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SARON® – An innovation for the financial markets

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Launch event for Swiss Reference Rates
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Introduction

For monetary policy and the financial markets alike, informative and reliable reference rates are extremely important. Since January 2000, the Swiss National Bank (SNB) has used the steering of the interest rate level in the Swiss franc money market as a tool to implement its monetary policy decisions. Both the secured and unsecured money market play an important role in this. The SNB uses the three-month Swiss franc Libor as the reference rate for monetary policy, and sets a target range for the Libor. The level of the target range is determined by the need for monetary policy action, which itself is mainly dictated by the inflation forecast. The SNB steers the three-month Libor by concluding repo transactions with its counterparties. For market participants, reference rates are the basis for fair pricing of loans and derivatives.

Lack of reference rates for the secured Swiss franc money market

Since 1989, the Libor has been fixed daily in London by the British Bankers' Association (BBA) on the basis of reports from 12 international banks. The Libor reflects conditions on the unsecured money market, and contains a credit risk and liquidity premium. The SNB chose the three-month Libor as its monetary policy reference rate because, in economic terms, it is the most important Swiss franc money market rate and thus plays a key role in the monetary policy transmission mechanism. In the light of the growing doubts expressed about the Libor during the financial crisis, the SNB decided to re-examine its relevance and usefulness as an indicator. The examination showed that there was no evidence of a systematic distortion in the Swiss franc Libor and that the Libor continues to have very high economic relevance in Switzerland. For example, the three-month Libor is an important reference variable in loan pricing (cf. chart 1), and plays a key role in the pricing of financial contracts and derivatives, whereas other reference variables such as the TOIS curve are hardly used at all. The Libor is even used in cases where the characteristics of unsecured money market business – which contains a credit risk and liquidity premium – play little or no role in price determination.

The SNB can only operate in the secured money market, as it can only lend money to banks on a collateralised basis. Thus, to implement its monetary policy, the SNB needs an efficient secured money market whose impulses are passed through effectively to interest rates in the unsecured market. To this end, it set up the repo market ten years ago, and uses repo transactions as the most important instrument for steering the three-month Libor. And it has stood up well during the financial crisis. But for the SNB, the repo market is not just important for steering the Libor: it is also absolutely central to ensuring system stability. For reasons of systemic stability, the majority of interbank business should be conducted via the secured money market. A well-functioning repo market is vital for ensuring the flow of liquidity during a crisis. Over these past two turbulent years, the Swiss franc repo market has functioned well and has proved to be a valuable source of refinancing for banks with sufficient high-quality collateral. What has so far been missing for the secured Swiss franc money market, or the Swiss franc repo market, is a system of reference rates.

Introduction of the Swiss Reference Rates

To take account of both the growing importance of the repo market and the market demand for reference rates for secured business, the Swiss Reference Rates were developed jointly by the SNB and the Swiss stock exchange. What is the intended role of the Swiss Reference

Rates? First, the introduction of these rates gives a further boost to the Swiss franc repo market. The rates will make it easier for market participants to use repos as a short-term refinancing and investment instrument for liquidity management purposes. The Swiss Reference Rates provide participants with clear cost/benefit benchmarks for their liquidity management. This increases the attractiveness of the Swiss franc repo market even further. Second, the rates will provide a stable benchmark for financial instruments which are not priced on the basis of a variable credit risk and liquidity premium. Third, for the SNB, the Swiss Reference Rates represent a kind of barometer with which it can gauge conditions on the Swiss franc money market in real time. This allows it to better monitor developments on the money market and, consequently, to optimise the timing of interest rate steering operations.

The new reference rates differ from the Libor in a few significant ways. First, the Swiss Reference Rates are based on data from the secured money market, whereas the Libor reflects conditions on the unsecured market. Second, the calculation of the Swiss Reference Rates takes into account concluded repo transactions and trade quotes posted on the Eurex Zurich trading platform. This covers transactions and quotes from all repo participants (currently around 150 banks). The Libor, on the other hand, is fixed on the basis of non-binding prices reported by a panel of 12 banks. And while the Libor contains a credit risk and liquidity premium, with the Swiss Reference Rates, counterparty and liquidity risks are negligible. The Swiss Reference Rates thus show little reaction to changes in bank confidence levels.

A glance beyond Switzerland's borders shows that the Swiss Reference Rates are also innovative in international terms. This is not only due to the calculation method, which takes both concluded transactions and quotes into account, but also because the entire maturity spectrum of the secured money market is covered, rather than only the call rate.

A reference rate must provide a representative picture of market events, in order for it to be accepted by the market and regularly used for transactions. If we compare the volume of business underlying SARON with the corresponding volume for EONIA, we can see that SARON is supported by very healthy volumes (cf. chart 2). Indeed, this even increased during the crisis, reaching around CHF 14 billion on average. The decline during the later stages of the crisis was the result of the massive liquidity injections by the SNB, which rendered part of interbank business superfluous.

Importance of the Swiss Reference Rates for the SNB

Using the Swiss Reference Rates, the SNB can better monitor developments on the money market, enabling it to optimise interest rate steering operations. The SNB sees the overnight rate, SARON, as particularly important, since up to now there has not been an overnight rate with high relevance for the financial markets, either for secured or for unsecured transactions. For this reason, the Swiss franc interest rate curve calculation will in future be based on SARON, since this rate reacts most strongly to conditions on the repo market and serves as a general indicator of changes in short-term rates. SARON replaces the Repo Overnight Index (SNB), which was previously used by the SNB as the basis for calculating the special rate for the liquidity-shortage financing facility and the penalty rate for non-compliance with the minimum reserve requirements. This function will now be performed by SARON.

In many countries, overnight rates act as reference rates for monetary policy – either explicitly, as with the federal funds rate of the US Federal Reserve, or implicitly, such as EONIA for the European Central Bank. SARON will also play a key role for the SNB and the financial markets, but its introduction does not signal a change to the SNB's monetary policy stance. The use of the three-month Libor as a monetary policy reference rate, and its indirect steering via repo transactions, have proved their worth over many years, including during the crisis. So long as the Libor retains its economic significance, there is no reason to switch to another reference rate.

Importance of the Swiss Reference Rates for the market

The introduction of the Swiss Reference Rates completes the range of reference rates for the Swiss franc money market, since it represents an important complement to the Swiss franc Libor and the TOIS fixing. The Swiss Reference Rates can be used as a benchmark for secured loans, as well as for a host of different financial market instruments. As regards derivatives, they are suitable for use in interest rate swaps, overnight indexed swaps, futures and forwards. They can also be used for traditional money market investments, such as setting interest rates on money market accounts, or for structured products and exchange traded funds.

Concretely, we might see the creation of, say, a SARON swap. This would be comparable to the existing TOIS, with the SARON fixing being used as the variable interest rate instead of the TOIS fixing. A comparison of the movements in the SARON and TOIS fixings over the past year shows that SARON's volatility was considerably lower (cf. chart 3). The volatility of the TOIS fixing was six times higher on average, especially during the most turbulent phase of the crisis, following the collapse of Lehman Brothers. In calmer times, the TOIS fixing's volatility only diverges from that of SARON at month-end, as a result of the change in month. In October 2008, the collapse of Lehman Brothers led to severe tension on the unsecured Swiss franc money market, as a number of foreign banks were confronted with tighter refinancing conditions. The excess demand for Swiss franc liquidity caused a rise in the liquidity component of the risk premium, which in turn led to a marked increase in the TOIS fixing. By contrast, the turbulence on the money market during that period had no effect on SARON. Swap sellers (fixed rate receivers) using the TOIS suffered heavy losses. Depending on the reason for concluding a swap (hedging interest rate risk, speculating on changes in interest rates or taking advantage of opportunities for arbitrage), SARON can offer advantages over other reference rates.

Conclusion

The introduction of the Swiss Reference Rates creates a risk-neutral Swiss franc interest rate curve which complements the Swiss franc Libor and the TOIS fixing and is calculated in Switzerland. The SNB attaches particular importance to SARON. It will be a key reference variable for the repo business which lies at the heart of our monetary policy. But the Swiss Reference Rates offer new possibilities for all innovative market participants. The SNB is keen to see the Swiss Reference Rates establishing themselves in the market. It has thus been heavily involved in the development of these rates, and will continue to promote them in the future.

Chart 1

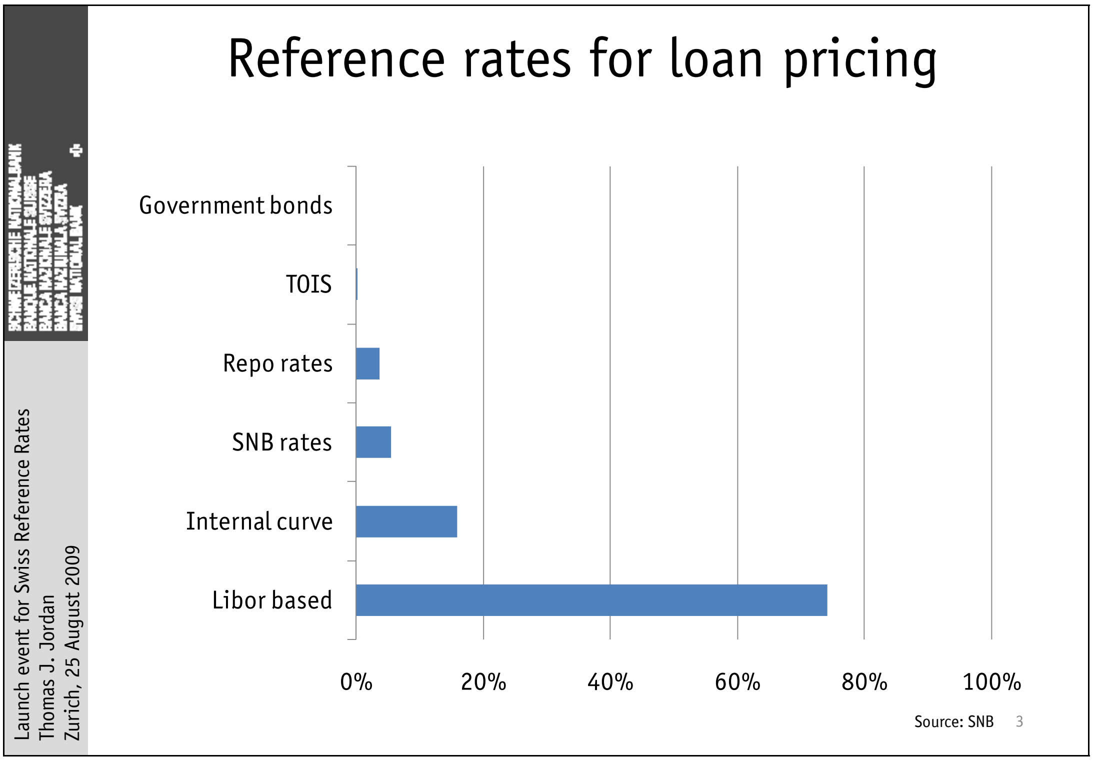


Chart 2

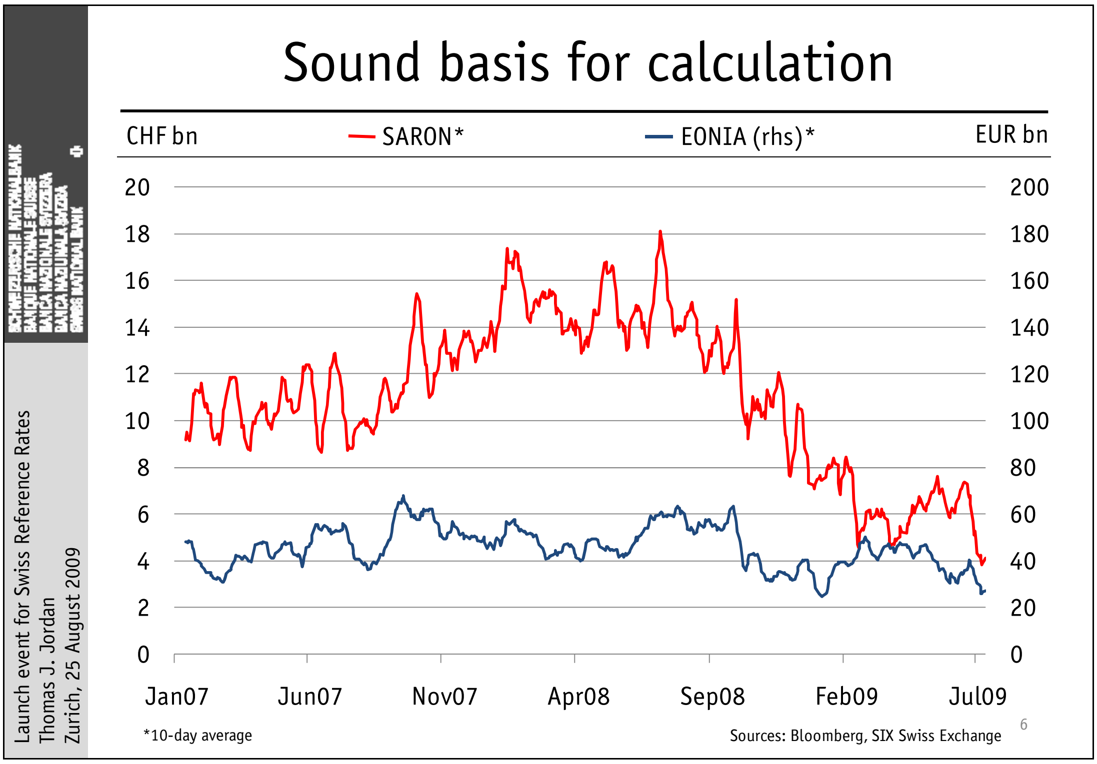
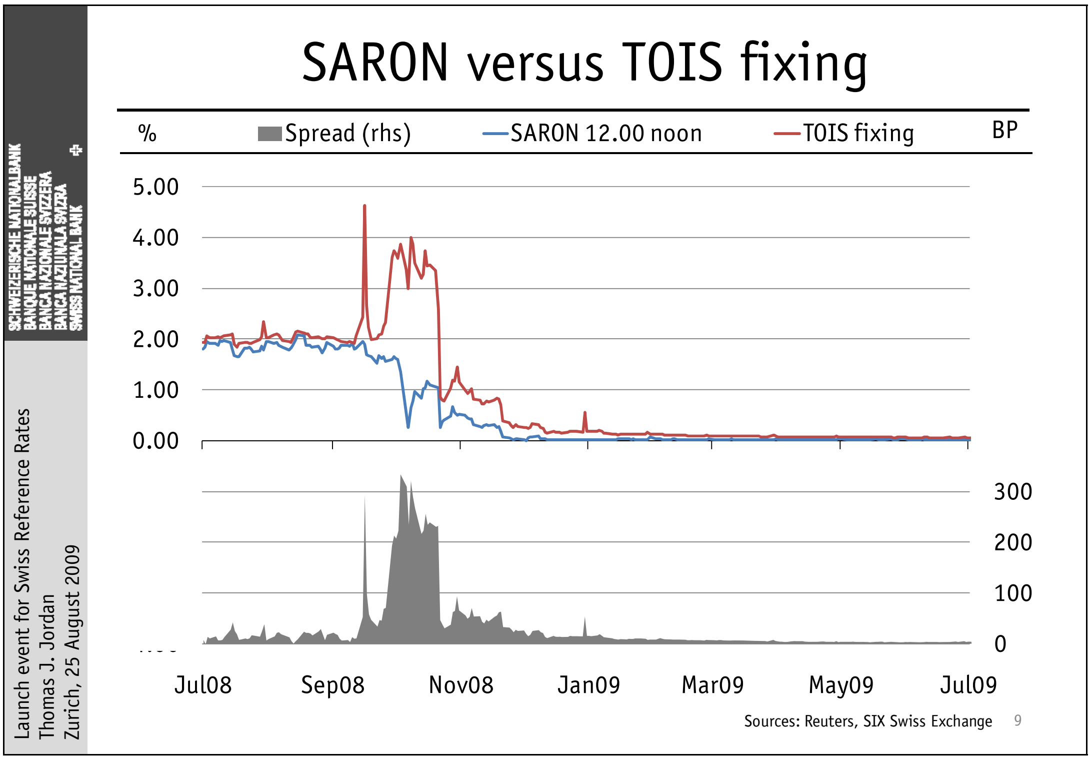


Chart 3



SARON versus TOIS fixing
%
Spread (rhs)
SARON 12.00 noon
TOIS fixing
BP
5.00
4.00
3.00
2.00
1.00
0.00
300
200
100
0
Jul08
Sep08
Nov08
Jan09
Mar09
May09
Jul09
Sources: Reuters, SIX Swiss Exchange
9
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