SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIUNALA SVIZRA
SWISS NATIONAL BANK

Speech

Embargo
16 November 2017, 6.30 pm

Developments on the Swiss franc capital market and the SNB's monetary policy

Money Market Event

Andréa M. Maechler

Member of the Governing Board*
Swiss National Bank
Geneva, 16 November 2017

* The speaker would like to thank Dirk Faltin and Martin Weder for their support in drafting this speech. She also thanks her colleagues at the SNB for their valuable comments and suggestions.

Ladies and gentlemen

Welcome to the annual Money Market Event of the Swiss National Bank (SNB) in Geneva. We are delighted that so many of you accepted our invitation to attend. The SNB attaches great importance to meeting representatives of Switzerland's business and financial communities.

Traditionally, we have held two speeches – and we are continuing this tradition today. In my remarks, I shall explore developments on the Swiss franc capital market. Then my colleague, Dewet Moser, will speak about the foreign exchange market and future changes in reference interest rates.

As you know, the SNB's monetary policy remains expansionary. It continues to be based on two key elements: the negative interest rate (–0.75%) on sight deposits at the SNB and our willingness to intervene in the foreign exchange market as necessary. Both are helping to ease upward pressure on the Swiss franc and thereby prevent an undesired tightening of monetary conditions in Switzerland. Although the franc has weakened somewhat on a trade-weighted basis in recent months, it remains highly valued (cf. **chart 1**) and the situation on the foreign exchange market is still fragile.

Let me start by reminding you of the background to our current policy: in the wake of the global financial crisis, demand for Swiss francs increased – substantially at times – causing the currency to appreciate rapidly and very sharply. We faced the risk of major economic turbulence and deflation – that is to say, of a sustained and harmful decline in the price level. The SNB therefore announced publicly (initially in March 2009) that it was purchasing foreign currency in order to limit further appreciation of the Swiss franc. Since then, the SNB has purchased some CHF 600 billion of foreign currency.

At the beginning of 2015, the interest rate on sight deposits held by banks and other financial market participants at the SNB which exceed a given exemption threshold was lowered to –0.75%. The monetary policy instrument of negative interest aims to bring down the general level of interest rates in Switzerland and to restore, partially at least, the interest rate differential with other currencies. Since its deployment, a significant share of outstanding Swiss franc bonds has been negative-yielding. These low interest rates make Swiss franc assets less attractive, thereby helping to curb the currency's overvaluation.

The SNB's policy measures have thus affected the capital market, which plays an important role in the transmission of monetary policy to the real economy. In my speech today, I want to look at these effects from two angles. In the first part, I shall attempt to explain how low interest rates have impacted the behaviour of issuers and investors on the Swiss franc capital market. In particular, I note that, despite much more favourable financing conditions, the Swiss franc bond market has not grown over the last few years. At the same time, the share of foreign investors has steadily declined.

In the second part of my speech, I address the question of how investors build and hold Swiss franc positions resulting from the additional demand for Swiss francs. Available statistics show that, for some time now, investors have increasingly been opting to build up Swiss franc positions using forward foreign exchange contracts (derivatives).

No increase in capital market debt despite record low interest rates

Despite the low interest rates, the Swiss franc bond market has contracted slightly due to special factors. Allow me to explain the context here in a little more detail.

Against the backdrop of low interest rates worldwide, the cost of borrowing has steadily fallen in recent years – and the SNB's policy of negative interest has further accentuated this trend in Switzerland. One would have expected issuers to have exploited this situation to take on more debt – and that this, in turn, would have resulted in higher issuance and a greater volume of outstanding bonds. Numerous countries with highly expansionary monetary policies have witnessed just such a trajectory, and hence a marked rise in capital market debt, in the last few years.

However in Switzerland, the opposite has occurred. As **chart 2** shows, after peaking in spring 2011 at almost CHF 560 billion, the volume of all outstanding Swiss franc bonds trended sideways for four years, and since the introduction of negative interest in 2015, the total volume has even fallen by around CHF 40 billion.

It is evident that the domestic segment has been steadily growing since the financial crisis. Let's take a closer look at the domestic segment. **Chart 3** shows the development of domestic Swiss franc issuance by sector. Three aspects are striking. First, this development is chiefly driven by Switzerland's two mortgage bond institutions (mortgage bond bank and mortgage bond institute); these entities jointly account for around a third of the domestic segment. The strong rise in this sector reflects both the growth of the Swiss mortgage market and greater use of this refinancing instrument by the banks. From the banks' perspective, it is preferable to borrow via long-term instruments such as mortgage bonds than to finance mortgage loans via customer deposits, as doing so enables better maturity matching on both the assets and the liabilities side. Furthermore, in the current interest rate environment, mortgage bonds offer banks better financing conditions than customer deposits.

Second, domestic non-financial corporations ('other corporations', light blue) were a further important driver of the increase in bond issuance in the domestic segment. The outstanding capital market debt of these corporations has more than doubled since the financial crisis – to almost CHF 70 billion. This is due, among other things, to the fact that it has become more attractive for them to finance themselves via the bond market than via bank loans (cf. **chart 4**). Having said this, relative to these companies' total liabilities as well as to GDP, capital market debt remains low. The increase nevertheless shows that corporations have, as expected, taken advantage of the exceptionally low interest rates to raise more capital. As a result of this development, the market for bank loans has become slightly less important than the capital market. Notwithstanding this, when it comes to external financing, bank loans continue to play a key role. As is the case in many European countries, as well as Japan, Switzerland's financial system is fundamentally bank-centric. Bank loans account for just over 80% of companies' external financing.[1] In the UK and the US, on the other hand, companies raise a far larger share of their financing via the capital market.

From a monetary policy perspective, the differing transmission of negative interest to the capital market and lending rates is unproblematic to the extent that stimulating lending was never a priority for the SNB.[2] The core concern was – and is – the restoration of the interest rate differential with other currencies and the associated effect on the exchange rate. Indeed, in terms of financial stability, the development is welcome news as any additional stimulation would only have aggravated imbalances on the mortgage and real estate markets.

The third notable aspect relates to developments in the public sector, where the volume of outstanding bonds has fallen over the last ten years. Although the volume issued by the cantons and municipalities increased, that issued by the Confederation declined markedly. While public debt levels rose substantially around the world in the wake of the financial crisis, the Confederation has managed to reduce its debts over this period, thanks to regular budget surpluses. In the context of the Swiss franc bond market as a whole, however, the decline in the volume of outstanding Confederation bonds is comparatively inconsequential.

So, in contrast to the domestic segment, which has grown overall, the foreign segment began contracting as far back as 2011. This is principally due to the fact that the financing needs of European banks have tapered off significantly since the financial and debt crisis. In the foreign segment banks are by far the most important issuers of bonds, as can be seen in **chart 5**; this applies particularly to European banks, which account for 70% of all issues. And in recent years, foreign banks have gradually withdrawn from the Swiss franc capital market.

Another possible factor behind the contraction in the foreign segment could be FX swap market distortions. As a general rule, the forward price of a currency comprises the spot price plus the interest rate differential between the two currencies. However, for some time now, this rule has only applied to a limited extent for most major currencies. There are several possible explanations for this distortion: on the one hand, a greater need on the part of investors to hedge currency risk; on the other, a decline in bank arbitrage options resulting from more stringent regulations.[3] As **chart 6** shows, this has created a situation in which it has become more expensive for foreign issuers to raise Swiss franc capital on a hedged basis.[4]

---

[1] Excluding mortgage loans to corporations. If mortgages were included, bank loans would account for an even larger share of corporations' external financing.

[2] Following the introduction of negative interest, capital market rates once again fell much more strongly than bank lending rates. Despite the fall in capital market rates, the banks did not lower – or only partially lowered – their deposit rates to prevent customers from withdrawing their deposits; customer deposits are a stable source of financing. Equally, banks could not simply cut their lending rates in an effort to head off a decline in their interest margin. Cf. Zurbrügg, Fritz (2016), 'Negative interest rates: necessary from a monetary policy perspective – but with what risks for the banks?', speech held at Volkswirtschaftliche Gesellschaft des Kantons Bern on 24 November 2016.

[3] Cf. Borio, Claudio et al. (2016), 'The failure of covered interest parity. FX hedging demand and costly balance sheets', *BIS Working Papers No. 590*, October 2016.

[4] Take, for example, a US borrower who issues a bond in Swiss francs. He proceeds to convert the francs he has raised into US dollars on the spot market. Then, in order to hedge his exchange rate risk, he buys francs forward against US dollars. Given current distortions, actual hedging costs in the forward market are thus higher than those based on explicit interest rate differentials.

Since 2008, this phenomenon is more pronounced for issuers from the US dollar area than from the euro area.

Overall, we may conclude that the volume of bond issues has not risen substantially despite the low interest rate environment. While some sectors have, as anticipated, responded to low interest rates with higher issuance, special factors, such as the development of the federal budget and the reduced financing needs of European banks, have had a dampening effect.

Swiss franc investments have become less attractive, especially for foreign investors

Overall, Swiss franc bonds have become less attractive to investors, not least because of the negative interest rate and the SNB's foreign currency purchases. Switzerland's bond market is small and illiquid by international standards, making it relatively unappealing for many investors. Thus, for a long time now, the share of foreign investors in the Swiss franc bond market has been extremely low. Despite very high demand for Swiss francs, the percentage fell from 21% to 15% between 2008 and 2014; since negative interest was introduced, it has fallen further and now stands at only about 11% (cf. **chart 7**).

Conversely, the share of domestic investors has risen. This group often favours domestic bonds for their long-term investments, or is obliged to hold a given percentage of such bonds for regulatory reasons.

Nonetheless, demand from foreign investors remains strong in some segments of the Swiss franc bond market, notably that for money market debt register claims. How do we explain this apparent paradox? One contributory factor is the distortions on the FX swap market mentioned before. While they make borrowing more expensive for foreign issuers, they have the opposite effect for foreign investors and offer special arbitrage opportunities. This allows investors from the US dollar or euro areas to achieve higher returns on a hedged basis.[5]

The weekly auctions have been clearly oversubscribed, as can be seen from **chart 8**. Although the average yield to maturity is very low, bids have been significantly higher than actual allocation (blue), with some 60% of outstanding money market debt register claims currently in the hands of foreign investors.

All in all, we can say that, despite strong demand for Swiss francs and low interest rates in Switzerland, the outstanding volume of the Swiss franc bond market has barely changed. At the same time, the SNB has been active in the foreign exchange market in order to react to increased demand for Swiss francs and prevent a renewed appreciation. This suggests that only a relatively modest portion of the newly acquired currency was invested in Swiss franc

[5] Here, we are dealing with the inverse of the effect described in the previous footnote.

securities.[6] The question therefore arises: in what form were the additional Swiss franc positions built up and held?

Swiss franc positions increasingly built up through derivatives

Forward foreign exchange contracts have become more and more important in recent years. In principle, investors have two options if they wish to build up Swiss franc positions and thereby reduce their foreign currency risk: either they can sell existing foreign currency assets and acquire assets in Swiss francs instead, or they can continue holding their existing foreign currency assets but hedge the associated currency risk through forward foreign exchange transactions (derivatives).

Although both strategies are deployed in practice, the development of customer deposits suggests greater use of hedging transactions. This observation appears to be borne out by the rise in the share of hedged foreign currency assets held by Swiss pension funds.

If the SNB increases liquidity in the banking system by purchasing foreign currency against new Swiss francs, this can lead to a rise in customer deposits at commercial banks. From mid-2011 to mid-2013, investors increased their Swiss franc positions by forming Swiss franc deposits. That is to say, they sold foreign currencies on the foreign exchange market and paid the proceeds into sight deposit accounts at their banks.[7] In other words, the liquidity expansion created in the Swiss banking system by the SNB was largely reflected in customer deposits.

However, for some time, statistics have been suggesting a change in this behaviour. In contrast to the first phase, no additional customer deposits have been forming following the sale of foreign currency. One possible explanation for this development is that, instead of holding francs on their accounts, domestic investors have been keeping their assets in the relevant foreign currency, but have been hedging them using derivatives (forward foreign exchange transactions and foreign exchange swaps);[8] investors may, via their banks, have been purchasing francs using forward contracts, for instance. The banks, in turn, may have hedged the resulting foreign currency risk by demanding Swiss francs on the spot market. This demand then ultimately resulted in upward pressure on the Swiss franc, which the SNB countered by means of appropriate foreign currency purchases.

The rise in hedging transactions using derivatives is notable at Swiss pension funds. For a long time, diversification and return considerations have prompted institutional investors to hold a significant portion of their assets in foreign currency investments. However, the associated currency risk is increasingly being hedged using forward foreign exchange

[6] As far as equity prices are concerned, the development of the Swiss market has been similar to that of the rest of Europe.

[7] Cf. *SNB Quarterly Bulletin* 3/2016, p. 26. For a detailed description of methodology and calculation of this item, cf. Altermatt, Lukas and Baeriswyl, Romain (2015), ‘The effect of the monetary base expansion on the balance sheet of domestic banks’, *SNB Quarterly Bulletin* 1/2015, pp. 34–45.

[8] Another possibility is that there have been significant changes in transactions with banks abroad. Cf. Auer, Raphael A. (2015), ‘A safe haven: International demand for Swiss francs during the euro area debt crisis’, *SNB Quarterly Bulletin* 2/2015, pp. 40–52.

transactions. Thus, as can be seen in **chart 9**, the pension funds' foreign currency exposure after hedging has declined steadily, while the share of their assets in foreign currencies has simultaneously risen to almost 50%.

In retrospect, full hedging of currency risk has turned out to be advantageous, due to the significant appreciation of the Swiss franc and the comparatively low interest rate differential with other countries.

At present, we are proceeding on the assumption that the economic outlook for the global economy will continue to firm. In the US, policy rates have been rising for some time and markets expect further tightening. This means that interest rate differentials between Switzerland and other countries may widen further in the future. Given such a scenario, it is to be expected that domestic investors will once again hold more foreign currency assets, and that they will hedge these less in future.

Concluding remarks

Ladies and gentlemen, this brings me to the end of my speech.

Despite the strong demand for Swiss francs and the low interest rates in Switzerland, we can see that, overall, volume on the Swiss franc bond market has barely changed. In contrast to the situation in other countries, the level of debt has not risen, even though financing conditions have been favourable. Swiss franc assets have become less attractive in the eyes of investors, especially those from abroad. This suggests that investors have placed only a modest portion of their newly acquired Swiss francs in Swiss franc securities. Thus, monetary policy measures have also been transmitted to the Swiss franc capital market.

At the same time, we observe that the way in which investors hold their additional Swiss franc positions has changed. It appears that instead of holding Swiss franc deposits, they are increasingly making use of derivatives in order to hedge foreign currencies. The growing share of hedged foreign currency assets held by Swiss pension funds seems to confirm this picture.

Given this situation, the SNB is maintaining its expansionary monetary policy, which continues to be based on two key elements: a negative interest rate (–0.75%) on sight deposits at the SNB and our willingness to intervene in the foreign exchange market as necessary. This policy aims to stabilise price developments and support economic activity. The weakening of the Swiss franc in recent months has helped to reduce, to some extent, the significant overvaluation of the Swiss franc in recent months. Nevertheless, the currency remains highly valued.

I would like to thank you very much for your attention. I will now hand over to my colleague, Dewet Moser, who will provide more detailed information about the latest developments on the money and foreign exchange markets.

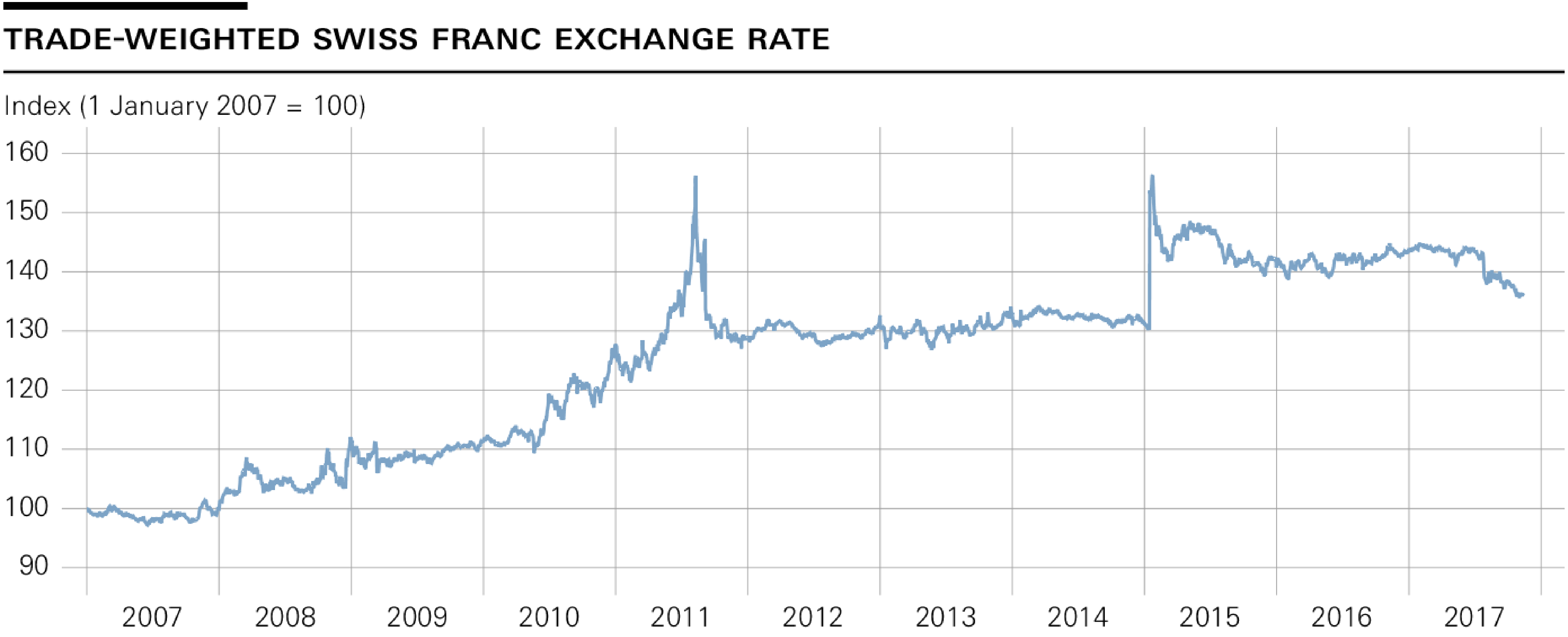
Developments on the Swiss franc capital market and the SNB’s monetary policy

Andréa M. Maechler
Member of the Governing Board of the Swiss National Bank

Money Market Event
Geneva, 16 November 2017

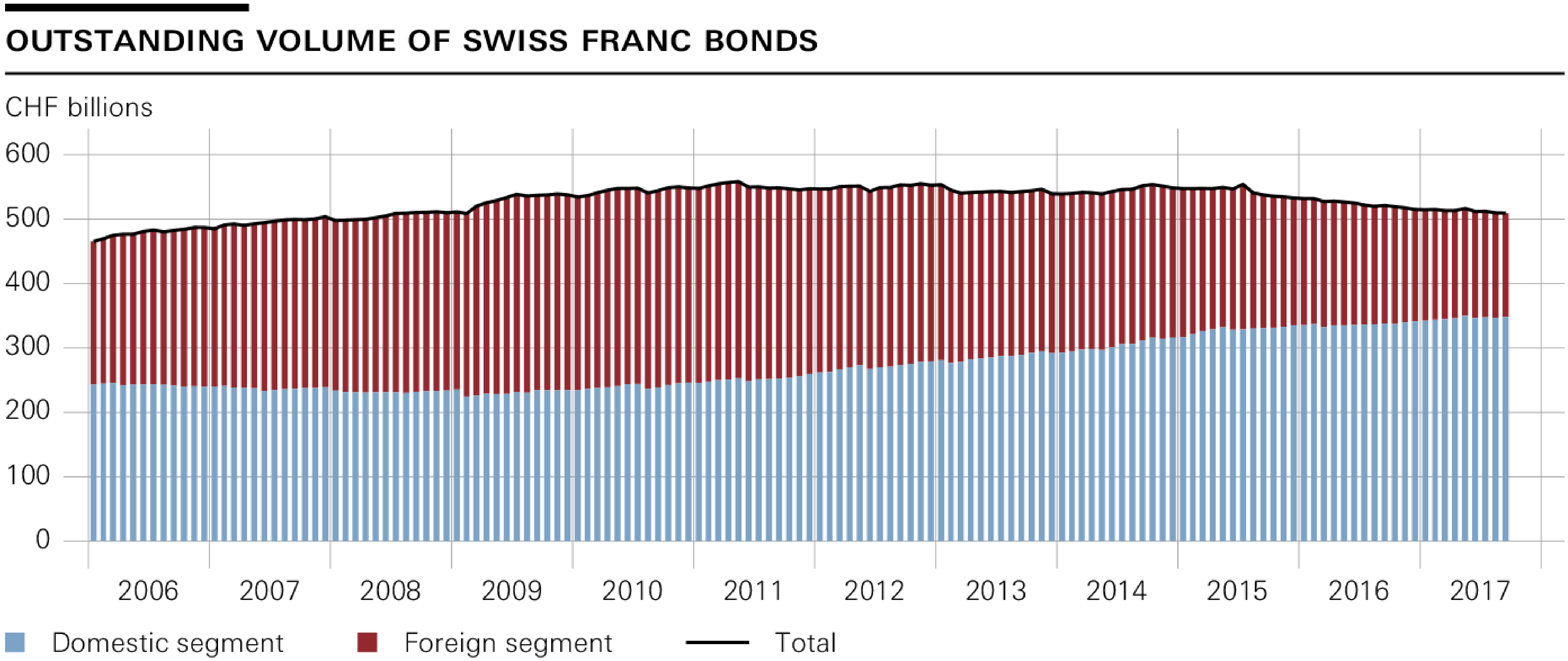
SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIUNALA SVIZRA
SWISS NATIONAL BANK

Since start of year, Swiss franc has fallen about 5%, but remains highly valued



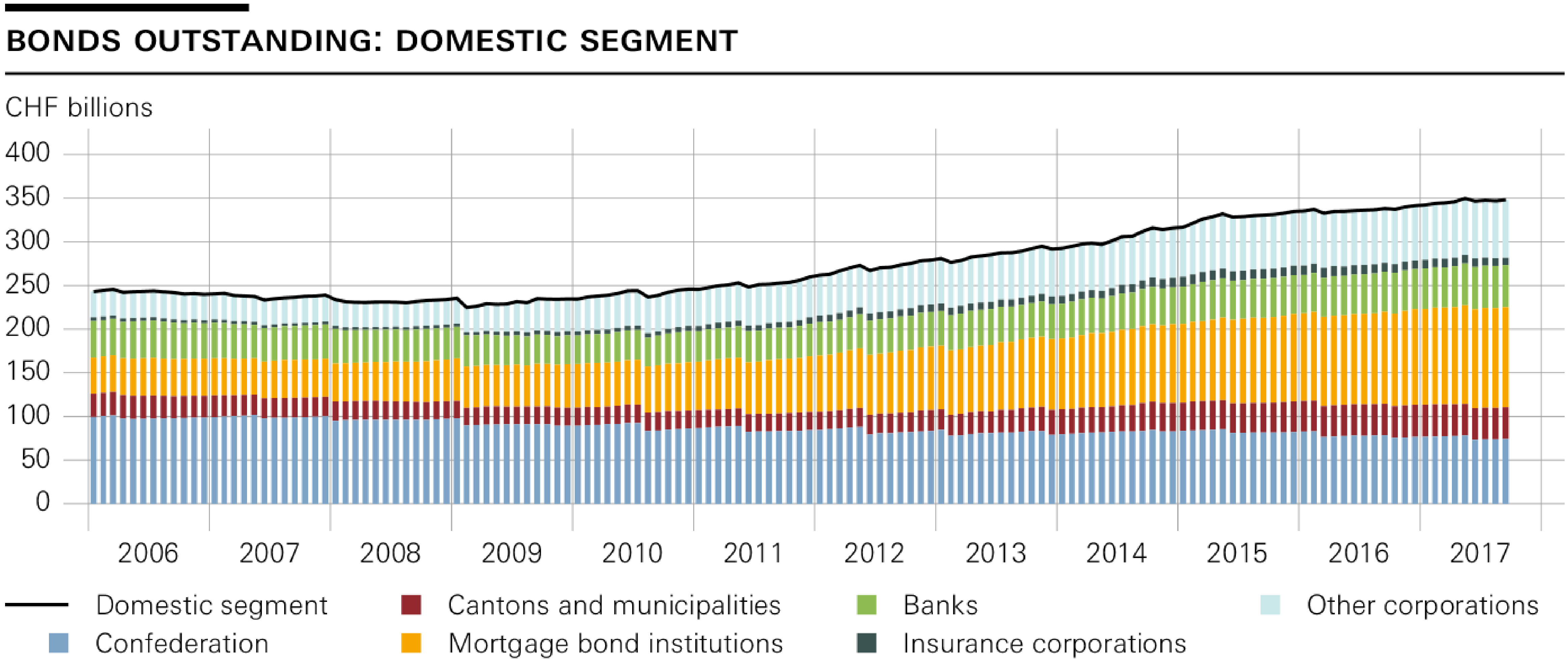
Sources: Bloomberg, JP Morgan, SNB

Swiss franc bond market has declined slightly despite record-low interest rates in recent years



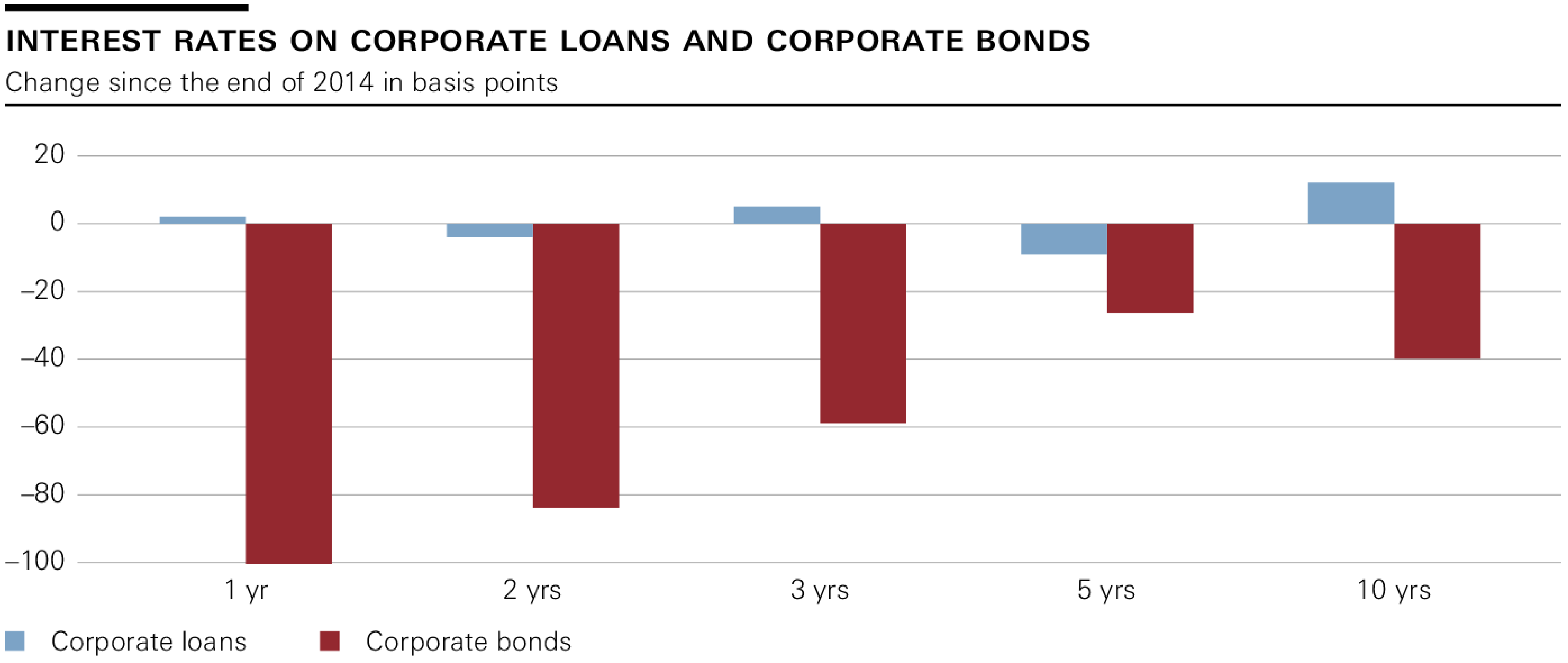
Sources: SIX, SNB

Growth in Swiss segment is driven by mortgage bond institutions and corporations



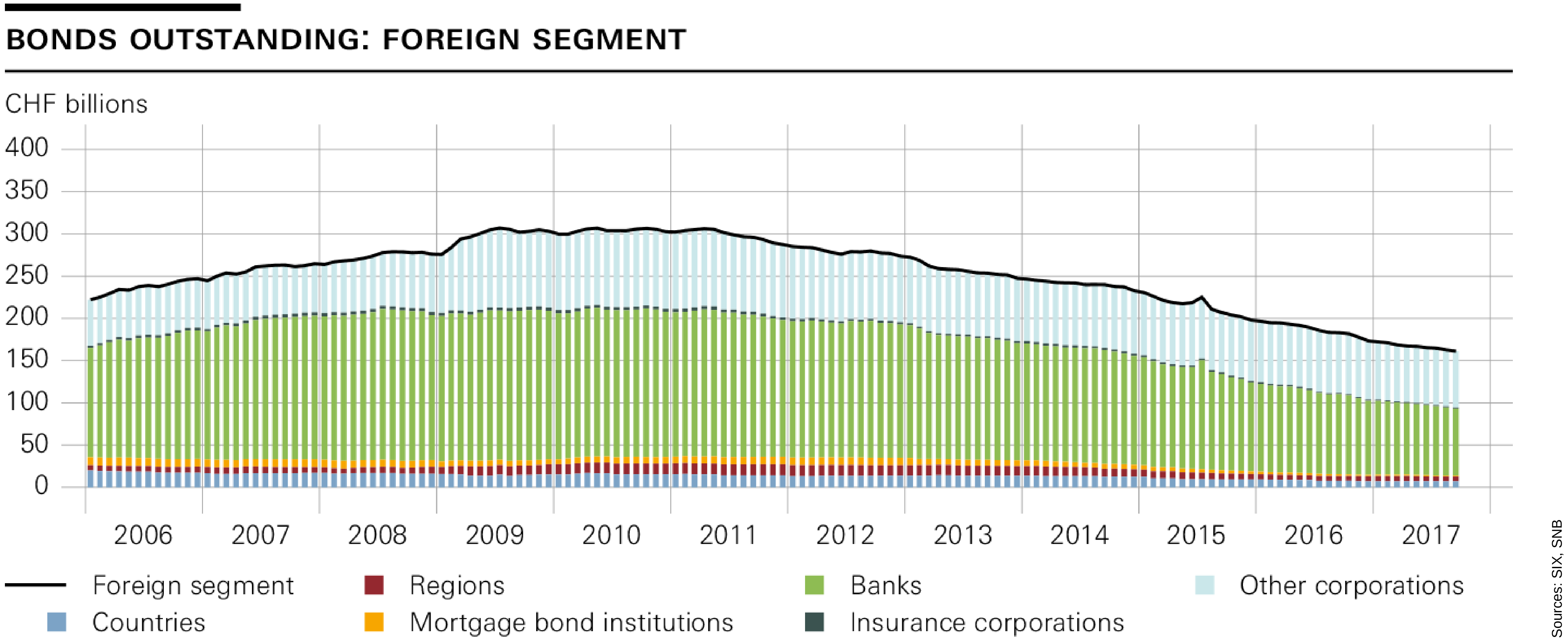
Sources: SIX, SNB

Corporate loans have become less attractive than corporate bonds

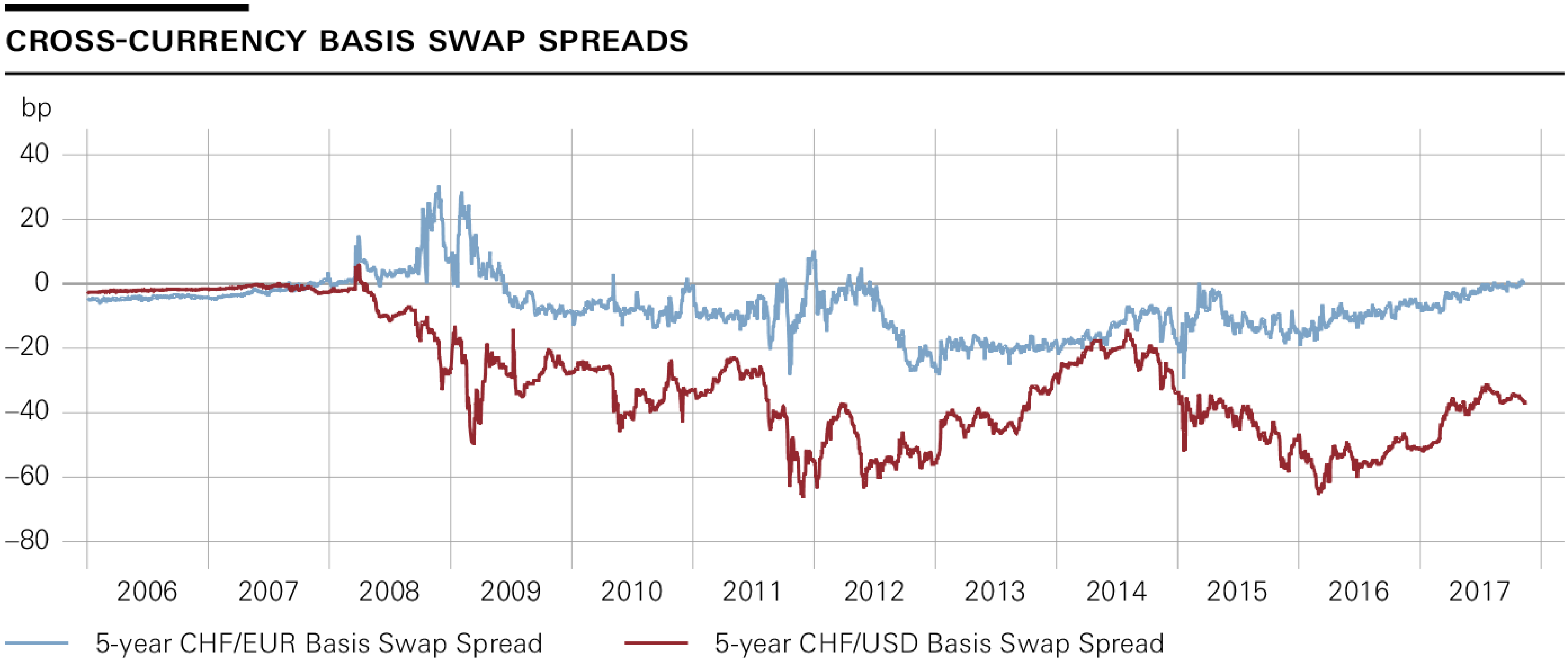


Source: SNB

Contraction in foreign segment since 2011 due to withdrawal of foreign banks

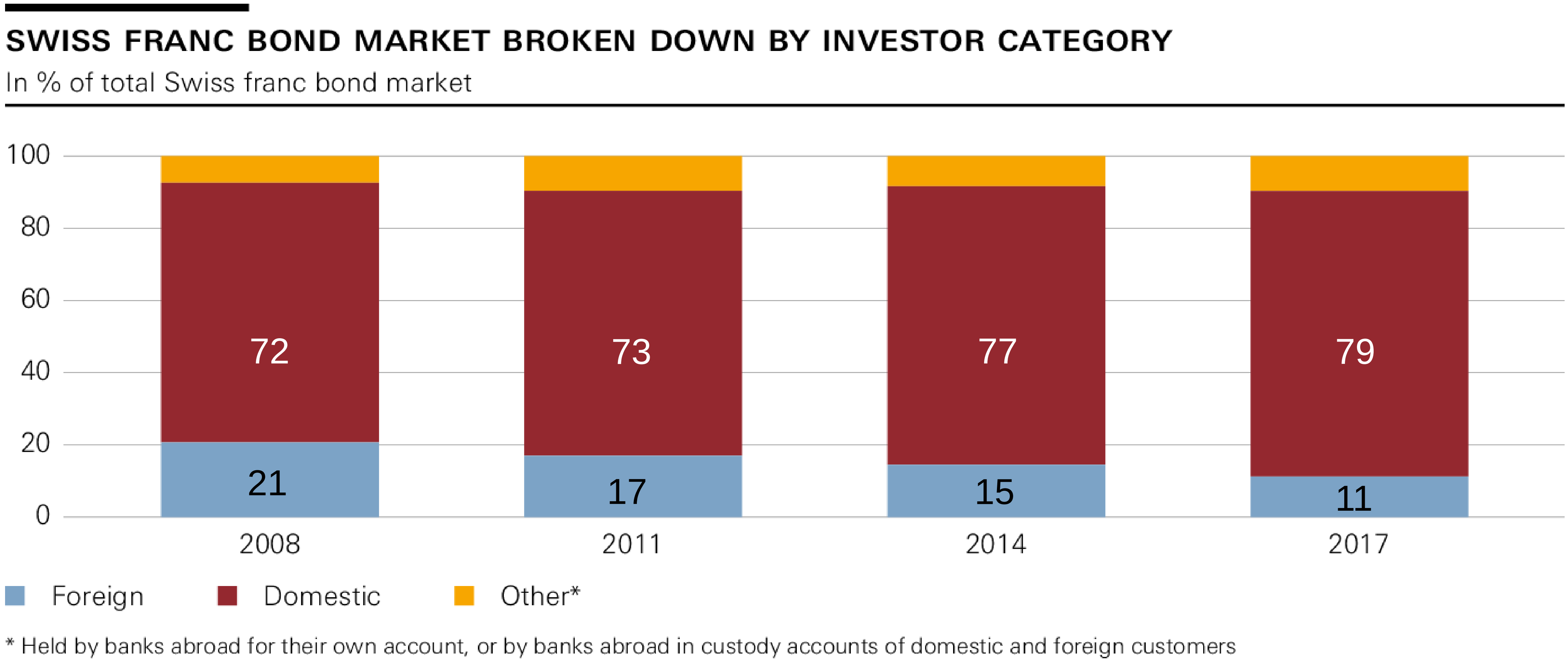


FX swap market distortions make it more expensive for foreign issuers to raise capital



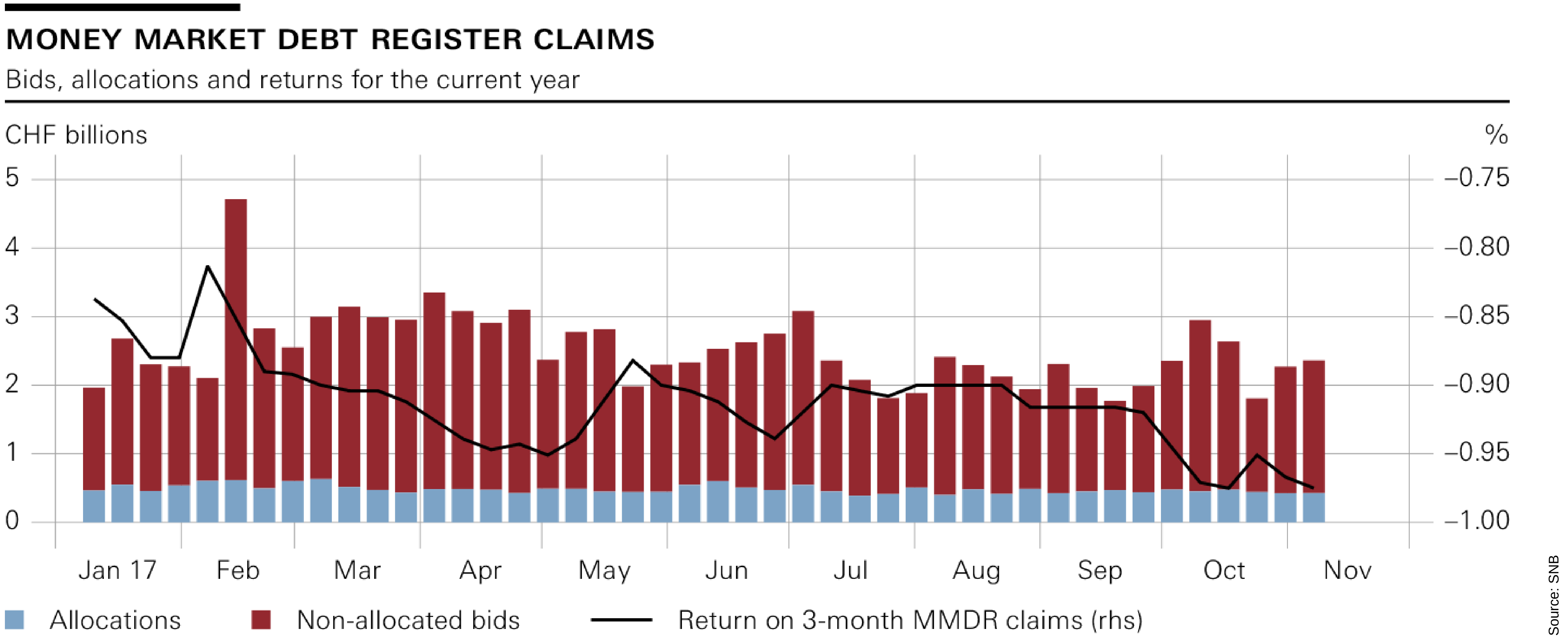
Sources: Bloomberg, SNB

Low interest rates have made Swiss franc bond market less attractive for foreign investors

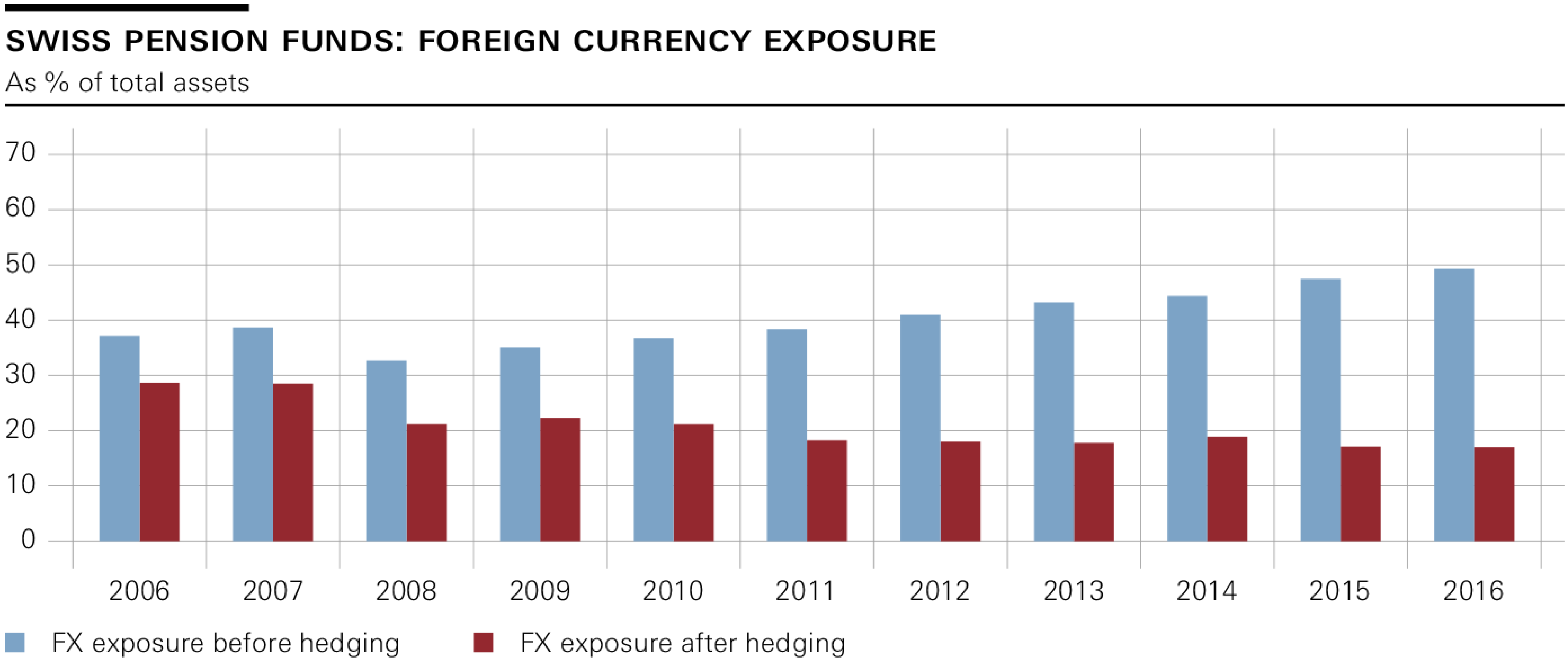


Source: SNB

Demand for money market debt register claims remains strong despite very negative returns



Pension funds, a large investor category, are hedging a growing share of their assets



Sources: Complementa, SNB

Thank you for your attention.

SCHWEIZERISCHE NATIONALBANK
BANQUE NATIONALE SUISSE
BANCA NAZIONALE SVIZZERA
BANCA NAZIUNALA SVIZRA
SWISS NATIONAL BANK