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After the minimum exchange rate: new monetary policy challenges

Money Market Event

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Ladies and gentlemen

A warm welcome to our traditional Money Market Event in Zurich. We are delighted that so many of you accepted our invitation to attend. A year ago at this gathering, I spoke to you about the Swiss National Bank's (SNB) investment policy. At the time, I touched only peripherally on monetary policy and the minimum exchange rate of CHF 1.20 per euro. It will come as no surprise to you that this year I have decided to devote my talk exclusively to monetary policy.

On 15 January of this year, the SNB discontinued the minimum exchange rate to the euro. This step attracted a good deal of attention around the globe and triggered dramatic price movements on the financial markets for a short time. It has significant implications for large sections of Switzerland's economy. For the SNB, too, the decision to discontinue the minimum exchange rate was a momentous one.

I would like to take this opportunity to explain our rationale for discontinuing the minimum exchange rate in more detail. In doing so, I shall also outline the consequences of this decision for the economic outlook and price developments in Switzerland. Let me start by reminding you of the circumstances surrounding the introduction of the minimum exchange rate in September 2011. After my presentation, my colleague Dewet Moser will brief us on this latest chapter in monetary policy implementation.

From financial crisis to minimum exchange rate

The international financial crisis started almost eight years ago. In August 2007, extreme tensions became evident on the money market. Central banks in the advanced economies countered these developments by lowering key interest rates and expanded the liquidity supply to the interbank markets. As the banking crisis increasingly broadened into a wider financial and economic crisis, demand for safe investments – and hence also for Swiss francs – increased rapidly. From the end of the year, the franc came under substantial upward pressure (cf. chart 1). Following the collapse of Lehman Brothers in autumn 2008, central banks quickly reduced short-term interest rates to unprecedented lows. At the beginning of 2009, the SNB lowered the target range for the three-month Libor to between 0% and 0.75%. The one-week repo rate, which is used to steer the Libor, had already been close to zero since the end of 2008. Conventional monetary policy – that is to say, the steering of the economy via short-term interest rates – had thus come up against its limits.

However, fears that monetary policy had run out of options were unfounded. Central banks in the advanced economies increasingly began to resort to unconventional instruments. At the SNB, these included long-term repos, purchases of Swiss franc-denominated bonds issued by domestic, private-sector borrowers and interventions in the foreign exchange market. It is worth noting that the SNB had intervened only very rarely in the foreign exchange markets between the early 1980s and 2009. And on the occasions when it had, the SNB's interventions had typically been small-scale and had been coordinated with the Group of Ten central banks.

This changed in March 2009, when, having reduced the short-term interest rate to near zero, the SNB began purchasing foreign exchange in an effort to counter upward pressure on the Swiss franc and prevent an undesirable tightening of monetary conditions. The first escalation in the euro area debt crisis in the spring of 2010 required the SNB to make extensive foreign currency purchases; these were provisionally halted in June 2010 once the economic recovery had gained a foothold.

In the first half of 2011, the situation in the euro area took another turn for the worse. Other euro area countries were being dragged into the crisis. The global economic outlook deteriorated and uncertainty on the financial markets was compounded by the US budget dispute. Upward pressure on the Swiss franc was immense at this time. In August 2011, the real export-weighted Swiss franc exchange rate was 40% above its long-term average (cf. chart 2).

In August 2011, in an attempt to counter the exceptionally strong Swiss franc, the SNB narrowed the target range for the Libor to between 0.0% and 0.25%, aiming to keep it as close to zero as possible. It also took steps to expand banks' sight deposits significantly.[1] These measures were successful up to a point, however in the light of ongoing uncertainty on the financial markets and more bad news from the euro area, upward pressure on the Swiss franc remained high and became more intense still at the beginning of September 2011. The SNB therefore decided to provide the foreign exchange market with clear guidance in the form of a minimum exchange rate for the franc against the euro. On 6 September 2011, it announced that it would no longer tolerate a EUR/CHF exchange rate below CHF 1.20.

This exceptional measure enabled the SNB to take a stand against an acute threat to the Swiss economy and to counter the risk of a deflationary trend emanating from the massive overvaluation of the Swiss franc. The minimum exchange rate was introduced as a temporary, emergency measure in a time of extreme turbulence. The franc remained high in the period that followed, yet deflation risk was held in check. Moreover, the minimum exchange rate bought Swiss companies – especially exporters and industries facing competition from imports – some time in which to plan their next steps in a very difficult operating environment.

Discontinuation of the minimum exchange rate

The minimum exchange rate has undoubtedly served Switzerland well during an exceptional period. However, the old adage popular among economists – 'there's no such thing as a free lunch' – holds true for monetary policy as well. The SNB Governing Board was well aware that the introduction of a minimum exchange rate would entail certain risks – and we consistently alluded to these. That the SNB would have to make large foreign currency

1 In August 2011, the SNB announced that it would very significantly increase the supply of liquidity to the Swiss franc money market by expanding banks' sight deposits at the SNB from CHF 30 billion to CHF 80 billion within a few days. Shortly afterwards, the SNB decided once again to increase banks' sight deposits substantially, to CHF 120 billion; this step was followed by a further – final – increase, this time to CHF 200 billion.

purchases and expand its currency reserves in order to enforce the minimum exchange rate was thus to be expected. The SNB must be willing to bear these risks if doing so is necessary for the fulfilment of its legal mandate, and if these risks are justified given the chances of success.

We enforced the minimum exchange rate consistently for more than three years (6 September 2011 to 15 January 2015). At the peak of the euro crisis in 2012, the SNB had to purchase CHF 188 billion of foreign currency. Adding this to purchases from prior years reveals that the SNB's currency reserves rose from CHF 50.5 billion in 2007 to CHF 432.2 billion at the end of 2012 (cf. chart 3), proving beyond doubt that the SNB is willing to accept balance sheet risks in order to enforce its monetary policy. Last year, the SNB's shareholders, the Confederation and the cantons all learned that these risks can have real consequences. For the year 2013, for the first time in its history, the SNB was unable to pay any dividends or distribute any profit, as the fall in the gold price and exchange rate-related losses had led to a very negative annual result. As you might expect, this decision was not greeted with rapturous applause. However, the critical point here is that the principles of the SNB's profit distribution agreement were not called into question. People generally recognised and accepted the fact that a larger balance sheet goes hand in hand with higher potential loss.

Despite having successfully enforced the minimum exchange rate of CHF 1.20 per euro for several years, in January 2015 the SNB concluded that the measure had become untenable and was therefore no longer justified from a monetary policy point of view. What led to this far-reaching reassessment? Let us briefly re-wind to 2014. While in the US expectations of an interest rate rise were mounting, there were signs of further monetary policy easing in the euro area from mid-year onwards. The euro subsequently weakened significantly against the US dollar. This in turn affected the EUR/CHF rate, which had already been close to the minimum exchange rate for some time. As a result, the Swiss franc largely followed the euro downwards. Nevertheless, at the mid-December monetary policy assessment, we were still convinced that the minimum exchange rate was the right instrument for ensuring appropriate monetary conditions. Shortly thereafter, however, the euro depreciation gathered pace sharply, and pressure on the franc increased dramatically. It became clear that a minimum exchange rate of CHF 1.20 per euro was no longer tenable. Only sustained currency market interventions of rapidly increasing magnitude would have allowed the SNB to uphold the policy.

Faced with these fundamental changes in international conditions, we came to the conclusion that the minimum exchange rate could only have been maintained through an uncontrollable expansion of the balance sheet, potentially even to a level several times higher than Swiss GDP. The risks associated with such a balance sheet expansion would have been out of all proportion to the benefits for the economy. An uncontrollable expansion of the balance sheet would have severely impaired the SNB's ability to conduct monetary policy in the future and jeopardised the fulfilment of its mandate in the long term. On the one hand, the future use of currency interventions would have been severely constrained. On the other hand, reabsorbing

this huge volume of liquidity once monetary policy began to normalise would have been very difficult and extremely costly.

Communication and timing of the discontinuation

The discontinuation of the minimum exchange rate took the financial markets by surprise and the price reactions on the foreign exchange and equity markets were correspondingly strong. In an age when transparency and openness in monetary policy matters are riding high, the decision to exit the minimum exchange rate policy so abruptly bewildered many observers. However, transparency is not an end in itself; it is part of monetary policy. Traditionally, monetary policy has been steered via short-term interest rates. These then feed through to exchange rates and long-term interest rates, thereby influencing – albeit with a time lag – the demand for goods and services and, ultimately, wages and prices in the economy. By communicating its intentions transparently and credibly, the SNB can influence expectations (e.g. on the financial markets), thereby rendering its monetary policy more effective.

Fundamentally, we are keen to avoid surprising the economy and triggering major price movements on the financial markets with our monetary policy measures. In the context of conventional interest rate policy, it is thus advantageous to keep the gap between financial market participants' expectations and the SNB's actual interest rate adjustments within reasonable limits. Normally, therefore, there is no contradiction between the notion of transparent communication and our monetary policy intentions.

But there are exceptions, and the discontinuation of the minimum exchange rate – a measure that was directly linked to the foreign exchange market – is one such exception. An announcement, or even the slightest hint of an imminent decision to dispense with the minimum exchange rate, would have triggered massive speculation against the SNB. We would then have been forced to, as it were, subsidise this speculation via foreign currency purchases.

Incidentally, these same arguments also explain why a gradual exit from the minimum exchange rate or a 'gentle' transition to a policy involving some other form of explicit exchange rate linkage (e.g. pegging the Swiss franc to a basket of currencies) was impractical. Such a policy would likewise have opened the floodgates to speculators. There was thus no reasonable alternative to exiting the minimum exchange rate suddenly and completely.

We discussed when would be the best time to communicate the decision. Our choice of the morning of 15 January was designed to allow market participants to start from a level playing field when adapting to this undoubtedly challenging new situation. By discontinuing the minimum exchange rate on a weekday when market participation was high, we minimised the risk of some banks and their customers being put at a disadvantage, or of individual participants gaining an advantage. At such a time, it would be possible for established market access channels, via electronic trading platforms or phone links to the trading desks of the main currency trading firms, to be widely used – although there were some bottlenecks immediately after the announcement. By contrast, if we had announced the move at the

weekend, for instance, this would have caused uncertainty about the trading conditions when the foreign exchange market opened on Sunday evening (Swiss time). Australia, which normally accounts for only around 1% of daily turnover in Swiss franc forex operations, would have been overwhelmed by the volume of trades during its business hours. You can easily imagine that the turbulence on the Australian market would have been far greater than that observed on the morning of 15 January, with contagion potentially spreading to the entire financial market. We wanted to avoid this.

Monetary policy after the minimum exchange rate

So what will the minimum exchange rate discontinuation mean for monetary policy in Switzerland? First, let me emphasise that the exit from the minimum exchange rate does not mean that we will simply be a passive observer of the foreign exchange market in future. The SNB will continue to take account of the exchange rate situation in formulating its monetary policy and will intervene in the foreign exchange market as necessary in order to influence monetary conditions.

Nonetheless, the end of the minimum exchange rate does mean that interest rate steering will once again take on a more prominent role. In December last year, the SNB decided for the first time to charge negative interest (–0.25%) on banks' and other financial market participants' sight deposits at the SNB. On 15 January – concurrently with the discontinuation of the minimum exchange rate – we lowered the interest rate again, this time to –0.75%. This marked interest rate reduction was intended to cushion the blow of Swiss franc appreciation and to counter a tightening of monetary conditions, by making it significantly more expensive to hold Swiss francs compared to other currencies.

Negative interest rates have stimulated a lively public debate. This is hardly surprising given that, in this form, such an instrument is something of a novelty that only a few central banks have deployed.[2] Apart from the SNB, the National Bank of Denmark, Sweden's Riksbank and the European Central Bank have made use of negative interest rates to date. Experience with this instrument is thus relatively limited.

Today, two months after negative interest rates were introduced, we can see that the measure is working and having the desired effect on the money and capital markets. The three-month Libor has been in negative territory since the announcement, dropping to a low of –0.96%; it is currently roughly in the middle of the target range (cf. chart 4). Long-term interest rates have also fallen, and the exchange rate too has now pulled back from the extreme values observed immediately following the discontinuation announcement. In trade-weighted terms, the Swiss franc is still at least 10% higher than it was at the beginning of the year. Overall, the Swiss franc is significantly overvalued and should weaken with time.

2 Switzerland has seen negative interest rates before: in the 1970s, negative interest was briefly charged in the form of commission on foreign funds held at commercial banks. In contrast to that period, today's negative interest rate affects all sight deposits held at the SNB by banks and other financial market participants.

When discussing the structure of the instrument, our deliberations focused on the interest rate level, but also in particular on the exemption thresholds above which negative interest was to be charged. We ultimately concluded that these thresholds should be calculated according to the minimum reserves banks are legally obliged to hold. This is a method that is both firmly anchored in law and for which clear rules exist.

As a result, banks with large Swiss franc holdings at the SNB relative to the size of their balance sheets bear a heavier burden than banks with lower sight deposit balances. The fact that the banks face differing burdens has been criticised in certain quarters. Some have argued, for instance, that negative interest rates are distorting competition. This is certainly not our intention. Negative interest is a monetary policy measure that – like any other form of interest rate change – affects different industries and companies in different ways. Negative interest is intended to make it less attractive to hold large amounts of liquidity in Swiss francs. It is thus logical from a monetary policy perspective that banks which hold large quantities of Swiss franc liquidity relative to the size of their balance sheets should shoulder a heavier burden.

As already mentioned, the introduction of negative interest rates on sight deposits at the SNB has also caused longer-term interest rates to fall. And yet, we have been living through a period of exceptionally low interest rates for around six years already, with even long-term investments bearing virtually no interest. The Swiss are a nation of savers and many people are concerned about low interest rates. I understand this, however we should not forget that what really counts for savers is not the nominal but the real (i.e. inflation-adjusted) interest rate. For some time now, inflation has been very low and now it is even negative. If inflation is negative, the real interest rate is higher than the nominal interest rate. As chart 5 shows, there have often been periods in the past when real interest rates were even lower than they are today.

During this challenging phase for the Swiss economy, it is important that the negative interest rate be allowed to take effect and help to bring about a weakening of the Swiss franc. Efforts to circumvent negative interest rates by obtaining exemptions or shifting to cash are not in the interests of Switzerland as a whole in the current climate. Interest rate and exchange rate developments in recent weeks suggest that our monetary policy measures are gradually gaining traction.

Economic outlook

By introducing the minimum exchange rate, the SNB moderated the risks and adjustment costs to which the Swiss economy was exposed and bought it some time to adjust to a stronger franc. We are aware that the discontinuation of the minimum exchange rate will mean that Switzerland has some difficult times ahead. The higher Swiss franc exchange rate – and especially the speed of Swiss franc appreciation since the discontinuation of the minimum exchange rate – is particularly challenging for exporters and industries facing competition from imports.

In 2014, the Swiss economy recorded year-on-year growth of 2%. This increase was slightly above long-term potential growth and reflects the robust state of our economy. The exit from the minimum exchange rate has led to a deterioration of economic conditions. We thus expect a much more modest expansion of real economic output this year of just under 1%. A noticeable weakening in the economy may be expected, particularly in the first half of the year. In the short term, significant underutilisation of production capacity may be expected and unemployment is likely to increase moderately.

There is of course a particularly high degree of uncertainty attached to such forecasts. For one thing, they will depend on how the Swiss franc exchange rate evolves in the coming months. For another, it is not certain how international conditions will develop. The US economy is more robust today than it was in 2011. The latest GDP figures for the euro area are once again more reassuring, although the situation remains difficult. In addition, the substantial fall in oil prices has had an easing effect. Despite all this, the risks – notably the debt dispute between Greece and the rest of the euro area, as well as the crisis in Ukraine – are not inconsiderable.

In the long term, I am confident that our economy will be able to cope with Swiss franc appreciation. The currency has been strong in the past, and has a tendency to appreciate. While a strong currency is an expression of a sound economy, it also presents companies with major challenges, as an appreciating franc means higher prices for foreign customers buying from Swiss firms. In order to remain competitive, this disadvantage has to be continuously offset by adaptability, quality and innovation. Various competitiveness and innovation indicators suggest that Swiss companies have been very successful on this score in the past; the country regularly ranks among the leaders in these categories (cf. chart 6).

These findings inspire optimism, however it is important to remember two things. First, we are dealing with averages here. When it comes to managing the new currency landscape, the options available to individual industries and companies will vary greatly; and so, in turn, will the impact of Swiss franc strength.[3] Second, the extent of recent Swiss franc appreciation presents Switzerland's economy with exceptional challenges which should certainly not be underestimated. But one thing is clear: entrepreneurial thinking is remains important. We have the utmost respect for this entrepreneurialism and for the employees who are being called upon to support these adjustments.

Inflation outlook

Let me now turn to the inflation outlook. The SNB's mandate is to ensure price stability in the medium term, while taking due account of economic developments. We remain committed to maintaining price stability and the decision to exit the minimum exchange rate has not altered our mandate in any way.

3 Cf. Bäuerle, G. and E. Steiner (2013): 'How do individual sectors respond to macroeconomic shocks? A structural dynamic factor approach applied to Swiss data', SNB Working Papers No. 9, 2013, or Drechsel, D. et al. (2015): 'How are firms affected by exchange rate shocks? Evidence from survey based impulse responses', KOF Working Papers No. 371, January 2015.

Last year, the inflation rate – as measured by the consumer price index (CPI) – hovered around zero. This year, inflation will decline well into negative territory. This is first and foremost due to two factors: Swiss franc appreciation since the discontinuation of the minimum exchange rate and the sharp fall in oil prices. Last year, oil prices fell by some 40% in Swiss francs. According to an economist's rule of thumb, this should translate to a decline in CPI inflation of almost 1 percentage point. The low inflation we are witnessing is thus in large part attributable to the collapse in oil prices. The important thing to remember here is that the effects of both the Swiss franc appreciation and the oil price drop are temporary. They will not jeopardise price stability.

We have revised our forecast downwards for the current year, from –0.1% to –1.1%. Inflation is expected to reach its low point in the third quarter of 2015, at –1.2%. We anticipate inflation of –0.5% for 2016. As you can see from chart 7, inflation will move back into positive territory only at the start of 2017. These forecasts assume that the three-month Libor remains at –0.75% over the entire forecast horizon, and that the Swiss franc weakens.

Our forecasts show that the period of negative inflation is temporary. The SNB's monetary policy strategy provides for positive inflation rates of below 2% in the medium term. So as long as the inflation rate returns to this range in the medium term, price stability will not be threatened. The important thing is that medium-term inflation expectations remain within a range that is compatible with price stability. While these inflation expectations have declined substantially, they are still in positive territory. This is confirmed in regular surveys by third-party providers, as well as in conversations between the SNB's delegates for regional economic relations and company representatives from all sectors of the economy. Sustained negative inflation, or even a deflationary spiral – a negative feedback loop involving an economic downtrend and falling price levels – is thus not expected.

Closing remarks

In conclusion, let me reiterate that the minimum exchange rate was introduced as an exceptional and temporary measure during a period of unprecedented turmoil for the financial markets and the global economy. It served Switzerland well for more than three years, partially correcting the massive overvaluation of the Swiss franc. Last year, monetary policy in the euro area and Switzerland increasingly began to diverge. This was reflected in a very sharp depreciation of the euro against the US dollar. A minimum exchange rate of CHF 1.20 per euro was thus no longer sustainable. The high and rising volumes of currency intervention that would have been necessary to maintain the minimum exchange rate would have resulted in an uncontrollable expansion of the SNB's balance sheet. In the long term, this would have severely restricted its room for manoeuvre in monetary policy matters, and in turn its ability to fulfil its mandate.

Given prevailing international conditions, the negative interest rate – and our willingness to intervene on the foreign exchange market as necessary – give us the tools to ensure price stability in the medium term. Seen from the current perspective, too, there is no threat to price

stability in the medium and long term. The impact of the appreciation on consumer prices is temporary, although it may linger for some time. As regards economic developments, we are aware that the discontinuation of the minimum exchange rate means that there are difficult times ahead for Switzerland.

We have every confidence that Switzerland's economy and its economic agents will rise to the challenge and adjust to the strong Swiss franc. The last few years have provided an impressive illustration of just how exceptionally adaptable this country's entrepreneurs are. The Swiss franc is significantly overvalued and while it is expected to weaken over time, until it does, this substantial – and above all abrupt – appreciation of the currency will present considerable challenges. I repeat: My colleagues on the Governing Board and I have great respect for the business community whose task it will be to make these difficult adjustments.

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Fritz Zurbrügg
Member of the Governing Board, Swiss National Bank

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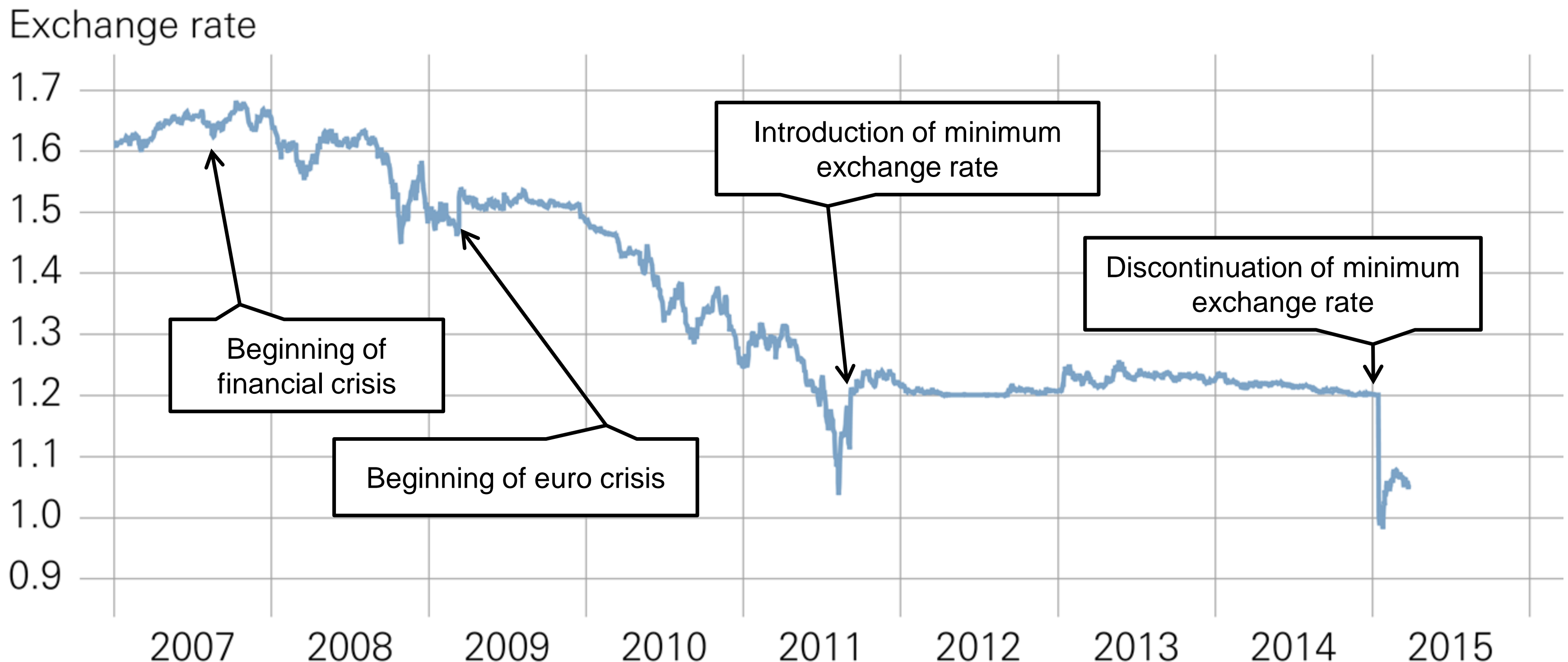
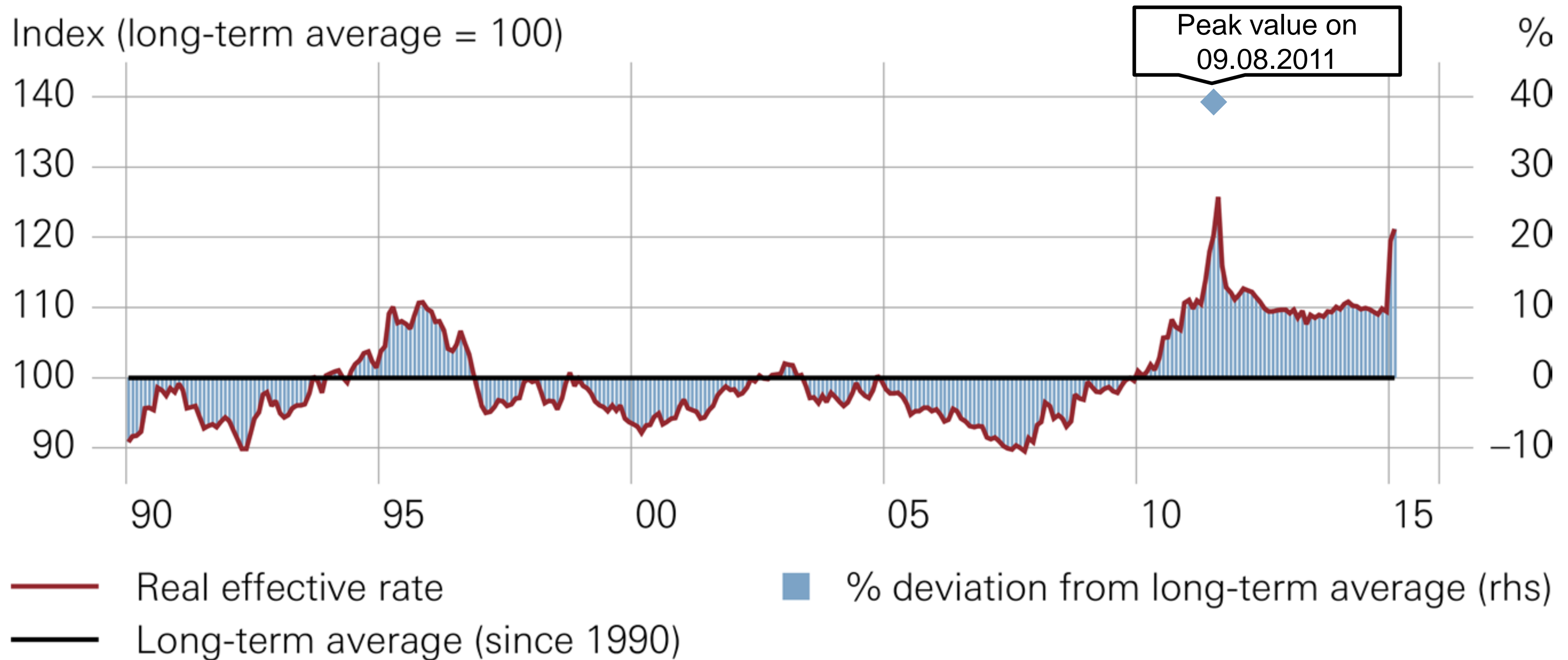
The Swiss franc has appreciated substantially since the beginning of the financial crisis



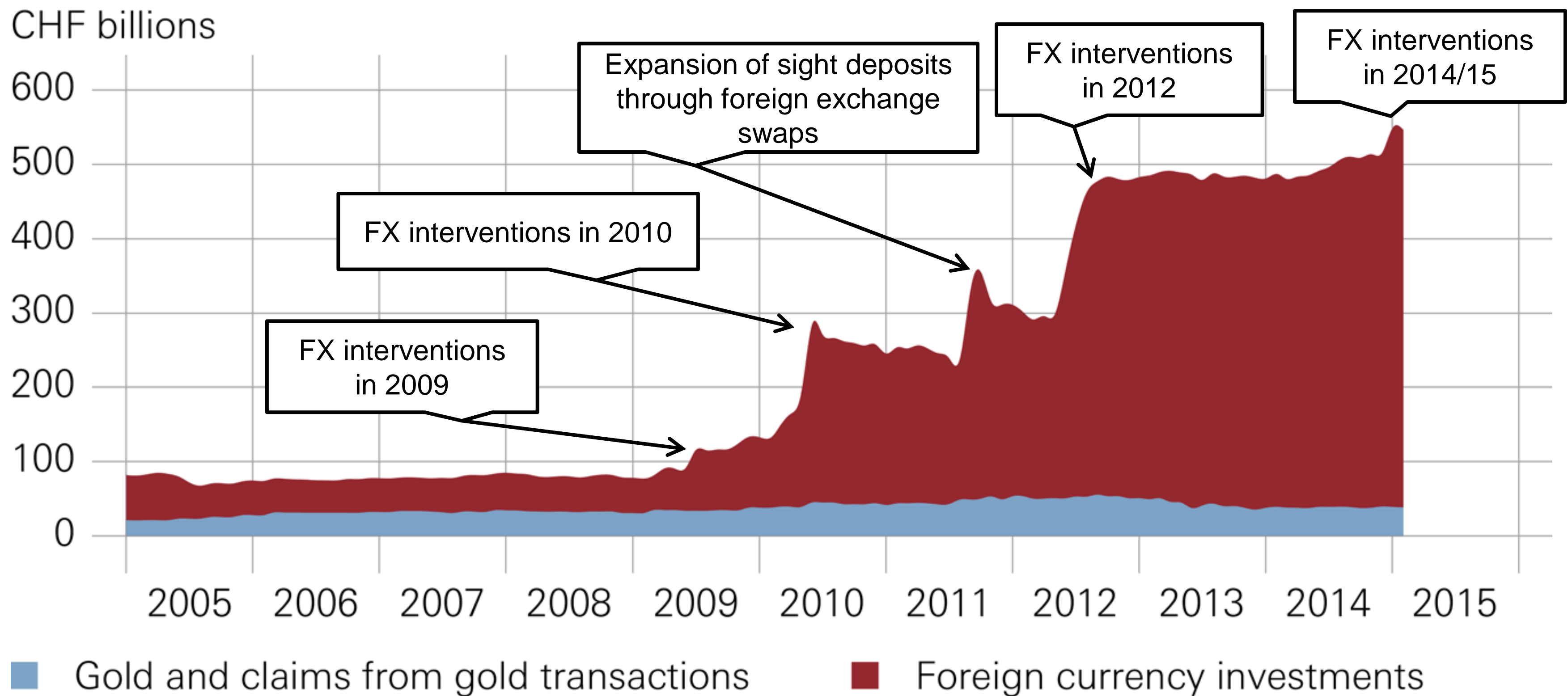
Sources: SNB, Bloomberg

Trade-weighted exchange rate of the Swiss franc since the 1970s



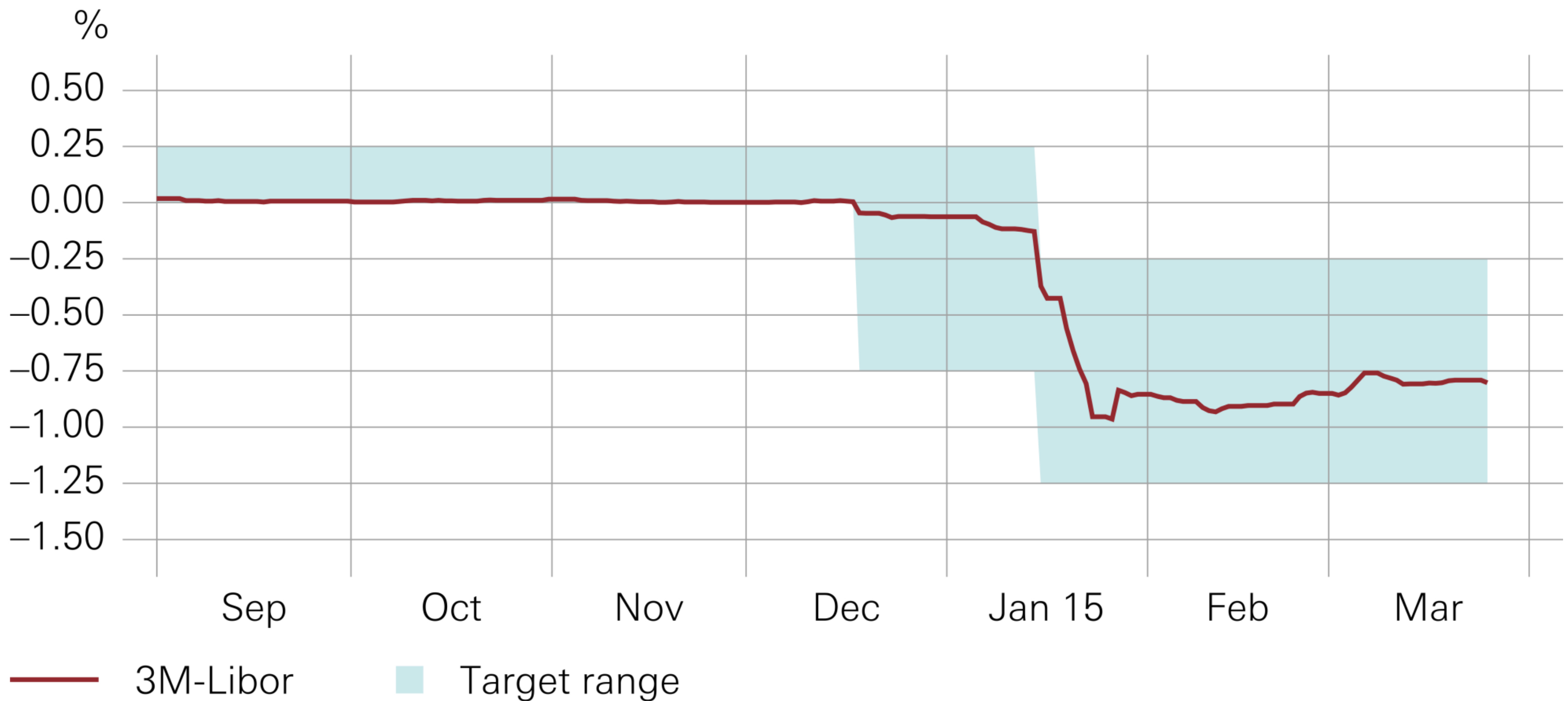
Sources: SNB, BIS

Crisis management led to major increase in currency reserves



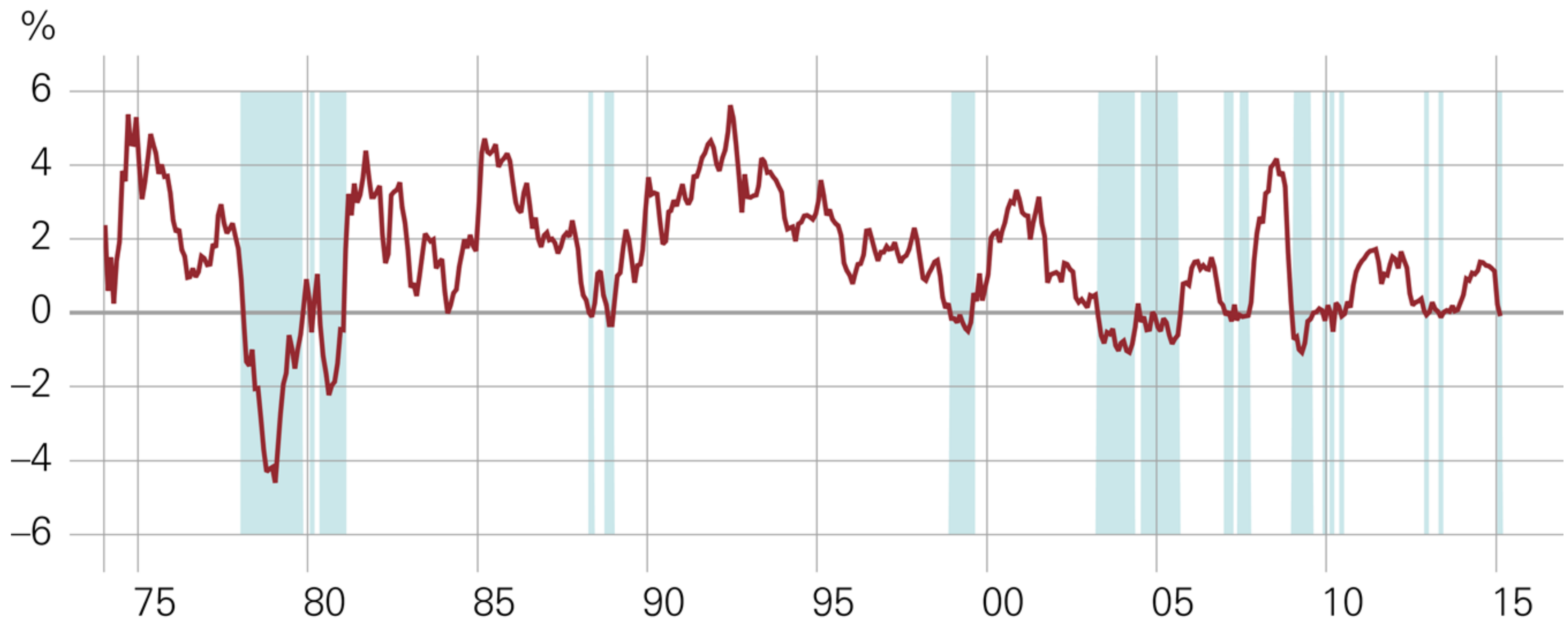
Significant decline in money market interest rates since discontinuation of minimum exchange rate

THREE-MONTH LIBOR AND TARGET RANGE



Sources: SNB, Bloomberg

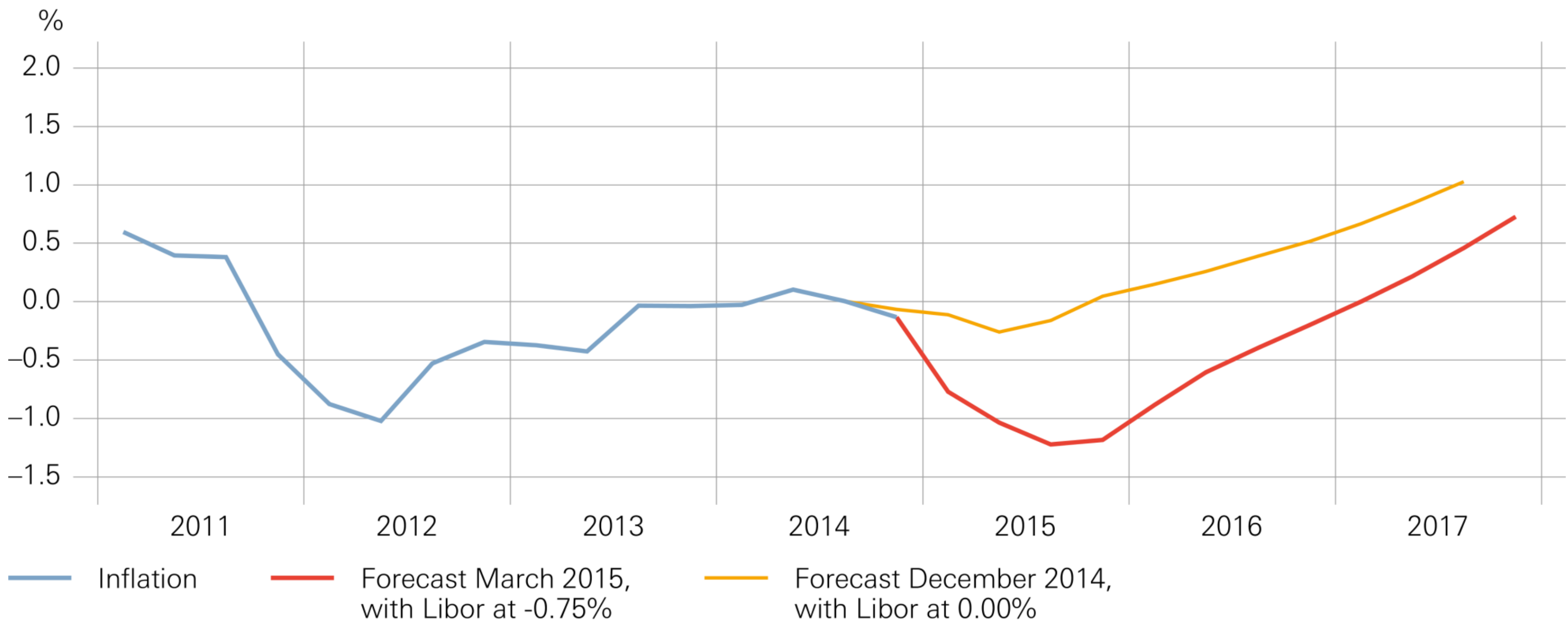
Low real interest rates are not an entirely new phenomenon



Swiss economy ranks top for competitiveness and innovation

	Competitiveness		Innovation	
	Global Competitiveness Index (WEF GCI, 2014)	**World Competitiveness Ranking (IMD WCY, 2014)**	**Global Innovation Index (GII, 2014)**	**Innovation Union Scoreboard (IUS, 2014)**
1	**Switzerland**	US	**Switzerland**	**Switzerland**
2	Singapore	**Switzerland**	UK	Sweden
3	US	Singapore	Sweden	Germany
4	Finland	Hong Kong	Finland	Denmark
5	Germany	Sweden	Netherlands	Finland
6	Japan	Germany	US	Netherlands
7	Hong Kong	Canada	Singapore	Luxembourg
8	Netherlands	UAE	Denmark	Belgium
9	UK	Denmark	Luxembourg	UK
10	Sweden	Norway	Hong Kong	Ireland

SNB inflation forecast



Source: SNB

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