

# DEVELOPMENT OF COMMERCIAL BANK'S LIQUIDITY AND FACTORS INFLUENCING IT IN 2002 AND 2003

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From 2000 onwards, the National Bank of Slovakia (hereinafter the "NBS") has been applying a qualitative method of monetary policy implementation. This differs from the previous quantitative one mainly in that the NBS determines the price of money, i.e., it announces interest rates.

The range of NBS instruments was also adjusted to the new way of implementing the goals of monetary policy. The main part of NBS operations in the financial market is performed by standardized instruments, which are to a large extent harmonised with the European Central Bank System. Commercial banks can balance their current liquidity position through an automatic access to sterilisation and refinancing resources of the NBS on a one-day basis at an announced interest rate. A medium-term or structural imbalance between money demand and supply is compensated through the main instrument – a standardized REPO tender with a 2-week maturity, conducted by the NBS once a week at an announced limit interest rate.

If in the financial sector there is a lower volume of liquidity than required to cover all the financial flows in the economy, the NBS "lends" supplementary funds to commercial banks. Such a situation persisting in the long term will mean that the NBS is in a refinancing position vis-à-vis the banking sector. Vice versa, if the current supply of money exceeds demand, the central bank will withdraw the excess liquidity with a view to balance the situation in the financial market. Such a situation lasting over a long period will then mean that the NBS is in a sterilisation position. The NBS position vis-à-vis the commercial banks is not, however, determined through the NBS decisions only in relation to the current liquidity situation, but also takes into account the NBS heading towards the attainment of its primary objective. Occasionally the open-market operations are also used as a complementary instrument to foreign exchange interventions.

The most important channels for the inflow and outflow of liquidity in the Slovak banking sector include public finance (or the government funds deposited with the NBS), currency in circulation, the NBS operations on the foreign exchange market (foreign exchange interventions) and other unspecified factors, which largely have to do with the privatisation process or the releases of funds from some of the NBS balance sheet accounts. The

majority of public finance accounts are held with the NBS. They influence the liquidity of commercial banks through their, current economy, that is, through the current prevalence of revenue over expenditure (the absorption of liquidity) or, by way of analogy, by supplying the liquidity in the form of predominance of the expenditure side. The second channel for public finance to influence the development of liquidity is represented by government securities. If, in the given period, government securities payments exceed the volume of new issues, the sphere of government securities has a pro-liquidity effect, and vice versa.

## Development of Commercial Bank's Liquidity in 2002

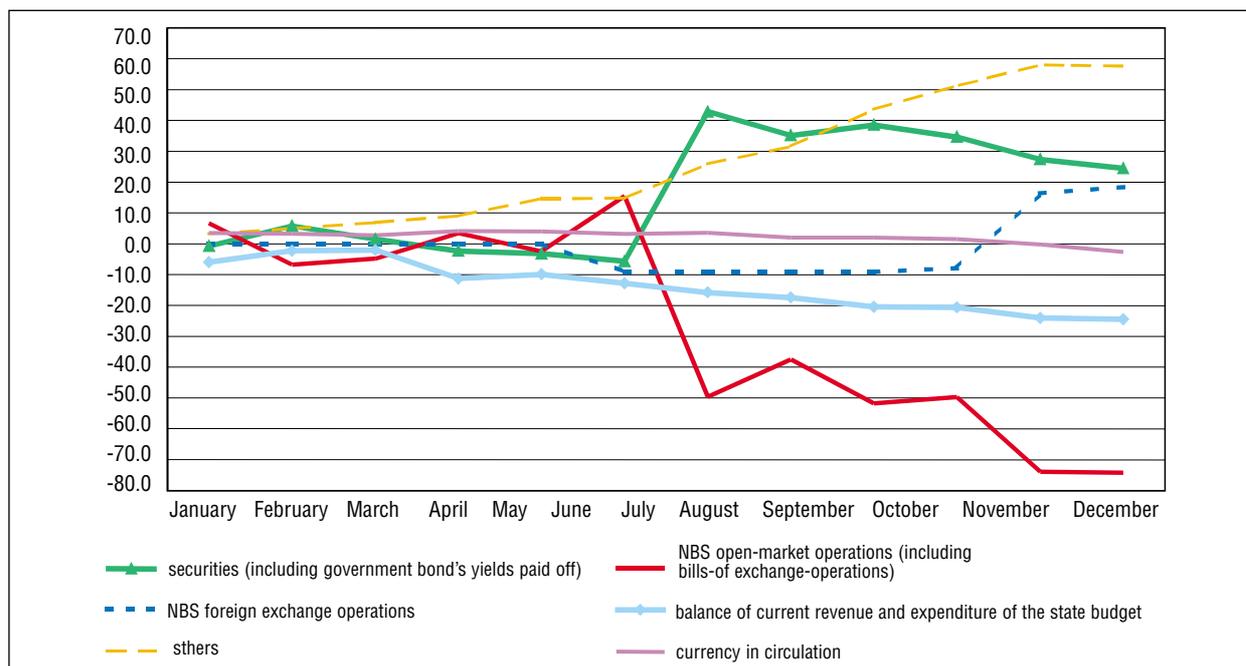
Since October 1999, the NBS has been in a sterilisation position, which has been gradually deepening up to today's level of approximately SKK 161 billion over the first half of 2003 on average. A more marked deepening of the NBS sterilisation position occurred in 2002, mainly with regard to the privatisation process, which brought an inflow of additional resources from abroad. The revenue of the National Property Fund (hereinafter the "NPF") originating in the sale of participating interests of the government particularly in the Slovak Gas Company (Slovenský plynárenský priemysel, hereinafter the "SPP"), power distribution plants of the Slovak Electricity Company, Slovenská poisťovňa (the Slovak Insurance Company), Transpetrol and in the release of blocked deposits from the sale of Slovenská sporiteľňa and Všeobecná úverová banka, reached approximately SKK 150 billion and were to the full extent deposited in the NPF account with the NBS. As for the use of these funds, approximately one half of them was allocated into the domestic banking sector and contributed to a marked increase in its liquid funds (depicted in Fig 1 under the factor "others", which in 2002 supplied liquidity of the cumulative volume of SKK 57.6 billion, and "securities" whose impact resulted in an inflow of liquidity of SKK 24.5 billion in cumulative terms).

Since a substantial the mentioned funds consisted of the proceeds from the sale of the government's majority interest in the SPP (SKK 121 billion remitted and deposited in the NPF account with the NBS in the mid of July), it was exactly the period from this moment to the end of



Figure 1 Cumulative impact of individual factors on the banking sector's liquidity in 2002

SKK billion



**Securities** – government securities issues and payments (i.e. government bonds and Treasury bills), including bond's yields pay-off).

**NBS foreign exchange operations** – NBS interventions on the foreign exchange market.

**Balance of current revenue and expenditure of the state budget** – a balance of or difference between the current revenue of the state budget from commercial banks (substantially tax revenue) and the current expenditure of the state budget on commercial banks (excluding government securities and government bond's yields payments to the domestic banking sector and foreign debt servicing).

**Currency in circulation** – an increase or decrease in the currency issued by the NBS.

**Others** – the aggregate of other impacts in the form of an increase or decrease in the liquidity in relation to the banking sector (such as releasing of the NPF privatisation funds deposited with the NBS, of funds from the deposits of local government authorities with the

NBS, of funds from the currency transfer accounts and from some other NBS balance sheet accounts).

**NBS open-market operations** – standard two-week REPO tenders between the NBS and commercial banks, overnight deposits of commercial banks with the NBS, overnight refinancing of commercial banks in the NBS (including bills-of-exchange operations) and issues of NBS bills which are to counteract or compensate for the impact of all the other aforementioned factors of the banking sector's liquidity).

**Notes:** The development of factors monitored on a cumulative basis from the beginning of the calendar year.

A graphic representation of a curve of the respective factor attaining positive values means the supply of liquidity to the banking sector as a result of the development of the given factor.

A graphic representation of a curve of the respective factor attaining negative values means the withdrawal of liquidity from the banking sector as a result of the development of the given factor.

2002 that was marked by a more distinct increase in the volume of NBS open-market operations as a result of the release of these funds (Fig. 1, the curve representing the factor "NBS open-market operations") and a subsequent increase in the level of the NBS sterilisation position vis-à-vis the banking sector (from SKK 59 billion as of 15 July 2002 to SKK 144 billion as of 31 Dec. 2002).

A portion of privatisation revenue was designated by the Government for domestic debt servicing, which showed in the changing nature of securities' effect on the liquidity of commercial banks. Through the use of the privatisation proceeds from the sale of SPP in the amount of SKK 49.3 billion to the domestic debt payments the area was created for reducing the burden on public finances in terms of new issues of government securities. On the other hand, the volume of liquidity, representing under standard conditions a potential volume of

government securities issues needed to cover the domestic debt, remained undrawn in commercial banks. In this context, the sphere of securities had a cumulative effect of supplying liquidity in the second half of 2002 and necessitated additional sterilisation on the part of the NBS (Fig. 1 – the movement of the factor "securities" from July till the end of 2002 along positive lines, which represented a cumulative inflow of liquidity of approximately SKK 24.5 billion).

The connection between the use of privatisation funds (notably the proceeds from the sale of SPP) and NBS open-market operations is evident from Fig. 1, in which the development of factors "others" and "securities" in relation to "NBS open-market operations" had a characteristic shape of opening scissors from mid-July 2002.

The pro-liquidity impact of the releasing of the NPF's privatisation proceeds in the last quarter of 2002 (most



distinctly in November in terms of the volume) was also supplemented by the supply of koruna liquidity from NBS interventions in the foreign exchange market directed against an inappropriate appreciation of the Slovak koruna. In 1992, the inflow of liquidity from this source totalled SKK 18.4 billion on a cumulative basis (Fig. 1 – the development of the factor „NBS foreign exchange operations“).

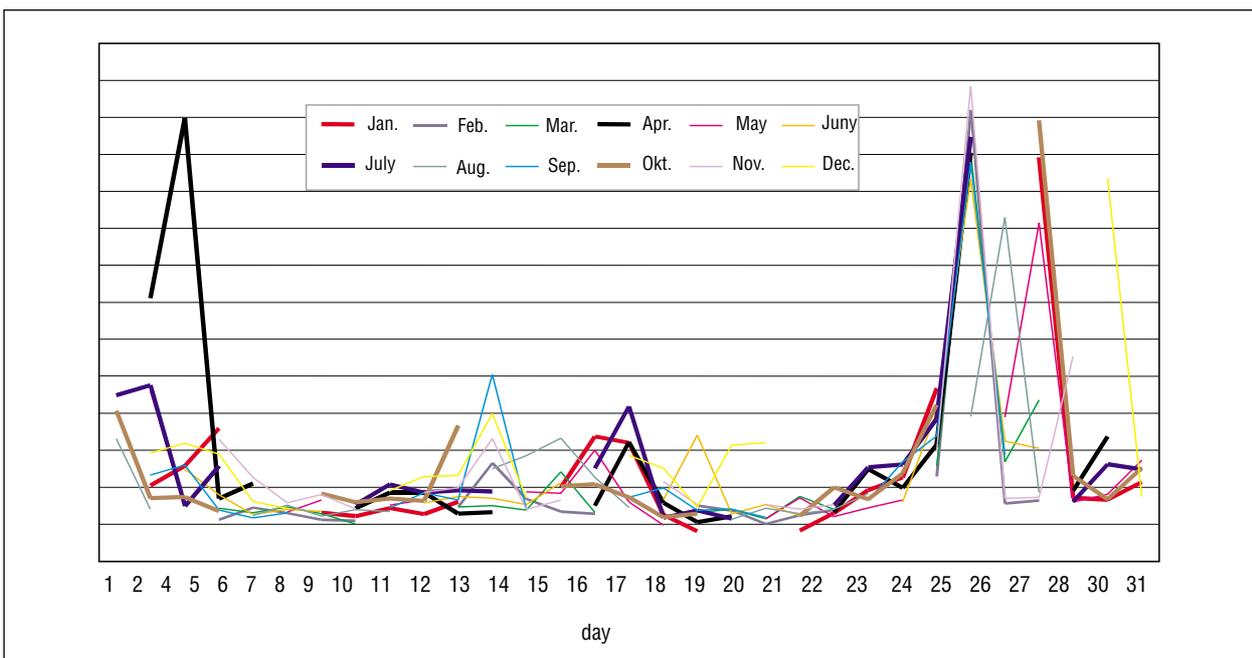
The definitely pro-liquidity nature of the effect of both the use of privatisation revenue and NBS foreign

revenue and expenditure of the state budget” within negative values, representing the withdrawal of liquidity amounting to SKK 24.5 billion on a cumulative basis).\*

The following figure clearly shows how the revenue side of the state budget influenced the liquidity of commercial banks over the course of a calendar month (by individual months of 2002).

Figure 2 depicts the fluctuation of the current revenue to the state budget from commercial banks, the substan-

**Figure 2 Development of current revenue to the state budget from commercial banks by individual months of 2002**



exchange operations was partially compensated over the course of the year by the withdrawal of liquidity from commercial banks as a result of the modest increasing volume of currency in circulation (of SKK 2.7 billion in cumulative terms) and the current economy of the state budget. In connection with the state budget this notably means that the cumulative balance of current revenue and expenditure of the state budget, that is, the primary deficit (excluding government bond's yields paid off in the amount of SKK 24 billion, which form a part of the factor “securities”), developed over the course of the year in favour of the current revenue of the state budget, which means the commercial banks' liquidity withdrawal (Fig. 1 – the movement of the factor “balance of current

tial part of which is formed of tax revenue, during the course of a month in dependence on the deadlines for the discharge of tax liabilities on the part of tax subjects according to the current schedule of operations.

Owing to that the curves representing the development of the current revenue of the state budget attain higher values at the beginning of a calendar month due to the impact of income tax payments, starting from the 25th day of a calendar month as a result of VAT payments (with larger amounts of quarterly VAT payments showing in January, April, July and October), and on the tax return submission dates, that is, at the close of March or the beginning of April (which is the deadline for submitting tax returns for personal and corporate income

\* Despite that the development of the current economy of the state budget resulted in a deficit in 2002, it did not cause an inflow, but a withdrawal of liquidity from the banking sector. This, at the first glance, contradictory development was due to the fact that:

1. The total state budget's expenditure did not flow into the banking sector to the full extent, but partially also to the NBS accounts, which caused a reduction in the volume of resources with a pro-liquidity effect,

2. The expenditure on government bond's yields payoff, which add to the total state budget expenditure (impacting upon the growth of its deficit) are reviewed as part of securities (and so their impact on the banking sector's liquidity does not show in the balance of revenue and expenditure of the state budget, but in the sphere of securities).



## Cumulative impact of individual factors on the banking sector's liquidity in 2002

(SKK billion)

	Securities (including government bond's yields paid off)	NBS open-market operations (including bills-of-exchange operations)	NBS foreign exchange operations	Balance of current revenue and expenditure of the state budget	Others	Currency in circulation
January	-0.7	6.7	0.0	-5.9	3.2	3.5
February	5.8	-6.8	0.0	-2.3	5.0	3.3
March	1.6	-4.8	0.0	-2.0	6.9	2.7
April	-2.3	3.5	0.0	-11.2	9.1	4.2
May	-3.2	-2.4	0.0	-9.8	14.7	4.0
June	-5.7	15.5	-9.1	-12.8	14.7	3.2
July	42.9	-49.6	-9.1	-15.7	25.9	3.6
August	35.2	-37.4	-9.1	-17.4	31.6	2.1
September	38.6	-51.8	-9.1	-20.4	43.6	2.0
October	34.7	-49.7	-7.9	-20.6	51.3	1.6
November	27.5	-73.9	16.3	-24.1	58.0	-0.2
December	24.5	-74.2	18.4	-24.5	57.6	-2.7

The most distinctive source of liquidity inflow in the first half of 2003 was represented by foreign exchange interventions of the NBS against inappropriate appreciation in the exchange rate of the Slovak koruna, undertaken in January, May and the beginning of June, with an overall increase in the banking sector's koruna liquidity on this account totalling SKK 25.9 billion in the first half of 2003 (Fig. 3, the curve of the "NBS

foreign exchange operations" factor). taxes) and at the close of June or the beginning of July (which is the extended deadline for presenting income tax returns in cases where the tax return for the tax subject is worked out by a tax adviser).

### Development of Commercial Bank's Liquidity in the First Half of 2003

During the first six months of 2003, the development of commercial bank's liquidity and the NBS's position vis-à-vis the commercial banks were influenced by differentiated impact of the respective factors, which was reflected in a more volatile nature of the development of the "NBS open-market operations" curve (Fig. 3).

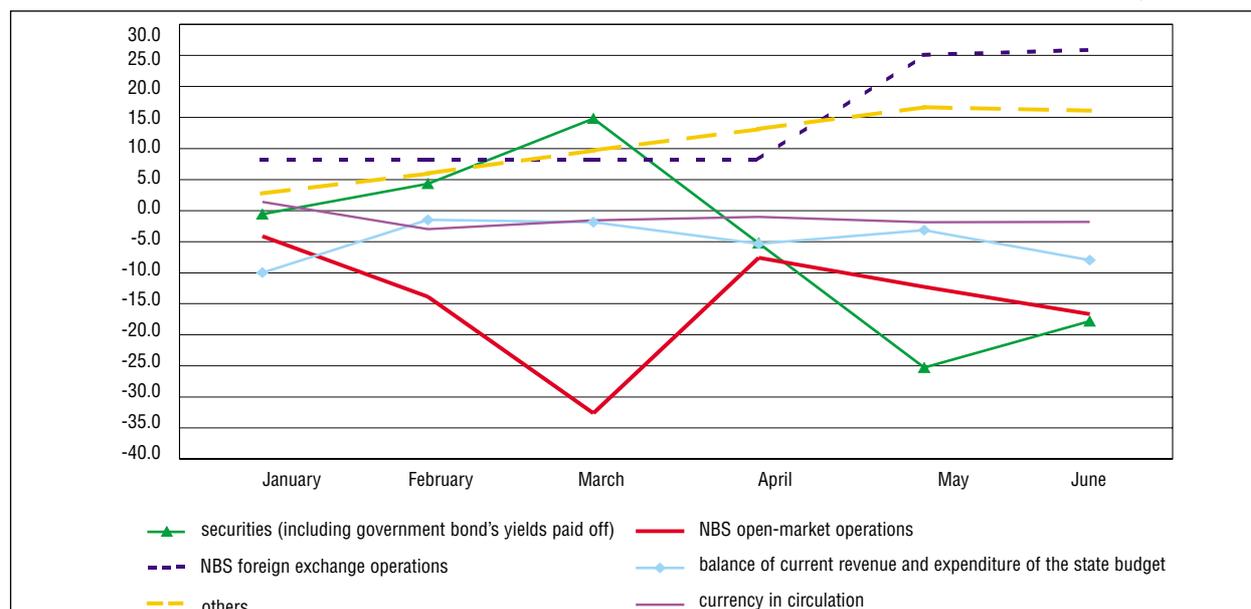
foreign exchange operations" factor).

Since the privatisation process decelerated in 2003, the impact of the release of the NPF's privatisation revenues on the development of the banking sector's liquidity can also be assessed as very modest in the first half of 2003. It raised the liquidity of commercial banks by approximately SKK 3 billion, having been included under the factor "others". Apart from that, the upward trend in the "others" factor was also influenced by standard, more or less regularly recurring releases of funding from selected NBS balance sheet accounts.

In the first half of 2003, the inflow of liquidity from the said sources was counterbalanced notably through the sphere of securities, which, as a result of increased acti-

Figure 3 Cumulative impact of individual factors on the banking sectors liquidity in the first half of 2003

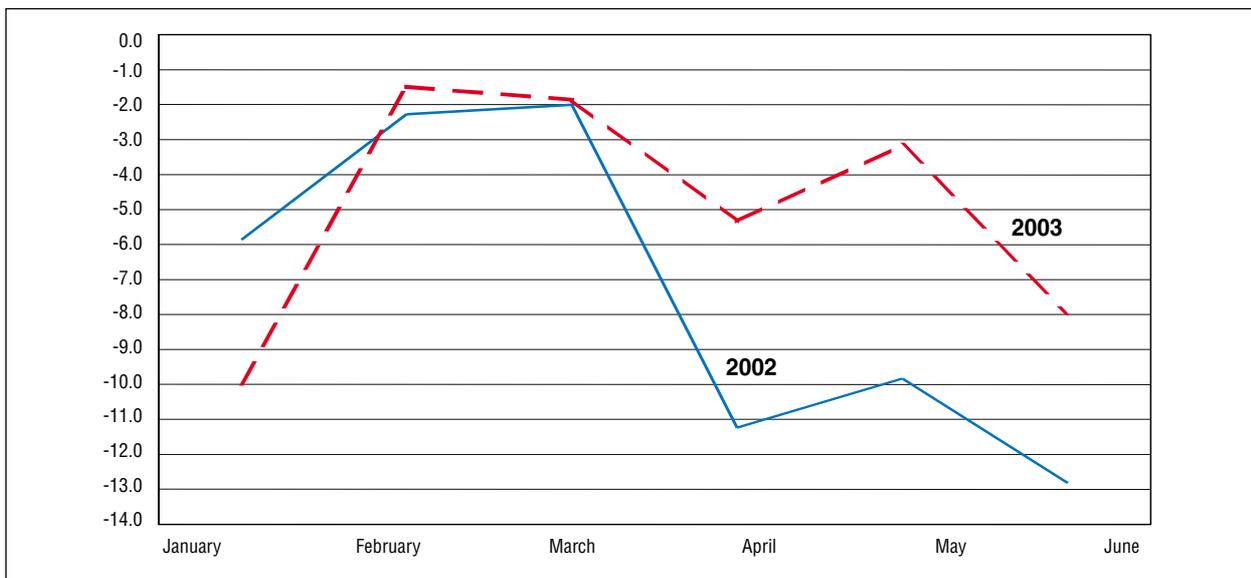
(SKK billion)





**Figure 4 Development of cumulative balance of current revenue and expenditure of the state budget over the first half of 2002 and 2003**

(SKK billion)



**Cumulative impact of individual factors on the banking sector's liquidity in the first half of 2002 and 2003**

(SKK billion)\*\*

	Securities (including government bond's yields paid off)		NBS open-market operations (in 2002 including bills-of-exchange operations)		NBS foreign exchange operations		Balance of current revenue and expenditure of the state budget		Others		Currency in circulation	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
January	-0.7	-0.6	6.7	-4.1	0.0	8.2	-5.9	-10.0	3.2	2.8	3.5	1.4
February	5.8	4.3	-6.8	-13.9	0.0	8.2	-2.3	-1.5	5.0	6.0	3.3	-3.0
March	1.6	14.8	-4.8	-32.6	0.0	8.2	-2.0	-1.9	6.9	9.7	2.7	-1.6
April	-2.3	-5.2	3.5	-7.6	0.0	8.2	-11.2	-5.3	9.1	13.2	4.2	-1.0
May	-3.2	-25.3	-2.4	-12.3	0.0	25.1	-9.8	-3.2	14.7	16.7	4.0	-1.8
June	-5.7	-17.8	15.5	-16.7	-9.1	25.9	-12.8	-8.0	14.7	16.1	3.2	-1.8

...vity of the Ministry of Finance of the SR with regard to issuing government bonds in April and May (to raise the funds to repay a portion of the government foreign debt in the amount of USD 300 million or to convert it to internal debt), at a concurrently low volume of payments to the domestic banking sector, lowered the need for sterilisation activity on the part of the NBS to a certain extent. This need however partially increased in May due to a repeated pro-liquidity impact of NBS foreign exchange interventions. The withdrawal of liquidity through the securities channel reached SKK 17.8 billion on a cumulative basis over a period of six months of 2003 (Fig. 3, the development of the "securities" factor).

In the first half of 2003 as in 2002, the balance of the state budget revenue and expenditure partially had the effect of withdrawing liquidity from the banking sector. Nevertheless, probably due to a shortage in tax revenue, especially the VAT, the curve expressing the develop-

ment of the factor of state budget on the banking sector's liquidity passes more closely below the x-axis compared to the development in the first half of 2002 (except of the beginning of the year) (Fig. 4). This means that in the first half of 2003 the current economy of the state budget (excluding the expenditure on government bond's yields payoff) caused a lesser degree of liquidity withdrawal from the banking sector.

\*\* In addition to the impact of the factors given in the table, the banking sector's liquidity in January 2002 and 2003 was increased one-off as an result of a lowered percentage rate of the minimum reserve requirement applying to the banking sector (in both of the years by one percentage point), which was implemented in order to harmonise the monetary policy instruments with the ECB monetary instruments. The excess liquidity created in this way reached SKK 5.7 billion in January 2002 (compared to December 2001) and SKK 6.5 billion in January 2003 (compared to December 2002) and in both of the years necessitated an increase in NBS sterilisation operations.