieving price stability in challenging times

ICMB Public Lecture

Martin Schlegel*

Vice Chairman of the Governing Board
Swiss National Bank
Geneva, 9 April 2024

* The speaker would like to thank Anne Kathrin Funk for her support in preparing this speech. He also thanks Claudia Aebersold, Toni Beutler, Tobias Cwik, Sophie Faber, Lukas Hauri, Sébastien Kraenzlin, Matthias Lutz, Thomas Maag, Dewet Moser and Raphael Reinke, as well as the SNB Language Services.

Ladies and gentlemen

It is a pleasure to be here today at the ICMB in Geneva. Geneva epitomises the Swiss economy: small and open. Geneva is small: it is located in one large economy, Switzerland, and neighboured by another, France. Geneva is also open, and is a hub for over 100 international organisations. In fact, the WTO and the UN are in walking distance from us here at the Maison de la Paix.

By comparison with its neighbours, however, Switzerland can also be said to be small. It is surrounded by the European Economic Area, the second-largest economy in the world. As an open economy, Switzerland is heavily dependent on foreign demand. If our trading partners' economies are booming, so does ours. If there is a slowdown abroad, our economy slows down too. Due to this tight economic integration, the exchange rate plays a crucial role – for the economy, for inflation and for monetary policy.

Tonight, I would like to look back at our monetary policy over the past fifteen years, with a particular focus on the exchange rate and foreign exchange interventions.

The role of the exchange rate in Swiss monetary policy

Before we look at some episodes of foreign exchange interventions at the SNB, let me briefly describe the role of the exchange rate in Swiss monetary policy.

The Swiss National Bank's mandate is to ensure price stability. In doing so, we take due account of economic developments. We define price stability as positive inflation of less than 2% per annum.

Inflation and the exchange rate are linked via two channels (slide 2). First, directly via the prices of imports. A weaker Swiss franc makes imports more expensive, and thereby fuels inflation. By contrast, a stronger Swiss franc makes imports cheaper, and hence decreases inflation. And because imports make up around a quarter of the consumer basket, the effect of this channel is substantial.

Second, the exchange rate affects inflation indirectly via the business cycle. A weaker Swiss franc boosts economic activity. This tends to increase inflation. A stronger Swiss franc slows the economy. This tends to dampen inflation. For Switzerland this mechanism is important: foreign trade accounts for a large part of our gross domestic product. Switzerland earns every second Swiss franc abroad. For good reason, the export sector is said to be the engine of the Swiss economy.

Because the exchange rate affects inflation and the economy, it plays a key role for our monetary policy. To maintain price stability, we influence monetary conditions. They are determined by interest rates and the exchange rate. To maintain appropriate monetary conditions, we set the SNB policy rate. We can also influence monetary conditions through further monetary policy measures, for example foreign exchange interventions. Since 2022, we have explicitly mentioned these additional measures in our monetary policy strategy. This reflects their increased importance in recent years.[1]

The SNB policy rate remains at the core of our monetary policy implementation. It directly influences interest rates in general and – indirectly – the exchange rate. If necessary, we intervene in the foreign exchange market. This influences the exchange rate directly.

The exchange rate has played a key role for the Swiss economy and our monetary policy for decades. However, we started to intervene in the foreign exchange market on a large scale only during the global financial crisis.[2] As it happens, we began doing so almost exactly fifteen years ago, on 12 March 2009. What was the reasoning behind this monetary policy decision to intervene in the foreign exchange market?

Fifteen years of foreign exchange interventions – an overview

March 2009: The start of foreign exchange interventions

At that time, we were in the middle of the global financial crisis. Only six months before, Lehman Brothers had failed. Equity markets collapsed, the world economy crashed and inflation dropped. Central banks around the world quickly lowered policy rates and increased liquidity. In many countries, policy rates reached zero. This was then considered to be the lower limit: the zero lower bound.

The international financial turmoil also spread to the Swiss financial market. Declining global demand hit the Swiss economy. Investors fled into the safe haven of the Swiss franc. Our currency came under strong appreciation pressure and volatility increased markedly (slide 3).

The inflation outlook worsened, and the risk of deflation became acute. The SNB had to act decisively and lowered its policy rate to 0.25%.[3] Even with a policy rate close to zero, monetary conditions would still have been too restrictive. Further measures were needed. Unlike other central banks, the SNB could not purchase bonds in sufficient amounts to further ease monetary policy. The Swiss franc bond market was too small. Instead, we intervened in the foreign exchange market: We thus addressed the major cause of the deflation risk directly – the appreciation of the Swiss franc.

Back then, I was the Head of the Foreign Exchange unit. This is a topic close to my heart. I could talk about the beginning of the interventions for hours, but only have 30 minutes. I will therefore move on to another important episode in the SNB's foreign exchange interventions: the euro crisis and the introduction of the minimum exchange rate.

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[1] Until 2022, the additional measures were mentioned in explaining the strategy, but were not explicitly included.

[2] The SNB already used foreign exchange interventions before, but on a much smaller scale.

[3] In March 2009, the SNB lowered the target range for the 3-month Libor to 0–0.75%. We announced we would steer money market rates to the lower end of the range at about 0.25%.

European sovereign debt crisis and introduction of the minimum exchange rate

The global financial crisis was soon followed by the European sovereign debt crisis. This unfolded in 2010 and intensified significantly in summer 2011. The Swiss franc was under strong appreciation pressure (slide 4). From the outbreak of the global financial crisis in the summer of 2007 to the summer of 2011, it appreciated by almost 40% in total against the euro. The Swiss franc almost reached parity with the euro. Due to the rapid appreciation, the risk of deflation was high once again.

The deflation risk and the threat to the Swiss economy called for a firm response. And so we introduced the minimum exchange rate at CHF 1.20 per euro.[4] We committed to buying foreign currency in unlimited amounts to enforce it. The announcement of the minimum exchange rate sent a strong signal. The measure proved to be effective and stabilised inflation in the medium term. It also provided more planning security for companies. The economy developed solidly thereafter.

Discontinuation of the minimum exchange rate and negative interest rate

Let us move forward three years. Over the course of 2014, markets anticipated a divergence in the monetary policy stance in the US and the euro area. They expected a tightening of monetary policy in the US. Meanwhile, the European Central Bank indicated that further extensive monetary policy easing measures would be necessary towards the end of 2014.[5]

The diverging monetary policy outlook influenced exchange rates: The euro depreciated significantly against the US dollar. This in turn caused the Swiss franc to weaken against the US dollar. Broad-based euro weakness prevailed. The Swiss franc neared the minimum exchange rate of CHF 1.20 per euro (slide 5). We had to intervene to keep the SNB's commitment.

In this context, the minimum exchange rate was no longer sustainable. Defending it further would have entailed high costs in a number of respects: even bigger interventions, losing control of our balance sheet and losing credibility.

For this reason, we decided to discontinue the minimum exchange rate on 15 January 2015. At the same time, we cut our policy rate to −0.75%.[6] The initial nominal appreciation in January 2015 was considerable. Inflation in Switzerland turned negative, before gradually rising again in the second half of 2015. Negative interest and foreign currency purchases cushioned the appreciation and deflation to some extent in the following months. The appreciation was less pronounced in real terms over the course of 2015.

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[4] The SNB introduced the minimum exchange rate on 6 September 2011.

[5] The ECB in fact announced a large-scale quantitative easing programme on 22 January 2015.

[6] Negative interest was introduced in December 2014 at a rate of –0.25%.

The 'Swiss franc shock' was a major challenge for many companies. The sudden appreciation affected export-oriented firms in particular. In Geneva, people queued to get euros to go shopping in France. Retailers here had to lower their prices to keep customers.

Looking back, the Swiss economy as a whole thankfully proved once again to be quite adaptable and innovative.[7] Many businesses managed to absorb the shock by squeezing their profit margins further. They had to cut costs to remain competitive. GDP fell in the first quarter, but recovered over the course of the year. The increase in unemployment was only moderate.

After the discontinuation of the minimum exchange rate, we remained active in the foreign exchange market. We no longer focused solely on a single currency – the euro – but on the overall currency situation.[8]

Foreign currency sales to counteract high inflation

Let us move forward to 2021.

Towards the end of the coronavirus pandemic, energy prices soared. Global supply chains were disrupted. At the same time, the lifting of lockdowns meant households were able to normalise consumption. The war in Ukraine further exacerbated the situation. Inflation increased significantly worldwide. It rose in Switzerland, too, although later and to a lesser extent than elsewhere (slide 6). Initially, Swiss inflation was mainly driven by rising import prices, particularly for energy. Rising import prices spilled over to domestic inflation (slide 7).

Given the marked inflationary pressure, it was time to tighten monetary policy. We stopped buying foreign currency and let the Swiss franc appreciate. This dampened imported inflation. In June 2022, we raised the SNB policy rate by 50 basis points to −0.25%. We started to sell foreign currency in the fourth quarter of 2022 to support the tightening effect of interest rates. For 2022 as a whole, our foreign currency sales totalled approximately CHF 22 billion. In 2023, we even sold foreign currency worth some CHF 133 billion. To put this into context, CHF 133 billion corresponds to 17% of Switzerland's GDP.

The combination of rising interest rates and foreign currency sales was effective in quickly bringing inflation back into the range of price stability. The appreciation of the Swiss franc dampened imported inflation in particular, which initially played a significant role. The increase in interest rates had a broader impact, curbing both imported and domestic inflation.[9] Without the use of foreign currency sales, the SNB would have had to raise the policy rate to a higher level. Our decisive action contributed to keeping medium-term inflation expectations anchored.

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[7] Cf. Fritz Zurbrügg. 'Competitiveness of Swiss companies – the SNB's contribution', Speech at the Swiss CFO Day, 13 January 2016.

[8] Specifically currencies against which the Swiss franc is traded.

[9] Cf. Thomas Jordan (2024), 'The Swiss National Bank's monetary policy response to the post-COVID period of high inflation' in Monetary Policy Responses to the Post-Pandemic Inflation, Centre of Economic Policy and Research.

Fifteen years of foreign exchange interventions – an assessment

I began my remarks by saying that I would look back at our monetary policy over the past fifteen years. What is my assessment? I would like to focus on three aspects. The first covers the side effect of foreign exchange interventions: the large balance sheet. The second concentrates on the implementation of foreign exchange interventions: Continuous development. And the third assesses whether foreign exchange interventions have contributed to fulfilling our mandate: ensuring price stability.

The side effect: The large balance sheet

First: What is the side effect?

To fulfil its mandate, the SNB significantly increased its foreign currency reserves and hence its balance sheet (slide 8). It is important to note that the size of the balance sheet is the result of our monetary policy. In 2022, our balance sheet reached a record value of one trillion – i.e. one thousand billion – Swiss francs. That is almost one and a half times Switzerland's GDP.

The larger foreign currency reserves have a consequence: absolute profits and losses fluctuate strongly. These fluctuations mainly depend on developments on international financial markets. And from the fact that we cannot hedge our foreign currency risks.[10] In particular, the development of exchange rates, stock prices and interest rates influence our annual results.

Until 2021, we recorded high profits in most years (slide 9). In 2020 and 2021, we were even able to significantly increase the profit distribution to the Confederation and cantons, up to a maximum of CHF 6 billion. That represented about 3% of the federal government's and the cantons' revenues. However, financial markets performed poorly in 2022. The Swiss franc has also appreciated by 5% in trade weighted terms. The SNB recorded a loss of CHF 132.5 billion. We were unable to distribute any profits to the Confederation and cantons.

The side effect of foreign exchange interventions includes stronger fluctuations in the SNB's annual result. This is due to the size of the balance sheet and higher foreign currency risks. Who bore this foreign currency risk previously?

With the SNB's foreign currency purchases, the risks have shifted from the private sector to the SNB. Swiss companies and investors are also exposed to foreign exchange risks. They generate profits abroad or hold assets in other currencies. Since 2009, Swiss corporates and investors have increasingly repatriated their profits from abroad and hedged their currency risks.[11] This has increased the appreciation pressure on the Swiss franc. The SNB took on part of these risks to maintain price stability.

[10] Currency risk is not hedged against the Swiss franc as this would influence demand for Swiss francs.

[11] Switzerland holds substantial wealth abroad, on which dividends and interest payments are earned. Also, the Swiss economy earns profits from a net perspective – exports are higher than imports. Usually, the profits are reinvested abroad. In the wake of the Global Financial Crisis, the capital stemming from these gains increasingly returned to Switzerland and poured into the Swiss franc.

The SNB needs sufficient capital to bear the large fluctuations in its annual results. The current ratio of equity capital to balance sheet total remains low on account of the high loss in 2022. Building up the SNB's capital must have priority over profit distributions.

Our mandate is to ensure price stability, not to generate profits.

Implementation of foreign exchange interventions requires continuous development

Let us turn to the second aspect: Implementation.

The successful implementation of foreign exchange interventions requires continuous development and analysis. The foreign exchange market is changing constantly. For example, electronic trading has now become the norm. Today, more than 75% of transaction volumes are conducted electronically. In comparison, in 2009 a large part was still conducted by phone. The market has also become increasingly fragmented. Trading is now taking place on various platforms and not just on the primary markets. The foreign exchange market is therefore not only moving faster, it has also become much more complex.

The SNB is keeping pace with these developments. To do so, we continuously invest in trading technologies. But this is not enough. To keep up with the changing markets, we also invest heavily in our analytical capacities and operational set-up. Our branch in Singapore is an example. It helps us to operate around the clock, from Monday morning in Australia to Friday evening in the US. Over the past fifteen years, we have gained a lot of experience. This experience and the use of new technologies are crucial factors in effectively conducting foreign exchange interventions.

Monetary policy for ensuring price stability

Third: have foreign exchange interventions contributed to achieving price stability?

Yes, they have. With the combination of its policy rate and foreign exchange interventions, the SNB has managed to ensure appropriate monetary conditions. Both in a phase of low inflation and with the policy rate close to the effective lower bound, as well as during high inflation. The policy mix in the recent phase of high inflation illustrates well how policy rate hikes and foreign currency sales complemented each other. This successfully brought inflation back to the range of price stability.

We have been able to keep inflation within the price stability range for a large part of the past fifteen years (slide 10). There have been episodes when inflation has temporarily been outside this range. Inflation has averaged 0.3% over the past fifteen years. Without foreign exchange purchases, inflation would have been much lower. Estimates suggest that it would have been significantly below zero without the purchases; we would thus not have fulfilled our mandate.[12]

Ladies and gentlemen, the Swiss National Bank conducts its monetary policy in the interests of the country as a whole. Stable prices are crucial for a prospering economy. Foreign

[12] Cf. Tobias Cwik & Christoph Winter (2024), 'FX interventions as a form of unconventional monetary policy', SNB Working Paper.

exchange interventions were necessary to achieve price stability. They have complemented interest rates well when it was needed. We only use foreign exchange interventions when necessary. Our benchmark is our mandate – ensuring price stability.

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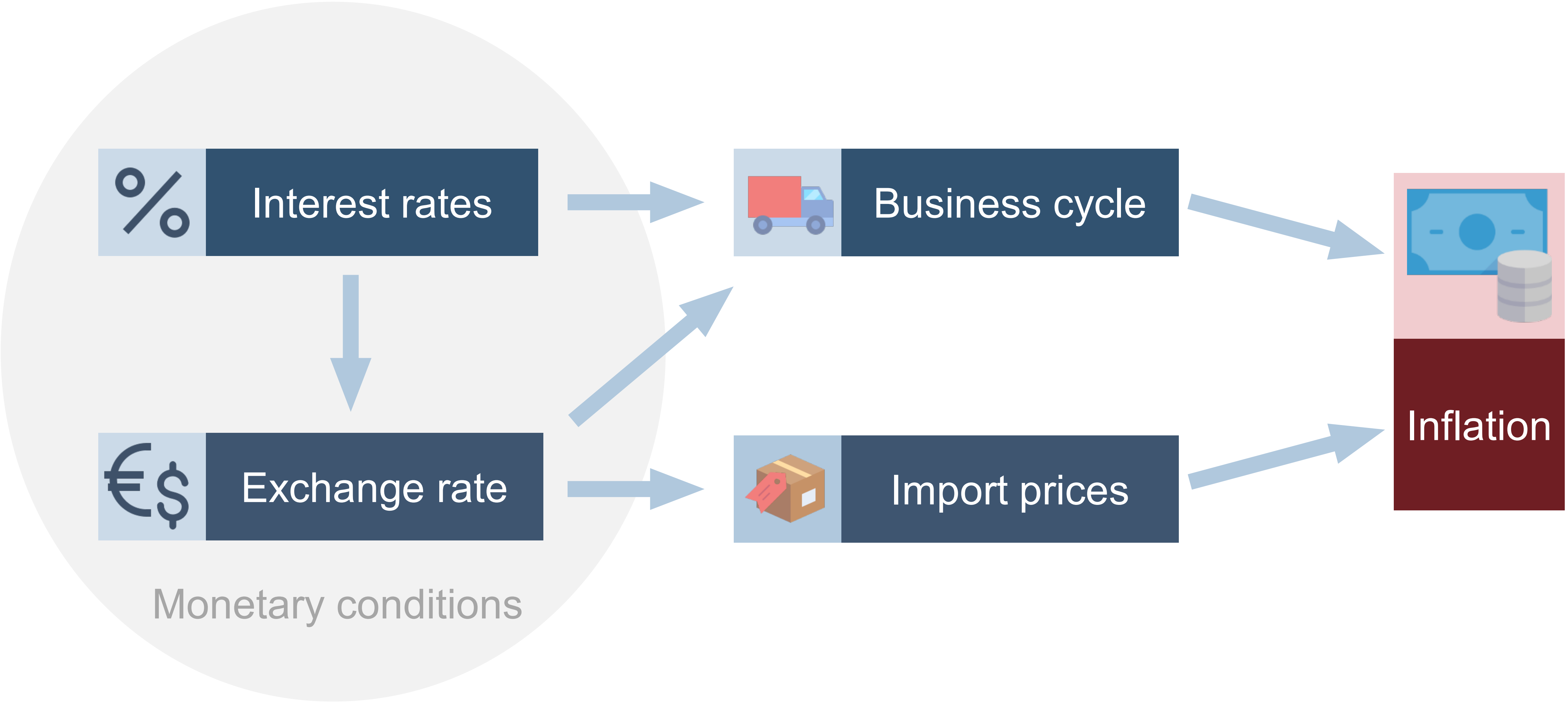
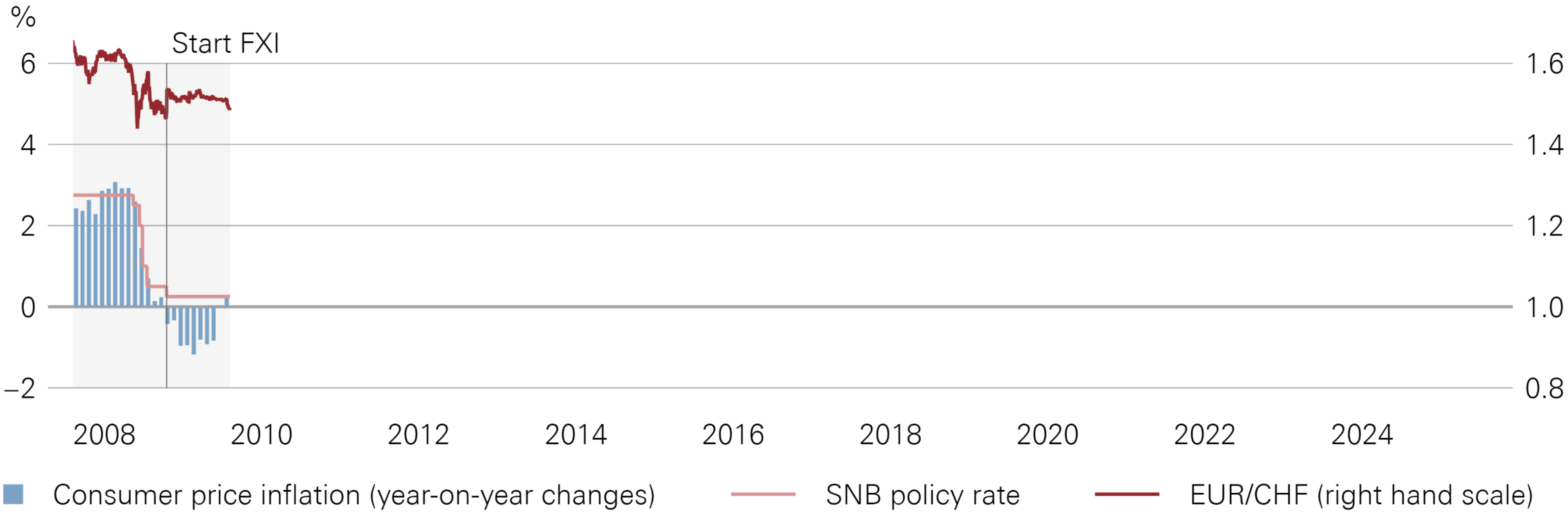
Role of exchange rate in Swiss monetary policy



March 2009: Start of foreign exchange interventions

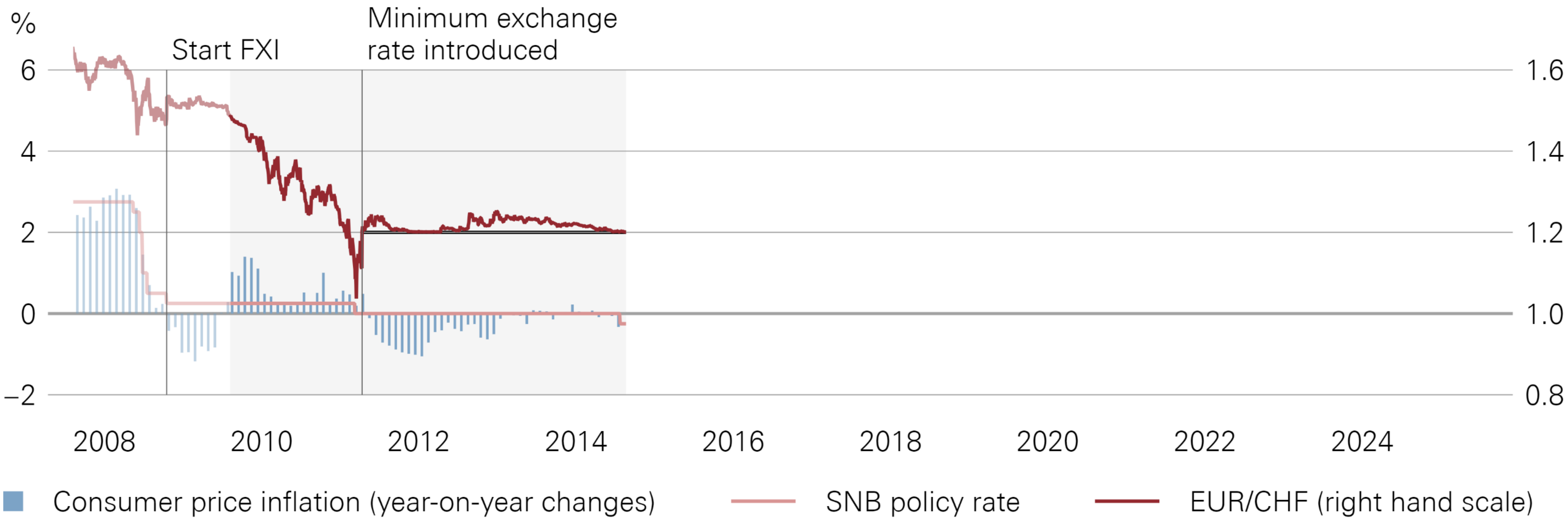
INFLATION AND MONETARY CONDITIONS



Source(s): SFSO, SNB

Euro crisis and introduction of minimum exchange rate

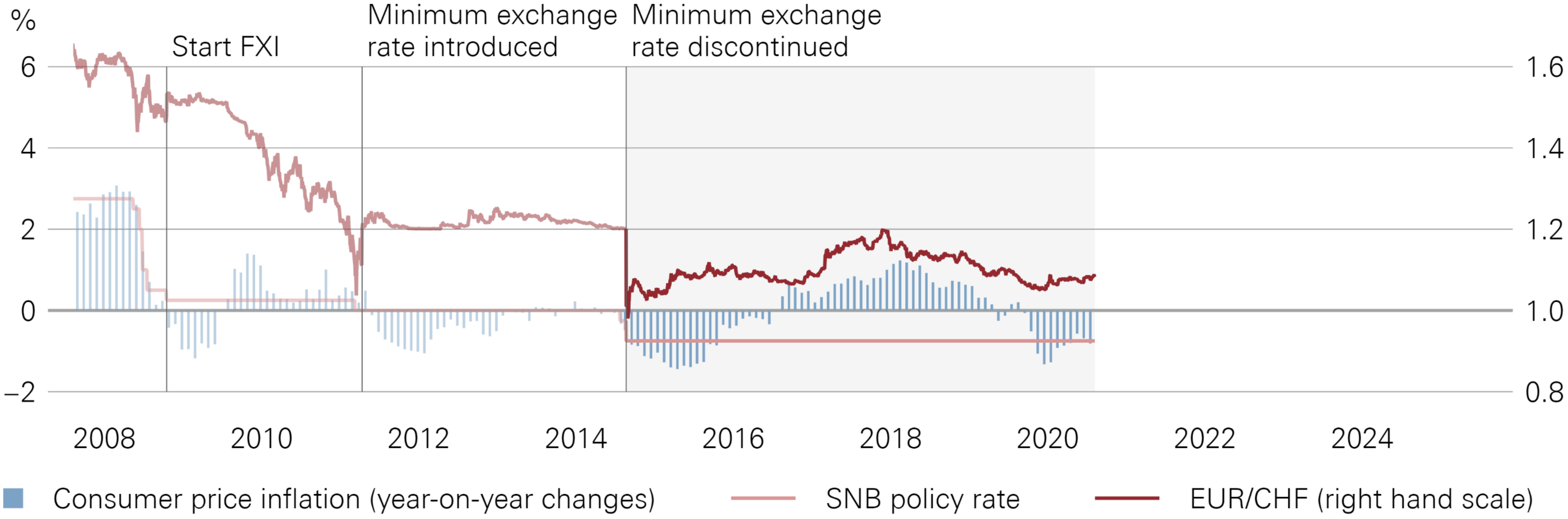
INFLATION AND MONETARY CONDITIONS



Source(s): SFSO, SNB

Discontinuation of minimum exchange rate and negative interest rate

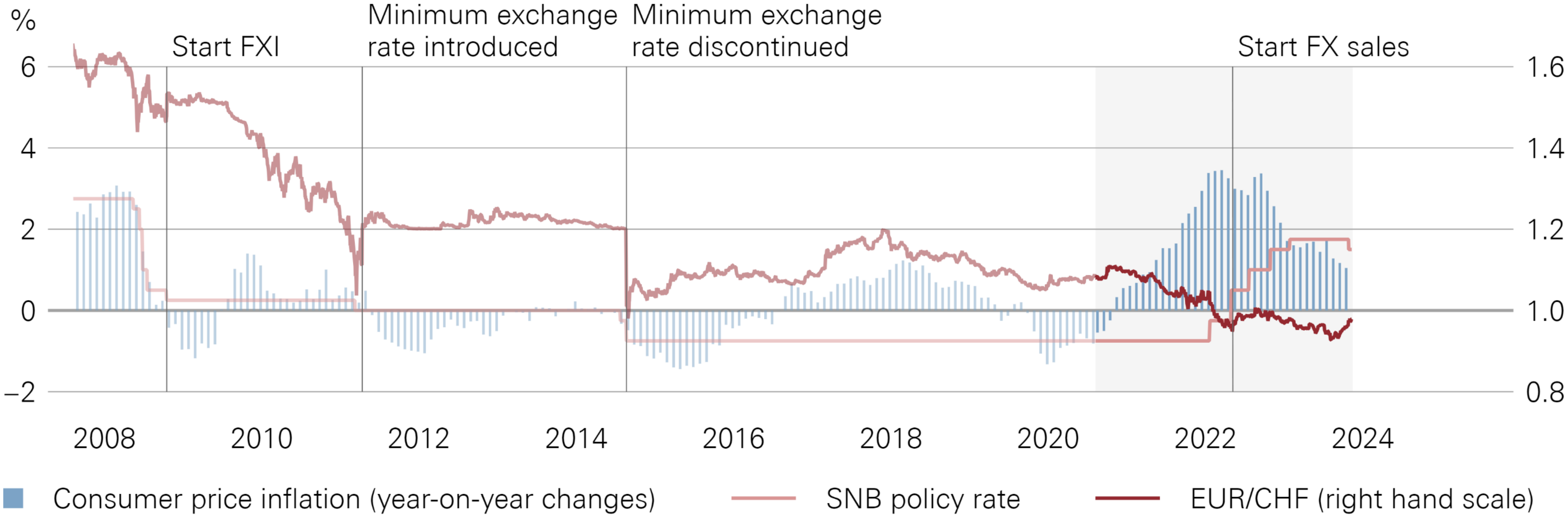
INFLATION AND MONETARY CONDITIONS



Source(s): SFSO, SNB

Foreign currency sales to counteract high inflation

INFLATION AND MONETARY CONDITIONS

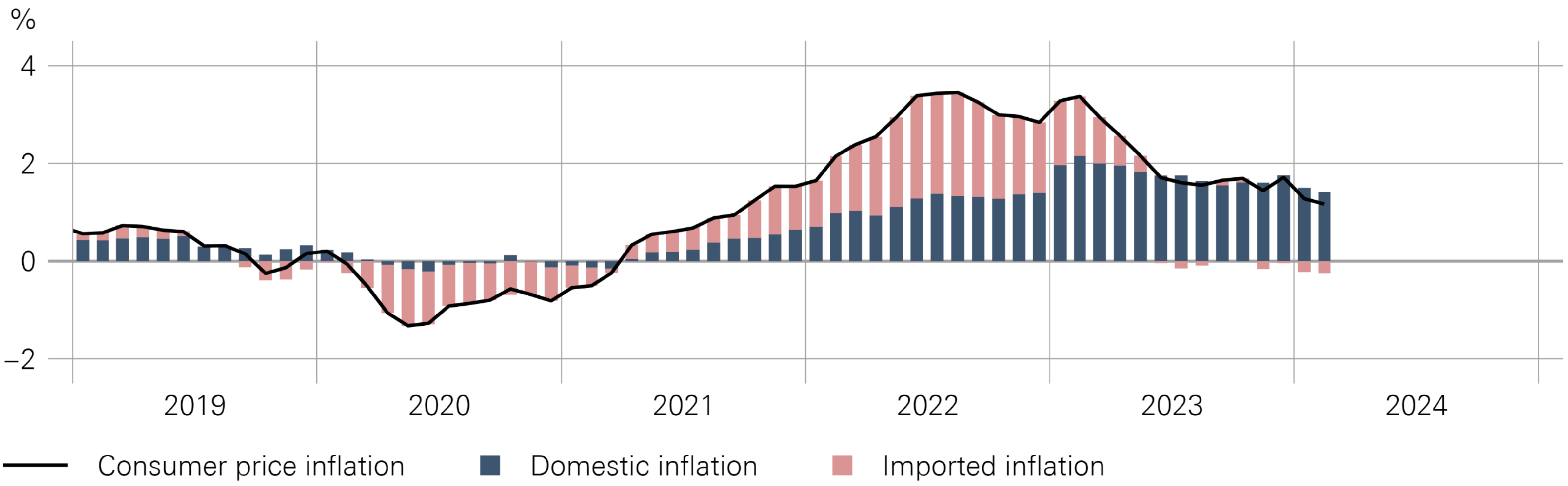


Source(s): SFSO, SNB

Inflation brought back to price stability range

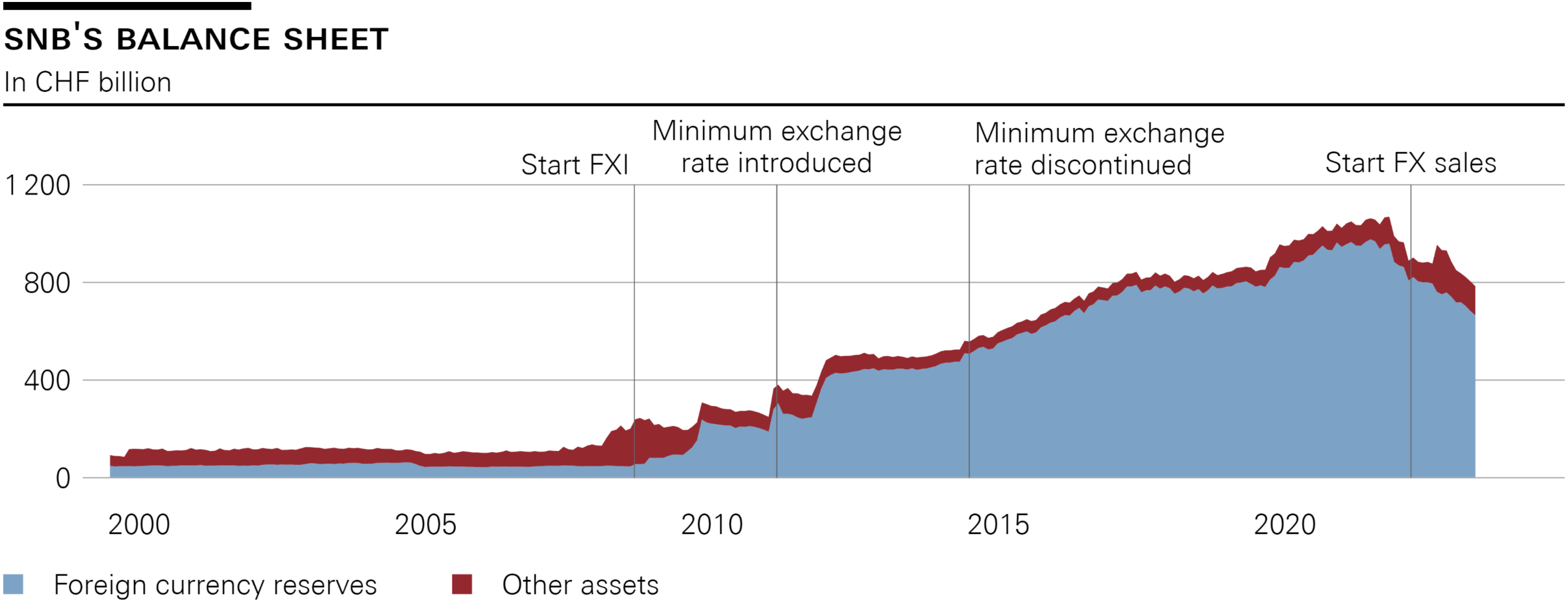
CONTRIBUTIONS TO SWISS CONSUMER PRICE INFLATION

Non-seasonally adjusted, year-on-year changes



Source(s): SFSO, SNB

Side effect: SNB's balance sheet increased…

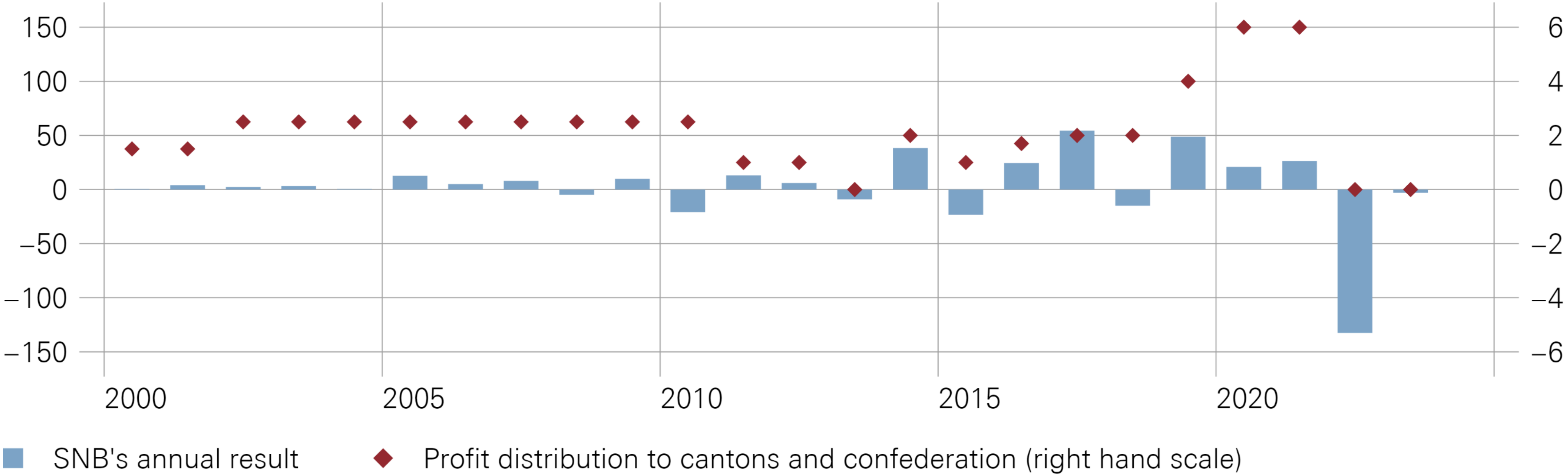


Source(s): SNB

… and led to higher fluctuation in SNB's annual result

ANNUAL RESULT AND PROFIT DISTRIBUTION

In CHF billions

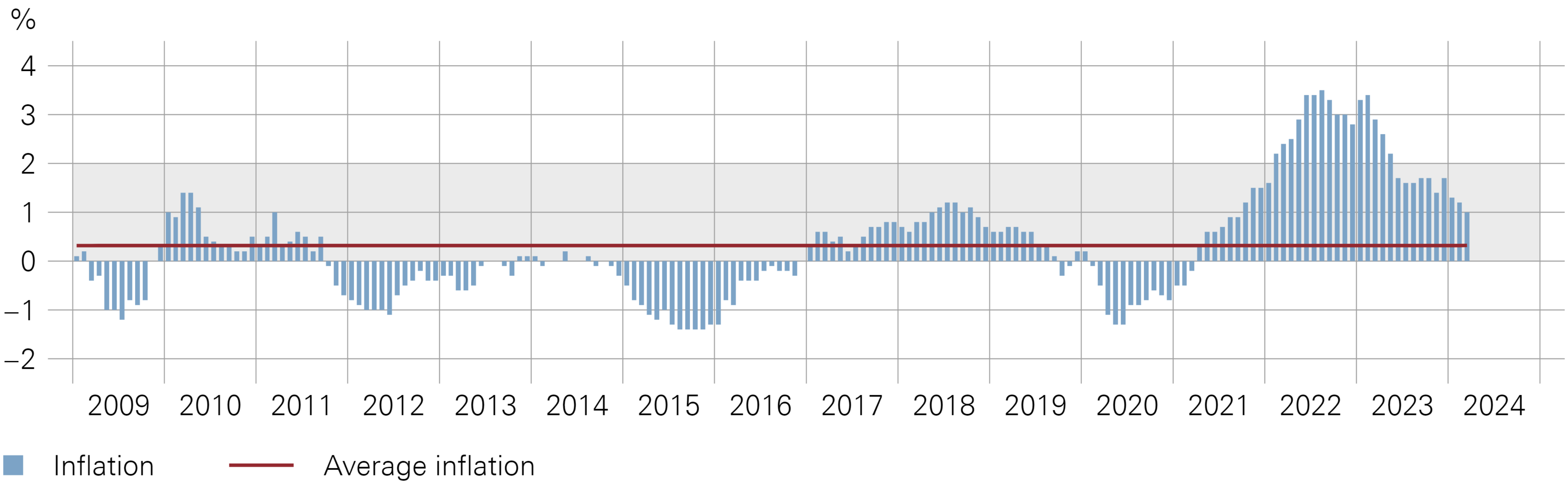


Source(s): SNB

FX interventions have contributed to achieving price stability

CONSUMER PRICE INFLATION

Non-seasonally adjusted, year-on-year changes



Source(s): SFSO, SNB

Thank you for your attention.

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