

## **Thomas Jordan: The various waves of money market turbulence and the measures taken by central banks**

Introductory remarks by Mr Thomas Jordan, Member of the Governing Board of the Swiss National Bank, at the half-yearly media news conference, Geneva, 19 June 2008.

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The money markets are the lifeblood of the international financial system. Properly functioning money markets are absolutely essential for the solvency of banks, as well as for the effective implementation of monetary policy. Hence, events on the money markets since the onset of the financial turmoil have been a particular focus of central banks' attention.

So far, there have been three waves of turbulence. At the time of the last news conference, we were almost at the height of the second wave. In the meantime we have experienced a third wave, which peaked in April. An appropriate barometer of the health of the money market is the difference between the three-month Libor and the three-month (T)OIS rate (tom-next/overnight indexed swap). This difference reflects the credit and liquidity premium on unsecured money market trades compared to purely derivative business with virtually no counterparty risk. With the help of chart 1, which can be regarded as a "fever curve", I would now like to look back at how events unfolded, and comment on the measures which the central banks took in response.

The first wave peaked in September 2007. Money market risk premia rose sharply, from below 10 basis points to over 50 basis points, and even exceeding 100 basis points for some currencies. In this phase, we reacted flexibly to the volatile bank demand by providing generous amounts of liquidity at our repo auctions, and by increasing the frequency of fine-tuning operations. In October, there was a period of calm and risk premia retreated. In this phase, our patient – the market – was prescribed the usual remedies, although in higher doses and several times a day if necessary.

The second wave arose out of concerns about refinancing shortages around the year-end, and reached its peak in December. To reduce uncertainty on the part of market participants, the Swiss National Bank increased its repo transactions at maturities of several weeks, or even several months, instead of the usual weekly maturity. These measures made it easier for banks to manage liquidity around the end of the year.

During this second wave, European banks found it increasingly difficult to refinance in US dollars, and dollar rates were regularly higher in Europe than in the US. One reason for this was the structural dollar short position of the European banks and their concern that they would not have sufficient dollar liquidity at close of business as a result of poorly functioning money markets. For this reason, the Federal Reserve, ECB and SNB decided to take concerted action. In December 2007, for the first time in its history, the SNB was able to provide its counterparties with US dollar liquidity against the usual SNB eligible collateral, thanks to a swap agreement with the Fed. In this context, it is important to point out that this dollar liquidity had no impact on either monetary policy or the SNB's income statement. Yet it helped to facilitate refinancing by our counterparties, and thus made a positive contribution towards easing the tension on the Swiss franc money market. In this phase, the central banks supplemented their usual remedies with some booster treatments.

The third wave of turbulence, in March this year, resulted from acute liquidity problems faced by individual international banks, combined with concerns that the money market problems might become chronic. In this third phase, the SNB did not provide any new instruments, preferring to make greater use of our existing tools. In particular, we resumed our US dollar auctions, at which we now offer USD 6 billion on a fortnightly basis. In this way, we are providing the market with a maximum of USD 12 billion. In addition, we are supplying the

market with generous amounts of Swiss franc liquidity and actively engage in fine-tuning operations whenever necessary.

Other central banks have opted for more wide-reaching measures over the past few months. For instance, the range of eligible participants and collateral for refinancing operations was expanded. The Fed and the Bank of England have introduced a new “collateral swap facility”, under which the banks can temporarily swap their unsaleable securities against liquid government paper. The pressure on banks to refinance their balance sheets is thus reduced without additional central bank money having to be injected into the market. The Fed went even further in providing support during the sale of investment bank Bear Stearns. It took illiquid and risky securities directly onto its own balance sheet. Thus, in the third phase, some countries administered new remedies in addition to the existing ones, and even performed a few emergency operations.

In the SNB’s case, the range of counterparties admitted to repo auctions has already been very broad for some time. Indeed, shortly before the turmoil began, we decided to expand the range of eligible securities for money market operations, whilst still retaining stringent quality standards. Measures such as those used in the US and UK have not proved necessary in Switzerland to date.

### **Monetary policy steering during the crisis**

The measures taken by the SNB, as described above, were primarily aimed at ensuring the smooth functioning of the Swiss franc money market during the turbulence. However, it is also important to look at the actual implementation of monetary policy strategy during the crisis. Of particular interest in this regard are two aspects which have occasionally been misinterpreted by the general public. First, there is the question of whether, in stabilising the money market, the SNB released a flood of liquidity, thereby entering into inflation risks. The SNB did indeed sometimes inject large amounts of central bank money into the market. Since the onset of the turmoil, we have in principle always provided a generous supply of liquidity through repo operations. However, fine-tuning was also consistently used to absorb any excess liquidity, as soon as call money rates fell below a certain level. Since the banks ultimately only have limited end-of-day demand for central bank money, there was a regular flow of funds back to the SNB. These operations allowed us to do two things: first, to limit the volatility of call money rates; and, second, to keep market rates close to our repo rate. This is shown in chart 2. Moreover, this also enabled us to keep the average level of sight deposits stable, which meant that we did not allow the banking system to be supplied with excess liquidity. As can be seen from chart 3, there was a wide day-to-day fluctuation in sight deposits during the crisis but, on average over the month, levels remained more or less stable. Thus Switzerland cannot be said to have been flooded with liquidity.

Second, attention has focused on how the interest rates are fixed for monetary policy repo auctions. The SNB, on the basis of its monetary policy assessment, decides on a range for the three-month Libor which it considers appropriate for monetary policy purposes. This means that movements in the Libor that are not in line with the SNB’s monetary policy objectives have to be countered with a change in repo rates. Thus, over the course of the turbulence, we consistently offset changes in Libor risk premia with changes in the repo rate, as shown in chart 4. For this reason, the Libor remained in the middle of the target band during the whole episode. The Swiss franc Libor was much more stable during the turmoil than the Libor for other currencies. This simply means that we were able to protect the Swiss economy from part of the crisis-induced increase in risk premia.

### **Libor criticised**

Recently, some market observers have questioned the information value of the Libor. The Libor for all major currencies is fixed daily in London by the British Bankers Association

(BBA) on the basis of a survey of top-rated international banks. Critics argued that some banks would report unduly low Libor rates, in an effort to talk up their creditworthiness. Others claimed that the rates were too high because the panel of reporting banks was not sufficiently representative. These criticisms almost exclusively concerned the dollar Libor. The BBA has found no evidence of a systematic distortion of the Libor, and has announced that it is leaving the fixing method for the Libor unchanged. However, it will strengthen governance of the Libor fixing process, especially the monitoring of individual banks' reports. In this regard, the BBA has recently published a report, and has invited comments from financial market participants.

What is the SNB's standpoint on this discussion? The SNB – like all market participants – has a strong interest in ensuring that the Libor reflects true market interest rate conditions. For the three-month Swiss franc Libor, there has so far been no evidence that this has not previously been, or is no longer, the case.

The use of the three-month Libor as an operational target stems from its considerable economic significance as a reference rate for many financial and lending contracts. Here too, there is so far no evidence that the Libor has lost its significance in the Swiss franc market.

Since not all reporting banks have been equally affected by the financial market turmoil, and since the extent and liquidity of Libor-based, unsecured money market trading in a crisis is automatically much lower than usual, the range of numbers reported will automatically be wider in such a situation. This can also give rise to random fluctuations. Moreover, in general the risk premium inherent in the Libor has become a lot more volatile since the start of the turmoil. This volatility makes it harder to steer the Libor. It should, however, be borne in mind that the SNB does not use a point target but a target range, which allows a certain amount of fluctuation in the Libor. Yet the most notable thing is that, despite these difficulties, we have succeeded in keeping the Libor around the middle of the target band. This is, after all, what counts for the implementation of monetary policy.

So neither the current criticisms levelled at the Libor nor the actual movements in the Libor are an immediate reason to dispense with this rate as the operational target of the SNB.

## **Conclusion**

Let me briefly conclude. Despite clear signs of a return to calm, the money market has not yet gone back to “business as usual”. The Libor/TOIS differentials continue to indicate a certain degree of tension. The various waves of turbulence also show how difficult it is to predict what will happen next.

Central bank actions have helped to defuse the situation. Nevertheless, they can only treat the symptoms of the malaise, or fever. An effective cure and the restoration of confidence between market participants are primarily a matter for the banks themselves.

The SNB's tools – its medicine cabinet – have so far proved their worth during the turbulence. Yet the crisis provides a reason to review and where necessary adapt them. For central banks, it is important to consider, not just the immediate effect of an instrument, but also the longer-term repercussions. Thanks to their monopoly in issuing currency, central banks can engage in almost unlimited short-term intervention when markets and market participants are threatened with collapse. However, such extreme measures carry high risks for the longer term. It is all too easy for market participants to assume that they will be protected from the negative effects of their own actions during a crisis. Central banks need to keep a close eye on this moral hazard problem, and if necessary take steps to contain it through appropriate regulation.

Chart 1: Risk premia measured by the Libor/TOIS (or OIS) spread

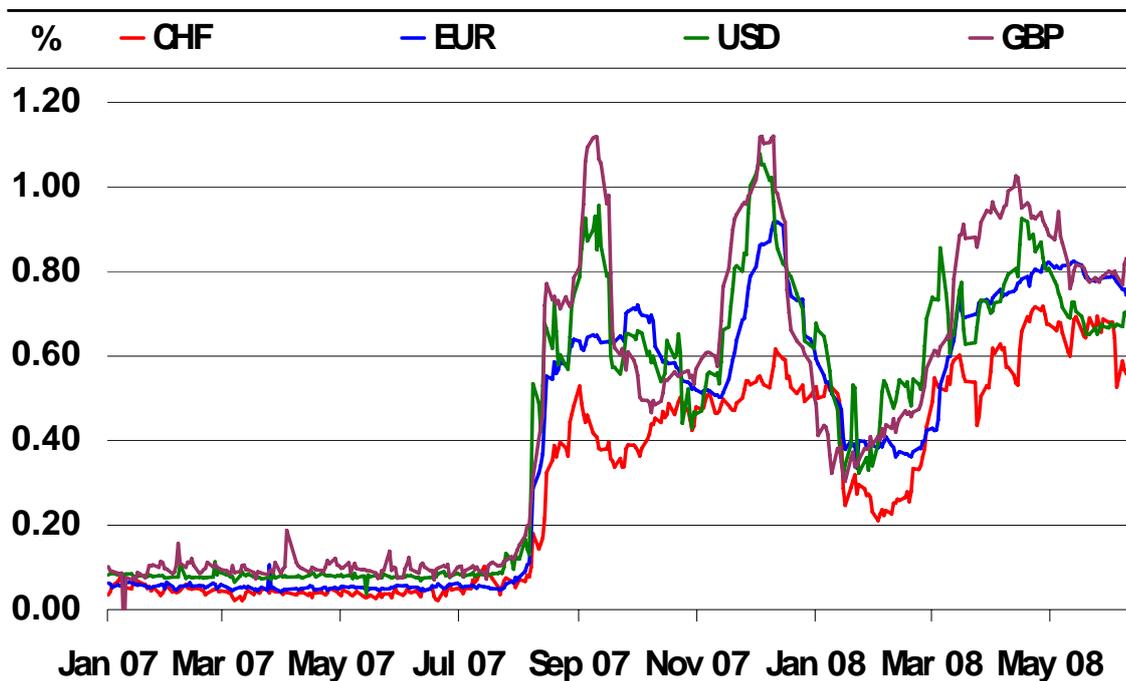


Chart 2: Fine-tuning operations

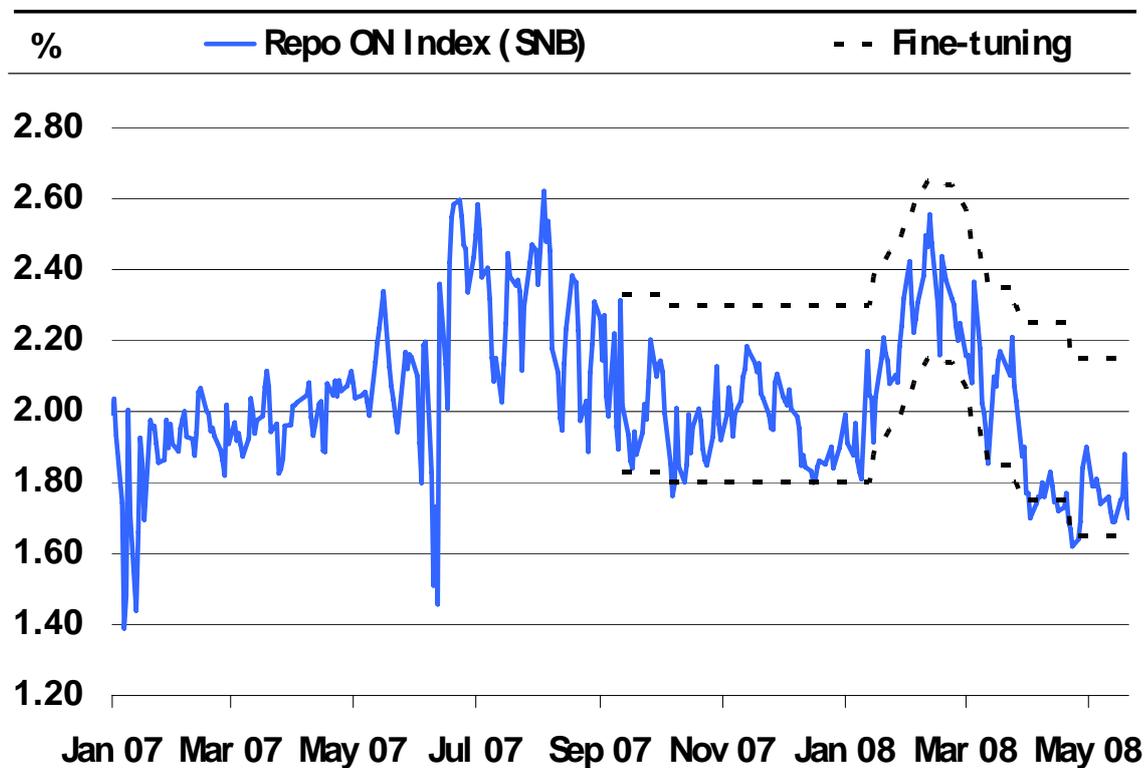


Chart 3: Sight deposits

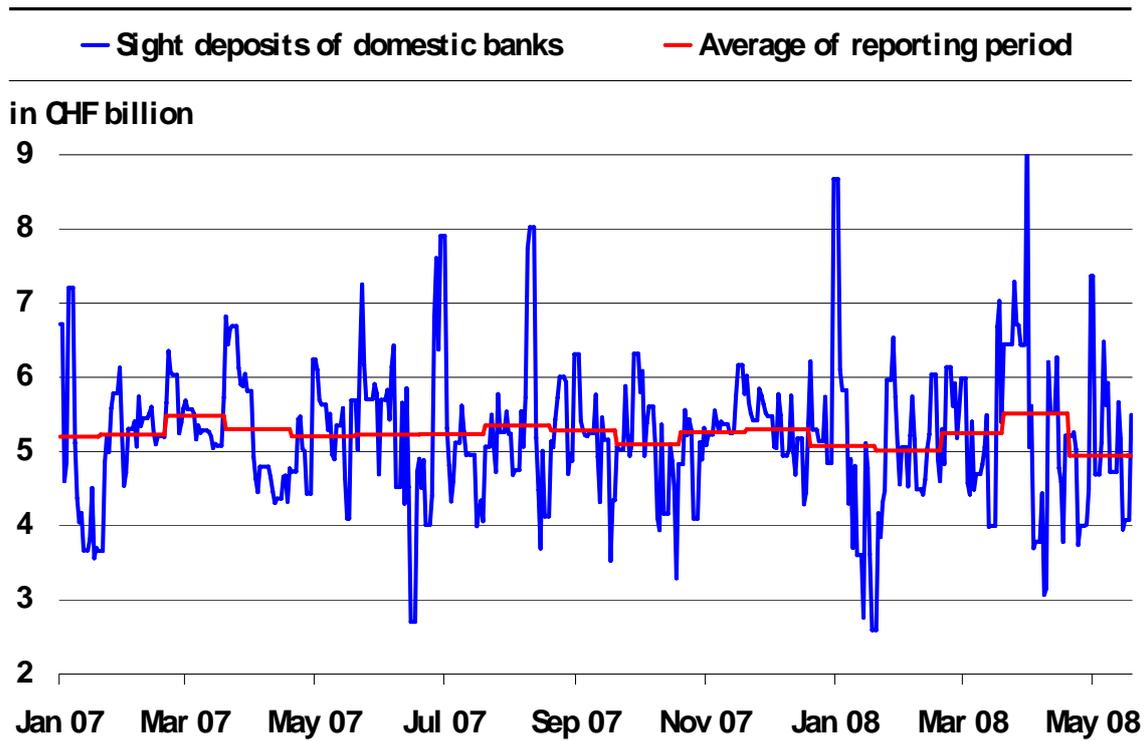


Chart 4: Libor steering

