

Monetary policy operating procedures in Switzerland

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1. Outline of the process of implementing monetary policy

The primary objective of Swiss monetary policy is price stability. Our intermediate target is the monetary base, which is composed of bank notes in circulation and giro deposits (demand deposits held with the SNB by commercial banks). The primary operating target is the level of giro deposits. Under normal circumstances, the Governing Board issues each quarter an operating guideline based on a wide range of information. This information includes first of all the difference between the actual level of the monetary base and its medium-term target path. In addition, the SNB always retains the option of reacting to unexpected developments such as strong fluctuations in the exchange rate and in the demand for money. Should unanticipated problems arise, the Governing Board may revise its guideline for the level of giro deposits within the same quarter. Following the guideline, the Monetary Operations Division implements monetary policy. Monetary operations are reviewed weekly by our money market committee.

Giro deposits are supplied primarily through revolving foreign exchange swaps. Additional refinancing is provided by modest but steady purchases of domestic securities in the open market. Foreign exchange swaps are carried out exclusively against US dollars. Swaps are usually concluded to add giro deposits, by purchasing dollars in the spot market and simultaneously selling them in the forward market. Only rarely does the SNB offer reverse swaps – spot sales together with forward purchases of dollars – to reduce giro deposits. Since almost every day a fraction of outstanding swaps are maturing, the banking system is systematically short of giro deposits. Therefore, in normal circumstances, the SNB must only add liquidity. Swap transactions are conducted at market terms. Swap maturities range from one week to twelve months.

Monetary operations are carried out every day. We distinguish between basic and fine-tuning operations. Foreign exchange swaps constitute our basic provider of liquidity. They are completed according to the following procedure: interested banks call the SNB at 9 a.m. – we inform them whether we are willing to conduct swap transactions and, if so, on what terms (maturity and price). The banks then state the quantity of giro deposits they are ready to acquire at these conditions. Finally, we accommodate the demand up to the quantity of giro deposits we intend to supply. Fine-tuning operations are conducted from 9.00 a.m. to 3.00 p.m. They occur mainly when unexpected changes in note circulation or in the government's sight deposits account at the SNB cause giro deposits to deviate markedly from their target level.

Sporadically, fine-tuning operations may be used to counteract sharp moves in money market rates. In order to add (reduce) giro deposits at short notice, the SNB transacts short-term (reverse) repurchase agreements with Treasury bills issued by the Confederation (the bills take the form of book-entry claims). Alternatively, the SNB may add giro deposits by depositing Treasury funds in the market.

To overcome unforeseen last-minute losses of giro deposits, banks can borrow giro deposits temporarily (owed for a minimum of one business day) in the form of lombard loans, i.e. advances against collateralised securities. The flexible lombard rate, which is fixed daily at a spread of two percentage points above the call money rate, ensures that banks borrow giro deposits only exceptionally.

The discount rate is fixed by discretion and is normally held below money market rates. As a policy instrument, the discount rate is no longer important as the SNB has ceased to discount bills.

2. Banks' demand for giro deposits, liquidity requirements and the Swiss money market

The imposition of minimum reserve requirements, while permitted by the National Bank Law, has been discontinued since 1977. However, cash liquidity requirements imposed for prudential purposes and anchored in Swiss banking legislation affect the demand of banks for central bank money.

2.1 The determinants of giro demand

Banks' demand for giro deposits is determined by the aforementioned cash liquidity requirement and by the need for working balances in the interbank payment system, notably the Swiss Interbank Clearing System (SIC). The liquidity requirement does – in practice – set a lower bound to banks' giro deposit demand. On average across all banks, actual cash liquidity exceeds the requirement by more than 20%. For the banks active in the money market, however, excess liquidity ranges below 10%.

2.2 The liquidity requirement

The basic features of the liquidity requirement are: (i) the minimum liquidity is computed as a fixed percentage (2.5%) of a specified range of banks' liabilities; (ii) applicable liquidity comprises central bank money – i.e. banks' vault cash plus giro deposits – and checking balances with the postal giro system; (iii) the minimum liquidity has to be maintained on average over a period of 30 days; and (iv) the requirement is calculated on a lagged basis and hence is known at the beginning of the maintenance period.

2.3 The Swiss money market

The bulk of domestic money market transactions comprises interbank deposits, i.e. uncollateralised short-term loans. The market is subject to standard business terms and procedures. A market for intraday credits has not evolved yet, although the settlement of intraday funds would be conceivable within the SIC.

Until the early 1990's, there existed virtually no marketable domestic money market instrument. This was due to both the absence of public borrowers from the market and an unfavourable tax treatment of such instruments. Only over the past years of rising budget deficits has the Confederation started to intensify issuing short-term debt. In light of the evolving market for Treasury bills, the SNB began to trade such bills for fine-tuning operations. The interbank repo market, however, is still negligible. The borrowing and lending of securities, on the other hand, is gaining ground.

3. Disturbing shifts in banks' demand for giro deposits

The introduction of the present system of cash liquidity requirements on 1st January 1988, caused – together with the more or less simultaneous introduction of SIC (a real time gross settlement system RTGS) – major shifts in banks' demand for giro deposits. The average monthly volume of giro deposits fell, between 1988 and 1990, in several steps from SF 8 to 3 billion. Since then, the present system of operating procedures as described above has been working without major problems *most of the time*.

On several occasions, though, disturbances arose from further shifts in banks' giro demand as they more and more strove to minimise their holdings of excess cash liquidity. In 1991, increased holdings of liquidity in postal checking balances, together with improved cash management at several banks, caused a downward shift of banks' demand for giro deposits by some SF 200 to 300 million. A similar downward shift occurred once again in 1994.

In the course of 1996, major disturbances led to tensions in the money market. The easing of monetary policy in 1995 had caused structural adjustments of banks' balance sheets. Substantially more short-term liabilities, like demand and savings deposits were held by the public. This increased the level of banks' required cash liquidity quite substantially. At first, banks did cover this higher requirement by holding more vault cash and higher amounts in postal checking balances.

Several of the major banks, however, began to reduce the balances held with the postal checking system in spring 1996. To compensate for this, they held more giro deposits with the SNB. We did, in May and June, raise the supply of giro deposits. But this proved not to be sufficient to cover the whole increase in banks' demand. As a consequence, the aforementioned turbulences and tensions in the money market emerged, and short-term rates of interest rose from below 2% in March to roughly 2.5% in June (three-month Euro-market rate).

The markets seemed to interpret the events in spring and early summer 1996 as a deliberate move of the SNB towards a tighter stance of monetary policy. The already strong Swiss franc exchange rate began to appreciate further. In July and August, the increase in banks' demand for giro deposits continued at an accelerating pace. We reacted by increasing the supply of giro deposits drastically – in order to calm the markets and to convince them that the SNB did not want the recurring turbulences to cause a permanent increase in short-term interest rates. *To achieve this, we had to temporarily abandon the quantitative approach of our operating procedures.* We injected so much liquidity into the market that by mid-September the overnight rate had fallen back to a range between 1¼ and 2%. The three-month Euro-market rate also fell and fluctuated by mid-September in a narrow band below 2%.

4. Information to markets: what do we tell them - what not?

We make no public announcements about the *operating target* (the amount of giro deposits) aimed at. Every ten days, we publish a condensed balance sheet statement that shows the level of giro deposits of that particular day. Ex post, the monthly average of giro deposits, the total volume of outstanding foreign exchange swaps, and the Treasury bill positions are published in our monthly bulletin.

4.1 Signals about desired interest or exchange rate adjustments

In times of financial market turbulences, like in the spring and summer of 1996, the SNB may give the market indications, if it deems the level of short-term interest rates or the exchange rate inappropriate. This information is usually spread by:

- Signals to the market in the form of foreign exchange swaps with long maturity and at relatively favourable conditions (when we think money market interest rates should be lower). In these cases, news agencies and journalists usually react quickly to find out whether the special operations were meant to be signals.
- Members of the governing board of the SNB may indicate in their speeches that we deem some money market interest movements or some exchange rate excesses as inappropriate. Such remarks, however, always tend to be in very general terms. We never give the markets precise hints as to what interest or exchange rate levels should be aimed at.

4.1 Information on money market operations

New foreign exchange swaps are transacted to offset due swaps, to compensate technical or seasonal drains in giro deposits, or to provide the market with additional liquidity. As a rule, market participants do not know whether the SNB, on a given day, will offer new swaps. If an operation takes place, banks do not know the total amount of swaps or how much individual participants will be allotted.

Fine-tuning operations like depositing Treasury funds in the market or repurchase operations on Treasury bills may take place during the trading day till 3 p.m. Market participants do not know whether the SNB will do such fine-tuning operations or what the amounts might be.

5. Volatility of the operating target and of short-term interest rates

Pursuing a quantitative operating target implies a willingness to tolerate a certain amount of day-to-day volatility in very short-term interest rates like the overnight or the tomorrow-next rates. In addition, we are willing to tolerate quite large day-to-day fluctuations in the level of the operating target. Trying to achieve the guideline value of giro deposits on each day would need an excessive amount of fine-tuning operations. This we try to avoid. Allowing day-to-day fluctuations in the operating target and in very short-term interest rates fits in with our information policy as described in Section 3.

We feel there is a need to leave the markets with some uncertainty about our short-term tactics. Given our small open economy with a large financial centre, we believe that providing the markets with complete information on our short-term plans, or pursuing and announcing a target value for the overnight rate, could produce undesirable effects. With an interest rate target fixed for several weeks, we might, for instance, see increased short-term volatility of the Swiss franc exchange rate. Speculative attacks to test our resolve of defending a particular interest rate level could also occur in case we let the markets know too much about our short-term intentions and actions. *We do not want to open opportunities for riskless (or near-riskless) speculative activities by market participants.* We think this is best done by leaving some uncertainty in the markets.

Does the described attitude towards day-to-day volatility of very short-term interest rates cause excess volatility in the markets in general? This question we are often asked by central bankers that use a short-term interest rate as the operational target and are engaged explicitly in interest rate smoothing.

Figures 1 to 3 show that day-to-day volatility in the very short-term rates does not cause excessive volatility in the three month rate – at least not since the adoption of the new cash liquidity requirements and the corresponding operating procedures in 1988. Before, volatility of the tomorrow-next rate was quite high (see Figure 2), but many of these fluctuations were ironed out by the market itself. This can be seen from Figure 1: the three-month rate prior to 1988 followed a much smoother path than the tomorrow-next rate. Figure 3 shows this smoothing function of the market for the period since 1988. Annual averages of the volatility of the Swiss tomorrow-next rate are more than double the volatility of the Swiss three month rate. In addition, Figure 3 shows that short-term volatilities of US and German three-month rates were of the same order of magnitude as the volatility of the Swiss three-month rate – despite our different approach to implementing policy.

Figure 1
Swiss short-term interest rates
 Monthly averages of daily observations

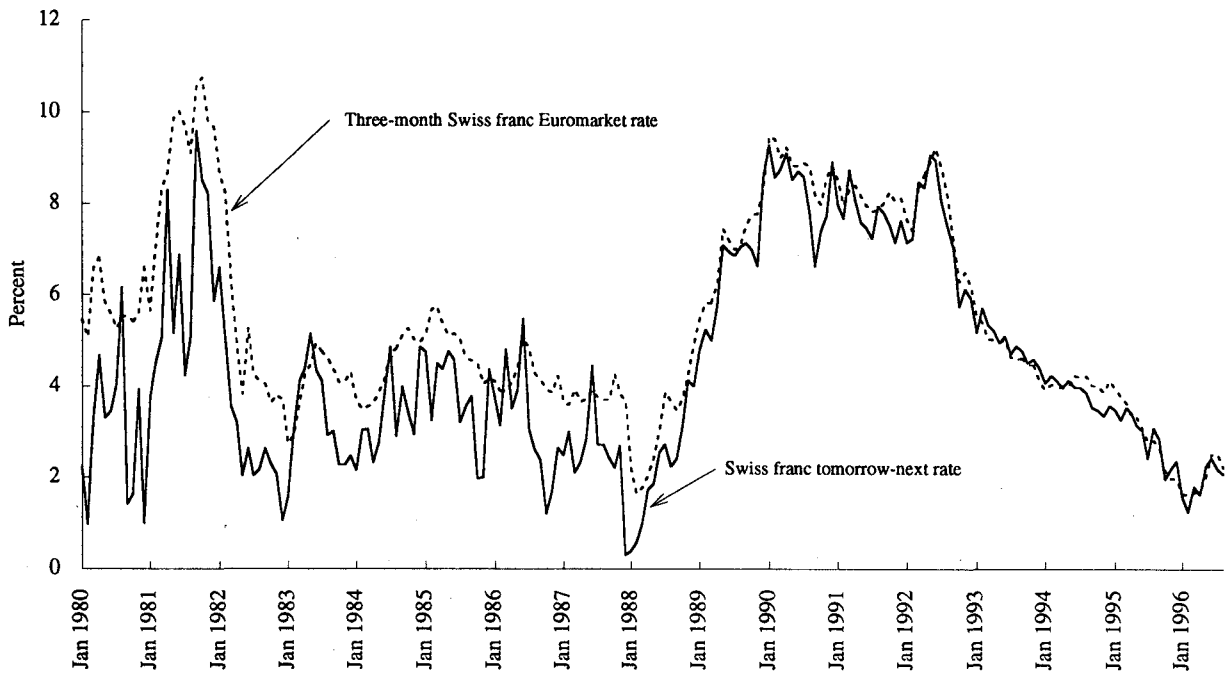


Figure 2
Volatility of the Swiss franc tomorrow-next interest rate
 Standard deviation of daily observations from a thirty-day moving average

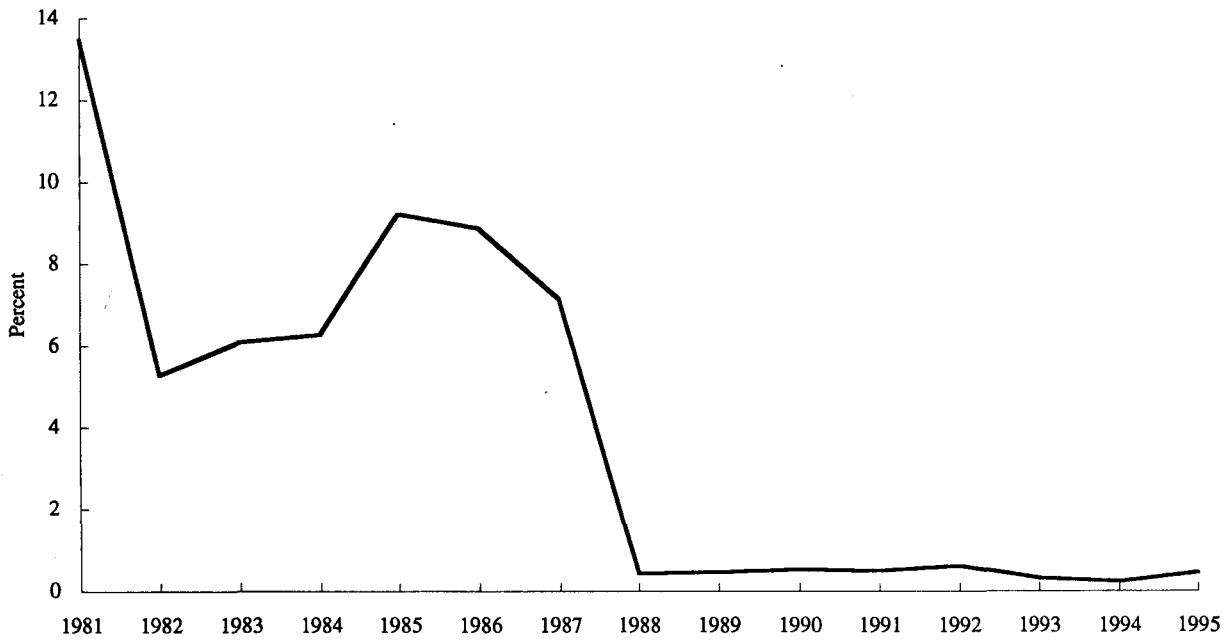
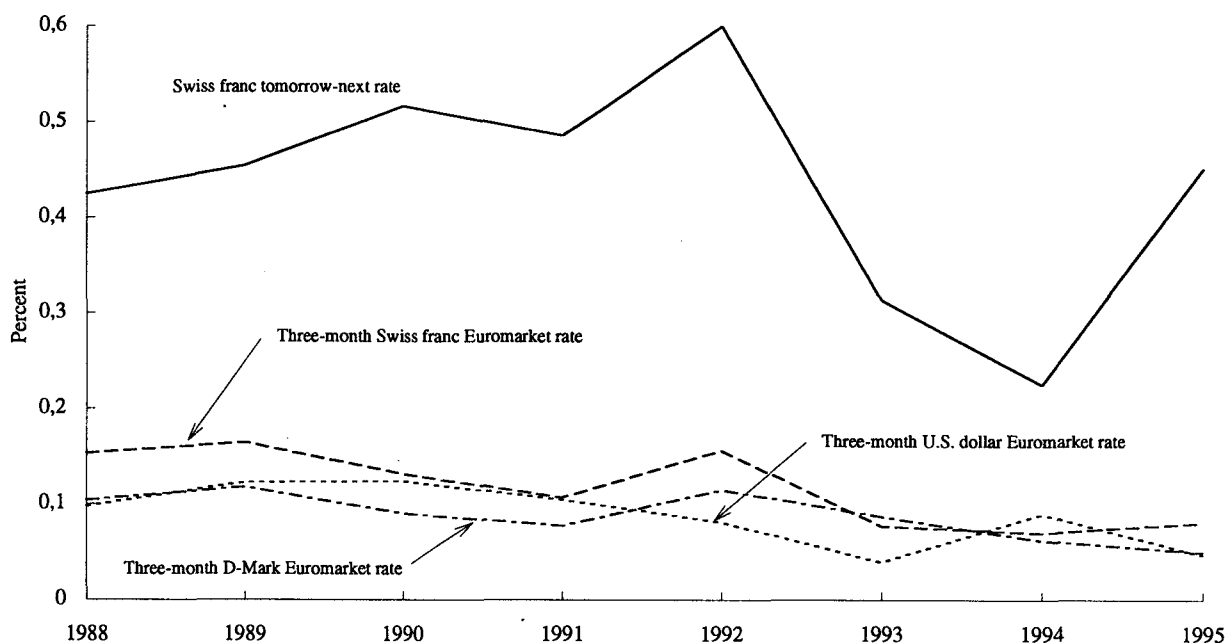


Figure 3
Volatilities of short-term interest rates
 Standard deviation of daily observations from a thirty-day moving average



Conclusion

To conclude, we wish to note certain advantages of the special Swiss operating procedures, featuring a quantitative operational target that is pursued, however, with some interest rate considerations in mind:

- Tolerating volatility of overnight money market interest rates leaves the markets with some uncertainty. Hence, they may not costlessly test interest or exchange rate target levels which, from time to time, markets think exist in the mind of the SNB.
- A quantitative operating target like ours can also be rationalised by the following reason: central banks appear to be inclined to conduct a policy of leaning against the wind if they rely heavily on interest rates as indicators of monetary policy. Such a policy may be dangerous if it prompts central banks to forestall adjustments in interest rates that would actually be needed to achieve their ultimate objectives.
- A basically quantitative operating target also tends to shield a central bank from too much political pressure: movements in short-term interest rates cannot wholly be attributed to the central bank; often, they may be simply caused by market forces. This helps to avoid excessive central bank watching and pressuring by political bodies and the markets.

Looking at the market turbulences of recent months shows, however, that there may arise some problems with our approach. As has been theoretically known for a long time, shifts in demand for the quantity that one targets may result in undesirable and unnecessary interest rate fluctuations. This is why the SNB started giving more weight to interest rate considerations, at least for the time being. This shows that a purely quantitative approach to monetary procedures obviously is not a feasible option – interest rates have to play a certain role even in the framework of a basically quantitative operating procedures.