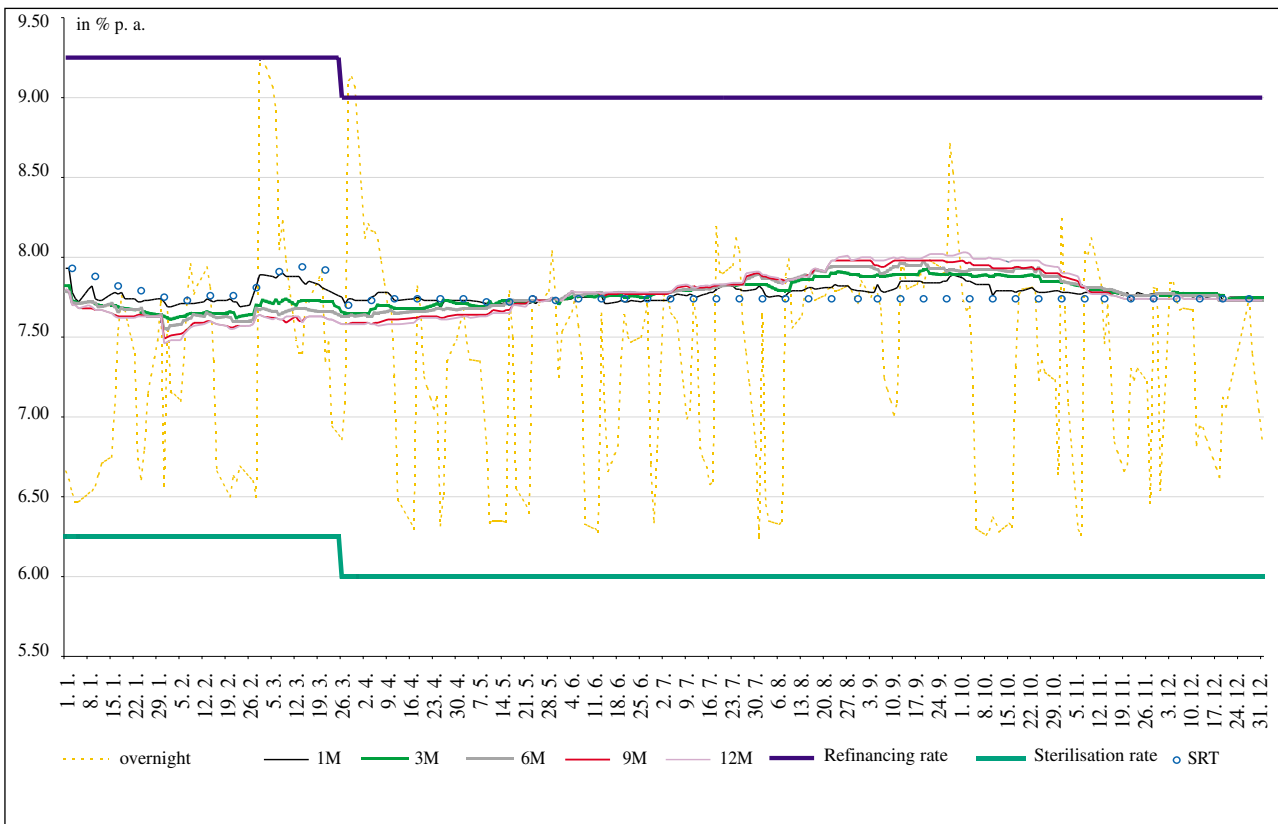




# EVALUATION OF NBS MONETARY POLICY IMPLEMENTATION THROUGH TRANSACTIONS ON THE OPEN MARKET IN 2001

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Comparison of interest rates on the interbank market and NBS key rates in 2001

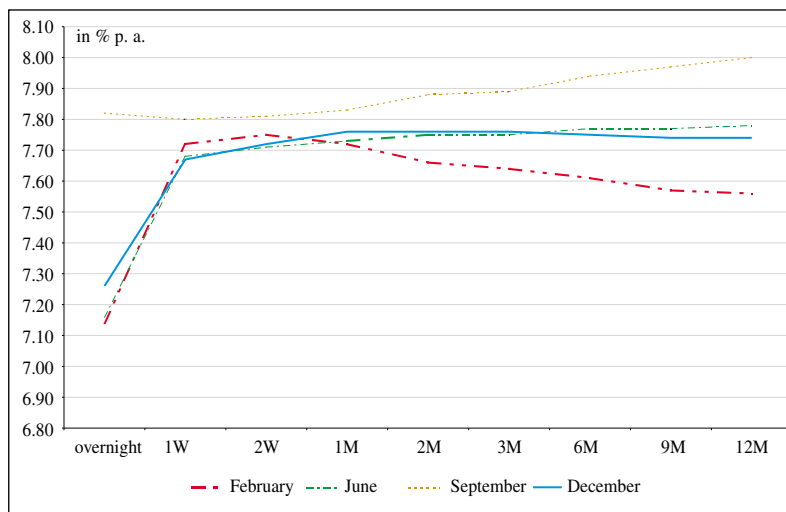


The year 2001 was the second year in a row of implementing monetary policy based on management by means of interest rates. The realisation of this objective continued without any fundamental changes in the range of instruments used by the NBS. Transactions continued to be centred on the open market using regular fourteen-day tenders performed on a weekly basis. The stabilisation of rates on the money market within defined band was ensured by NBS marginal rates in the form of deposit and refinancing facility for individual operations with commercial banks. With a regular one-month periodicity the central bank continued in issues of its own NBS bills as one of the forms of reducing surplus liquidity in the banking sector. It is also necessary to include in the list of instruments used so-called quick tenders, which it was operationally possible to employ for balancing of short-term liquidity disequilibria in the period between two standard tenders, as well as the option of executing outright with individual banks. These forms of intervention in the interbank market were not applied in 2001.

Development itself on the money market continued to be marked by continuing excess liquidity, having a constant sterilisation nature in the execution of monetary operations realised by means of individual forms of trades on the open market. From the aspect of the volume of sterilisation the year may be considered as divided into three periods exhibiting different trends in their development.

During the first period, lasting from the beginning of the year to the end of April, the trend of growing liquidity in the banking sector endured and in parallel with this the volume of sterilisation activity by the NBS was increased. Erratic growth of the sterilisation position in January to the level of 63.8 bn SKK was caused in particular by a lowering of the percent stipulated for the creation of banks' minimum reserve requirements from 6.5% to the 5% limit. With effect from the first calendar day and through this form approximately 8.5 bn SKK was released into sector. Over the following months a fall in the average da-

## Development of the deposit yield curve 2001



ily balance in the account of the state budget of the SR together with a decrease in the volume of money in circulation and the volume of newly issued government securities vis-à-vis the volume matured gradually increased the surplus of funds and subsequently also the sterilisation position of the NBS. The annual maximum of 69.8 bn SKK was reached during this period in April.

In the second period beginning May, the sterilisation position of the NBS gradually declined to the lowest level of the year, reaching 42.3 bn SKK for October. The increased issuing activity of the Ministry of Finance of the SR contributed to this significant decline, with the Ministry drawing particularly in May and June 28.4 bn SKK in the form of T-bills and bonds, or in the form of their excess over matured volumes. The greatest outflow of liquidity from the banking sector was recorded also in these two months, when the Ministry of Finance of the SR through issues of government securities drew funds in the amount of 17.8 bn SKK.

In the third period, including the last two months of the year, sterilisation activity of the NBS was again gradually increased. The December level of the sterilisation position of 50.5 bn SKK was, despite growth on the previous period, well below the initial level for 2001.

The development of interest rates on the interbank market, despite an apparent correlation with the development of the sterilisation position evident from the graphical comparison of the development of both values, was influenced by the level of the central bank's key rates, in particular by the limit rate for the two-week sterilisation repo tender. Changes to its then current level, or expectations connected with its change gradually became in 2001 the determining factor for the level of long-term interest rates.

The banking sector in particular affected by information on key macroeconomic indicators expressed its expectations on the future development of the NBS key rates and interest rates as a whole through the shape of the yield curve on the interbank market. Over the course of the year the shape of this yield curve changed several times. Un-

der the influence of an adjustment to the key rates from December 2000 to 8% for the limit rate of the two-week tender and expectations connected with its further reduction the yield curve took on an inverse form. As a consequence of this fact there also occurred in the first two months of 2001 a gradual reduction in the overall level of rates, where the monthly averages dependent on individual categories fell in January by 0.2% and in February by a further 0.1%. In this period the annual rates average reached the lowest value of the year, 7.56%.

At the end of March the NBS made its one change to key rates during the year. Rates for the deposit and refinancing facility forming a so-called corridor fell by 0.25% to

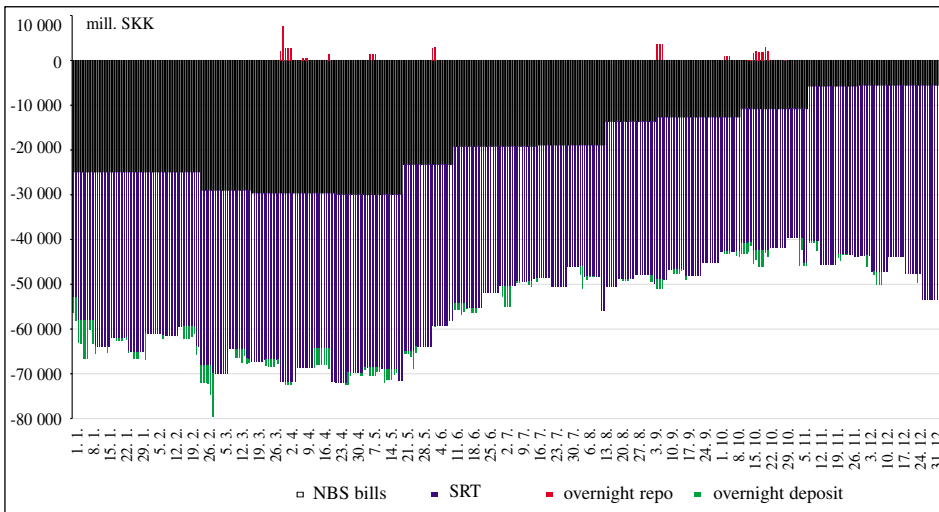
the levels 6% and 9% respectively and the limit rate for a tender was set at the level 7.75%. Through a reduction in key rates the banking sector's expectations of a further reduction in rates were ended and during the subsequent period this change in expectations was expressed in a straightening of the yield curve. For June the curve for money market interest rates took on a growing form and its overall level increased. In September the level of the yield curve reached its highest point, with average annual rates reaching 8%. Along with reaching this maximum the shape of the yield curve in the following month changed, becoming slightly inverse. The reason for this was again an anticipation in the banking sector of a reduction in interest rates. At the end of the year under the influence of this development the level of average interest rates from one month to one year reached the level of the set limit rate, 7.75%.

Short interest rates, i.e. from overnight to 2-week funds, were not influenced by the expected changes in key rates, but by their then current level and the situation in money market liquidity. Similarly as in the preceding period overnight rates, or tomex funds were the most sensitive in reacting to daily developments on the market. Given the constant surplus liquidity in the banking sector their levels moved mainly at the bottom part of the corridor of the limit rate for the NBS deposit facility as the lowest rate of the interbank money market.

Over the course of the year, in particular as a consequence of a short-term shortage of funds caused by an increased investment activity of the banks in government securities, or the sterilisation activities of the NBS, the shortest interest rates reached also the ceiling limit of the corridor, set by the rate for the NBS refinancing facility. From the graphical comparison of the development of rates it is possible to observe changes in the direction of overnight funds occurring concurrently to the execution of an NBS sterilisation tender. The banks through an immediate adjustment to their shortest rates reacted accordingly to the result of the tender its terms of its volume, and



## NBS interventions in 2001



which in a decisive way influenced the situation on the market for the following seven days. Falls in rates to a level close to that of the deposit facility were particularly in the first quarter accompanied by a greater volume in overnight deposits with the NBS. The volumes realised were directly proportionate to the length of the duration of this decline. Overnight funds in the framework of all transactions executed on the deposit market continued to form the most significant part, their share being above 75%.

A similar time connection between rates and a tender as in the case of overnight rates, but with lower fluctuations was also recorded by the development of the second group of short rates – seven-day and fourteen-day funds. A periodic movement comprising of a decline and subsequent correlation of rates at the level of the interest rate outcome of the repo sterilisation tender was most noticeable in the first two months of the year. Since during this short period there occurred quite significant divergences between the average rate achieved in the tender realised and the limit rate set for this type of operation interest rates similarly exhibited increased elasticity. From March as a consequence of the increased acceptance of demand in tenders its average interest rate stabilised slightly below the limit rate applicable for the then current period. One- and two-week deposit rates adapted to this fact and their periodic fluctuations moderated. Together with overnight transactions this category of short funds formed 80 to 85% of all transactions executed.

In comparison with the previous year only one technical-organisational change was made in the implementation of monetary policy in the form of the open market operations, this concerning the presetting of government securities auctions prior to the NBS sterilisation tender. The Ministry of Finance together with the NBS implemented this change in May as a consequence of declining interest in investing in government bonds and T-bills. Despite the fact that government bonds or T-bills and sterilisation tenders particularly due to the various lengths of maturity did not directly compete from the aspect of in-

vestment opportunities, this new arrangement allowed the central bank to better take account of the then current liquidity situation on the interbank market.

Throughout the year sterilisation activities of the NBS were dominant in weekly tenders, the share of which in the first four months moved around the level of 56 – 57% of the total volume of the open market operations. They were executed in the form of an American auction with the set limit rate be-

ing announced by the Bank Board of the NBS. Auctions were held on Tuesdays and the valuation the following working day. As collateral for these repo transactions the NBS used its own bills. Beginning May, the share of tenders became even more dominant and by the end of the year formed almost 88%. The reason for this shift was a gradual reduction in the share of the second most significant sterilisation activity of the NBS – issues of its own bills. The change in this share was connected with the absorption capacity of the commercial banks for securities as a whole, which particularly during the second half of the year – with regard to the increased issuing activity from the side of the Ministry of Finance of the SR – gradually decreased.

The share of issues of NBS bills was greatest in March, when this exceeded 43%. In contrast to tenders these were as a rule performed only once a month, where there were in total 13 auctions. The issues had a standard 84-day maturity term and were performed in the form of a Dutch auction without a set limit rate. Despite this the NBS did not in even one case accept in the auctions a rate higher than the limit rate for the sterilisation repo tender, which in the period of a growing yield curve on the interbank market had an influence on decreasing the interest of commercial banks in this form of investment activity.

The lowest share by volume was formed by transactions with a maturity on the next working day, i.e. deposits or individual refinancing repo transactions. Their share in the overall sterilisation activity of the NBS moved in the course of the year from 3.4% (the highest value being for the month of January) down to 0% (for the month of September). Even despite the low significance in terms of volume, the role of these standing facilities in the set of instruments was irreplaceable, since they enabled individual banks to balance their liquidity position on an individual basis by means of transactions with the NBS. In this way there was concurrently created a corridor, or band for money market interest rates.

Given the overall sterilisation nature of the execution of

monetary operations, also transactions lowering liquidity in banks, i.e. deposits were dominant within the framework of this group of instruments. In the course of a given month they were used only sporadically and have been mainly concentrated at the end of the month. An exception was a period of greater daily liquidity surpluses for reason of the low participation in tenders, or sudden and unpredicted inflows of funds, when the banks through this form reduced in the short-term their surplus.

On a relatively exceptional basis the NBS used a one-day refinancing facility. In only two months the banking sector as a whole covered balance its short position using refinancing transactions. In other sporadic cases there was an individual drawing in the period of a balanced situation in the sector. In executing refinancing repo transactions the NBS accepted T-bills, government bonds and NBS bills.

Despite the fact that the monetary instruments used in 2001 were in their form the same as those used in the previous year, there was a qualitative change in the manner of their use. A substantial shift in this direction occurred in March of the year in question, when the NBS altered its approach in accepting demand in tenders or auctions of bills.

In the preceding period, the NBS in its decision-making process put more emphasis on the efforts to balance liquidity flows in the banking sector in the course of the then current month. The formal manifestation of this attempt was a more frequent shortening of banks' demand in individual sterilisation activities. This fact was reflected in a divergence of the average interest rate achieved in tenders from the limit rate set by the Bank Board of the NBS. To this fact the banks themselves also attributed the signalling nature announcing a change in key rates. Through a tightening of the implementation of monetary policy in the form of greater acceptance of demand (also at the cost of possible refinancing consequences) there ended the divergence between both rates. In the following period the average rate stabilised at one hundredth of a percent below the level of the interest rate, which contributed to an increase in confidence and the acceptability of NBS key rates and interbank market rates. In consequence of this in the further course of the year the interconnection of NBS key rates and interbank market rates deepened, evidence of which was also the derivation of maturity terms of the deposit yield curve from the limit rate of the tender by means of a comparison with the so-called efficiency curve.