

## **Andréa M Maechler: How negative interest works and changes in the management of foreign exchange reserves**

Speech by Ms Andréa M Maechler, Member of the Governing Board of the Swiss National Bank, at the Media News Conference of the Swiss National Bank, Berne, 10 December 2015.

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*Accompanying charts can be found at the end of the speech.*

In my remarks today, I will begin by talking about developments on financial markets since the middle of the year. Then I will discuss the way in which negative interest works. I will conclude with a report on changes in the way we manage our currency reserves.

### **Situation on the financial markets**

I will start with the situation on the financial markets. Financial market developments since the middle of the year have mainly been shaped by three topics: the uncertainty surrounding the first interest rate move by the Federal Reserve, monetary policy easing measures by the European Central Bank (ECB) and concerns about growth prospects in the emerging economies, particularly China. In mid-August, disappointing economic data and an unexpected depreciation of the renminbi against the US dollar resulted in a sharp decline in the Chinese stock market. The fallout was also felt by stock markets of other emerging and advanced economies in short succession. After volatility on the stock markets had increased sharply at times, investors' appetite for risk gradually returned at the end of September.

Favourable economic data from the US and the euro area contributed to the more positive sentiment. In addition, concerns about growth in China recently slipped into the background again. The stock markets of the advanced economies, which have since been able to partially recoup their losses, were the main beneficiaries of this recovery. By contrast, in the emerging economies, the wave of selling has had a lasting impact. In the most recent period, the MSCI Emerging Markets Index – calculated in local currency – was still approximately 12% below its level at the end of June.

Stronger signals of diverging monetary policy stances between the euro area and the US were also reflected on the foreign exchange markets. On the one hand, the prospect of higher interest rates in the US boosted the US dollar. On the other, it put the currencies of emerging economies under pressure. Since mid-year, the US dollar has appreciated by 4.5% on a trade-weighted basis. The euro initially gained ground at times as a result of uncertainty in the emerging economies. However, after the ECB had held out the prospect of further monetary policy easing measures, the single currency came under downward pressure. By the beginning of December, the expectations of financial market participants had not been fulfilled and the euro gained in value again. By comparison with its mid-year level, the euro has appreciated only marginally on a trade-weighted basis.

Demand for secure investments remained high worldwide. On the bond markets, yields on longer-term government bonds declined further. Chart 1 shows that the decline in yields in the euro area was somewhat greater than in the US. The yields on ten-year German government bonds have fallen by almost 20 basis points since the end of June. In France and Italy, the decline in yields was more pronounced. Meanwhile, yields on ten-year US treasury bonds have changed relatively little.

On the Swiss capital market, almost the entire yield curve has shifted downwards again since mid-year. Yields on Confederation bonds with terms of up to 13 years are currently in negative territory. This corresponds to three-quarters of the outstanding volume. At the beginning of December, the yield on ten-year Confederation bonds reached a new low of –0.4%. Most recently, it was trading at –0.25% or about 40 basis points lower than mid-year.

## How negative interest works

In the second part of my remarks today, I will talk about the way in which negative interest works. Since January, the Swiss National Bank (SNB) has been charging negative interest of –0.75% on sight deposits held by banks and other financial market participants at the SNB. Negative interest is a key instrument in our monetary policy. Together with our willingness to intervene on the foreign exchange market, it counteracts the overvaluation of the Swiss franc. When calculating negative interest, the SNB grants the banks exemptions so that the banking system does not have to carry the full burden resulting from the high level of sight deposits. For banks subject to minimum reserve requirements, the exemption threshold is calculated as 20 times the minimum reserve requirement, based on a reference period. For sight deposit account holders not subject to any minimum reserve requirements, the exemption threshold has been set at a minimum of CHF 10 million.

By applying negative interest universally to all account holders, we are adhering to the principle of equal treatment. It therefore makes sense that banks with above-average sight deposits in proportion to their minimum reserves pay higher interest than other banks. In this respect, negative interest is no different to traditional monetary policy measures. Although the conditions are always the same for all participants, the precise impact may differ for individual banks or market participants and depends on their balance sheet situation.

The full effect of negative interest is felt on the money and capital markets even in the case of high exemption thresholds. At present, at approximately CHF 170 billion, some 40% of SNB sight deposits are subject to negative interest. Nevertheless, transmission of the negative interest rate is working well, with interest rates on this market aligning themselves directly with the negative interest rate of –0.75%. This is because interest rate determination is based on the marginal interest rate, in other words the rate for holding one additional unit of sight deposits.

## ***Movements in SNB sight deposits***

Chart 2 shows sight deposits of domestic banks (dark blue area) which, together with other sight deposits (light blue area), comprise total sight deposits at the SNB. Cumulative exemption thresholds come to some CHF 300 billion. When negative interest came into effect in January, thresholds were 88% exhausted. Since then, this percentage has steadily increased and is now just over 98%.

There are two principle reasons for this. First, a redistribution of sight deposits between banks has taken place. Institutions whose sight deposits exceeded the exemption threshold have transferred money from their SNB accounts to banks which had not exhausted their threshold and were prepared to accept these funds at somewhat less negative interest than –0.75%. This redistribution of sight deposits can be observed, for instance, on the Swiss franc repo market. Chart 3 shows how, on that market, turnover was considerably higher than that recorded for the whole of 2014. Most of the turnover was accounted for by transactions with very short terms. This is likely to include many transactions aimed at exhausting remaining thresholds.

The second reason for the higher exhaustion of the exemption thresholds is that banks' sight deposits at the SNB have increased overall. Since negative interest came into effect in January, sight deposits have risen from approximately CHF 440 billion to some CHF 470 billion at present. The interest burden increases overall when the SNB feeds more liquidity into the system, in particular in the event of further foreign exchange market interventions. This, in its turn, makes it even less attractive to hold Swiss francs. Now that almost all exemption thresholds are exhausted, every newly-created Swiss franc is subject to negative interest.

## **Changes in the management of foreign exchange reserves**

I now come to my third and final topic. Two important new developments have occurred in the SNB's investment activities this year. The SNB has enlarged its investment universe, moving into both Chinese government bonds and shares of companies in emerging economies. These developments took place in view of the level of our foreign currency investments, at over CHF 570 billion, as well as our ongoing efforts to diversify our placements of them as broadly as possible.

### ***Investment in Chinese government bonds***

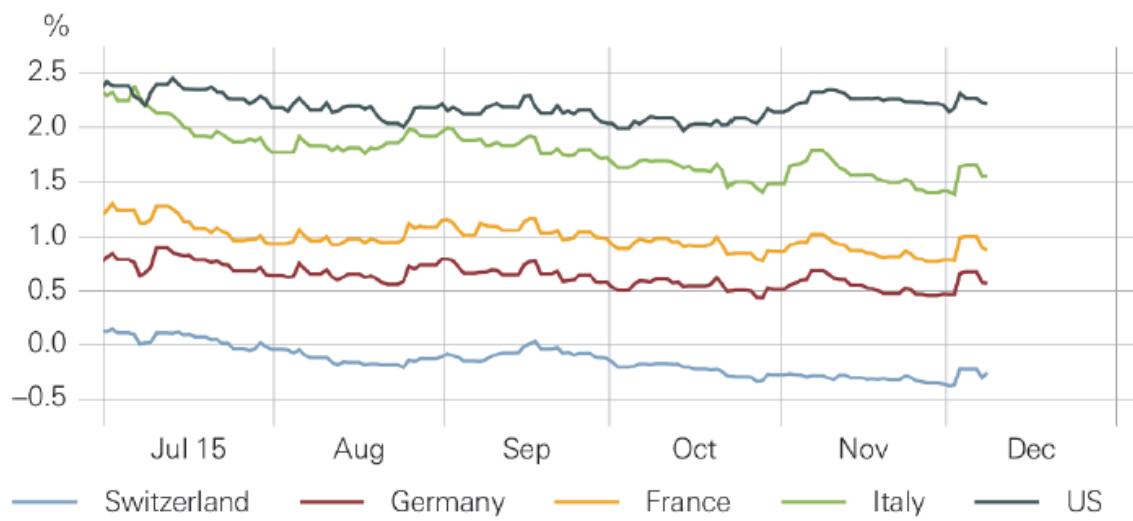
In July 2014, the SNB communicated that it had been granted a renminbi investment quota by the People's Bank of China (PBC). The investment quota amounted to RMB 15 billion, or somewhat more than CHF 2 billion. This made it possible for the SNB to invest in the market for Chinese government bonds, which is the fifth largest in the world, for the first time. Experience so far has shown that the market is sufficiently liquid and that trading and settlement of transactions works smoothly. As is the case for our other investments in the Asian region, the operational side is handled by our Singapore branch. As it continues to open up, the Chinese bond market is likely to become even more attractive for foreign investors in the future. For instance, in July 2015, the PBC announced that public sector investors, which includes central banks, are to be granted unlimited access to the Chinese bond market. In place of investment quotas, they will merely need to be registered with the PBC.

### ***Shares of companies in emerging economies***

Since the beginning of the year, the SNB has also been investing in shares of companies in emerging economies. In view of the growing importance of these countries for the global economy and financial markets, this was an obvious step in further diversifying foreign currency investments. With this move, the SNB is now covering most of the market capitalisation of the global stock markets. The decision to invest in the shares of companies in emerging economies was taken during the regular review of our investment policy. It is guided by longer-term risk/return considerations and is independent of short-term developments on the financial markets. Equity investments in emerging economies are managed passively, in the same way as those from advanced economies, by replicating a combination of different indices. Overall, however, these investments only account for a modest proportion of total equity investments.

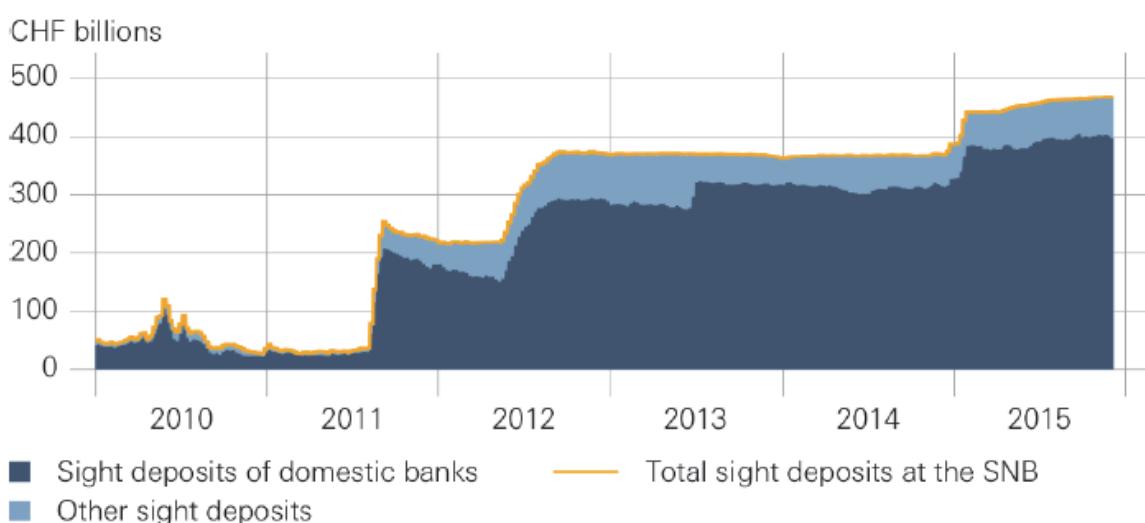
## Charts

### CHART 1: YIELDS ON TEN-YEAR GOVERNMENT BONDS



Sources: SNB, Bloomberg

### CHART 2: SIGHT DEPOSITS AT THE SNB



Source: SNB

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### CHART 3: TURNOVER ON THE SWISS FRANC REPO MARKET

Average figures for each period

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CHF billions

8

6

4

2

0

2014 Jan 15 Feb 15 Mar 15 Apr 15 May 15 Jun 15 Jul 15 Aug 15 Sep 15 Oct 15 Nov 15

■ Call money ■ Other terms

Sources: SNB, SIX Repo Ltd