GOVERNMENT SECURITIES MARKET 1999

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MAJOR TENDENCIES AND DEVELOPMENTS IN THE GOVERNMENT SECURITIES MARKET IN 1999

1. Macroeconomic tendencies

In 1999, the government securities market operated in a changing economic environment. The improvement of both the current account balance and the central budget as compared to the beginning of the year was a favorable development during the year. Hungary is seen by foreign investors as a country close to its EU accession, and that opinion has a major impact on the inflow of foreign capital. This tendency was well reflected in the fact that, apart from a short time period, the Brazilian crisis did not effect Hungary and the Kosovo conflict only had a moderate impact on the Hungarian market.

The undiminished economic growth until the third quarter of 1998, slowed down somewhat in 1999 due to the direct and indirect effects of the crisis in Russia. Owing to a decelerating economic growth in the destination countries of Hungarian export goods and services, the Hungarian export growth declined at end 1998 / early 1999. Consequently, internal demand (especially consumption) played an increasingly important role in domestic growth processes. Although the rate of economic growth fell to 3.3% in the first quarter of 1999, the second and especially the third quarter saw growth rates of 3.8% and 4.4%, respectively. These were substantially higher than the average rates in the EU member countries and also exceeded the same indicators of the countries in the region. Signs of an economic upswing became clearly visible from the third quarter, and the upward trend continued to the end of the year. In the second half of the year, industrial output increased and unemployment declined simultaneously with an improvement of export dynamics, which is a positive tendency regarding external balance.

The tendencies in the international economy improved considerably in the second half of 1999. The impact of external events that set back the economic growth in the second half of 1998 seems to subside. The **current account deficit** was lower by USD 222 million than a year earlier (USD –2,298 in 1998 vs. USD –2,076 in 1999). This was mainly due to the improving trade balance since July, the increasing revenues from tourism in the period July through September and a reduced income outflow. At the end of 1999, the **trade deficit** was USD 175 million lower than in the same period of the preceding year. While an increase of USD 393 million (due to the growth in service imports and a substantial decline in exports) in the net outflows related to *services* had a negative impact on the balance, the USD 242 million decrease in the *income* outflow had positive effects. The *balance of fund transfers* improved the balance by USD 198 million.

In December 1998, **foreign investments**[1] amounted to USD 2,631 million, USD 1,176 million higher than in the same period of 1998. **A 181% rise in capital inflows was sufficient to finance the favorable current account deficit.**

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[1] In line with the National Bank's statistical reporting system that was modified in early 1998, this category includes foreign direct investments and portfolio investments in securities embodying proprietorship.

Due to the capital inflows that provided financing for the current account deficit, the **net external debt** (excluding intercompany loans) **declined** from USD 10,195.7 million in December 1998 to USD 8,608.2 million by December 1999.

Basically the **inflation rate** continued to drop in 1999. The annual average price index of 18.3% in 1997 and 14.3% in 1998 fell substantially to 10% within a year. However, the first and the second half of the year were very different in terms of the 12 month inflation rate.

The declining world market rates of commodities and fuel and a substantial oversupply of agricultural products also contributed to a lower increase in consumer prices in early 1999. As a result, the 12 month inflation rate dropped to 8.9% in May and the monthly inflation rate also fell steadily.

From June, however, the inflation rate began to rise. That was due to last year's low base rate, and also to the increase in the prices of commodities, fuel and agricultural products. The prices of pharmaceuticals and telephone services were also substantial items.

The **central government deficit (excluding privatization proceeds)** was **HUF 331.6 billion** in 1999. This amount corresponds to a 86.8% outturn, i.e. it was lower than planned. On the revenue side, this favorable result is attributable mainly to personal income tax revenues that partially made up for the lower-than-planned customs and import duty and consumption tax revenues. The revenues from telecommunication licenses also contributed to a better balance. The main factors influencing the expenditure side included a major cut in investments, an increase in government subsidies related to agricultural and natural disasters, and the extra burden resulting from higher-than-budgeted interest expenses. The reasons for the overshoot of interest expenses were the high financing requirement early in the year and the temporary deviation of market rates from the forecasted level. The unfavorable budget position of the first few months was caused by the seasonality that is felt in the monthly development of the budget deficit every year. This situation was made even worse by natural disasters, the aftermath of the 1998 crisis in Russia, and the deteriation in the economic position of EU countries caused by the slowdown of economic growth early in the year. The reserves of the expenditure side, which had been budgeted for a higher growth, were frozen as early as February in order to maintain the internal equilibrium. By the second half of 1999, however, the budget figures were basically met, thanks to extraordinary income and the year-end increase in consumption revenues.

The deficit of the Social Security Funds was HUF 48.4 billion that is by only HUF 6.7 billion higher than planned. Extra revenues of HUF 20 billion from the disposal of property positively influenced the balance while the additional expenditures resulting from the government subsidy of pharmaceuticals had a negative effect. The central government reimbursed the revenue shortfall that was probably due to the restructuring of the country's pension system (this amount was lower than budgeted). Consequently, the Pension Fund had a deficit of HUF 3.8 billion, while the Health Fund's negative balance of HUF 44.6 billion was close to the planned amount. The extra-budgetary funds had an adjusted deficit of HUF 40.6 billion until December – in this case, the higher than expected deficit was due to accounting reasons (the posting of the balances of cancelled funds). The deficit of the central government, the Social Security Funds and extra-budgetary funds totaled HUF 420.6 billion in 1999.

In the past few years, the central government gross debt to GDP ratio decreased substantially, falling from 71.5% at the end of 1996 to 61.1% by the end of 1998, and to 60.3% by 1999. This decrease was mainly due to the primary budget surplus and the debt redemption effected from privatization proceeds. The **debt totalled HUF 6,886 billion** at the end of December 1999, showing an increase of 12% in nominal terms compared with the debt figure at the end of the preceding year. The above increase was attributable to an increase of HUF 631 billion (transactions) in the central government debt and the effect of exchange rate changes to the foreign exchange debt (revaluation).

The money markets were characterized by a well-balanced HUF liquidity situation in 1999. With the exception of the one-week crisis in Brasil, the liquidity was steadily high in the money markets up to February. The liquidity level slightly and temporarily declined in the period May through October but the supply rose again in the last quarter.

With the exception of some extreme fluctuations on the short end of the money market before the closing date of the reference period for reserve requirements, interbank rates were fluctuating on the lower end of the repo corridor. It was during the Brasilian crisis when for one week the overnight and one-week rates broke out of the band determined by one-day reverse repo and repo rates (rising by almost 300 basis points). After the crisis, however, they returned to their original level.

In 1999, the **central bank** reduced interest rates 7 times. The first of these cuts was effected on January 8, followed by two rate cuts in April and one cut in June, July, November and December. As a result, the central bank's rates fell 325 basis points on the repo side and by 175 basis points on the reverse repo side, causing the repo corridor to narrow. As of early March, the central bank changed the maturity of its deposit facility that had the greatest impact on money market rates. The maturity was reduced from one month to two weeks. Also, the bank set the deposit rate at 16%, a rate equal to that of one-month instruments.

Looking at the exchange rates, it can be seen that the Brasilian crisis pushed the Hungarian currency to the weaker end of the band for a few days. After a temporary uncertainty, however, the HUF was fluctuating close to the stronger end until mid February. Starting from the end of March, however, pessimistic expectations triggered by the Kosovo conflict were felt in the movements of the HUF exchange rate within the band as well. The HUF was floating on the weaker end until mid April. From May through August, the exchange rate approached the stronger end of the band because of the good news from the region. It remained close to the stronger end until the end of the year, except for a slight decline in September/October.

The Minister of Finance reduced the rate of the monthly devaluation of the Hungarian forint, which is pegged to the currency basket containing 30% USD and 70% euro, three times during the year. The monthly devaluation was reduced to 0.6% on January 1, to 0.5% on July 15 and, finally, to 0.4% on October 1.

Another major event influencing government debt management is that the share of the euro increases to 100% in the currency basket to which the HUF is pegged (instead of the earlier composition of 70% euro and 30% USD).

With pegging the forint to the euro (and especially the announcement thereof) the yields of Hungarian government securities should have been declined as the government security yields are lower in nominal terms in the eurozone. However, yields did not start decreasing immediately after the announcement but they fell significantly in the last two months of the year. This resulted in an increase in the risk premium applied to the HUF in the period preceding the yield decline.

In January, the demand for **equities** increased, and the stock exchange index (BUX) showed a dynamic growth. This year was off with an optimistic start for Hungarian money and capital markets. On January 15, bad news about the economic situation in Brasil caused prices to drop by over 300 points. The very next day, however, saw an increase of 500 points, proving that investors' confidence was only temporarily shaken. However, from mid February, prices started to decline along with substantial fluctuations following foreign investors' profit-taking and the disclosure of December current account balance. In the middle of March, the situation in Kosovo and the air bombing that started in the meantime made investors uncertain, which led to further drops. The equities section had a successful April but the demand weakened in May and June due to the poor quarterly results of some companies and the macroeconomic performance that was not as good as expected. Accompanied by high demand, the index boosted in July after the FED rate hike. Consequently, it was 1000 points higher in the third quarter. In August/September, equity trading had a share of over 50% in a plunging overall stock exchange turnover. From the middle of October onward, the prices of leading shares started to rise abruptly. This trend was accompanied by substantially higher turnover in December since two-thirds of the total stock market trading was effected by the equities section. From its closing level of 6,307 points at the end of 1998, the BUX rose to 8,819 points by the end of 1999, reaching its peak of 8,875 points on December 28.

An upswing in the equities market in the first few weeks of 1999 (the trend had started in November 1998) occurred simultaneously with a growing demand for **government securities.** As a result of stronger foreign investors' interest in the government bond market, the longer-term yields were on the decline till the middle of February 1999. From the end of February, yields began to increase because foreign investors substantially reduced their investments in government securities to take their profits, presumably because of the unfavorable macroeconomic figures published early in the year. The slowdown of economic growth in Hungary and at its trade partners had an impact on macroeconomic figures as well, also contributing to an increase in yields. The Kosovo conflict reduced foreign investors' demand for government securities. This lower demand led to higher risk premium expectations. Foreign investors' share in the market stabilized in the second quarter and settled around HUF 320 to 330 billion, subject to minor fluctuations. Accordingly, no unambiguous tendencies could be observed in the yield movements either, with a slight decline in April and a moderate increase in May and June. Following the rate increase by FED and the rate cut by the National Bank, the bond yields were climbing up most of the time in the 3rd quarter. The amount of government bonds held by foreign investors was up again, staying on a level of HUF 330 billion until the end of September with minor fluctuations only. Starting in October, however, improving macroeconomic figures, especially the stabilization of the HUF exchange rate, made government bond yields more attractive. This optimism was reflected in a substantial demand for government bonds both at auctions and in the secondary market. Thus the total amount of government bonds held by foreign investors rose by almost HUF 100 billion. **Foreign investors' share in the government securities market** was higher than its **HUF 280 billion** (USD 1.16 billion) level at the beginning of the year. This share was HUF 439 billion (USD 1.73 billion) at the end of December – a clear evidence of the favourable expectations about Hungarian government securities and yield development.

The change in the net financial assets of households[2] was HUF 762 billion in 1999, that was only 87% of the one year earlier amount, largely due to declining investments in shares and a sudden increase in the debt stock. The net financial savings[3] totaled HUF 636.2 billion, that is only 80% of a year earlier level (in nominal terms). Analysing the composition of savings, it can be noticed that savings at banks were on the increase, government securities had a stable share, and non-bank savings declined. In December, however, the stock of cash grew simultaneously with a major withdrawal of deposits. The latter trend was largely due to the uncertainty caused by the Y2K problem.

The HUF equivalent of **foreign currency deposits** fell by HUF 4.5 billion for the whole year due to the withdrawal of FX deposits in the first half of the year. Foreign currency was deposited almost exclusively in the period from August through October when the HUF rate slightly departed from the stronger end of the band. The **increment in HUF deposits at credit institutions** was down 15% on 1998 levels. This was largely due to the **withdrawal of deposits in December** since the preceding period of the year had been characterized by an increasing dominance of more secure investments and a dynamic growth of savings. With their share stabilized at 25% in total savings, **direct savings in government securities** remained at the same level as compared to 1998. Despite the undiminished popularity of government securities, the amount of savings to securities issued by non banks was down to one-half of the 1998 levels. The uncertainty in the stock market made households to keep selling their equities almost continuously in 1999. Meanwhile, investment funds were regaining their positions in the market of household savings since the Russian crisis. The steadily growing portfolio of life insurance policies and pension fund savings, which rose by almost 50% as compared to the same period of 1998, deserves special attention (the biggest increase occurred in December). Dynamic accumulation by mandatory private pension funds, which derives from the nature of the system, gave a major momentum to the latter trend. The substantial growth of the personal

[2] In 1998 the National Bank of Hungary changed the methodology for recording household savings, the category of net financial assets was introduced, which reflects the revaluation effects due to the change in prices of the different financial assets.

[3] The National Bank calculates this category by filtering out the revaluation resulting from the change in rates and the changes in volumes from savings.

loan portfolio is a new development that is mainly due to an increased activity of the consumption lending business. The loan portfolio grew by HUF 116 billion, i.e. more than fivefold compared to its 1998 level.

2. Issue, placement and trade of government securities

Major changes took place in the primary market in 1999. The primary dealer network was strengthened and the efficiency of the issuance technique was improved.

In order to increase liquidity in the secondary market of government securities, the Government Debt Management Agency modified the system of government bond issuance. The Agency issues fewer but larger securities series. Accordingly, 8 new series of bonds were issued in 1999, i.e. less than in earlier years. Each of these series amount to approximately HUF 100 billion (at the end of December, bond 2002/H had the highest outstanding amount totaling HUF 133 billion).

Similarly to government bonds, the issuance system of discount Treasury bills was also changed as of July 1999. The main purpose of the change is to build up liquid series by issuing fewer but larger series. The existing types of discount Treasury bills, namely 3-month, 6-month and 12-month bills, have remained unchanged. Unlike the previous procedure, however, the series of 6-month and 12-month discount treasury bills are put up to auction by the Agency for a period of 8 weeks. It means that, according to the issuance calendar, the same types of securities are available at 4 consecutive auctions. This way, discount Treasury bills shall reach considerable size within a relatively short time.

The net financing requirement of the central government was HUF 420.6 billion in 1999. This amount consists of the central budget deficit of HUF 331.6 billion, the extra-budgetary funds' adjusted financing requirement of HUF 40.6 billion, and the withdrawal of social security funds from the Consolidated Treasury Account in the amount of HUF 48.4 billion.

Until December 1999, government securities outstanding in the HUF market and interest-bearing loans amounting to HUF 2,050.2 billion were repaid, out of which HUF 1,239.6 billion were used for repaying discount Treasury bills, HUF 313.3 billion for repaying other interest-bearing Treasury bills, HUF 421.4 billion for government bonds, and HUF 75.9 billion for loans. **Foreign currency loans of HUF 521.9 in total were repaid.**

The **gross issue in the HUF market totaled HUF 2,645 billion during the same period**. Discount Treasury bills accounted for the majority of that amou6nt, namely HUF 1,376.2 billion, while interest-bearing Treasury bills constituted HUF 411 billion and government bonds HUF 857.8 billion. **The foreign currency bonds issue and borrowings amounted to HUF 653.7 billion.**

Issue of government bonds

In 1999, the public issue of Hungarian Government Bonds totalled HUF 797.4 billion of which 774.1 billion was sold by auction and the remaining amount through sales by the Treasury branch network. The sales of retail bonds (namely the two-year Treasury Savings Bill and the Treasury Savings Bond) amounted to HUF 60.4 billion in the period. Thus **the total amount of government bonds sold was HUF 857.8 billion** that is 33% higher than the bond sales in 1998. This amount corresponds to 32% of the government securities sold in 1999.

The following series of bonds were sold several times in 1999:

Maturity	Series
2-year fixed rate	2001/G, 2001/H, 2001/I
3-year fixed rate	2002/H, 2002/I
5-year fixed rate	2004/H
5-year floating rate	2003/H
7-year index-linked	2005/D
10-year fixed rate	2009/B

The majority of bonds issued were fixed rate instruments. The share of the five-year floating-rate government bond the coupon of which is linked to the average yield of six month discount Treasury bill auctions (2003/H) and the index linked government bond (2005/D) was 5% in the total amount of government bonds issued during the year. However, the index-linked bond failed to live up to the expectations because it attracted poor demand and its turnover in the secondary market was low. For that reason, the issuer stopped their sale.

The 10-year fixed-rate bond (2009/B), a new instrument in the Hungarian market, was first auctioned on January 14, 1999. For the moment, this bond has the longest maturity among all publicly issued fixed-rate Hungarian government securities. Accordingly, the yield curve has been extended to the 10-year maturity. Although the first sale of the bond took place at the time of the Brasilian crisis, the new 10-year government bond was six times oversubscribed at the first auction and 2.5 times at average during the year. This excess demand together with a sales volume of HUF 54 billion in 1999 shows that the new bond was favorably received by investors.

The shortest bonds (2 years) represented the majority of bonds issued during the year, namely 38%; three-year bonds enjoyed the second largest share with 32%, five-year fixed rate bonds accounted for 18% and ten year bonds had a share of 7%. The five year floating-rate bond and the seven year index-linked bond gained a share of 5%. The cover (defined as the ratio of bids submitted to bids accepted) was the highest (2.5) for five-year floating rate and two-year fixed rate bonds, and the seven-year index-linked bond had the lowest (1) by one single auction where the accepted bids covered 75% of the total volume offered for sale.

In the **primary market of government bonds** primary dealers were the major buyers representing a share of 95%. The high volume of broker-dealer companies' own account purchases can be explained by the obligation of primary dealers to buy 3% of government securities issued in each half year. Primary dealers effect high volume sales operations in the secondary market, the analysis of which is included in the section dedicated to the secondary market. Major purchase orders were made by corporations in January and October, and by financial institutions in July and August.

Treasury Savings Bonds, that are aimed at channelling long-term household savings to government securities, were sold in a value of HUF 18.4 billion in 1999.

The Government Debt Management Agency continues to retain a certain portion of government securities for its own (the Agency's) account in order to ensure a sufficient amount of government securities for the Hungarian State Treasury's retail network sales and, to a smaller extent, to provide 'last resort' facility for the primary dealer system. Pursuant to the auction rules, this portion is 20% of the total accepted bids in the case of new issues, and 10% in the case of re-issues.

In Hungary, reverse auctions of government bonds has been held since January 19, 1998, in order to prevent excessive redemptions. Reverse auctions are held from the fourth to first month preceding the redemption date and only primary dealers may offer securities for sale. Government bonds worth HUF 74 billion were repurchased in 1999. Originally, 30 billion out of that amount would have matured in 2000.

Since ten-year bonds are now being issued on a regular basis, the permanent structure of the auction calendar has been prepared. Government bonds are auctioned on Thursday every other week. The auctions of two-year and five-year fixed rate bonds are held on one of these occasions every month. On the other occasion, the three-year fixed-rate bond, which is sold on a monthly basis, may be coupled with the five year floating-rate bond or the ten-year fixed-rate bond, as required by the prevailing market conditions.

Issue of Treasury bills

Discount Treasury bills in the amount of HUF 1,376.2 billion were sold in 1999. In nominal terms, this is 22% higher than the volume issued in the same period of 1998. Thus discount Treasury bills have a share of 52% in the total issued amount of government securities. In 1999, three-month securities accounted for 26%, while 6-month and 12 month discount Treasury bills had almost the same share, namely 37% each, in the total issued amount of discount Treasury bills.

Thirty-eight auctions were held for 3-month discount Treasury bills in 1999. The nominal value of the bills offered for sale was HUF 5 billion per week in the first half of the year, but the total face value rose to HUF 8-10 billion when the new issuance system started in early July. Three-month discount Treasury bills were given a new role in the new system;

the focus shifted to liquidity management, and also the amount of HUF 5 billion turned out to be an insufficient as an offering amount.

The total offering amount was sold each time except the last auction of February. The 6 month and 12 month securities were placed in a nominal value of HUF 20-26 billion that gradually decreased to HUF 15-18 billion by the third quarter. The high volumes sold at the auctions of the first half were required by liquidity management considerations since 79% of the government's annual deficit was generated during that period. Since the bond auctions providing funds for covering the deficit are distributed evenly throughout the year, a proper coordination of outflows and inflows may only be achieved through controlling the discount Treasury bill volumes sold by auction.

The cover for twelve-month securities was the highest at the auctions of discount Treasury bills (it was 2.43 in 1999, somewhat lower than the average 2.5 of bonds), while for three-month and six-month Treasury bills it fell to 2.28 and increased to 2.2, respectively, as compared to the preceding year's levels.

The major buyers of discount Treasury bills were primary dealers and financial institutions during the year. Their combined share exceeded 89% for 3-month Treasury bills, and remained at an average level of 97% for the other two discount T-bills. Corporations and household investors purchased high volumes at 3-month T-bill auctions. Institutional investors' share also rose strongly at the auctions of 6-month and 12-month bills in the fourth quarter.

Retail securities represented a share of 16% in the total issued amount of government securities, which is close to the share reached in the same period of 1998. The first quarter's major sales growth stopped because the level of retail security interest rates fell substantially, triggered by an over 2 percentage point decrease in the yields of discount Treasury bills (used as a benchmark) in the period from December through February. Investors' demand renewed in the second half of the year, boosting the sales of Interest-Bearing Treasury Bills to HUF 200.6 billion and that of Treasury Savings Bills to HUF 252.4 billion to the end of December.

Branch network of the Hungarian State Treasury

In 1999, the sales effected by the branch network in the primary market amounted to HUF 126 billion at face value, that is 4.7% of the total gross sales of HUF government securities. The net sales reached almost HUF 16 billion, which is 2.3% of the total net market sales. This way, **the Treasury's network actively contributed to meeting the net financing requirement**. The amount of securities held on clients' accounts was almost HUF 150 billion in 1999. The increase in clients' accounts outpaced the sales growth because many investors opened accounts at the Treasury's branches that they considered being safer. This dynamic growth is primarily due to the popularity of government securities tailored to household investors' needs (Interest-Bearing Treasury Bills and Treasury Savings Bonds).

Concentration at government securities auctions

The concentration at the auctions of both bonds and discount Treasury bills definitely **improved (i.e. became lower)** in the second half of the year as compared to the first half. The main reason was that primary dealers' obligation to buy government securities issued through auctions in each half year was increased from 2% to 3%. This obligation encourages smaller dealers as well to be more actively involved in trading and thus reduces the overwhelming dominance of major dealers.

The concentration was lower at the auctions of government bonds in the second half of the year. The concentration for the entire period was 8.95 that is lower than the 10.21 of the first half. **The five dealers purchasing the biggest volumes bought 56% of the total volume offered for sale.**

The average number of dealers purchasing bonds at each individual auction was 11 to 12. That number was 12 at the auctions of 2, 3 and 5-year bonds, and somewhat lower (8-9) at the auctions of 10-year and 5-year floating rate bonds. It means that 2-year and 3-year bonds declined in this respect as compared to the first half of the year, while the number of actively buying dealers remained more or less unchanged at the auctions of all the other maturities.

Similarly to that of bonds, the concentration at the auctions of discount Treasury bills was lower in the second half of the year. Second half concentration fell to 10.16% from 12.02% in the first half. **The five dealers purchasing the biggest volumes bought 61% of the total volume offered for sale.**

The concentration was more or less the same (14%) at the auctions of 3-month and 6-month discount treasury bills. The volume of 12-month bills offered was sale was more evenly distributed (concentration: 11.6%).

The number of dealers buying 12-month bills was 14 to 15 per auction, while that number was 12 to 13 at the auctions of 3-month and 6-month bills. This is an increase for 3-month Treasury bills and a decrease for 6-month bills.

Demand at government bond auctions (cover)

For the most part of the year (especially at the beginning and at the end), there was a **high demand** for government securities, accompanied by **declining yields**. This is also shown by the fact that the highest oversubscription (over 6 times higher than the available volume) in 1999 occurred at the first auction of the new 10-year bond and the December auction of the 5-year floating rate bond. In January and February, the amount of bids submitted to bond auctions exceeded the demand for discount Treasury bills. Both types of securities attracted record bid levels, mainly due to foreign investors' optimism at the beginning of the year.

There was a 3.5-4 times oversubscription for the new two-year and five-year government bond series offered for sale at the end of January. These bonds were sold with yields 90 and, respectively, 230 basis points lower as compared to their preceding auctions.

The demand for 3-year and 10-year bonds was 2.5 times higher than the available volume at these securities' auction in mid February. Their yields were 150 and 90 basis points lower, respectively. The cover of the index-linked bond was 1.

In line with an improving budget position, **lower volumes** were offered for sale at the auctions held at the **end of February and in March**. The amount of submitted bids decreased, and the yields of bonds sold were 1 percentage point **higher** than at the preceding auctions. The demand for Treasury bills had already strengthened by then.

Despite a strong demand at auctions, yields kept increasing in the period of April through June, showing the cautiousness of investors. The interest rate cut by the central bank in April negatively influenced investors' high yield expectations for a short time in that period. The two-year and five-year government bond series that were sold on April 22 attracted a demand for volumes 2.8 and, respectively, 1.9 times higher than the actually available volume. These series were sold with yields 118 and, respectively, 196 basis points lower than at their preceding auctions.

From July the Issuer reduced the amount of government bonds that were offered for sale at auctions. Consequently, the demand for the three-year fixed-rate bond series and five-year floating rate bond series auctioned on July 1 was 2.2 and 2.8 times higher, respectively, than the volume offered for sale. The demand for two-year and five-year bonds was less strong (1.6 times) at the auction of July 15. The strong demand, however, was accompanied by investors' lower yield expectations that were supported by the central bank's rate cut as well.

The three-year and ten-year government bond series were auctioned on July 29 and the former was 2.1 times oversubscribed so it was sold at a yield level somewhat lower than at its preceding auction. Insurance companies purchased ten-year bonds for 5 billion forint at a pre-determined yield level (9.56%) through primary dealers at the auction *that fit into the auction calendar but was unique because of its special terms*. The Issuer accepted bids for an additional HUF 250 million in excess of the HUF 5 billion at yield levels being in line with secondary market yields.

At their auction on August 12, two-year and five-year bonds were 1.9 and 1.7 times oversubscribed at yields higher than at the preceding auction. This tendency continued in September. In spite of a substantial demand in the primary market (there was a more than double oversubscription, except for ten-year bonds) the yield levels of government securities did not decline.

The initial yield decline in October and then the drop in December were good indications of the huge demand for government securities. A difference of as much as 100 basis points could be observed between the average yields that generated at two consecutive auctions of the same government bond. The highest growth in demand occurred at the auctions of government bonds that were available to foreign investors as well. The volume of five-year and ten-year bonds remained the same but they attracted an increasing number of bids. The subscriptions for two-year and three-year government securities were two or three times oversubscribed.

3. Debt stock

In 1999 **the central government gross debt increased by HUF 720.6 billion,** which corresponds to a **12% rise** compared with the end of the preceding year**.** The HUF debt grew by HUF 616.6 billion and the foreign currency debt rose by HUF 104 billion as compared to the end of 1998.

Change in the HUF debt

In 1999, the **net value of government securities issued in the HUF market totalled HUF 691.1 billion**, of which discount Treasury bills represented HUF 136.6 billion, i.e. 20% of the net issued amount, other interest-bearing Treasury bills represented 14%, namely HUF 97.8 billion, and government bonds accounted for HUF 456.7 billion corresponding to 66%[4].

The **net issue of bonds rose by 23%** compared to the same period in 1998. Due to a change in household investors' behavior, namely that bank instruments became temporarily more popular in the second quarter, the net issue of interest-bearing type Treasury bills was slightly down (by 7%) on 1998 levels. The net issue of discount Treasury bills has grown, but **the burden of deficit financing still remains on government bonds for the most part.** The increase in the net sales of bonds is due to the issuer's intention to increase the share of bonds in order to lengthen the average term-to-maturity of the debt stock. Plans for 2000 rely even more heavily on bonds in financing (the target is almost four-fifths of the net issue).

Loans in an amount of HUF 72.5 billion were repaid to the National Bank of Hungary in 1999. The redemption and prepayments of government securities totaled HUF 20.4 billion of which HUF 8 billion was paid from privatization proceeds.

Pursuant to the Budget Act, a loan of HUF 21.2 billion was taken over from the Road Fund with effect as of January 1, 1999. Out of that amount HUF 3.4 billion was repaid until year-end.

Change in the foreign currency debt

The most important event of 1999 concerning foreign currency debt management was that **the Government Debt Management Agency, acting on behalf of the Republic of Hungary, raises foreign funds directly from the international capital markets.** These funds are used for renewing the country's foreign currency debt. The direct issue has made

[4] The government securities that have matured but have not been redeemed represented HUF 0.6 billion in the total outstanding stock of HUF government securities.

it possible for the Agency to manage quickly and effectively the foreign currency composition of the debt for which it is responsible.

In 1999, bonds were sold in foreign countries and syndicated borrowings were effected on six occasions, with 4 types of bonds offered for sale.

- Firstly, 10-year fixed-rate Hungarian government bonds worth EUR 500 million were sold on February 16.
- The purchase price of the second issue, namely 7-year fixed-rate global bonds worth USD 500 million, was received on the value date April 19.
- In response to a decline in yield pick-ups and an increasing demand for global bonds in the secondary market, the issue was increased by USD 250 million on May 10.
- The countervalue of five-year fixed rate bonds worth EUR 500 million were reimbursed on June 21.
- A syndicated loan agreement was signed on September 10, 1999. The Republic of Hungary raised a loan of EUR 400 million (the originally planned amount of EUR 300 million had been increased by EUR 100 million due to oversubscription) from the creditor banks for a period of 5 years at a rate of Euribor plus 0.375%.
- The purchase price of 6-year floating rate Hungarian government bonds worth EUR 400 million was paid on the value date November 10, 1999. In response to the substantial demand for these bonds that pay a coupon of Euribor plus 0.5% on a quarterly basis, the Issuer increased the originally planned issue amount of EUR 300 million by another 100 million.

The above three issues in Euro are in line with Hungary's efforts to have a yield curve as full as possible in the European market by the time that Hungary will have gained accession to the EU and later to the EMU. It does not mean, however, that the Republic of Hungary targets the Eurozone markets only. Investors in U.S. dollars and Japanese yens are also considered important target groups. Although no Hungarian securities were issued in the Japanese yen market in 1999 because of the situation in the Japanese market, the global bonds denominated in USD clearly show these intentions of the Government Debt Management Agency.

As a result of these activities, which included the issue of government bonds primarily, and the exchange rate revaluation of bonds the **debt that was embodied by government securities denominated in foreign currencies** rose by **HUF 543.0 billion** to HUF 586.8 billion. The amount of foreign currency securities issued by the government in 1999 exceeded the amount of maturing foreign currency debt because of the foreign currency prepayments made in 1999.

By the end of 1999, **the foreign exchange debt to NBH**, including the swap operations as well, decreased **by HUF 549.8** to HUF **1568.4** billion as a result of the prepayments on the one hand, and the cross rate changes and devaluation of the Hungarian currency on the other. In the course of the year, some loan elements of this debt were prepaid either partly or in full in a total amount of HUF 611 billion. The sources used for renewing loan elements were accounted for as another category, namely foreign currency government securities.

The direct foreign debt of the central government comprises loans drawn from international financial organisations primarily. This debt **increased by HUF 110.8 billion** in 1999. This increase is mainly due to the borrowing of almost HUF 100 billion in September. The remaining part of the debt increase was caused by repayments and borrowings (both items calculated at daily transaction exchange rate) during the three quarters, and also to the combined effects of the quarterly exchange rate loss and cross rate movements.

4. Secondary market tendencies

Based on the data supplied by **primary dealers**, the members of the system reported a **secondary market turnover of HUF 21,909 billion (88 billion/day) in 1999.** That is almost one and a half time higher than the turnover in 1998.

Compared to the preceding year, the sales of **government bonds** were up 3 percentage points to **74 percent** of the total sales. In 1999, government securities to which primary dealers were obliged to quote prices had a share of 75 percent in the total turnover.

Similarly to 1998, primary dealers effected **49% of their secondary market transactions** (at market prices) **with credit institutions**. The share of institutional investors grew from 18% in last year to 24%. Considering the total secondary market trading handled by primary dealers the percentage of deals with foreign investors was 5.4% as against 7.3% in 1998.

The **average trade size** of primary dealers' transactions rose to **HUF 213 million** (excluding retail trading) as compared to last year's 191 million. Again, transactions with foreign investors and credit institutions represented the highest amounts with an average of HUF 368 and 353 million, respectively.

Based on the KELER statistics, **the turnover of government securities transactions settled through the KELER OTC system totalled HUF 8,412 billion** in 1999, 80% of which were government bonds. **The stock exchange turnover of government securities amounted to 9,067 billion** (duplicated), that is 32% higher than in 1998. The share of government bonds in the total turnover of government securities was 72%. The share of government securities in the total turnover of the Budapest Stock Exchange was 57%.

Government securities' yield movements

Just like in 1998, **deficit financing was accompanied by a decline in interest rates** (declining yields from the investors' point of view) to April 1999. Secondary market yields of government securities reached their bottom by the beginning of 1999. By that time, foreign investors made a distinction between the individual emerging markets and their special features – a distinction these investors had tended to ignore during the crisis in Russia, regardless of the countries' respective macroeconomic performance.

Consequently, the risk premium applied to Hungarian issues was reduced. The decline in risk premium, together with improving inflation prospects, caused benchmark rates to decrease. The trend of declining yields came to a halt in February and then, starting May 7, yield movements underwent a substantial change. Triggered by the unfavorable current account figures in March, the yield levels for all maturities began to rise, with the highest increase recorded for 5-year and 10-year securities. Interrupted only by a short decline in early July (due to the interest rate measures of FED and a favorable CPI in July), the upward trend of longer terms and the downward movement of shorter ones lasted until end September. The upward movement turned round in October. The decline was due to the optimism concerning the macroeconomic figures of October, the stability of the Hungarian currency within the band, and the positive reception of the new series of two-year government bonds. Subsequently, the steadily falling yields reflected an undiminished optimism – on behalf of foreign investors primarily. The feeling of optimism grew further as the anxiety caused by the Y2K problem subsided. The investors' confidence was well reflected in a substantial drop in expected yield premium levels.

Based on the yield movements of government securities, the first quarter of 1999 may be divided into two easily separable periods. The ***first period*** started in January and ended in mid February. During that period, the general atmosphere was optimistic (feeling of a 'new beginning' because of the start of the new year) in the domestic money and capital markets. Such optimism was reflected in a decline in the average yields of bonds and Treasury bills sold at auctions. Yields of maturity terms below 1 year (in the case of discount Treasury bills) declined by 40 basis points, and by 84-233 basis points for maturity terms over a year (government bonds). The transitional fluctuation of yields that was triggered by the Brasilian crisis could break off the downward trend of yields for a short period only. Risk premium rose again for some time, but the new crisis passed off faster than the crisis in Russia. There was a more than six times higher demand than the issued volume of the new 10-year government bond at the auction on January 14, showing foreign investors' higher inclination to buy. The favorable inflation figures announced in the meantime gave rise to expectations that the pace of devaluation and interest rates would be reduced. As a result of these positive expectations the demand for government securities boomed. **At an auction of bonds on February 11, yields reached their rock bottom.** The announcement of the single-digit annual inflation rate in January also contributed to the downward trend.

A significant shift took place in the middle of February, with yields rising for all maturity terms of government securities. The increase in the rates of auction yields were in proportion to the length of maturity, namely it was 30-96 basis points for discount Treasury bills, and 109-242 basis points for government bonds. The rise in yields in the ***second period*** is traceable to three main reasons. Presumably, the selling mood associated with high *profit taking* in the government securities market was one of these reasons. The effects of that selling wave were felt in a gradual decrease of the government securities stock held by foreign investors. Secondly, the *current account figures published in December* made investors more cautious. Thirdly, the net amount issued in the market in February may also have contributed to the higher yields by providing a substantially bigger supply as compared to the preceding months. Yields were on the increase until the bond auction of February 25 after which the yields became stable.

In March, investors' uncertainty grew because of the war situation in Kosovo and the air bombing that had started in the meantime. This situation had a negative impact on the government securities market. The average yield of three-year bonds sold at the auction of March 11 was 27 basis points higher than the preceding day's secondary market yield, showing that the downward yield movement that had been going on for two weeks by then finally reversed. The upward trend of yields lasted until the bond auction of March 25 where the average yields were generally 15 to 17 basis points lower than the preceding day's secondary market yields. The yield level became stable after the auctions, and the increase in the yields of five-year securities, which had been substantial, was followed by a drop of almost 30 basis points.

Yields declined in April, largely due to the two rate cuts by the National Bank (on April 9 and 28) and the announcement that the pace of crawling peg's monthly devaluation will be reduced.

The government securities market was overcome with a feeling of optimism in the first week of May. The rate cut by the central bank in the preceding month resulted in a decrease of 10 basis points in the yields for maturities below 1 year, and a decrease of 10 to 30 basis points in the yields of longer terms. Yields began to increase after the current account figures of March had been made public on May 7, and the upward trend lasted until the end of the month.

The yields of discount Treasury bills declined in the first two weeks of June. Meanwhile, the earlier tendencies of government bonds continued, especially in the case of the three-year and ten-year bonds auctioned at the beginning of the month. On June 11, favorable inflation figures were published for May and the central bank reduced its overnight and two-week rates by 25 basis points. After the inflation figures were announced, the yields of government securities dropped by 4-10 basis points, and those of discount Treasury bills fell by 7-8 basis points. As a result of the rate increase by FED on June 30, all terms of maturity experienced a yield increase of 3 to 15 basis points on the last day of the month.

The yields of government securities dropped all along the yield curve. Three-year securities saw the highest drop (100 basis points) and ten-year papers the lowest (17 basis points). Thanks to the favorable inflation figures that were published on July 13, the central bank reduced its overnight and two-week rates by 25 basis points. However, this measure did not have a major impact on the yield movement.

Following the above events, the yields of short and long securities were converging until the end of September. While the yields of auctioned discount Treasury bills fell by almost 37-54 basis points, the yields of two-year, three-year and five-year government bonds rose by 6, 8 and 92 basis points, respectively. The yield expectations, which can be captured from the auction results, were well reflected in the development of benchmark yields in the secondary market. Only the yields at the auction in the second half of July were down on their previous month levels because the effects of the favorable deficit position and July inflation rate were felt at that time.

The yields of short and long government securities came very close to each other by September. It was because two-year and three-year yields were already on the decline along with the yields of securities below 1 year (discount Treasury bills), while the yields over 5 years (government bonds) were increasing. This led to the flattening of the curve.

The tendencies that started from the middle of October onward were the opposite of the preceding period's trends. Yields were on the decline while the demand was rising steadily at the auctions of government securities. The rate of decline was higher (147 to 255 basis points) for longer terms of maturity, thus arresting the flattening of the negatively sloping yield curve. This illustrates the recovery of investors' expectations on declining yields. Meanwhile, the central bank cut by 25 basis points its overnight and two-week rates on November 4 (on the same day when the ECB increased its rates by 50 bps) and on December 17. However, these cuts did not have a notable effect on market rates. Instead, the increasingly positive foreign views on the Hungarian economy and thus the Hungarian money and capital markets induced the downward movement of yields. The downward trend was further supported by the disappearance of anxiety concerning the Y2K problem, and also the pegging of the forint to the euro exclusively as of January 1, 2000, because the euro rates that were lower than the dollar ones became the benchmark for assessing the exchange risk of the HUF.

Development of Hungarian Government Securities Indeces

The number of indeces showing the development of prices in the government securities market grew to 3 in 1999. Government securities shorter than 1 year were given an index called 'RMAX'. Thus the **MAX Composite** index that covers the entire market could also be set up. Its annual yield was 17.72% in 1999.

However, it is still the MAX, the index of the prices government securities longer than 1 year, that shows the most precisely foreign investors' inclination to buy (foreign investors have a decisive role in influencing yields in the government securities market). The effects of price development in 1999 were felt in longer maturities (government bonds). The revaluation of the MAX in a one-year time horizon (which is closer to institutional investors planning horizon) shows a gradual decline until early August and then an abrupt growth to the end of September. The declining period of the index return relates to the fact that the prices of longer government securities were decreasing i.e. an upward movement of yields dominated at that point. The direction of this trend changed at the end of September only but the annual return of the index had started to rise suddenly even before that (in August). It was because one could buy government bonds at low prices (and achieve high yields) a year earlier due to the crisis in Russia. In November/December, this return stabilized at 18-19% as a result of a steady decline in yields.

The index indicated **an annual return[5] of 23.44% on January 4, 1999**, 25.11% on February 4 (the highest percentage in the period under review), 16.02% on August 4 (lowest return), 20.48% on September 30, and 18.64% on December 29.

The RMAX index reflecting the price changes of government securities shorter than a year, had smaller fluctuations in its annual return than that of the MAX, which derive from a more substantial price-influencing effects of yields longer than a year and thus a higher volatility. Nevertheless, those who had bought government securities at the auction of 1-year discount Treasury bills at the beginning of the year had to put up with a yield 1.3 percentage point lower in 1999 than those who modified their short term protfolio according to the yield fluctuations during the year (buying the composition shown by the RMAX: 16.42%) on a continuous basis.

[5] The annual return show the change in value that may be achieved by investing in a government securities portfolio that corresponds to the MAX index a year ago.