

# REPORT ON FINANCIAL STABILITY

JUNE 2004



**REPORT ON  
FINANCIAL STABILITY**

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*The Act on the Magyar Nemzeti Bank lays down the basic tasks of the central bank, which include promoting the stability of the financial system. A fundamental requirement for maintaining and promoting financial stability is that the parties involved have access to a wide range of information on the financial system as a whole, its competitive environment, and the narrower and broader conditions for its operation. The Magyar Nemzeti Bank's main objective with the publication of this semi-annual 'Report on Financial Stability' is to meet this requirement, harmonising with the practice of other central banks. Other important objectives of the Bank are to inform the professional public regarding the state of the country's financial intermediary system and to provide assessments of the sector's stability in the light of important domestic and international developments.*

*In the Report, the Bank seeks to publish the latest statistical data, widely used internationally, which describe the state and robustness of the financial system in a manner that enables comparison whenever possible. Furthermore, the Bank intends to provide comprehensive analyses of the position of the sectors participating in financial intermediation or influencing its stability, in addition to evaluating macroeconomic developments. In view of the fact that, as a small, open country, Hungary is closely integrated into the international flows of goods and capital, the Report gives separate coverage of global cyclical and monetary developments relevant to financial stability.*





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## OVERVIEW

### **High oil prices expose improving global economic activity to risks**

Mounting signs of a recovery in global business conditions have emerged over recent months. Indicators suggesting a rebound in economic growth have given cause for optimism mainly in the USA and Asia, unlike in Europe where rising exports have been the only bright spot. The European economic upturn has not yet become broad-based, as consumption demand growth is lagging behind the required pace, and European government budgets, struggling with high deficits, are unable to compensate for this. Consequently, the recovery in Europe remains fragile. Global economic activity is also exposed to risks, such as high oil prices, the US government and current account deficits and disequilibrium in exchange rates between the major currency areas, particularly between the dollar, the euro and Asian currencies.

### **Anticipated reversal of the US interest rate cycle and the related decline in risk appetite carry risks to emerging markets**

Demand for high-risk securities was strong in international financial markets last year, and risk premia on emerging-country sovereign debt remained low up until April 2004. Historically low interest rates in developed countries have led international investors to seek higher yields in emerging markets. Emerging-country risk assessments have also improved, explained by greater economic policy discipline and rating agencies upgrading their sovereign risk ratings for a number of major emerging countries. However, the trend of interest rate premia on emerging-country sovereign debts has been upwards since April. The underlying reason for this is the fact that, in market participants' assessment, the positive US unemployment data released in April convinced the US Federal Reserve that the fledgling economic recovery in the USA stands on a solid base. For this reason, markets have revised their expectations related to the start of the US interest rate cycle from December to late summer or, perhaps, early summer. With higher interest rates, developed-country markets may already be more attractive for investors, who therefore require higher yields on emerging-country debt securities with greater risks. As a consequence, the costs of external financing may rise in less developed countries, which in turn may lead to lower capital flows into the region.

### **Slower convergence to monetary union in Central and Eastern Europe has reduced investor confidence**

International investors had reservations about the core countries of Central and Eastern Europe even before the rise in risk premia at end-April. Based on expectations of early entry into ERM II and later into monetary union, they maintained a favourable view of the region in 2002 H2. However, last year this positive assessment was gradually replaced by the possibility of a slower, less certain convergence path. It is now expected that the region will likely join monetary union at a later date, due mainly to rising government deficits in Poland, the Czech Republic and Hungary.

### **Interest rate changes by the Magyar Nemzeti Bank reflected the significant deterioration in Hungary's risk assessment at end-2003 and subsequent slow improvement from spring 2004**

Developments on Hungary's financial market were dominated by dwindling investor confidence owing to deteriorating economic indicators in the period from 2003 H2 to the end of the year. However, investors' expectations began to stabilise in February–March 2004. Growing confidence was buttressed by external equilibrium data being revised upwards from the preliminary release, as well as a slowdown in household consumption expenditure growth and a shift towards growth driven by exports and investment. In the wake of these developments, foreign investors grew less concerned about future economic developments possibly lead-

ing to financial instability over the short term. Fluctuations in investor confidence were also reflected by the interest rate decisions taken by the Magyar Nemzeti Bank. On 28 November 2003, the Bank was only able to prevent further erosion of investor confidence by a surprise 3% increase in interest rates. However, the Bank reduced its key interest rate by a total 1 percentage point in a series of three steps between end-March and early May, in response to the improvement in investor sentiment.

**Improvement in investors' assessment is fragile, but short-term risks have declined**

Improving investor confidence has been seen throughout the global economy, and does not necessarily reflect expectations related to the outlook for the Hungarian economy in particular. Investors' assessments of Hungary's prospects over the medium and long term have barely changed. The improvement in future prospects in the financial markets has so far been confined to short maturities, as reflected by movements in the forint exchange rate, expected future volatility and expectations implied by government securities yields. The relatively high level of expected real interest rates and the decline in the average maturity of government securities held by foreign investors also provide evidence that this improvement does not represent a complete turnaround.

**Pattern of growth likely to be more favourable in 2004**

Economic growth has been gathering momentum in Hungary since early 2003. Salient increases in household consumption and housing investment were the primary sources of growth on the demand side in 2003, although the rate of fixed investment growth in manufacturing also accelerated considerably in the second half. In 2004, however, household consumption is likely to approach its long-term sustainable level, and the rate of housing investment growth is expected to slow gradually towards the end of the year. Corporate investment is likely to be the fastest growing component in 2004, in line with rising demand for Hungarian goods exports. With the slowdown in household and government expenditure, Hungary's external equilibrium may also improve, even though this is likely to be a slow process. From a financial stability perspective, a question deserving special mention is whether or not the increase in investment activity will turn out to be excessive in the light of actual demand.

**Market participants appear to consider the rise in inflation in 2004 a temporary episode**

Market participants' inflation expectations currently do not reflect the transitory nature of rising inflation triggered by increases in indirect taxes early in the year. This may result in inflationary pressure. If the repeated upturn in inflation proved to be a one-off event, which took the market by surprise, and participants set their prices and wages anticipating a sustained rise in inflation, then, when the one-off effects of the taxation changes tapered off and inflation slowed down, they would be faced with a loss of market share. If many participants had such incorrect expectations, financial stability could be jeopardised. And although corporate surveys show that most managers believe that the reversal in the disinflation process will be transient, their inflation expectations continue to be surrounded by some degree of uncertainty.

**The unsustainable level of current account deficit continues to be a major factor of risk**

Since 2002, the burgeoning general government deficit and households' declining financing capacity have been the major causes of Hungary's rising current account deficit, rather than corporate sector investment to enhance productivity. This process is unlikely to be sustainable over the long run, due to the rapidly growing indebtedness of households and general government, and it carries substantial risks to stability as well.

**Investor confidence can only strengthen if external equilibrium improves steadily**

Over the coming years, it is highly likely that the external financing requirement-to-GDP ratio and the financing pattern of deficit will fall, due to a gradual decline in general government deficit and an increase in household net financial savings. This process implies declining risks to stability arising from external imbalance. However, based on the experience of past years, the likelihood of corporate investment rising more strongly than expected cannot be neglected, which in turn may

halt or even reverse the steady decline in the current account deficit according to the current forecast. Due to the high starting level of deficit, this may send a negative signal to foreign investors and exacerbate risks to stability, even if the structure of financing improves.

**Financial intermediation deepens at a fast pace**

In contrast to earlier years, the depth of financial intermediation grew quickly in the Hungarian banking system in 2003, explained by the rapid expansion of domestic banks' balance sheet total and outstanding loans, in excess of the rate of economic growth. The combination of several factors caused this increase in the balance sheet total. First, outstanding borrowings by the private sector rose significantly. Second, refinancing among banks, linked to mortgage lending, soared, accompanied by purchases of mortgage bonds issued by credit institutions. However, the exchange rate effect may also have played a role in the increase in the balance sheet total, in addition to the rising volume of transactions.

**Large firms' borrowing requirement increased**

Domestic banks' loans outstanding to non-financial corporations were more than 20% higher at end-2003 than a year earlier. The larger part of this strong outturn was ascribable to the rising borrowing requirement of large firms more sensitive to external business conditions and a smaller part to SMEs more sensitive reactions to fluctuations in domestic demand. Within project financing, real estate loans continued to rise at a brisk pace. The business trend reversal in manufacturing and the related higher borrowing requirement significantly altered the maturity and denominational profile of banks' loans outstanding to the corporate sector. Due mainly to investment in capacity building, long-term loans rose spectacularly, in contrast with working capital loans which increased only modestly.

**Massive financing of property purchases is a potential source of risk**

The substantial increase in manufacturing firms' borrowing requirement is likely to continue this year, driven by the rise in external demand and the associated pick-up in output growth. However, the services sector's demand for financing is expected to slow, on account of weakening domestic consumption and deteriorating earnings prospects. The supply of loans to both sectors and particularly to SMEs may rise, due to higher risk-taking stemming from increasing competition. Assessments of the risks facing non-financial corporations are unlikely to deteriorate this year. Banks' higher risk-taking due to their exposure to SMEs and the growing likelihood of bankruptcies amongst services sector companies which are sensitive to fluctuations in domestic demand are likely to be offset by higher manufacturing profitability and an improvement in the credit quality of the competitive sectors. From a system stability point of view, only massive financing of property purchases is judged to be a significant source of risk.

**Outstanding amount of housing loans doubled**

As in the previous year, lending for house purchases dominated the household loan market in 2003, reflecting a strong increase in household capital expenditures. Due to the prospective tightening of the conditions on subsidised housing loans announced by the Government for early summer and year-end 2003, the total amount of banks' outstanding housing loans nearly doubled during the year. This was almost entirely accounted for by subsidised loans, which practically crowded out market-priced products. In addition to massive borrowing for house purchases, there was a considerable increase in consumer credit.

**Household net financing capacity is expected to improve slowly**

Real income growth is likely to slow down considerably in 2004, as a combined effect of a turnaround in government and corporate sector wage policies and expectations of more modest increase in manufacturing wage growth. The rate of consumption growth may lose pace significantly, while capital expenditure will probably slow only slightly. Accordingly, household net financing capacity is expected to increase slowly, but steadily.

The explosive rise in outstanding borrowings over the past three years has reduced Hungary's lag behind Western Europe in the area of household indebtedness,

which, coupled with a deteriorating outlook for households, may lead to more modest increases in outstanding debt in the future. The tightening of conditions for subsidised housing loans and high forint interest rates, which encourage financial savings, also suggest that indebtedness may increase at a more sluggish pace. Accordingly, lending to households is likely to grow at a considerably lower rate in 2004.

**Foreign currency-based lending facilities may lead to increased risks**

Nevertheless, foreign currency-based loans may increase as a proportion of the total, due to the substantial gap between interest rates on forint and foreign currency-based loans, which, in turn, may add to risks. Debtors are generally unaware of the exchange rate risk arising from foreign currency-based loans to households and its potential effect of considerably increasing the amount to be repaid.

**Banking sector capitalisation is stable**

Despite the decline in capital adequacy ratios, domestic banks continue to be adequately capitalised; however, the recent increase in the number and market share of large banks with CAR below 10% is an alarming sign in terms of system stability. Including the 10 largest entities, the banking sector's ability to tolerate stress deteriorated last year. Nevertheless, due to the improvement in portfolio quality, the net value of non-performing loans as a proportion of the adjusted balance sheet total and the dispersion of the ratio both were significantly lower than one year earlier. This is seen as a positive accompanying feature of the process. The increase in regulatory capital may become an effective hurdle to higher risk taking for banks playing a dominant role in terms of systemic risk.

**Record profits, improving cost efficiency indicators**

In 2003, the Hungarian banking sector registered record-setting financial results: after-tax profits, at HUF 176 billion, were nearly 40% higher than in the base period. The extremely sharp increase in subsidised loans for house purchase, which generated significant additional interest income and, to a smaller extent, commission income for banks, played a key role in the improvement in banks' profitability. But despite the much stronger increase in interest income relative to the previous year, the shift towards non-interest income within total income continued. That was attributable mainly to the strong rise in commission income and a jump in dividend income from banks' subsidiaries and other affiliated companies. The increase in the sector's operating costs, although considerable in real terms, was dwarfed by the increases in income and the balance sheet total. As a result, the sector's cost efficiency indicators improved further. Nevertheless, measured by the ratio of operating costs to the balance sheet total, cost efficiency continued to be very low in international comparison.

**Strong earnings potential**

After the excellent outturn for profitability in the previous year, Hungarian banks' profits are expected to grow at a slower rate in 2004. One of the main factors behind this slowdown may be the anticipated decline in profits on housing loans, caused by a drop in the growth rate and average margin of loans. Data on financial results for 2004 Q1 appear to underline expectations of a slower increase in profitability, but still indicate that banks have retained their strong earnings potential.

**Savings co-operatives' capital adequacy ratio is expected to fall**

Savings co-operatives' capital adequacy ratio declined in 2003, as during the year there was a significant shift in the sector's activity towards higher-risk customers. In 2004, the capital adequacy ratio of OTIVA members is expected to further decline, the reason for this being that savings co-operatives began to increase their ownership interests in their respective prime banks. Even so, acquisitions of majority stakes by member savings co-operatives in their respective prime banks can be considered as a reasonable process and as one of the important steps to be taken in order that international best practice may be readopted. In order to increase stability, close integration and a system of cross-guarantees, also based on the ownership of the relevant prime bank, should be in place. Last year, the Government's changing approach to subsidised housing loans strongly influenced the widening

gap between the activities and performance of savings co-operatives and the banking sector in terms of the growth rate of housing loans, portfolio quality and profitability.

**Mounting risks, deteriorating portfolio quality**

Within non-bank financial intermediation, financial enterprises' activity grew at a robust pace in 2003. In particular, bank-owned enterprises stepped up their lending and leasing activities strongly. This meant that an increasingly higher share of banks' credit risks was realised at financial enterprises. The increase in risks was associated with a deterioration in credit quality. This calls for the assessment of banks' risks on a consolidated basis.

**The role of institutional investors in collecting savings increased**

While banks continued to dominate the domestic financial intermediary system, the role of institutional investors in collecting savings increased further in 2003. Low-risk assets, such as government bonds, treasury bills, mortgage bonds and bank deposits, make up the bulk of all institutional investors' total holdings, while corporate shares and bonds, carrying higher risks, continue to account for a small share.

For the time being, risk transfer between banks and insurers, considered by international financial institutions to be highly important and therefore recommended to be monitored on an ongoing basis, is not characteristic at all in Hungary.

**KELER is eligible for use in Eurosystem credit operations**

In conducting their credit operations, central banks use the services of securities settlement systems (generally central depositories). In 1998, as part of the preparations for adopting the euro, the national central banks of the Eurosystem defined the standards which a securities settlement system must meet in order to be suitable for participating in Eurosystem credit operations, that is, to carry the lowest risk for national central banks using the system. Last year, prior to joining the EU, the securities settlement systems operating in the 10 candidate countries, including Hungary's KELER, were assessed. According to the findings of the report issued on the assessment, KELER is eligible for use in Eurosystem credit operations. However, the report laid down a number of recommendations for consideration during work to develop the system and define tasks prior to the adoption of the euro.

**Households expose banks to considerably higher credit risks**

The most recent developments in the housing loan market have directed the attention of both banks and households towards foreign currency-based loan facilities. Many debtors make their decision on the maximum amount of principal on the basis of interest rates and exchange rates prevailing at the time of borrowing. The likelihood of an increase in the instalment amount is not insignificant. As a consequence, the banking sector's credit risk measures may increase substantially in the case of a credit boom. If, due to competition or other factors (for example, inexperience), banks fail to adequately take account of the additional risks related to foreign currency lending in establishing their prices and other conditions for lending, the risks to stability may increase.

**Senior loan officer opinion poll**

In spring 2003, the Magyar Nemzeti Bank launched its 'Senior Loan Officer Opinion Survey on Bank Lending Practices' (or the 'Lending Survey' in short), a questionnaire-based poll aimed at better understanding banks' lending behaviour. The survey, conducted regularly, contains questions focussing on the non-price factors of credit supply and on other factors influencing the developments in those factors. The responses to the questionnaire may provide important additional information about the stability of the financial sector and the cyclicity of lending. With the survey, the MNB also intends to provide a service to the banking sector, helping market participants to better understand processes and to position their own banks in the market.

**According to empirical analyses, the interest rate level in developed**

Given the small size of Hungary's economy and the very high degree of openness of its capital market, foreign interest rates, mainly EUR and USD, and global risk perception influence domestic financial markets to a considerable degree. A group

**countries influences the demand for financial assets of emerging countries. The upturn in developed-country interest rate cycles, expected in the near term, is likely to raise risk premia**

of international investors currently classifies Hungary in the emerging market category. In addition to country-specific factors, common global factors may also influence the demand of developed-country investors for high-risk assets, including forint-denominated government bonds. Lending particular importance to our analysis, the amount of capital flows into emerging-country debt instruments in 2003 was unprecedented since 1998, and was associated with a significant decline in risk premia on government bonds. The major finding of the analysis is that, with the approaching turnaround in interest rate cycles in developed markets, emerging-market risk premia are likely to increase. However, the size of this anticipated increase is surrounded by uncertainties – it will largely depend on the extent to which investors in assets of emerging markets will be surprised by rises in developed-country interest rates. Foreign investors' appetite for foreign currency-denominated Hungarian government bonds is likely to be affected less by the increase in risk premia. However, in the context of a decline in global appetite for risks, there may be a downturn in foreign demand for forint-denominated government bonds, carrying broadly similar risks as emerging-country government bonds.

**The wage share is lower in Hungary than the EU average. However, the indicator has increased dynamically since 2000, presumably exceeding the level corresponding to the current state of economic development**

Our analysis examines developments in the wage share in Hungary. First, we take an overview of the factors determining the wage share from a theoretical perspective. Second, we analyse the extent to which those theoretical factors may explain developments in the Hungarian wage share in recent years and its difference from developed-country ratios. According to the findings of our empirical test, the Hungarian wage share has been lower than the EU average since the mid-1990s. This may be explained by a number of theoretical factors, such as the relative underdevelopment of the domestic economy, the structural transformation of the economy during the political transition and the flexibility of the Hungarian labour market. However, the period after 2000 has witnessed a rapid catch-up of the Hungarian wage share, considered to be the consequence of the slow adjustment by the corporate sector to the disinflation environment and by government measures, such as the increases in the minimum wage. In addition, transient effects, such as the appreciation of the nominal exchange rate, deterioration in the country's terms of trade and cyclical fluctuations in corporate profitability, may also play a role. Although technological development implies that the domestic wage share will converge with EU levels over the longer term, since 2000 it has been rising faster than its equilibrium increase. Theoretically, the difference between the equilibrium and the actual wage share can be interpreted as a competitiveness indicator; however, quantifying it would be beyond the scope of this paper, due to the absence of a structural model. Rather, we emphasise that at the aggregate level derived from the observed measure of the wage share it is difficult to determine the extent to which changes in the indicator are caused by technological development or reflect the influences of other transient factors.

**Debt management strategy has greatly contributed in recent years to reducing the exchange rate and interest rate risks carried by the Hungarian government debt**

As a result of the debt management strategy pursued in recent years, the share of foreign currency debt within general government debt has fallen significantly and that of long-term fixed-income forint-denominated bonds has increased rapidly. In consequence, the exchange rate and interest rate risks of debt have fallen, financing risks remaining unchanged, despite the reduction in the importance of foreign currency financing suitable for developing a longer-term debt portfolio but carrying significant exchange rate risk. Risks related to debt, such as the shorter average remaining maturity of domestic currency-denominated debt relative to that in developed countries, the renewed rise in the debt-to-GDP ratio, and the high gross borrowing requirement, may be ascribed to factors other than those related to debt management: high inflation and the high general government deficit.

# **1 MACROECONOMIC INDICATORS**





## 1.1 THE GLOBAL BUSINESS CYCLE AND RISK PERCEPTION

### 1.1.1 THE GLOBAL BUSINESS CYCLE

Since the publication of our previous Report six months ago, the recovery in global economic activity has slowly been gaining strength. Signs of an upswing in economic activity are more clear-cut in the United States and Asia, and somewhat more moderate and contradictory in the European Union. Growth in the new EU entrants from Central and Eastern Europe has been more robust than in Western European countries.

**Table 1-1**

#### Global and regional growth rates

	2002	2003	2004*		2005*
			Sept. 2003.	April 2004.	April 2004.
Global economy	3.0	3.0	4.1	4.6	4.4
USA	2.2	3.1	3.9	4.6	3.9
Euro area	0.9	0.4	1.9	1.7	2.3
CEECs	4.4	4.5	4.1	4.5	4.4

\* Forecast.

Source: IMF: *World Economic Outlook* (September 2003, April 2004).

The upsurge in economic activity in the USA has been clearly reflected by a constant stream of data. Inflation expectations remained subdued, which enabled the Fed to be, to quote the FOMC's statement, 'patient' in its response to the data showing vigorous activity. However, it was only in April that doubts about the sustainability of the present recovery started to vanish, as the delay in a marked growth in job creation was longer than that seen at the same stage of earlier recoveries (with the labour market only picking up April). In the assessment of the Fed and the analysts, confirmation came at the end of April, at which time the Chairman of the Fed then began to carefully prepare the financial markets for the end of the Fed's policy of accommodation and the start of a cycle of rising interest rates. According to analysts, the Fed may raise interest rates for the first time as early as this summer, more specifically, in June or August. Most analysts expect the first rise to be a small one; nevertheless, if necessitated

by data published in the meantime, the possibility of a more dramatic response cannot be ruled out.

In the European Union, recovery is still lagging behind, mainly due to the problems of some the major European economies such as Germany. In recent months there have been a number of announcements by research institutes that the German recovery had finally got underway. But these were soon followed almost every time by forecasts pointing in the opposite direction, often published by the very same institute. At the end of April, the official growth forecast for Germany, on which the German budget is based, was revised down for 2004, and hence it is now in line with the assessment of research institutes. In the EU and in Germany in particular, external demand components are gaining strength, corporate finances are improving and investment is picking up. However, a permanent and broad-based recovery would require growth in domestic demand, and particularly household consumption, to keep pace with the upward movement of other demand components. Europe's major economies, however, show few signs of such developments. The situation is aggravated by the fact that with deficit ratios near or above 3%, fiscal policy can do little to stimulate the recovery.<sup>1</sup> An additional factor behind the weak consumer confidence is the fact that the required structural reforms may put jobs at risk and reduce social and other benefits in the short run, which in turn encourages households to build up precautionary savings. Another factor hampering stronger economic activity in Europe is the strong exchange rate of the euro against the US dollar and the Asian currencies, which may undermine the strength of the recovery in European exports.

Turning to Asia, growth in China and South East Asia remained brisk, while the Japanese economy has also shown clear signs of a recovery from a decade-long period of economic stagnation. These regions are among Europe's key export markets. At the same time, Asian producers are competing fiercely with their

<sup>1</sup> The so-called the Stability and Growth Pact requires EU Member States to keep their budget deficit below 3% of GDP. Countries breaching this requirement face sanctions, which (for EMU-participant countries) may ultimately take the form of a fine.

European counterparts in an increasingly broad range of goods and services.

There are, however, a number of risks threatening the global recovery in the short run. These include skyrocketing oil prices, global economic imbalances (such as the US budget and foreign trade deficits) and exchange rate misalignments between major currency blocks (USD, EUR and the Asian currencies).

### 1.1.2 INTERNATIONAL RISK PERCEPTION

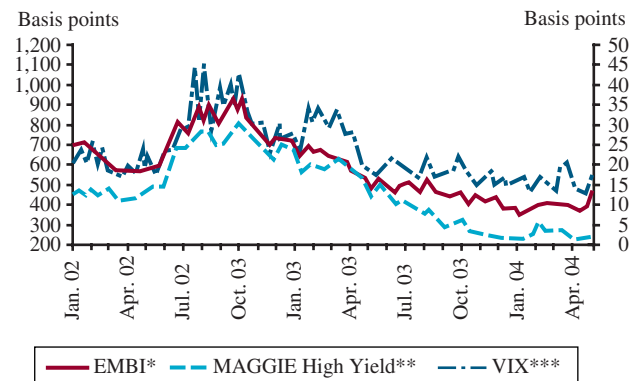
The current high level of global risk appetite is attributable to the very low interest rates in developed regions such as the US and the euro area. In the previous issue of this Report, Bank staff observed an increase in demand for securities carrying higher risk. Overall, this trend remained resilient between the publishing date of the Report's previous issue and April 2004, and was interrupted only for short periods by developments assessed by market participants as events marking the end of the period of low interest rates. One such event was a speech given by the Fed's Chairman in January, which was broadly interpreted as heralding the end of monetary policy accommodation in the near future. In response to the speech, interest rates went up briefly. Shortly thereafter, however, lower-than-expected employment data convinced the markets that the era of low interest rates was not yet over. These brief episodes illustrate the extent to which the present risk appetite may be attributed to low interest rates, and the rapid change that is likely to occur in the international investor sentiment on the back of rising interest rates in developed countries. The initial rises in risk indicators in April may already reflect the start of that tendency.

Investor sentiment improved in the international equities markets throughout the period – stock prices were well higher than past levels of corporate profitability, although they did tend to move in line with expected growth in corporate profitability. High stock prices helped companies (mainly in the US and in Europe) which had accumulated massive debt to put their finances back on a firm footing, which is an important pre-requisite for companies' capacity to increase investment in times of economic expansion. Compared with the US, the EU experienced this more favourable financial situation with some delay. Nevertheless, higher investment and output are clear indications of improvement in Europe as well. These positive developments were reflected in the low premia on corporate yields in developed economies.

The risk perception of emerging markets was also fairly positive, due to low interest rates in developed countries, improving indicators of macroeconomic stability in the less-developed countries themselves and higher credit ratings assigned to some large countries (Brazil,

Chart 1-1

### Global risk indicators



\* EMBI Global Composite: the interest premium index of sovereign and quasi sovereign issuers' dollar-denominated bonds as calculated by JP Morgan-Chase.

\*\* MAGGIE High Yield: the interest premium index (bp) of euro-denominated corporate, government and mortgage bonds as calculated by JP Morgan-Chase.

\*\*\* VIX: Implied volatility derived from options on the S&P500 indices.

Turkey and Russia). Up to April, the interest premium index of dollar-denominated bonds issued by less-developed countries (EMBI) was extremely low compared to the values it had shown in the past. In April, however, it started to pick up.

Initiated by the Fed at end-April, the first sign of the ongoing preparations for a cycle of higher interest rates was the fact that US and European bond yields, already on the rise since end-March, continued their upward trend. From the point of view of financial stability, critical months are ahead in both developed and less-developed countries. In the developed economies, especially in the US, the Fed is doing everything in its power to minimise the shock-like effect of the prospective raises in interest rates on market participants, particularly financial institutions and households. By contrast, less developed countries are likely to face the challenge of diminishing risk appetite, and adjustment to the financing conditions of higher foreign yields and to a slowdown or even reversal of capital inflows.

### 1.1.3 REGIONAL RISK PERCEPTION

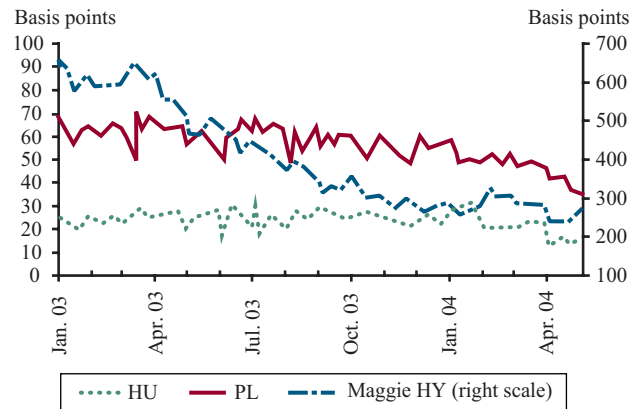
In contrast to the global increase in risk appetite, investors have continued to have concerns about our region in the past six months. This attitude is all the more worrying since in the past acceding CEECs seemed to distinguish themselves positively from emerging markets. Some 18 months ago, i.e. in autumn 2002, investor confidence in the region was extremely high, perhaps too high. Since then markets have lost confidence in an early entry into ERM II and the euro area, and the risks associated with the region have been exacerbated by weakening macroeconomic (particularly fiscal) indicators. Developments in Poland are

a particular cause for concern, since there is no political support for the required fiscal adjustment in that country. In response to the growing risks associated with the budget and the exchange rate, Standard and Poor's downgraded the rating of Poland's general government debt denominated in domestic and foreign currencies to negative. Then, on 5 May, Fitch revised down its rating of Polish debt issued in local currency. Following the Prime Minister's earlier announcement of his resignation, Poland needs to form a new government, which is likely to be a fairly long process. Therefore, the possibility of financial contagion from Poland to the rest of the region in the near future should not be taken lightly.

Premia on foreign currency denominated Hungarian bonds, which reflect country risk, remained broadly stable throughout the reference period. From February to March, increased risk premia on forint-denominated assets were not reflected in the premia on FX bonds, which suggests that instead of losing confidence in the Government's solvency, investors assigned higher risk to the forint exchange rate. From January on, premia on foreign currency debt dropped somewhat, which was a regional or even global devel-

**Chart 1-2**

**Polish and Hungarian sovereign euro bond yield premia and the Maggie High Yield risk indicator**



opment. This is reflected by the fact that the fall in the Maggie indicator, which shows high-risk euro bond rates, was similar to that of Hungarian and Polish euro bond yield premia. In February, the credit rating institute Fitch announced that it would not to revise its negative forecast for Hungary's outstanding (forint and foreign currency) debt.

## 1.2 DOMESTIC FINANCIAL MARKETS

The period between the second half of 2003 and early-May 2004 can be divided into two distinct parts – (i) the period up to the end of the year was characterised by worsening macroeconomic indicators and increasingly uncertain investor sentiment, both of which were caused by external and internal imbalances, (ii) from February and March, expectations started to consolidate and the likelihood of short-term financial instability in the Hungarian economy diminished.

During the first half of this period, i.e. until about January, market participants displayed considerable uncertainty. As regards macroeconomic indicators, the higher-than-expected increase in the budget deficit, which had been revised several times, raised doubts about the credibility of the Government's economic policy. Balance of payments data showed a deterioration in external equilibrium position until early February, following which revised data, painting a better picture of balance of payments developments, were released. For the market it was not entirely clear how households' saving position in 2003 would improve by the tightening of the subsidised house purchase scheme at end-2003. Further uncertainty was caused by the fact that, as a secondary effect, rising inflation, which was triggered by the announced VAT rises, may be built into expectations as well as price and wage-setting. The main factors of uncertainty may be summed up as follows – it was unclear when the economic cycle would turn around. Based on the rapid rise in wages and consumption, and the consequent rise of the budget deficit, the cycle resulted in a deterioration of the external balance, and an increase in foreign and domestic debt. In addition to its consequences on the sustainability of growth, this also had a negative effect on financial stability, exerting waves of downward pressure on the forint. In response to the increasingly uncertain expectations in financial markets, the MNB raised its key policy rate by 3 percentage points to 12.5% on 28 November.

The negative assessment of the mid-term outlook for Hungary's domestic economy started to ease up in

February and March – revised data releases from early February showed that the external balance was better than the preliminary data had suggested, and, more specifically, that the current account deficit amounted to EUR 4.2 billion rather than EUR 4.6 billion. Data releases from 2004 Q1 also implied that growth in exports outstripped import growth. The slowdown in consumption expenditure growth also points to more favourable mid-term prospects. Growth in investment activity, industrial production and net exports will lead to a better output mix. Forecasts for foreign demand indicate an expansion in Hungary's export markets. Furthermore, market participants were not discouraged by the current account deficit published on 31 March, which was substantially higher than earlier data, the difference stemming from the methodological harmonisation of Hungary's balance of payments statistics with those of the EU. Although the deficit was higher than the earlier estimates, market participants were aware that reinvested earnings,<sup>2</sup> a financing item, had undergone similar changes and that the two items represented two sides of the same coin. In the light of the developments seen in recent months, there seems to be a fair likelihood that the economy will return to a path on which it is driven by exports and investment, and domestic savings are sufficient to slowly stabilise the external and internal balance, supported by capital inflows of a sustainable type and level. This contributes to sustainable development and provides an adequate macroeconomic framework for financial stability. These positive changes enabled the Bank to lower its key policy rate by 0.25 percentage points each at end-March and at end-April, and by a further 0.50 percentage points on 4 May.

On the financial markets, there are tangible signs of the improving assessment, yet these only reflect a slightly better short-term macroeconomic outlook. However, it is important to note that some of this has nothing to do with a better assessment of Hungary's economic performance as merely it reflects favourable global developments. In other words, the improvement of Hungary's assessment does not in

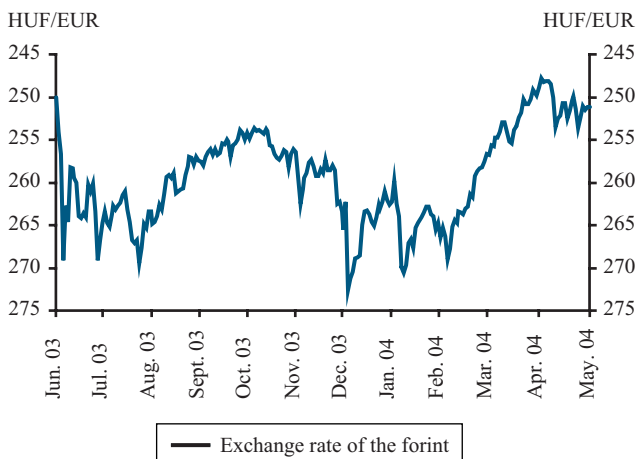
<sup>2</sup> The MNB has released a number of publications on the new balance of payments methodology. See *Report on Financial Stability, December 2003*, *Quarterly Report on Inflation, November 2003* and *May 2004*. The changes did not result in an additional financing requirement; instead, some of the existing financing items were reclassified to ensure international comparability.

itself constitute a dramatic turning point, and gloomier sentiment could easily re-emerge. This view is based on the fact that the longer-term outlook has not improved – it is still substantially worse than in 2003 H1. Expectations of Hungary's accession to ERM II and subsequently the euro area point to a later date than previously projected, and as a result, market analysts expect a slower convergence process and a less ambitious economic policy. These changes also affect the assessment of Hungary's economy from a financial stability perspective. The mere fact that the new path sets more realistic targets makes it more credible than the old one, and thus it will better influence expectations. At the same time, any delay in Hungary's entry into the euro area involves a longer exposure to risks stemming from international capital flows, financial contagion, which are often unrelated to economic fundamentals. Credibility of the economic policy plays a crucial role in determining which of the two (from the point of view of expectations) opposing tendencies will gain the upper hand in the coming months and years.

### 1.2.1 EXCHANGE RATE AND YIELD DEVELOPMENTS

**Chart 1-3**

#### The exchange rate of the forint

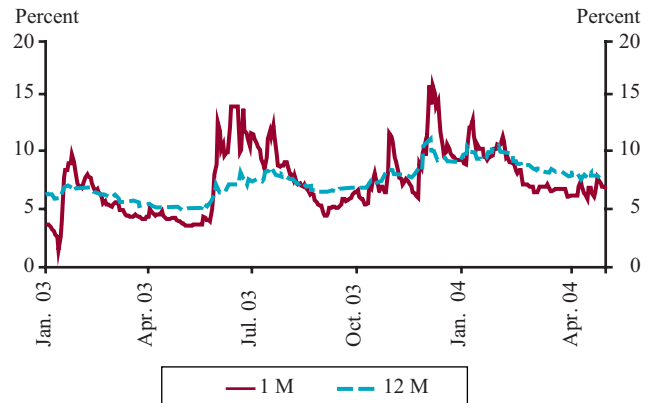


The exchange rate of the forint against the euro has been highly volatile since the publication of the previous Report. In November, there were several short episodes of the forint moving down into the HUF 270 range (or even lower), whereas from February on it assumed a sharply rising path up to around HUF 250. From November to January, the forint exchange rate was influenced by the view of several market participants arguing that the only way Hungary's external balance can be restored is via a far weaker exchange rate than seen in earlier periods. Accordingly, the uncer-

tainty of the exchange rate increased, which was reflected in the higher implied volatility of the forint.

**Chart 1-4**

#### Implied volatilities of the forint\*



\* The implied volatility derived from HUF/EUR foreign exchange options plots the markets' uncertainty about future exchange rates.

During the months when the economic assessment was unfavourable, yields on forint-denominated assets were on the rise, while the exchange rate weakened and its volatility increased. In November, the MNB raised the interest rate by 3 percentage points, which was higher than what the market had expected and gave a further impetus to yields which were already on the rise. As a result, three-month, one-year and ten-year benchmark yields moved up by 200, 100 and around 50 basis points, respectively. The increase in yields with a maturity of 1–2 years suggested that markets regarded the decline in risk perception as a temporary episode, and expected interest rates to remain high over the medium term. Furthermore, the shift in the forward yield curve implied that future three-month interest rates showed a marked increase in 1–2 years. Market expectations were quite splintered. Analysts attributed the higher yields to the higher probability of a path characterised by a more depreciated, or (relative to expectations) a more slowly appreciating exchange rate, which raised interest rate expectations.

Changes in the assessment of macroeconomic developments can be clearly seen in the strengthening of the forint from February onwards. Those expecting a more pronounced exchange rate adjustment quieted down. With publication of the government's Convergence Program the new economic policy and the macroeconomic path became public.<sup>3</sup> Despite this, some market participants still had reservations as to the path the economy was likely to take in the near future. The outlook for inflation was also uncertain, even though the likelihood of a more favourable path increased in the first few months of 2004.

<sup>3</sup> For details, see: <http://www.p-m.hu/>

**Chart 1-5**

**Three-month forward rates for spot transactions, one year and five years ahead**



Source: MNB.

February also saw the improvement of the negative market sentiment start to manifest itself in yields. In the period up to April, yields declined depending on maturity. The greatest decrease was seen at the one-year maturity (150 basis points), yet maturities up to five years also fell considerably, dropping by at least 60 basis points. This was facilitated by the fact that on both 22 March and 5 April the MNB cut its key policy rate, by 0.25 percentage points each time, and by an additional 0.5 percentage points on 3 May. The factors behind the decline in yields were the same as the external and domestic factors underlying the strengthening of the exchange rate: short-term and mid-term uncertainties surrounding the macroeconomic path have declined, and, consequently, there seems to be less need for a more dramatic adjustment. Yields on maturities of at least five years did not follow the movements of the shorter maturity segment, with present levels being higher than those associated with yields before 2003, when a more rapid accession process was assumed.

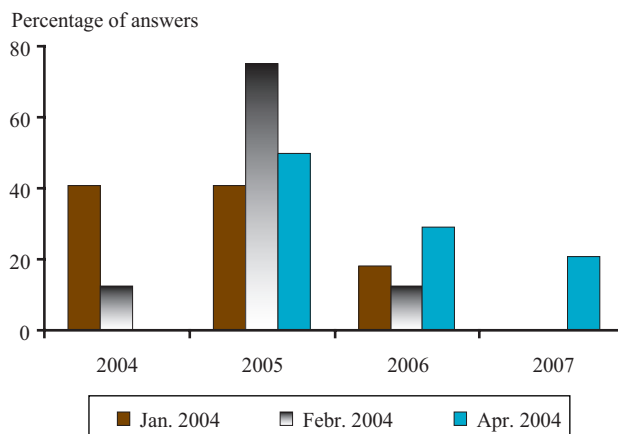
The exchange rate of the forint was also affected by the changes in the global economic environment. In February and March, the global increase in risk appetite may have contributed to the strengthening of the forint. Similarly, the halt, and even slight correction in April, in the strengthening of the forint may be interpreted as a sign of the changing risk appetite, since expectations of rising interest rates started to gain support in the US at that point. Similarly to the strengthening of the forint exchange rate, the fall in forint-denominated yields may not be entirely attributed to an improvement of economic fundamentals: this decline also reflects global developments. Given the lower global risk appetite and the US dollar's entry into a rising cycle, the fall in forint-denominated yields may slow down, or even halt, even if country-specific fundamentals remain sound.

**1.2.2 EXPECTATIONS ABOUT HUNGARY'S PARTICIPATION IN ERM II AND THE EURO AREA**

The exchange rate has recently been strongly influenced by expectations related to the timetable for Hungary's accession to ERM II and the euro area, and to the exchange rates set at the date of entry. Since the publication of our previous Report expectations about the accession timetable have been shifted further off into the future and consequently this influence has diminished. The fact that the Government missed its fiscal target for 2003 and, according to Reuters' polls, its announcement that it would review its strategy for EMU entry led to the expected postponement of EMU accession. Whereas in November 2003 Reuters' polls suggested 2009 as the most likely date, in April 2004 an almost equal number of respondents believed that 2010 may be just as likely. Shortly thereafter Hungary's expected ERM II entry date was also postponed, as the majority of analysts speculated for a while that the postponement of EMU entry would not affect Hungary's accession to the common exchange rate mechanism. The most probable date of entry into ERM II was 2004–2006 at a central parity of HUF/EUR 250–260. In April, however, following announcements both by the Government and the MNB, the date of ERM II entry was postponed by one year, i.e. to 2005–2007.

**Chart 1-6**

**Distribution of expected ERM II entry dates**



Somewhat paradoxically, postponement of the expected date of ERM II entry strengthened the exchange rate and may also help explain why the implied volatility of the forint did not decrease at longer maturities. The majority of analysts expected accession to ERM II and EMU to take place at an exchange rate lower than the market rate. This is reflected by analysts' expectations about the exchange rate, which failed to strengthen over the longer horizon: they expect it to be firmly around HUF/EUR 253. In addition, they have not revised their expectations for the central parity, set at the time of ERM II entry, from

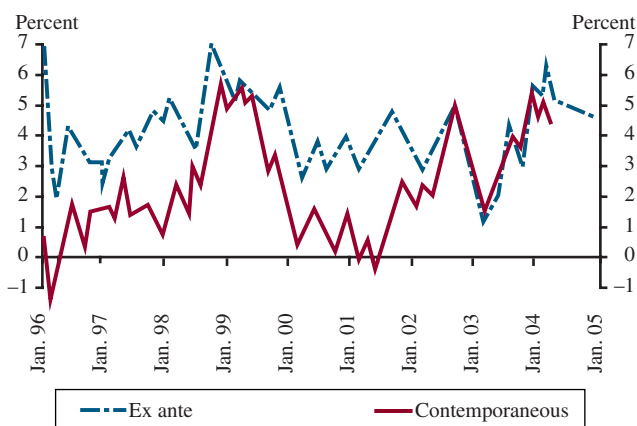
the January level of 265 HUF/EUR. Postponement of entry into ERM II and EMU may partly explain the rise in yields until February, which was reflected both in the growing spread on forward yields derived from the euro yield curve, and in Reuters' polls about the possible dates of entry. However, despite the drop in short term yields, which had started in February, the forward yield spread against the euro yield curve at longer maturities remained high, foreshadowing a delay in the convergence process. Reuters' polls paint a similar picture: an increasing number of analysts do not rule out even the possibility of an entry as late as 2010. Adopted and published by the government in mid-May, the convergence programme sets out 2010 as a target date for EMU entry, yet it leaves 2009 as an alternative, assuming a constellation of favourable conditions. These dates are consistent with the expectations outlined above. Accordingly, the announcement did not come as a surprise.

### 1.2.3 REAL INTEREST RATES

Throughout the period up to January, real interest rates calculated using ex ante inflation were at around 5% and remained broadly flat despite the MNB's rate cuts. The reason behind that is that looking ahead to 2005, market participants expect inflation to moderate once the effect of the rise in indirect taxation has tapered off. Real interest rates tend to go up as a result of high risk premia. Market participants expect real interest rates to fall somewhat until end-2004. The current rate is higher than the 4% seen in recent years, yet not unprece-

Chart 1-7

#### Monetary conditions: the real interest rate



\* Monthly averages of one-year government bond yields deflated by 12-month inflation and Reuters' one-year ex ante inflation consensus (year-end values, derived from expectations for average inflation by using interpolations). Expectations for January 2005 were calculated using Reuters' inflation consensus on one-year yields.

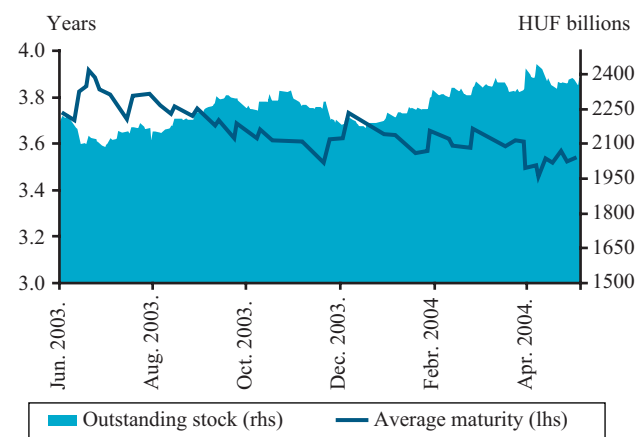
ded. Recently, there have been periods of high real interest rates in the Hungarian economy, yet they did not pose a serious risk to financial stability. Therefore, despite the high level of the current real rates, we do not envisage such risks.

### 1.2.4 FOREIGN DEMAND FOR GOVERNMENT SECURITIES

Foreign demand for government securities has played a major role in meeting the external financing requirement of the Hungarian economy. Whereas the current account deficit followed an upward trend until end-2003, net direct investment – which played a key role in recent years – contributed little to financing the deficit. Through to end-March, average maturities on the holdings of government securities held by non-residents shortened. This is another sign of some investors' uncertainty concerning the longer-term outlook for the Hungarian economy.

Chart 1-8

#### Outstanding stock and average maturity of non-residents' government securities holdings

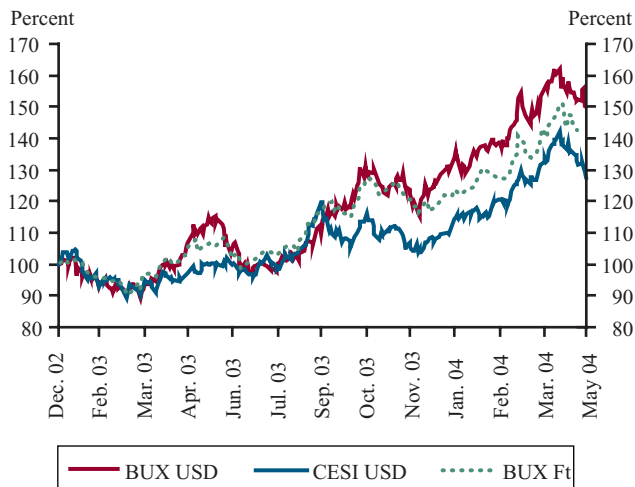


### 1.2.5 EQUITIES MARKET

The Hungarian stock exchange has done remarkably well since the summer of 2003. In April 2004, the forint-denominated index value (the BUX index) was roughly 25%–30% higher than at the end of the summer in 2003. The performance of the Hungarian stock exchange has followed international trends: throughout the period, equities markets generally picked up in North-America and Europe, including the Central and Eastern European region. The combined performance of stock markets in the latter group of countries is tracked by the CESI index.

Chart 1-9

**Central European Stock Indices, 31 December 2001 = 100%**



Source: Reuters.

Growing risk appetite, low bond yields and improvements in corporate balance sheets, all of which were referred to in the introductory section, helped boost stock prices in all of the major regions. Gradual improvement in the growth outlook over recent months continued to reinforce demand for equities. Another sign of stock market optimism was that, unlike earlier corporate scandals, the Parmalat crisis in Italy left stock exchanges unscathed.

Hungarian listed companies also reported improving profitability data, in some cases beyond expectations, which against the backdrop of a positive global environment helped to set apart the assessment of the stock exchange from that of Hungary's overall macroeconomic situation.



## 1.3 GROWTH AND INFLATION

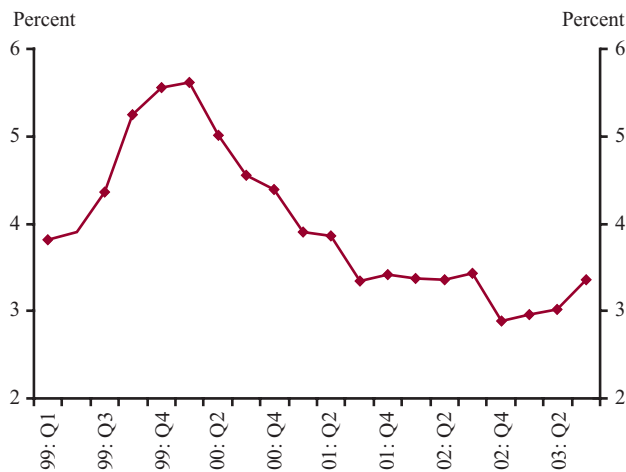
### 1.3.1 PROSPECTS FOR GROWTH

GDP growth was characterised by a continuous pick-up in 2003, due mainly to robust household consumption and strengthening corporate investment in 2003 H2. This section reviews the risks these developments and their prospective path pose to stability.

**Chart 1-10**

#### Quarterly GDP growth

(Percentage changes on a year earlier)



**Table 1-2**

#### Quarterly GDP growth

(Quarter-on-quarter percentage changes)

	Actual			Projection*	
	2001	2002	2003	2004	2005
Household consumption	5.9	9.3	6.5	2.1	1.1
Public consumption	5.3	4.8	1.9	0.8	1.5
Gross fixed capital formation	5.0	8.0	3.0	9.2	3.2
Domestic absorption	1.9	5.4	5.5	3.4	1.9
Exports	7.8	3.7	7.2	10.8	9.2
Imports	5.1	6.2	10.3	10.3	7.1
<b>GDP</b>	<b>3.8</b>	<b>3.5</b>	<b>2.9</b>	<b>3.4</b>	<b>3.4</b>

\* See *Quarterly Report on Inflation, May 2004*.

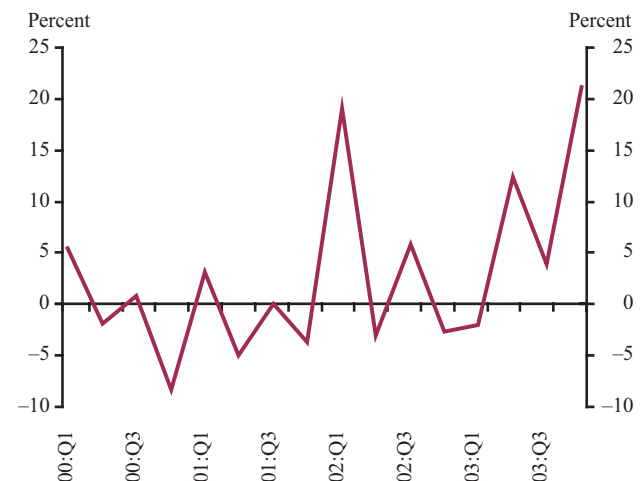
There was a decline in the growth rate of household consumption in 2003, though this may still be regard-

ed as substantial compared with outturns in earlier years. By contrast, household investment increased at a consistently high rate as a result of the retrenchment of the housing subsidy scheme. Corporate investment picked up in 2003 H2. Available information suggests that this upswing was borne by manufacturing activity.<sup>4</sup> Overall domestic fixed investment grew at a relatively low rate in 2003, explained by the Government's massive curtailment of fixed investment spending. We expect a marked slowdown in household real income and consumption in 2004, and as regards investment, no decline is projected over the medium term. Concerning corporate investment, we project more sustained activity in conjunction with the economic recovery.

**Chart 1-11**

#### Corporate investment

(Annualised quarterly growth rates)



Corporate investment has always been sensitive to any changes in the business cycle. Consequently, amidst the heightened investment activity recently, one may ask the question: What is the likelihood of a build-up in excess capacity in the manufacturing industries? Massive excess capacity and overestimated sales may confront companies with cash-flow problems, unless they are capable of producing the revenues they need

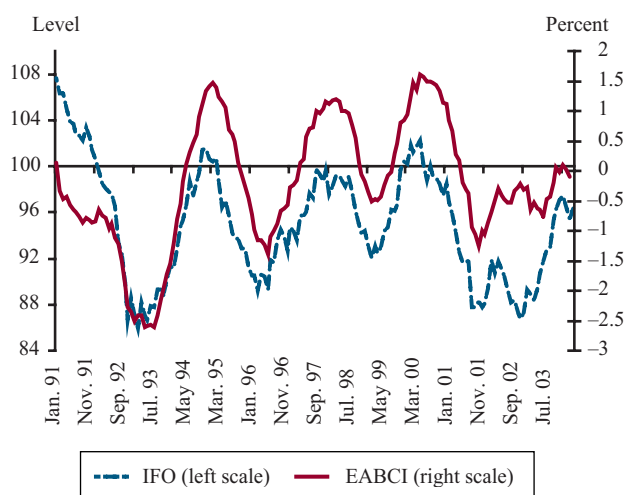
<sup>4</sup> For further details, see the section on economic activity in *Quarterly Report on Inflation, May 2004*.

to service their debt, provided that they rely on external resources to finance investment projects.

This question is particularly relevant as Europe's growth outlook has worsened in the last six months. Compared with earlier periods, the drop in business confidence indicators may not as yet be regarded as dramatic: the resulting levels are still close to what may be assessed as balanced expectations. However, it is worth mentioning that this decline in indicators is mainly due to more pessimistic future expectations. Nevertheless, despite the downturn in conjunctural expectations, the rapid rise in export sales continued into 2004 Q1, and this development mitigated the uncertainty in the assessment of corporate activity in Hungary. Similarly, the fact that capacity utilisation rose sharply in 2003 (consistent with the growing intensity of investment activity) points to lower risk.

Chart 1-12

## European business sentiment indicators



Household consumption behaviour seems to carry greater risk than corporate investment behaviour. Both 2001 and 2002 saw an unprecedented jump in household real income and consumption expenditures in Hungary. The slowdown in consumption growth was more perceptible in 2003, yet its growth rate of 7.6% was still high relative to earlier years. As a result of these factors, at end-2003 household propensity to consume was high even as compared with other developed European economies.<sup>5</sup> By contrast, household real income is unlikely to grow substantially in 2004, foreboding a slowdown in consumption growth. Data already available for 2004 suggests some moderation – liquid financial assets and motor vehicle sales<sup>6</sup> (both of which are good consumption indicators) were down, while the growth rate of retail sales fell sharply.

<sup>5</sup> For further details on consumption, see *Quarterly Report on Inflation, May 2004* (pp. 49-50).

<sup>6</sup> Seasonally adjusted data suggest that 2004 Q1 represented a break in the upward trend going back to early 2002. However, factors such as Hungary's EU accession, the uncertainty caused by the registration tax on cars and the low trading stocks may have also contributed to this development.

Chart 1-13

## Manufacturing export sales

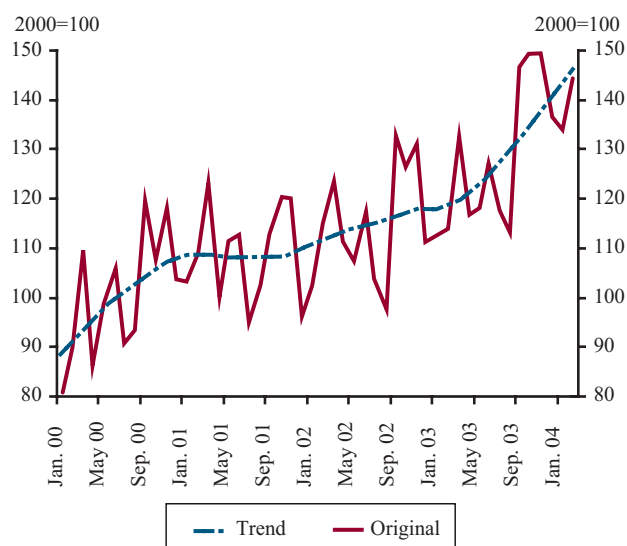


Table 1-3

## Household consumption, savings and fixed investment

(Annualised growth rates, per cent)

		Household real net income*	Real consumption expenditure	Real value of fixed capital formation
2002	Actual/Estimate	11.4	10.3	13.4
2003	Actual/Estimate	8.3	7.6	5-15
2004	Projection	1.5	2.7	5**
2005	Projection	2.5	1.3	-5**

\* Estimates of net real income are calculated as the sum of the net salary and social benefits in cash.

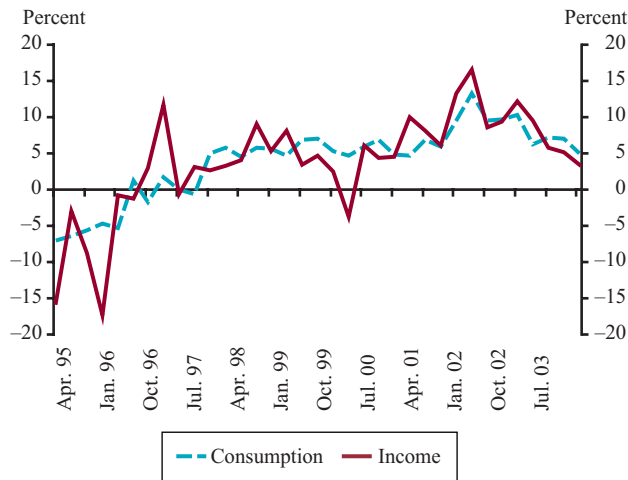
\*\* Fixed capital formation is highly uncertain. The figures in the table represent the mean value of the band constituting the central projection of the May 2004 issue of the MNB's Quarterly Report on Inflation (0%-10% for 2004, and (-10%)–0% for 2005).

Lower expectations of household income growth in 2004 should affect macroeconomic stability in a number of ways. The direct impact of the income-related developments described above will retard consumption growth. This has positive implications for stability, as it contributes to the improvement of households' saving position and ultimately to the reduction of Hungary's sizeable current account deficit. By contrast, household fixed capital formation was up sharply in 2003 (by 10% on average). In particular, growth in housing investment was rapid at end-2003. This was partly because some households brought forward their housing investment in anticipation of tighter regulations for the housing subsidy scheme, to be able to benefit from the subsidised loans before the rules were amended. Similarly to 2003,

Chart 1-14

### Household purchased consumption expenditure and real net income

(Seasonally adjusted, annualised quarter-on-quarter growth rates)

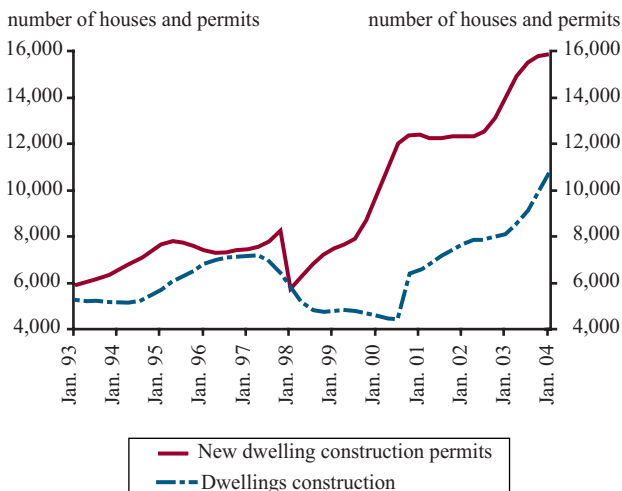


\* Estimates of net real income are calculated as the sum of net salary and social benefits in cash.

we expect household consumption to remain robust in 2004. This is corroborated by the fact that the number of housing permits issued far outweighed the number of completions in 2003. Against this background, household fixed capital formation is likely to remain high with financial positions exhibiting slower-than-expected improvement in 2004. Over the longer horizon, however, there are good reasons to be more optimistic – in 2003 Q4 and 2004 Q1, the rise in the number of housing permit issuances was less dramatic, which foreshadows a gradual moderation in housing investment from end-2004.

Chart 1-15

### Number of houses built and housing permits



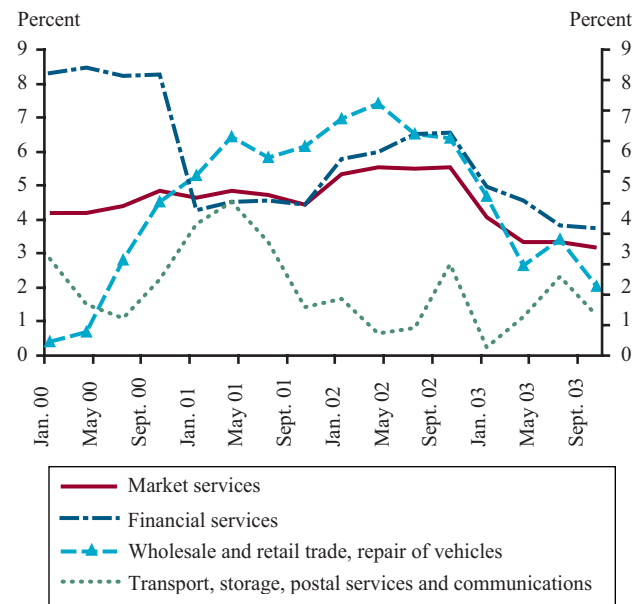
Only a slight improvement is expected in households' financial position in 2004, due to strong fixed capital formation which was determined by decisions taken when income levels were higher in recent years. Risks to financial stability would emerge if large numbers of debtors were unable to pay off their housing loans, because of their deteriorating income positions. That scenario would only occur if investment and consumption decisions are not consistent with the prospective development of income.

As households are likely to adjust to the worsening income position by cutting back consumption expenditure, this will improve economic balance and lower risks to stability. However, any sharp fall in consumption would also directly affect the profitability of certain sectors in the services industry, possibly also posing other risks to stability. In assessing developments in market services, we should bear in mind that, from a conjunctural point of view, these companies form a rather heterogeneous group.

Chart 1-16

### Growth rate of value-added in market services

(Changes on a year earlier)



Growth rates in value added suggest that amongst market services 'Trade and repairs' is most sensitive segment to domestic demand.<sup>7</sup> In this group of sectors the strongest increase in value added was recorded during periods of exceptional growth in household consumption in 2001–2002. By contrast, sensitivity to domestic economic activity in 'Financial services' is less obvious. The performance of large exporting companies is

<sup>7</sup> The greatest share was accounted for by financial services (some 50% in 2003), followed by trade, repairs (30%), and transport, storage, postal services and communication (19%).

probably a decisive factor in this group. Accordingly, during the 2001–2002 downturn in the international business cycle, the growth rate of value added was lower relative to earlier years. At the same time, there was a rebound as early as 2002, supported by an upsurge in lending to households. The strongest impact of the downturn in international business activity was felt in 'Transportation, storage, post, communications', which constitutes the least significant group in terms of value added. In consequence, despite the heterogeneity, it seems that consumption plays a key role in determining the performance of market services as a whole.

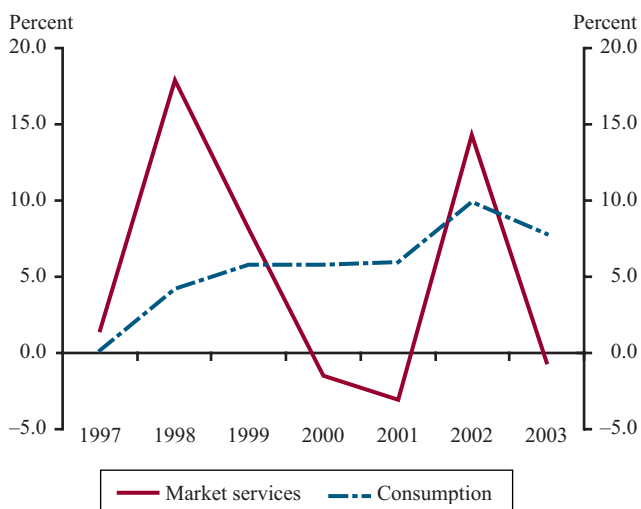
Therefore, it is worth examining to what extent a further deterioration in households' income expectations may pose further risks to stability. If households cut their consumption expenditure too drastically because of the poor outlook in terms of income developments, service sector profitability may drop, resulting losses on investment projects started during the period of brisk consumption growth. Further risks to stability are carried by prospective developments in unemployment, since an unexpected rise in unemployment further exacerbates the deterioration in prospective income. The MNB projects a modest, transient rise in unemployment in 2004, and thus we assess the risks to stability posed by unemployment as minor.

In other words, substantial risks to stability may only arise if service sector investment and employment decisions are based on earlier episodes of higher propensity to consume and unbroken robust consumption growth.

**Chart 1-17**

### Consumption expenditure and investment in market services

(Annual growth rates)



Growth in investment by market service providers was particularly strong in the years characterised by rising consumption growth. Previous episodes of steady con-

sumption growth have been accompanied with slackening service sector investment, as was seen in 2003, in a period of vigorous, but decelerating consumption relative to earlier years. This may reflect the fact that market service providers adjusted to the unexpected slowdown in consumption, and, were consequently reluctant to expand existing capacities. Thus, in this sector there are unlikely to be any major risks to stability related to past overinvesting.

### 1.3.2 INFLATION

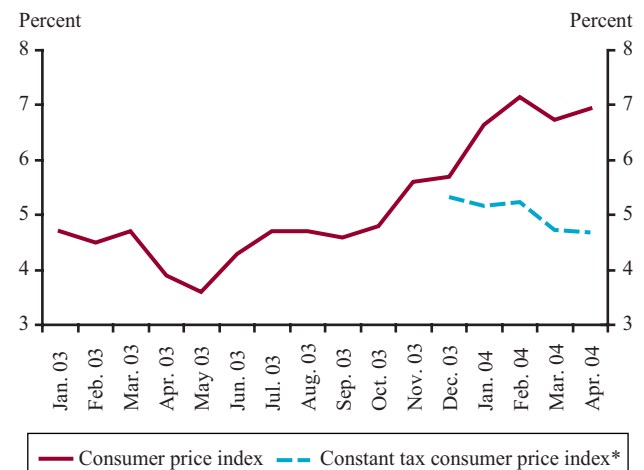
Generally speaking, moderate inflation poses few risks to stability. These risks are associated mostly with unanticipated inflation and tend to become acute when a turnaround in the inflation trend takes a considerable number of economic participants by surprise. The reason why the role of inflation in financial stability may be particularly relevant at this juncture is that, in the MNB's assessment, the rises in indirect taxes in 2004 led temporarily to higher inflation, interrupting the disinflationary trend observed in recent years. The extent to which economic participants regard this rise as a transient phenomenon is particularly important: in other words, once the effect of indirect taxes has subsided, how they will foresee an expected decline in inflation. Companies which fail to recognise this will be confronted with a loss of market share once the effect of inflation has tapered off.

Inflation has accelerated since the publication of our previous Report. The upturn in the second half of 2003 was a general phenomenon, with measures of both headline and core inflation increasing in this period. The rise to over 7% in the first few months of 2004 can be attributed to an increase in indirect taxes in early

**Chart 1-18**

### Developments in the total consumer price index and the constant tax price index

(Percentage changes on a year earlier)



\* The so-called Constant Tax Index (CTI) published by the CSO.

2004; this is clearly reflected over the first four months of 2004 by the slight drop in a core inflation indicator which eliminates the effect of the tax increase.

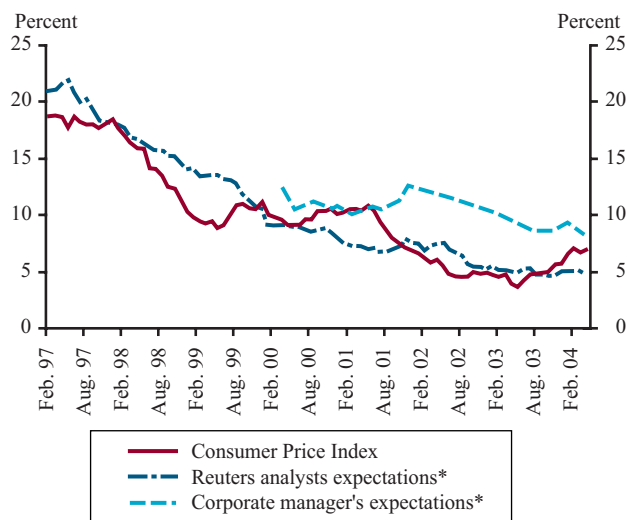
With regard to the remainder of 2004, the MNB expects a transient rise in inflation followed by a fall in the second half of the year. The MNB staff's central projection is that once the effect of the tax increase in 2005 has passed, inflation will revert to its original trend of below 5%. However, unfavourable inflation developments in 2004 pose some risks to inflation expectations and foreshadow higher uncertainty. Two questions of interest are the following – (i) to what extent can higher inflation be regarded by economic participants as an unanticipated phenomenon; and (ii) how likely are they to assess the surprise event as a long-term rise in inflation.

Based on forecasts from a year earlier, the rise in inflation in 2003 H2 was unexpected by professional macroeconomic forecasters as well as corporate managers. This was a typical case of surprise inflation, the extent of which, however, was too small to raise any concerns about financial stability.

Analyst expectations gathered from Reuters' polls closely followed the trend of actual inflation from end-2001 to summer 2003. However, 2003 Q4 inflation was higher than their expectations a year earlier. Nevertheless, the latest data suggest that the margin of error (below 2%) is too small to pose any risk to stability; moreover, in the past it took some time before analyst expectations adjusted to actual inflation. By contrast, corporate managers' inflation forecast errors were systematic. Their expectations have always been far higher than actual inflation, and as a result of the high-

**Chart 1-19**

**Actual inflation and expected inflation a year earlier**

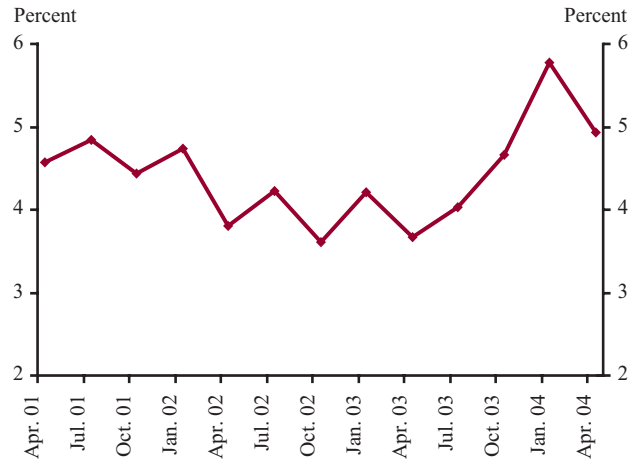


\* Inflation expectations for the period from a year earlier.

er actual data for 2003, the outturns were even closer to their expectations of 8%–9%.

**Chart 1-20**

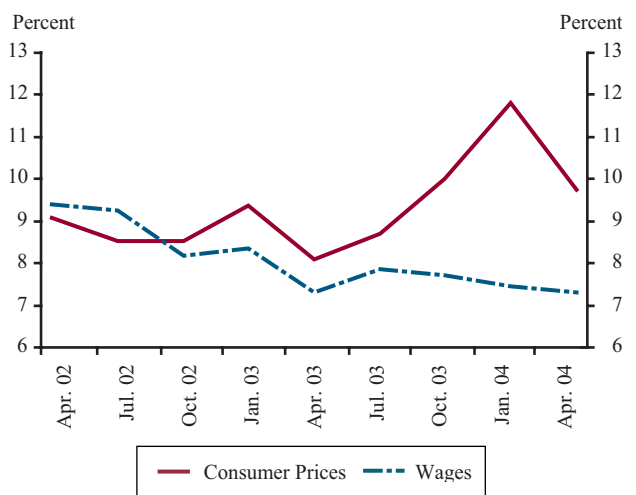
**Corporate managers expectations' standard deviation in the TÁRKI survey**



From a stability point of view, some interesting conclusions can be drawn from the distribution of expectations. The distribution of corporate managers' expectations increased in 2003 H2 in conjunction with a rise in inflation, reflecting the growing uncertainty of expectations. Since the surveys are conducted with a different set of respondents each time, this change may of course be partly explained by composition effects. However, the fact that after a longer period of disinflation, the distribution started to increase in the past six months implies the growing uncertainty in expectations. On the positive side, the uncertainty in expectations as well as average uncertainty fell in 2004 Q1: this may suggest that corporate managers do not necessarily think that the temporary uptick in inflation –

**Chart 1-21**

**Inflation and wage expectations 12 months ahead in the TÁRKI survey**

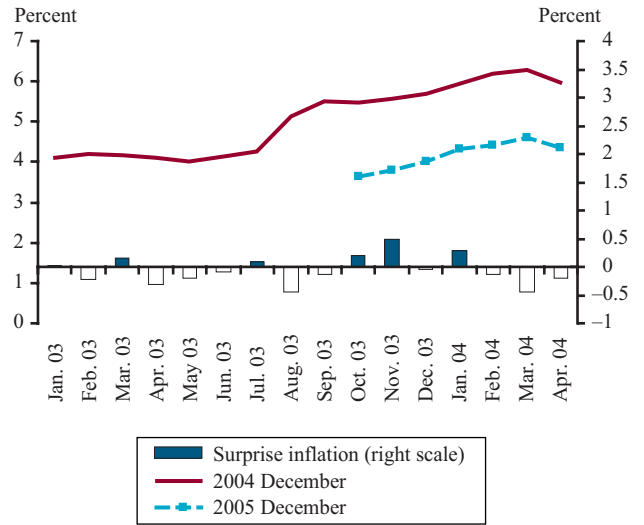


caused primarily by the changes in taxation – should be reflected in price and wage setting. Nevertheless, uncertainty still prevails. All in all, this suggests that corporate managers regard the growth in inflation in 2003 H2 and in January 2004 as a transitory phenomenon. Similarly, average wage expectations and the distribution of wage expectations are both on the decrease.

Analysts polled by Reuters expect strong disinflation in 2005. A comparison of expectations for end-2004 with those for 2005 suggests that professional macroeconomic analysts have long been aware of the impact of higher indirect taxes on inflation, and an impact on longer-term inflation was not built into their expectations.

**Chart 1-22**

**Inflation expectations based on the Reuters poll**



## 1.4 EXTERNAL BALANCE

### 1.4.1 DEVELOPMENTS IN 2003

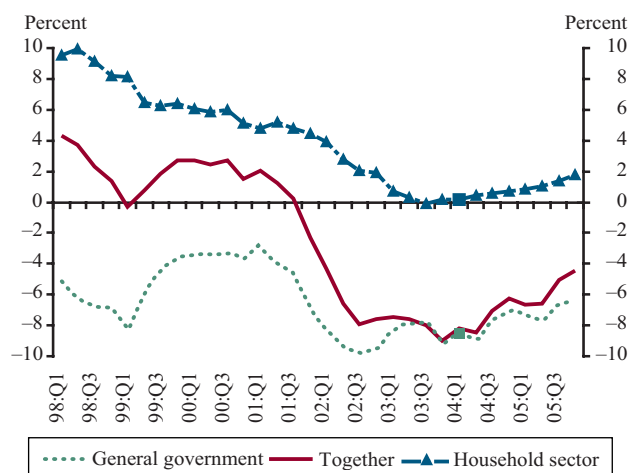
The external financing requirement<sup>8</sup> of the Hungarian economy rose considerably in 2003, and concurrently the current account deficit was also substantially higher than in previous years, due to a slightly negative capital account. The factor underlying this development was that, whereas the net lending of households dropped by 2.5 percentage points and approached zero, the general government deficit remained high, similarly to 2002. Meanwhile, the corporate sector's net financing requirement increased only slightly on 2002, a year which saw exceptionally low levels compared with the past. The general government's financing requirement (consolidated with the MNB) in 2002 and 2003 amounted to 9.2% and 8.4%, respectively, of Hungary's total external financing requirement. As an indirect result of the massive deficit, the risk assessment of the overall economy and of Hungarian financial instruments deteriorated, leading to high volatility in the exchange rate and in government bond yields.

The major decline in households' net financial savings in 2003 can be attributed to two factors – (i) the gross

Chart 1-23

#### General government and household financing capacity as a proportion of GDP

(Seasonally adjusted)



savings rate continued to trend downwards; and (ii) the pace of household consumption growth, fuelled by consumer borrowing, remained strong. In addition, savings underwent some restructuring – with a greater emphasis on house purchase, net financial savings accounted for a smaller share of savings as a whole.

Up to 2001, general government borrowing requirement was financed by household savings. Due to the developments described above, however, households' net financial savings in 2002–2003 fell sharply, and consequently this sector proved incapable of financing the general government deficit.

The corporate sector's financing requirement fell to nearly zero in 2002 and then increased somewhat in 2003 largely as a result of the recovery in the global economic activity as well as the upswing in corporate investment.

### 1.4.2 DEVELOPMENTS IN 2004 AND 2005

General government and household net saving positions are likely to improve in 2004, reducing the net financing requirement of the total economy by 1.4 percentage points (of GDP) in 2004 and by a further 1.5 percentage points in 2005. The factors behind the decline in financing requirement are general government spending restrictions in 2004 and significant growth in the household sector's financing capacity in 2005.

The general government financing requirement is expected to drop by 0.9% of GDP. In accordance with Hungary's commitments for 2005 outlined in its convergence programme, we expect the deficit to fall by 0.5 percentage points. Thus, general government financing requirement should stand at 7.5% of GDP in 2004 and at 7.0% in 2005.

As a result of the tightening of the subsidised house purchase scheme in December 2003, together with the fiscal restrictions expected in 2004 and 2005, households' net lending capacity should rise. Hence, we

<sup>8</sup> External financing requirement: the balances of the current account deficit and the capital account.

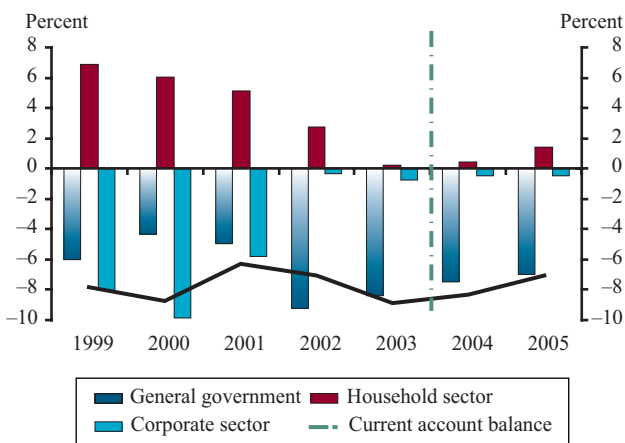
expect the decline in households' net financial savings in recent years to stall in 2004. However, as a result of the full-year effect of the changes in the subsidised house purchase scheme, households' financing capacity is unlikely to increase markedly before 2005.

Current business activity<sup>9</sup> suggests that the corporate sector's financing requirement is likely to remain flat, i.e. at a fairly low level relative to recent years.

As of 2004, EU transfers (some of which will feature in the capital account) should become a major component of the decreasing of the external financing requirement. As a consequence, the improvement of the current account is likely to be smaller than that shown by the external financing requirement, the latter being economically more relevant.

Chart 1-24

**Net lending to various sectors and the current account deficit as a proportion of GDP**



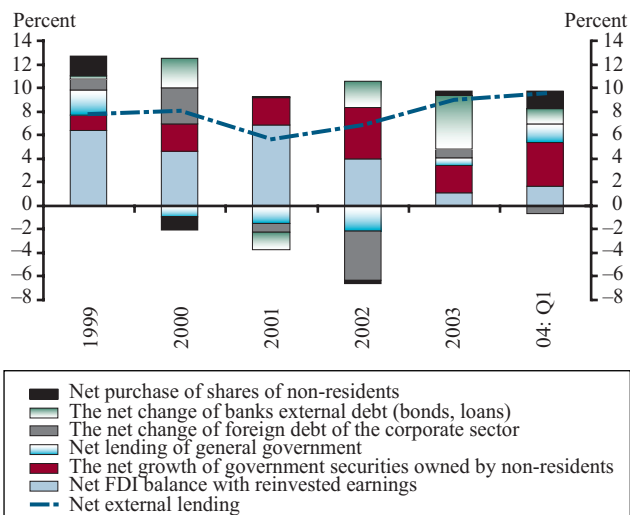
**1.4.3 FINANCING THE CURRENT ACCOUNT DEFICIT**

Accounting for reinvested earnings has changed the structure of financing of the current account and has increased the share of direct investment financing. In the second half of the 1990s, the current account deficit was financed partly or excessively (between 1995 and 1997) by net FDI. However, the inflow of direct investment has dropped since 2000 due to a number of internal and external factors. Recent years have also seen a slowdown in global economic activity, which impacted on foreign companies' propensity to invest (these companies are either running operations in or wishing to relocate to Hungary). In addition, privatisation is coming to an end in Hungary, leading to a further decrease in FDI inflows. At the same time, large Hungarian companies have started to expand in the region. The major reason for decreasing net FDI was direct investment abroad by large Hungarian

firms such as MOL and OTP Bank on the order of EUR 1.5 billion, and large repayments of inter-company loans by Hungarian subsidiaries to their foreign owners.

Chart 1-25

**Financing the current account and the net external financing requirement as a percentage of GDP**



In 2003, changes in the saving/investment balance of the various economic sectors not only added to the current account deficit, but had a negative impact on the capital flows financing the deficit. As a result of the massive decline in the inflow of direct investment, nearly two-thirds of the deficit was financed by debt generating inflows in 2003, instead of the earlier dominance of non-debt generating inflows. This reallocation can be explained by a number of factors – (i) funded by borrowing, the regional expansion embarked on by many Hungarian companies caused an outflow of direct investment; and (ii) Hungary's external financing requirement may be attributed primarily to the general government deficit. However, instead of direct investment capital, the general government deficit is financed by issuing debt. Debt generating items were also reallocated: in 2003 H2 in particular, the higher volatility of forint-denominated yields and the exchange rate of the forint vis-à-vis the euro caused portfolio inflows and foreign demand for the forint to decline. Hence, the equilibrium of the foreign exchange market was established by an increase in net external liabilities run up by domestic credit institutions and firms. By increasing their net foreign exchange debt, these two sectors were able to buy general government debt instruments, unpurchased by non-residents because of their faltering demand for the forint.

Fund-raising by banks was dominant within the private sector's borrowing from abroad, which was explained by the increase in FX loans to households and companies, in the latter case to fund government bond pur-

<sup>9</sup> For further details, see *Quarterly Report on Inflation, May 2004*.



Table 1-4

## Net external liabilities by sector, as a percentage of GDP

	1999	2000	2001	2002	2003
<b>Net external liabilities of Hungary</b>	<b>75</b>	<b>73</b>	<b>67</b>	<b>67</b>	<b>73</b>
o/w: non debt generating liabilities	59	53	54	50	49
Debt (a+b)	16	20	14	17	23
a) Consolidated government	6	5	5	10	12
b) Private sector (1+2)	10	15	9	6	11
1 Corporate sector	6	8	6	2	3
2 Banking sector	4	6	3	4	9

Table 1-5

## Gross external liabilities by sector, as a percentage of GDP

	1999	2000	2001	2002	2003
<b>Gross external liabilities of Hungary</b>	<b>120</b>	<b>116</b>	<b>111</b>	<b>102</b>	<b>114</b>
o/w: non debt generating liabilities	61	57	58	56	59
Debt (a+b)	58	59	53	46	55
a) General government	34	32	28	26	28
b) Private sector (1+2)	24	27	25	20	27
1 Corporate sector	12	14	14	9	10
2 Banking sector	12	12	12	11	17

chases. Moreover, the corporate sector's net outstanding foreign liabilities also increased sharply.

The increase in private sector gross external liabilities considerably exceeded the rise in net lending in 2003 Q3, and particularly in Q4. To a large extent, this may be attributed to the massive upturn in credit institutions' foreign liabilities from derivative transactions. Current account data suggest that this may have stemmed from the repricing of positions. At the same time, credit institutions' net derivatives positions vis-à-vis the rest of the

world remained broadly flat, since there was a strong increase in assets as well as liabilities.

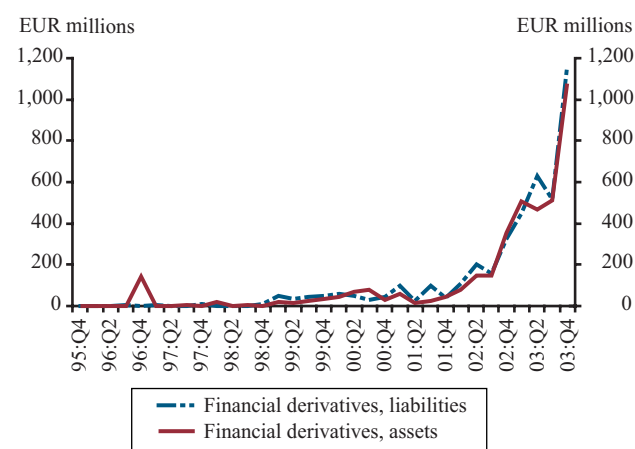
## 1.4.4 FINANCING THE CURRENT ACCOUNT IN 2004–2005

Starting from 2004, the capital flows financing the deficit may undergo some more positive restructuring, as a shift is likely to occur from debt generating financing to non-debt generating financing. The key factors behind this are: (i) an expected fall in the deficit by the general government, which as a rule is only capable of raising funds by incurring debt; (ii) an increase in gross inflows of direct investment; and (iii) an expected decline in direct investment abroad by Hungarian companies.

Direct investment inflows involve a number of uncertainties. Hungary's EU membership from May 2004 points to an increase in that respect, since this change may attract European and other foreign investors. Economic recovery and the robustness of business activity in Western Europe will also contribute to this trend. On the other hand, as a result of EU membership Hungary may lose some of its competitive advantages, particularly those arising from lower costs. As the capital markets develop, the role of FDI in financing the deficit is likely to decline, setting the scene for debt generating financing in the form of borrowing or bond issuance.<sup>10</sup>

Chart 1-26

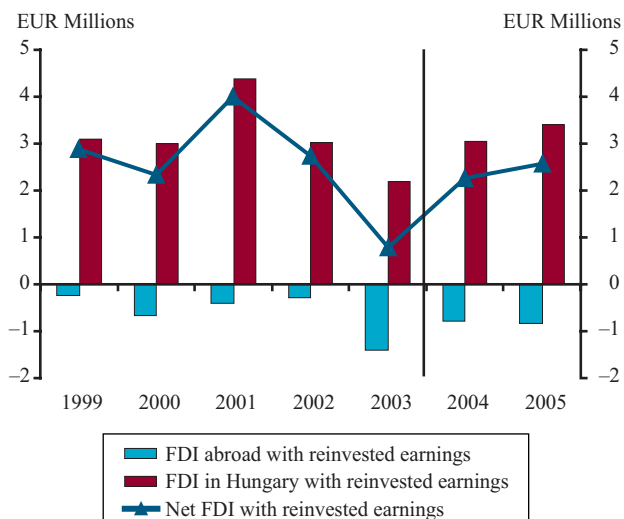
## Banking sector assets and liabilities from derivative transactions with non-residents



<sup>10</sup> For further details, see *Report on Financial Stability, December 2003*.

Chart 1-27

## Hungary's FDI balance



Portfolio inflows to Hungary also deserve mention in 2004 Q1, as portfolio capital accounted for over 70% of current account deficit financing. Foreign investors displayed genuine interest in equities as well as government bonds. Purchases of shares by non-residents in 2004 Q1 were higher than in 2003 as a whole, partly due to the sale of the Government's stake in the oil company MOL in February. Privatisation in Hungary is likely to come to a definitive end once large state-owned companies<sup>11</sup> have been sold, which may increase the share of non-debt generating financing, i.e. by direct investment or equities.

Unlike in 2003 Q4 and 2003 as a whole, the balance of private sector borrowing from abroad was negative in 2004 Q1. In addition to the corporate sector, the banking system also lowered its lending activity from abroad. Whereas the banking system managed to cut both its long-term and short-term loans, in the corporate sector growth in long-term loans was outperformed by decrease in short-term borrowing from abroad. In the banking system, borrowing was replaced by portfolio inflows mainly in the form of bonds, while the drop in corporate sector's borrowing from abroad was compensated by FDI inflows. The increase in the banking system's fund-raising activity from abroad was accompanied by an upturn in foreign currency lending to resident households and firms (i.e. financial as well as non-financial corporations).

The shift to longer maturities of loans, which started in 2003 Q2, continued in 2004 Q1. This time, however, the difference was that the outstanding stock of loans from abroad also declined during this period, even in nominal terms.

## 1.4.5 RISKS TO THE EXPECTED DEVELOPMENTS IN EXTERNAL EQUILIBRIUM

Sustained current account deficits in emerging economies is a natural phenomenon, which forms an organic part of the catching-up process. In these countries per capita capital is lower, while returns are higher than in developed countries, which encourages corporate sector investment and capital inflows used to finance such investment. Therefore, the persistently high external borrowing requirement, which emerges as a result of the factors described above, poses no risk to stability. In Hungary, however, the major causes of the increasing current account deficit since 2002 were the growing general government deficit and households' declining financing capacity, rather than productivity-increasing corporate sector investment. Thus, although the GDP-proportionate current account deficit did not rise substantially compared with earlier years, risks to stability did increase due to the changes in the financing pattern and the savings/investment balance of some economic sectors. Because of the rapid rise in private sector indebtedness, the economic processes witnessed in 2003 cannot be sustained over the long term.

The external financing requirement-to-GDP ratio and the financing pattern of the current account deficit are highly likely to decline, due to the gradual decline in general government deficit and the increase in households' net financial savings, suggesting a reduction in risks to stability arising from external imbalance.

There are upside and downside risks to each sector's prospective financing capacity. However, on account of the asymmetric distribution of these risks, there is a considerable likelihood that the current account deficit will be overshoot the central projection, and will exhibit a more unfavourable financing pattern.

Further measures to correct equilibrium are needed to tackle the challenge of the large general government deficit. Unless such measures are taken, the general government and the current account deficit will exceed projected levels.

The corporate sector is also quite likely to record a higher-than-expected financing requirement. The financing requirement of the corporate sector has decreased compared with the previous years. Consequently, if growth in EU member states proves to be more rapid than expected, firms are likely to be more active in terms of investment and fixed capital formation. As a result, the stronger-than-expected upswing in economic activity may cause the corporate sector's financing requirement to reach levels similar to

<sup>11</sup> The privatisation agency ÁPV Rt plans to sell the Government's remaining stake in MOL, Antenna Hungaria and Richter within one year.

that in earlier years, and in due course the current account deficit may rise over its projected level. More dynamic investment activity would be financed automatically by direct investment or by companies' external liabilities, which is far more supportive of stability than non-residents' portfolio investment. Indirectly, however, higher-than-expected corporate investment may pose some risks, since despite the improvement in the financing pattern, the majority of investors may regard the stagnant or even expanding current account

deficit as yet another evidence of the Hungarian economy's vulnerability.

The only asymmetric risk implying a more sustainable external equilibrium is related to the household sector: relative to expectations, the propensity to consume may decelerate more rapidly and stabilise at lower levels. However, this impact is smaller than that seen with the other two sectors. Thus, on balance these factors point to a rising external financing requirement.



## **2 STABILITY OF THE BANKING SECTOR**

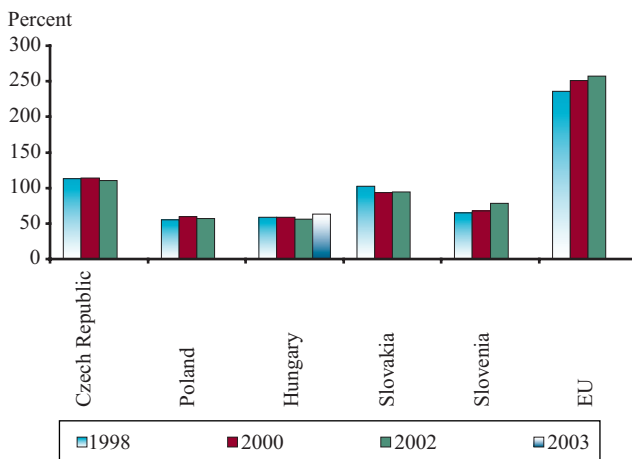


## INTRODUCTION

In contrast to the past, in 2003 the Hungarian banking system was characterised by a rapid deepening of financial intermediation, with the expansion of the balance sheet total and the loan portfolio of the Hungarian banking system increasing and exceeding the growth rate of the economy. Last year the balance sheet total-to-GDP ratio rose from 56.1% to 63.1%, while the private sector loans-to-GDP ratio soared from 31.8% to 37.7%.

**Chart 2-1**

**Balance sheet total of the banking system as a percentage of GDP in CEECs**



Source: National Central Banks, ECB.

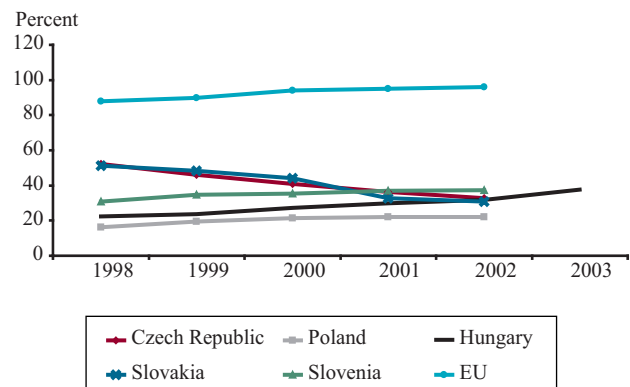
Among the indicators of financial intermediation, the balance sheet total-to-GDP ratio is still extremely low in comparison to other EU Member States and other countries of the region. In terms of level, the Hungarian banking system amounts to no more than a mere half of the smallest banking markets in the European Union, Finland and Greece.<sup>12</sup> ECB data for 2002 reveal that the ratio of GDP to the balance-sheet total was 118% in Finland and 143% in Greece.<sup>12</sup>

The private sector loans-to-GDP ratio also reveals a significant lag of the Hungarian banking system in

comparison to the EU, but in a regional comparison the situation is far more favourable. In terms of banking sector size, the region is lead by the Czech Republic and Slovakia, where private sector lending has dropped considerably as a result of a sudden increase in government financing and continuous portfolio cleaning. In Slovenia, Hungary and to a smaller extent in Poland, however, loan expansion has promoted further deepening of financial intermediation. As a result, the depth of Hungary's banking sector, measured on the basis of private sector lending, exceeded the regional average in 2002 and probably in 2003 as well.

**Chart 2-2**

**Private sector loans as a percentage of GDP in CEECs**



Source: National Central Banks, ECB.

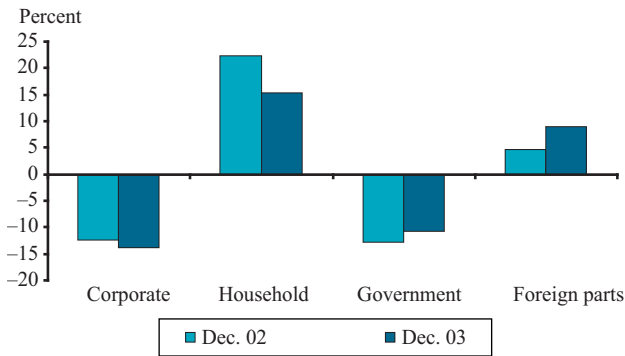
The spectacular increase of the balance sheet total of the domestic banking system in 2003 was due to the simultaneous effects of several facts. First, outstanding borrowings by the private sector rose significantly. Second, refinancing among banks, linked to mortgage lending, soared, accompanied by purchases of mortgage bonds issued by credit institutions. In addition to this increase in transactions, the exchange rate also raised the balance sheet total considerably. The annual nominal growth rate of the balance sheet total was 26.4%, and 24.8% adjusted for exchange rate change

<sup>12</sup> ECB data for 2002 reveal that the ratio of GDP to the balance-sheet total was 118% in Finland and 143% in Greece.

in 2003, considerably higher than the respective rates of 12.4% and 16.5% registered in 2002.

**Chart 2-3**

**Net sector positions against the banking system as a percentage of the balance sheet total**



Negative value represents net borrowing position.

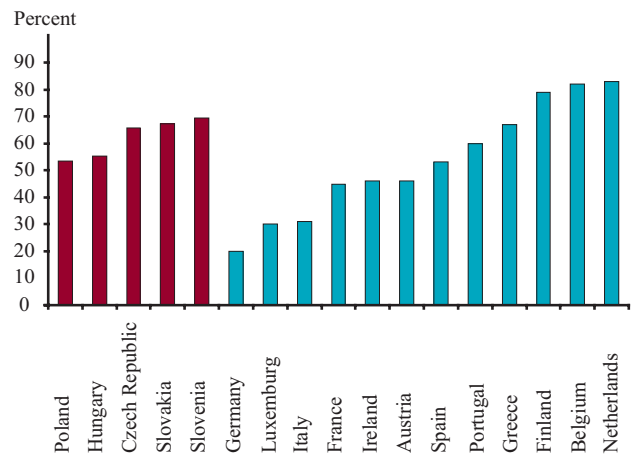
Within the private sector, lending to both non-financial and financial corporations, as well as households accelerated in 2003. As domestic sources are scarce, banks financed the increase in the loan portfolio to a lesser extent through portfolio shifts, and to a greater extent from foreign sources. In line with improving future prospects, borrowing by large companies is once again rising. In terms of sectors, borrowing has picked up in the tradable sectors, especially in manufacturing. Project financing also continued to rise, driven by continuous growth in real estate financing loans. Following a longer period of strong growth, the share of SME loans in the total loan portfolio temporarily dropped in 2003.

Last year, lending to households was boosted by the favourable subsidised housing scheme and a massive rise in housing loans due expectations that restrictions would be imposed on the system. The exceptionally rapid pace at which this took place is well illustrated by the fact that housing loans doubled yet again in 2003. It is important to mention that in addition to a massive increase in home loans, leasing companies' household lending also increased considerably, and consumer loans expanded considerably.

Finally, in terms of the market share of the five largest banks it can be seen that banking market concentration is low in Hungary in regional terms and medium in the context of the European Union.

**Chart 2-4**

**Market shares of the five largest banks in CEECs and the EU 15 (2002)**



Source: National Central Banks, ECB.



## 2.1 RISKS UNDERTAKEN BY NON-FINANCIAL CORPORATIONS

### Earnings position and indebtedness

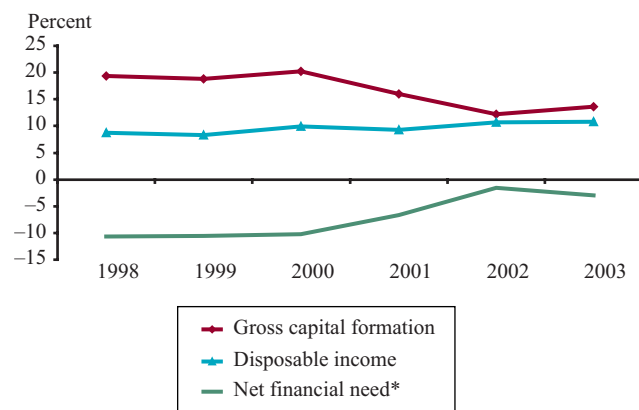
In line with the improving export prospects, and presumably because companies tend to replace expensive labour with capital, non-financial corporations started to accumulate fixed capital and replenish stocks in 2003.<sup>13</sup> Due to increased investment activity, the sector's demand for loans jumped sharply. The significant amount of short and long-term foreign exchange credits might be traced back to borrowing by the multinational firms in the tradable sector, typically those active in manufacturing. Although long-term forint loans grew less strongly than foreign exchange credits, the rate remained high probably due to the rising borrowing requirement of SMEs, for the most part active in non-tradable sectors, and a gradual shift in the liability structure.

Due to the improving business prospects of corporations, gross capital formation began to grow once again last year, rising to a GDP-proportionate rate of 13.8%. In keeping with this, the liabilities of the sector increased faster than financial assets, and thus non-financial corporations' borrowing requirement rose to above 3%. The increasing consumption and accelerated investment activity of non-financial corporations suggests that the sector as a whole still enjoys a favourable earnings position which is on par with previous years (disposable income amounts to 10% of GDP). The individual sectors, however, probably differed greatly in terms of income in 2003. Due to weak external demand and sharply rising wage costs, the income of manufacturing companies probably deteriorated, while strong domestic demand likely improved the earnings position of the service sector in 2003. This assumption is confirmed by labour market trends: while staff reductions continued in manufacturing in order to cut costs, employment rose in the service sector. Finally, it is important to note that last year the non-bank sector's long forint forward position increased significantly, which seems to be predominantly related to the non-financial sector. If the derivative portfolio boom is explained by reasons other than the growing hedge position of export companies, this

would be an extremely risky development from the point of view of stability.

Chart 2-5

### GDP-proportionate position of non-financial corporations



\* In 2002, the net borrowing requirement of non-financial corporations was adjusted for the effects of corporate loans to state-owned companies, which were taken over by the central budget.

In analysing the future prospects of non-financial corporations, it must be highlighted that the expected structural shift in economic development may have an asymmetric impact on the tradable and non-tradable sectors in terms of earnings in 2004. The rise in exports due to the anticipated cyclical uptrend and the resulting massive productivity improvement will have a favourable impact on manufacturing, whilst fiscal tightening and the negative impact of a restrictive incomes policy on household consumption will affect the service sector unfavourably.

In 2003, no significant change was recorded in non-financial corporations' leverage ratio, because corporations' equity also increased, in addition to the debt portfolio. As a result, at the end of the year the debt to equity ratio was 88%, which is not to be considered high in an international comparison. Hungarian companies' capital leverage approaches the average of the EU.<sup>14</sup>

<sup>13</sup> For further details see *Quarterly Report on Inflation, May 2004*

<sup>14</sup> *Report on Financial Stability, June 2003*

Chart 2-6

**Institutional and inter-company loans extended to non-financial corporations, as a percentage of GDP**

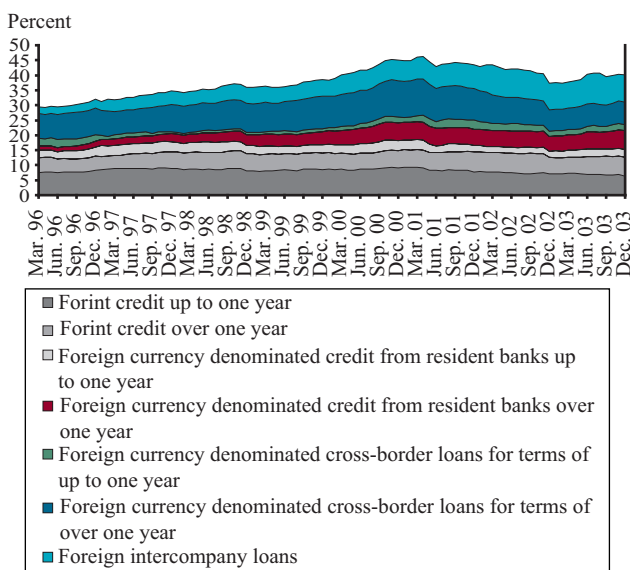
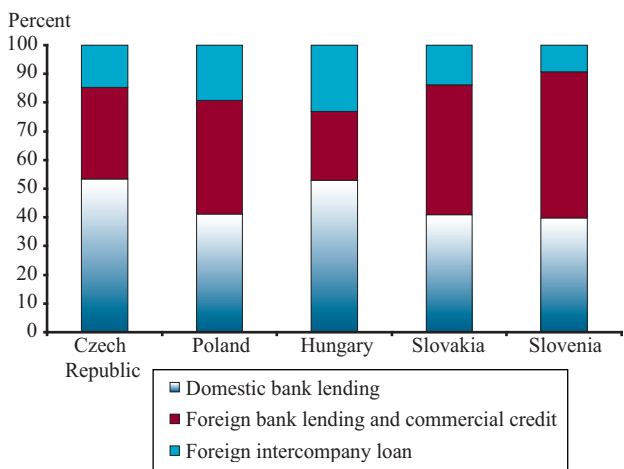


Chart 2-7

**Structure of lending to non-financial corporations in the CEECs (2002)**



Source: National Central Banks.

For cyclical reasons, non-financial corporations' debt to institutions (domestic and foreign financial and foreign non-financial) and inter-company loans started to rise in 2003. Nevertheless, it is important to emphasise that in terms of both growth rate and lending volumes, the corporate sector grew more indebted to the domestic banking sector, thus greatly contributing to the rapid deepening of domestic banking intermediation. While domestic bank loans adjusted for the exchange rate

effect increased to 17.2%, foreign bank loans expanded by 7.5% and inter-company loans by 9.7%.

In the CEECs, foreign credit continues to play an outstanding role in corporate financing. Currently, domestic bank lending accounts for 40%–50%, and foreign bank lending and supplier and inter-company loans comprise 50%–60% of the total loan portfolio. Although in the past few years the share of domestic loans within total corporate lending has been gradually rising, it still falls far behind the approximately 60% rate recorded before 1999. The continued expansion of the domestic financing of the sector can be ascribed to the only stable (regional) trend: a gradual rise in lending to SMEs.

**The commercial real estate business<sup>15</sup>**

The economic downturn affected every single segment of the commercial real estate market in 2003. As a result of adjustment to demand and restructuring, the pace of growth continued to slow in terms of the number of offices and retail outlets.

The Budapest office market expanded by 90,000 m<sup>2</sup> of new office buildings last year, while approximately 100,000 m<sup>2</sup> was in demand. As a result, at the end of last year, the total office area amounted to 1.35 million square metres, with roughly 20% vacant (by comparison, at the end of 2002 the vacancy rate was around 24%). Due to a slack office market and the strong negotiating position of lessees, there is an increasing difference between actual and advertised rental fees. Typically, rental fees were in a range of EUR 12–15 per square metre per month last year. In lease agreement negotiations, owners of office blocks attempted to fill vacant premises by slowly lowering rental fees and offering a wide range of allowances.

A considerable portion of new demand derives from the fact that companies already present in the market are moving into more spacious offices. On the demand side there is also a new trend (accounting for 15% of new demand) of state-owned companies and SMEs to move into more modern offices. Finally, it can be established that areas in or around Buda continue to be preferred for new rentals.

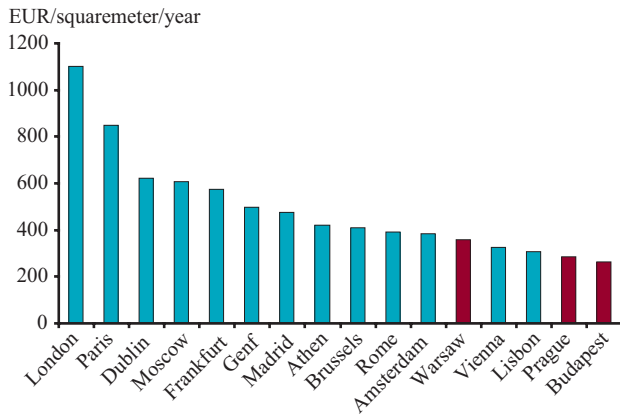
Due to a closing of the gap between new supply and new demand, several real estate agents believe that last year represented a turning point in the real estate market. As for 2004, completion of 80,000–90,000 m<sup>2</sup> of new office floor space can be considered realistic. As a result, capacity utilisation may slowly improve and competition between office agents can be reduced.

<sup>15</sup> This section relies on the following sources: CB Richard Ellis: CEE Report 2003, Colliers International: Real Estate Review 2004, Hungary, GKI-Wallis Ingatlan Rt: Az ingatlanpiaci konjunktúra alakulása (Cycles in the property market) (2003 Q4), Ingatlan és Befektetés: Mi történt az ingatlanpiacon 2003-ban (What happened in the real estate market?) (2004/2), Central Statistical Office: Kiskereskedelmi üzlethálózatok (Retail trade networks) (31 December 2003)

Once weakening trend is halted, experts do not expect recovery before 2005.

**Chart 2-8**

**Annual office rental costs in the EU and CEECs**



Source: CB Richard Ellis.

Property companies believe, however, that EU enlargement may trigger the most significant change in the region's property market. In the CEECs the rise of rental fees upon accession may be a favourable change for office owners. Currently, rent-related costs fall significantly short of the EU average. In comparison to some EU Member States (such as Portugal and Austria), however, there are only slight differences between annual office rent costs. Correspondingly, in terms of rental fees, only a slow convergence can be expected.

In 2003, the number of retail outlets increased by a mere 1.1%, significantly less than in the past few years. 2003 saw the restructuring of the retail outlet market continue. The overwhelming majority of new construction still consists of easily accessible retail shops on large floor areas found in popular places. The loss of momentum compared to previous years, however, suggests that the market is becoming saturated.

**Corporate credit risk of domestic banks**

By the end of 2003, the volume of domestic banks' lending to non-financial corporations had increased by 23% annually, or 20% after adjustment for exchange rate effects. The larger part of this strong outturn was ascribable to the rising borrowing requirement of large firms more sensitive to external business conditions, with smaller part attributable to SMEs more sensitive reactions to fluctuations in domestic demand. Within project financing, real estate loans continued to rise at a brisk pace.

The turnaround in manufacturing and the related borrowing requirement caused significant changes in the structure of banks' corporate loan portfolio, both in

terms of maturity and denomination. It is also conceivable that due to the last year's high forint interest rates the SME sector's FX indebtedness increased, thereby also contributing to the change in the portfolio's denomination structure.

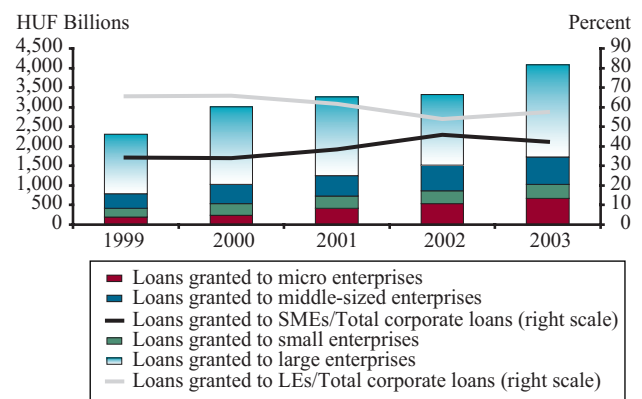
Due primarily to capacity expanding fixed investments, there was a spectacular 34% rise in long-term loans, while short-term lending – mainly used for resolving liquidity problems and financing current assets – rose by 9%. As a result, by the end of 2003 the share of loans with a maturity over one year in the total portfolio increased from 53% to 58%.

The powerful transaction effect, the (EUR/HUF) exchange rate effect and the (USD/EUR) cross rate effect considerably altered the denomination structure of corporate loans. HUF loans increased by 13% and foreign exchange loans by 43%. At the end of 2003, foreign currency credits accounted for 42% of the total corporate loan portfolio compared to 35% twelve months earlier.

Lending to large companies, quick to respond to external business prospects, soared last year. However, due to the intense competition and low interest rate margins characteristic on this market, financing of the SME sector, which is deemed more risky, by banks remained strong. Year-on-year lending to large companies increased by 31%, with SME lending rising 15%. As a result, large companies' share in the total loan portfolio rose from 54% to 58%.

**Chart 2-9**

**Corporate loans by enterprise size**



For several reasons, the decline in the share of SME loans in the total portfolio may be considered temporary. First, the sharp rise in lending to large companies is clearly explained by cyclical reasons, but in the long run intense competition to maintain and increase market share will 'force' banks to increase credit opportunities for SMEs. Second, the gradual shift in the liability portfolio of the SME sector and the long-term

improvement of the profit outlook<sup>16</sup> may increase demand considerably.

The growth rate of project financing of banks declined, but still remained extremely high in 2003. One steady trend is that the majority of project financing loans were extended for the purposes of energy and real estate development. The amount of loans granted for energy development increased by 37% last year. In the same period, lending for the purposes of building offices, trade centres and hotels rose by 31% and those extended for building housing developments increased by 51%. At the end of 2003, borrowing for commercial properties and housing developments amounted to 9% of the total corporate loan portfolio.

The minimal impact of weak business in the market of offices and retail outlets on new loans is considered an unfavourable trend as it suggests that banks are taking on increasing risks. The very high level of risk concentration in this market is seen as a further problem. In proportion to the total amount of corporate loans, lending for the construction of offices and shopping centres by the three market leading banks was more than double the banking sector average.

In 2003, the boom in lending for the construction of housing developments was due primarily to the government housing subsidy scheme featuring favourable interest rates. Following the restrictions implemented in the system at end-2003, however, growth in demand

for new homes may taper off quickly in 2004. Consequently, companies that launched residential property development projects previous year may incur increasing loan losses.

An analysis of corporate loans by business sector reveals that due to a favourable turn in the trend of demand for investment, manufacturing loans increased by 20% last year. Within manufacturing, spectacular growth was seen in lending to the steel, chemical and light industries, while the financing of machinery and equipment increased only moderately. Due to a slowdown of government-financed infrastructure developments, construction industry loans dropped by 28%.

The 23% increase in lending to the service sector was driven by household consumption in 2003. Within the scope of non-tradable sectors, lending to trade, transport, postal services, telecommunication, and financial and real estate related services grew at an increasing pace, while a slowdown was seen in other sectors.

In terms of the risk exposure undertaken by banks, it is a favourable trend that the credit risk of the industries with the largest shares, measured by the ratio of impairment to gross credit, fell below the 2003 banking system average (see Table II-1). Only the steel and light (textile and paper) industries have exhibited a high probability of non-payment in the past few years. Due to their minimal significance in corporate lending, however, these two branches did not have a major

**Table 2-1**

**Distribution and credit risks of corporate loans**

	Market share		Net value adjustment/ Gross loans	
	2002	2003	2002	2003
Agriculture, forestry and fishery	6.7%	6.3%	2.0%	1.7%
Mining	0.6%	0.9%	0.6%	0.9%
Manufacturing	25.3%	25.4%	2.7%	2.3%
Food industry	8.7%	8.9%	1.5%	1.1%
Chemical industry	5.0%	5.2%	1.3%	1.2%
Metallurgy	3.0%	3.3%	6.6%	5.6%
Machines and equipment	4.5%	3.9%	2.1%	1.5%
Light industry	2.9%	3.0%	5.9%	5.9%
Non-metallic mineral products, recycling	1.2%	1.1%	2.2%	0.9%
Energy	5.8%	6.5%	0.1%	0.4%
Construction	7.6%	4.5%	2.5%	1.5%
Wholesale and retail trade, repairs	16.8%	16.5%	3.4%	2.4%
Hotels and restaurants	2.0%	1.9%	2.2%	1.7%
Transport, storage, post and communication	8.5%	10.2%	1.1%	0.7%
Financial intermediation, real estate and business service activities	22.5%	22.6%	1.6%	1.0%
Other loans	4.1%	9.1%	4.5%	5.2%
<b>Total corporate loans</b>	<b>100.0%</b>	<b>100.0%</b>	<b>2.9%</b>	<b>2.6%</b>

<sup>16</sup> Although over the next few years the earnings capacity of the domestic SME sector is likely to be affected adversely, the long-term profit outlook is expected to keep improving. The envisaged short-term slump in the service sector may have an unfavourable impact on SMEs, as they are sensitive to domestic demand, but the supplier sector may benefit from the improving external business cycle.

impact on overall system stability. It is important to note that during the same period payment remained relatively disciplined in several branches of manufacturing, thus in food and chemical industry as well as machinery and equipment. Finally, it can be established that by the end of 2003 the likelihood of non-payment had dropped below the banking sector average in every single branch of the service sector.

In 2004, the expected revival in external demand is likely to improve profitability in manufacturing and reduce the credit risk of the sector. Only the food industry may be an exception to this, because more intense competition due to Hungary's accession to the EU may result in a significant reduction of prices and sales, which may ultimately affect agriculture. In the service sectors, which primarily exposed to domestic consumers' behaviour, the expected decline in demand will probably heighten the credit risk. Non-tradable sectors which depend on external demand (like shipping companies and suppliers of large companies) may, however, benefit from export-driven economic growth.

The structure of corporate loans and deposits has not changed significantly in the past few years. At the end of 2003, the Herfindhal-Hirschman Indices (HHI) indicating the concentration of the total amount of loans and deposits were around 964 and 834, respectively. In an international comparison, both values remain below the CEEC average, which, in the light of pricing and the low level of interest rate margins, suggests that domestic banks are adopting a competitive attitude.<sup>17</sup> Higher loan concentration in the SME sector than in the market of large companies can be considered a permanent trend.

With regard to the complete range of new loan transactions, the interest rate margin on short-term and repricing loans<sup>18</sup> was 1.1 percentage points on an annual average in 2003, up slightly from 0.95 percentage points in 2002. In the light of the risks and costs of domestic corporate lending and the 1.2-percentage point interest rate margin recorded for the EU, the interest rate margin of corporate forint loans is still considered extremely low. This practically means that due primarily to sharp competition, the interest rate margin of loans to large companies fails to cover bank charges and risks in Hungary. The reasons why this business is still capable of maintaining its profitability include the collected fees and commission incomes on the liability side as well as high volume.

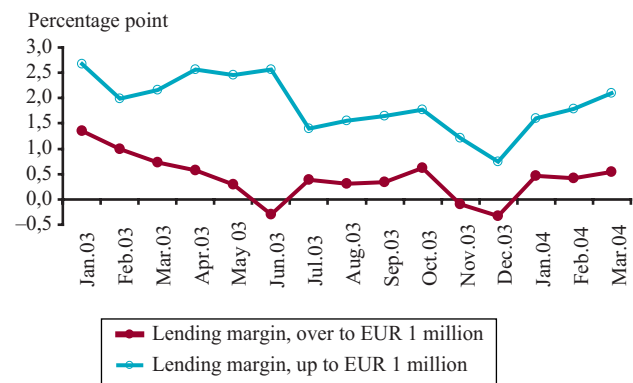
As a result of new interest rate statistics introduced in January 2004, a breakdown of corporate interest rate

margins by amount (transactions above and below one million euro) is now available.<sup>19</sup> MNB introduced the new statistical method simultaneously with the ECB.

As banks typically extend small amounts to finance corporate liquidity and investments in the SME sector, and large amounts to fund large companies, the new statistics allow for an estimation of the minimum difference between the risks and interest rate margins deriving from corporate size. On an annual average, in 2003 the interest rate margin of corporate loans with a maturity up to one year and repricing corporate loans was 1.9 percentage points for transactions below EUR 1 million and 0.4 percentage points for transactions exceeding EUR 1 million. The difference between the interest rate margins applicable to the two categories ranged between 1 and 3 percentage points, and amounted to 1.5 percentage points on an annual average in 2003.

Chart 2-10

#### Corporate HUF interest rate margins for small and large-amount loans



#### Contingent liabilities

The contractual value of contingent liabilities rose significantly, growing by 22.7% in 2003. The value of contingent liabilities weighted for transaction risks increased by merely 10.6%, i.e. less than the contractual value, while those adjusted for full risk (both customer and transaction risks) rose by 14.6%, suggesting a gradual decline in risk exposure. This assumption is true for the risk assessment of contingent liabilities on the whole, but a more differentiated view is obtained if one considers the fact that the concentration of high-risk items (involving 100% risk, such as credit substituting guarantees and sureties, and unconditionally irrevocable credit lines up to one year) increased within the portfolio. While the items involving risks above 100% rose far in excess of and risk-free ones increased far below the average, loans with 50% risk dropped.

<sup>17</sup> Detailed comparative international data (HHI and interest margins) are provided in the June 2002 *Report on Financial Stability*.

<sup>18</sup> Short-term and repricing loans include floating rate loans and loans with an interest fixing up to one year. The HUF interest margin is calculated by deducting the announced bank interest rate from the 3-month BUBOR interest rate.

## 2.2 RISKS IN LENDING TO HOUSEHOLDS

2

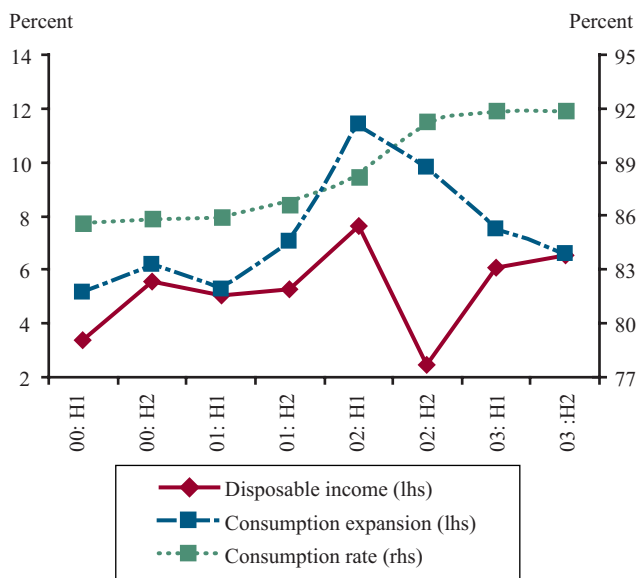
### Income position, consumption, investment and financial savings

As a result of the government's income policy, the housing subsidy scheme and concerns related to modification of the latter, the rates of household consumption and savings underwent considerable changes. From 2001 H1, the growth rate of consumption exceeded even the rapid increase of disposable income. The gap between the two growth rates closed in the second half of 2003. Consequently the ratio of consumption to disposable income reached a value that is to be considered high even in an international comparison (92%), and remained at this level throughout 2003 H2.

**Chart 2-11**

#### Growth rate of household consumption and disposable income, and the consumption rate

(At current prices, based on seasonally adjusted data)



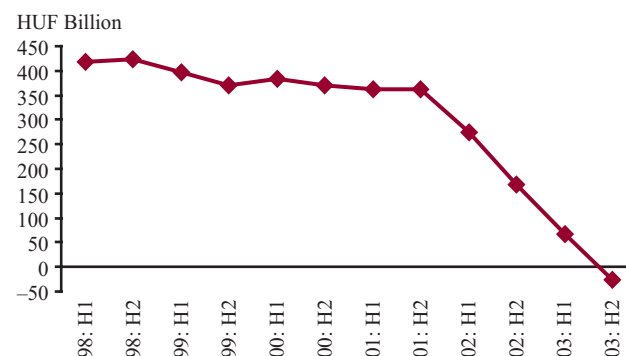
Over the past three years, growth in investment expenses (20.6%) considerably exceeded the annual average growth rate of consumption expenditure (7.9%). This trend continued in 2003 H2. As a result of a major rise

in investment expenses and an increase of the share of consumption, the net financing capacity of the household sector has been rapidly declining over the past two years: according to the evidence from seasonally adjusted data, in 2003 H2 the sector actually became a net borrower. With modification of the government's income policy and a more moderate rise in manufacturing wage growth, a major decline is expected in real income growth in 2004. Consumption growth rate may also slow down significantly. Reasons for this include the following factors with a negative impact on consumption: deteriorating prospects for households (probably higher volatility of real incomes), tighter conditions for subsidised housing loans (earlier growth in lending clearly contributed to the increase of consumption),<sup>20</sup> the currently significant level of household indebtedness and its burden, and the high interest rate on forint loans are all conducive to an increase in financial savings. In all probability, these factors exceed the supply side pressure represented by low foreign exchange interest rates and banks' high propensity to lend (primarily in the field of consumer loans and in certain product markets, e.g. passenger cars). Investment expenditure is likely to continue growing rapidly in 2004 (see the section on housing loans). All things considered, a slow improvement in the net financing capacity is expected.

**Chart 2-12**

#### Households' net financing capacity/demand

(At current, seasonally adjusted prices)



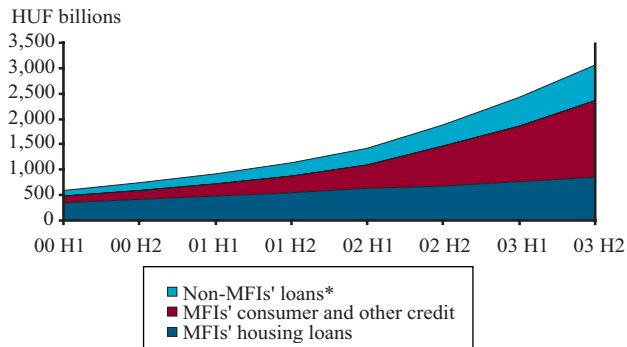
<sup>20</sup> Households spent approximately 15%–30% of the loans granted for used homes on financing consumption. See *Quarterly Report on Inflation, February 2004*.

## Indebtedness

Similarly to the preceding year, as a whole 2003 was characterised by extremely rapid growth in household

Chart 2-13

### Household debt

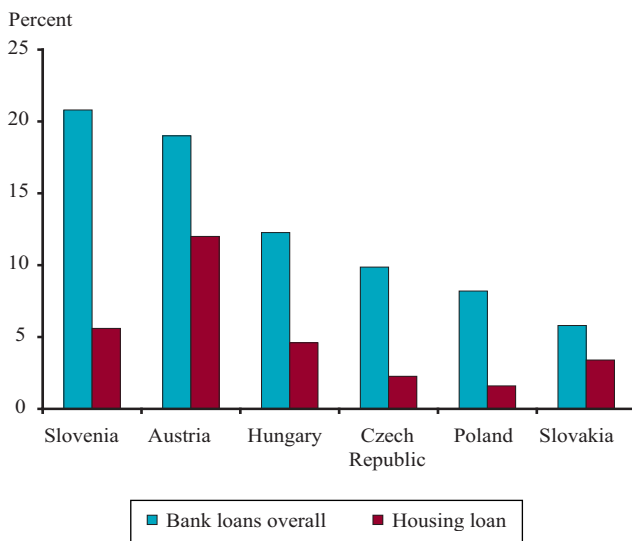


MFI: monetary and financial institutions.

\*Lease, consumer and other credit.

Chart 2-14

### Penetration of banking loans into the population of the CEE5 countries and Austria



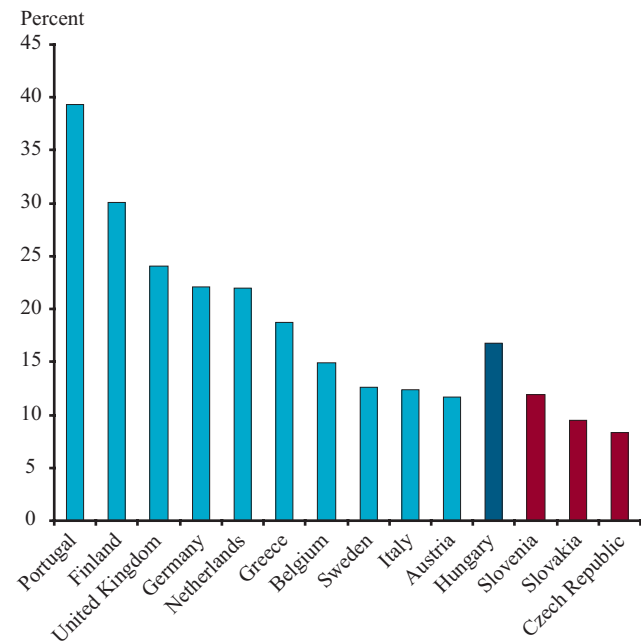
Sample group: population 15+

Source: GfK.

debt (62%), primarily driven by housing loans. As a result, the share of household loans in the balance sheet total of the banking system grew significantly, bringing the Hungarian banking system to the middle of the European ranking list. Based on a survey by the research institution GfK Hungary, in 2003 more than 12% of the population has been granted some kind of a loan, which places Hungary second in the list of the CEE5 countries.

Chart 2-15

### Bank loans to households as a percentage to the balance sheet total at the end of 2003



Source: National Central Banks.

Over the past three years, income-based indebtedness ratios (relative to the gross domestic product and household disposable income) indicated a massive rise in indebtedness, and the country's lag behind the euro area declined to one-third of the previous level.

Table 2-2

### A comparison of indebtedness ratios of the euro area and Hungary

	Household debt/ GDP		Household debt/ disposable income		Household debt/ financial assets	
	2000	2003*	2000	2003*	2000	2003*
Hungary (1)	5.6%	16.5%	9.4%	28.2%	8.0%	22.2%
Euro area (2)	47.7%	50.2%	74.4%	75.7%	22.9%	28.7%
Relative difference in indebtedness (2)/(1)	8.5	3.0	7.9	2.7	2.9	1.3
Relative difference between Member States (the most indebted / the least indebted)		3.4		5.7		2.8

\* Euro area 2002; sources: ECB, CSO, financial accounts.

Table 2-3

## A comparison of the indebtedness ratios of certain EU 15 Member States and Hungary

2002	Household debt / GDP	Household debt/ disposable income	Household debt/ financial assets
France	n.a.	82%	24%
Germany	73%	112%	42%
Belgium	42%	70%	16%
Spain	64%	107%	39%
Netherlands	102%	203%	41%
Austria	41%	n.a.	31%
Portugal	85%	n.a.	42%
Finland	37%	77%	36%
United Kingdom	85%	129%	35%
Italy	30%	35.5%*	15%
Hungary**	16.5%	28.2%	22.2%

\* Data 2001.

\*\* Data 2003.

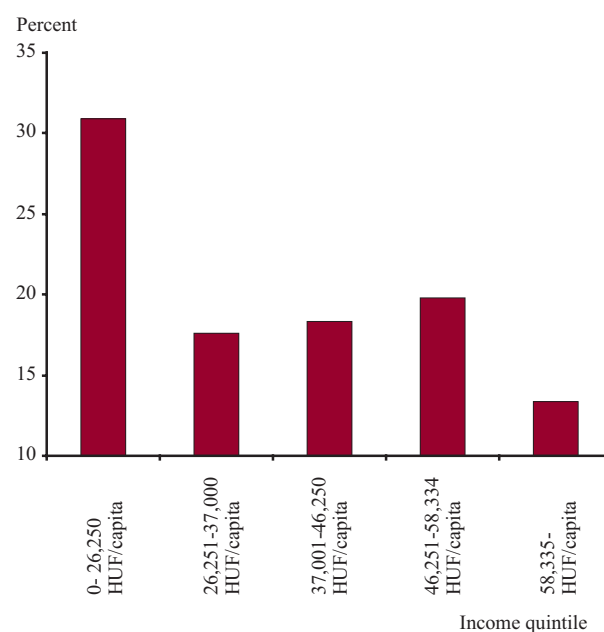
Sources: OECD, Eurostat, CSO, financial accounts.

There are extremely large differences between the individual countries of the EU-15, taken as a basis of comparison, which can be traced back to cultural, institutional and historical reasons. If the least indebted country is taken as a basis, the lag in the Hungarian household sector's indebtedness is far less as a proportion of GDP; Italian households are 1.8 times more indebted, and on an income basis they are 1.25 times more indebted than Hungarian households. Taking the second least indebted country as a basis raises the indicators above 2. In Hungary, basic living costs (such as housing and food, etc.) demand more of the population's income and leave less room for other expenditures, such consumer loan instalments.<sup>21</sup> According to a survey by GfK Hungary, 60% of household debtors had no savings whatsoever in 2003, and half of these debtors have low incomes.<sup>22</sup> For this reason, relative to their disposable incomes, households' interest and instalment payment liabilities rise considerably year after year, and indicate tension in the household liquidity limits already at a lower value than in the more developed countries. The relative interest burden is estimated between 3%–4%, while the redemption burden between 5%–6% in 2003. It follows from the above factors that income-based indebtedness is likely to increase more slowly.

If a household runs into payment difficulties, in order to maintain solvency, it uses its most liquid financial assets.<sup>23</sup> The aforementioned survey by GfK Hungary

Chart 2-16

## Debtors with no savings, in function of income quintiles



Household income per person.

Universe: population 15+

reveals that roughly 30% of household debtors have financial savings.<sup>24</sup> As a result of the borrowing boom, the rate of liabilities to liquid assets rose significantly,

<sup>21</sup> In terms of the ratio of housing cost to income, for instance, international practice considers values above 25 per cent as unacceptably high. Based on the CSO's survey of May and June 2003, 38% of the households had a ratio in excess of this value, the average being 21%. The CSO took overhead costs in the narrow sense for home maintenance costs. These include rental fees, shared costs, public utility fees and charges, home insurance, rubbish fees, the redemption of loans related to the house, and the so-called miscellaneous costs (real property taxes, subscription to cable television etc., excluding telephone costs.) Income is equal to the household's net earnings per month. Because of the fast 2003 H2 growth of home loans, the average rate of overhead costs in the narrow sense probably rose further. It is clear that without income rises any further increase of housing loans would further raise the average rate of housing cost to income and the rate of households with over 25% housing cost of their incomes.

<sup>22</sup> Financial (excluding participation), and/or real properties held for investment purposes.

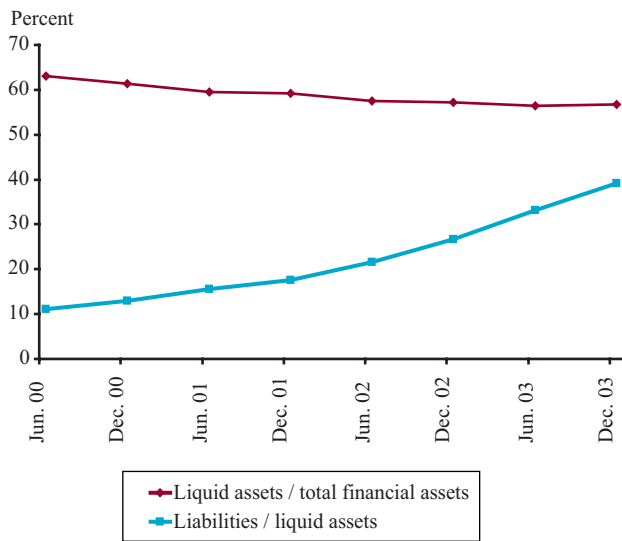
<sup>23</sup> Liquid assets include cash, deposits, securities other than shares, quoted shares and investment funds certificates.

<sup>24</sup> As cash was not included in the GfK survey, this rate is probably higher.



Chart 2-17

## Households' liquid assets



and there was an additional shift within financial assets towards less liquid assets. The ratio of household indebtedness to their total financial assets (including the less liquid assets of households)<sup>25</sup> saw a considerable rise from 8% to 22% in the past three years. At the end of 2003, household indebtedness in Hungary exceeded the data recorded for several EU-15 countries (Belgium, Italy), and the average of the euro area is only 1.3 times higher. Variance of this indicator between the Member States is lower. A minor difference in Hungary's case can be traced back to two factors, such as the outstanding significance of housing investment in household savings, and the upsurge in borrowing (of course, the two are interrelated), and thus the rise in financial savings could not keep pace with the increase in borrowing. If financial wealth is considered as loan coverage, this trend means a more risky convergence. In the light of these aspects, the fact that in an international comparison income-based indebtedness is relatively low does not justify any further rapid growth of loans.

In our estimate, real estate accounts for slightly more than 70% of the total assets of households, while this rate is between 30%–40% in developed countries.<sup>26</sup> In 1999, this rate was 64%, the increase since then is due to extremely fast price rises and the upsurge in housing investments due to the housing loan subsidy scheme. If considered as collateral for credits, the marketability and the related quality of real properties play a pivotal role.

In terms of both, improvement can be seen (see the section on housing loans.)

It is emphasised once again that in contrast to developed countries, neither households nor banks have the required experience and practice of managing long-term loans and temporary solvency difficulties. The majority of borrowers presumably regards current costs as primary in significance, and does not attach adequate importance to additional risks (such as interest and exchange rates). A lower level of financial education and understanding among households may engender higher lending risks, even at a lower level of indebtedness.

### Bank lending

#### Housing loans

Similarly to 2002, in 2003 the most influential trends were seen in lending for housing investment purposes. The housing scheme subsidy, favourable for customers, and the prospects of limitations at the beginning of summer and year-end 2003 nearly doubled bank loans granted for housing purposes. This rise was due almost exclusively to subsidised loans, which practically crowded out market-based products and increased their share in the total housing loans from 55% to 75% within one year. While they are relatively highly concentrated, the share of housing loans in the total assets of the banking system rose from 6.8% in 2002 to 11.4%, approaching the 15% rate characteristic of the euro area. More than 70% of the loans extended by banks to households are housing loans (in the EMU the rate of housing loans to other household loans is 2/3 to 1/3). GfK Hungary's survey reveals that by the end of 2003, 4.6%<sup>27</sup> of the total population had been granted housing loans, which is a relatively high value in regional terms. Projected on households, this corresponds to a 12% loan penetration.

The 2003 changes to the housing subsidy scheme resulted in a significant reduction in the realisable margin, and consequently, banks had to tighten their lending practices (Lending Survey). As a result of regulatory changes and interest rate rises, the prices of subsidised housing loans increased significantly. Some of the banks responded really flexibly to the changing external environment. As an alternative, they offer housing loans on a foreign currency basis. Despite slightly tightening lending standards, there is no major drop in the supply side of lending.

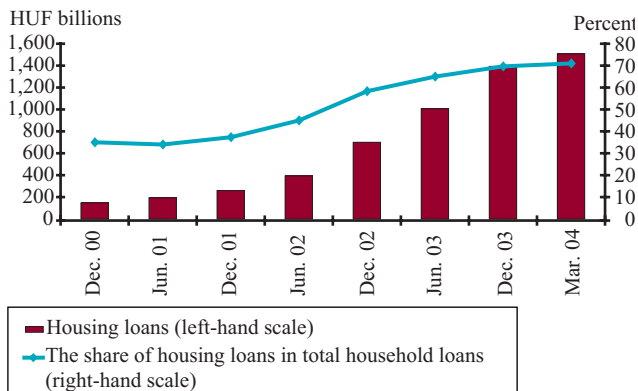
<sup>25</sup> In Hungary, business shares have a major share in the total financial liabilities of households. In the past three years it moved around 23%. The marketability of a considerable part of these is doubtful.

<sup>26</sup> The Economist, Special Report, House prices, Going through the roof. 28 March 2002.

<sup>27</sup> This matches with our estimate achieved by an adjustment of the data published in 'Housing Conditions 1999–2003' by the CSO.

Chart 2-18

## Housing loans and their share in household loans



Within the scope of subsidised loans, demand for loans granted for the purchase of used homes is expected to drop and a shift is likely towards financing the purchase of new homes. The latter forecast is based on the new subsidy conditions, the large number of building permits issued last year and the fact that a considerable part of the construction loans accepted and contracted at the end of 2003 will be disbursed in 2004. As far as the interest rate difference remains significant, because of their current lower borrowing costs and higher bank margins, foreign currency based products are likely to squeeze out both market-based forint loans and part of the subsidised loans for used homes purchase, or supplement the latter. (For further details, see the article 'Additional risks of foreign currency-based house purchase lending' in this Report.)

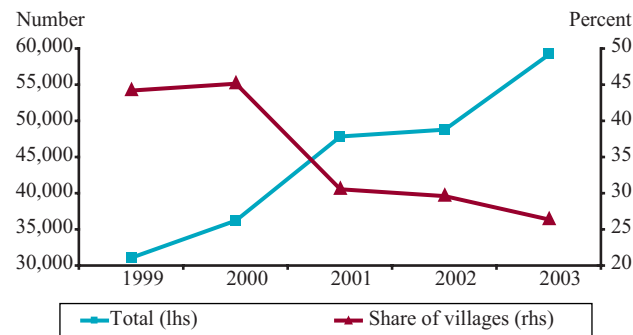
Despite the relative invariability of the overall loan supply, housing loans are expected to decline and a slight increase is projected in the share of FX lending.

As a certain part of forint loans are repriced, the amount of repayments will increase and slightly raise credit risk. For households taking on debt in foreign exchange, a sudden rise of repayments involves significant risks.

The ratio of loans to loan collateral remains low for government subsidised and market-based loans alike (Lending Survey). The rapidly increasing rate of good-quality houses and housing mobility is also favourable from the point of view of loan collateral.<sup>28</sup> Roughly one-quarter of the houses pledged as collateral are newly built, and as a certain part of those who purchase used homes may also be assumed to do repairs, the quality of homes serving collateral purposes is presumably higher than the quality of other houses. The

Chart 2-19

## Total number of issued building permits and the share of villages



Source: CSO.

housing mobility experienced during a major property boom cannot be projected for the future.

The number of building permits has nearly doubled, while the number of built and occupied houses has risen by almost 85% since 1999. As the number of building permits issued soared in the last quarter of 2003, home investment activity is expected to remain intense, and an increase in the supply of new houses can be expected in 2004. In terms of demand, accession to the EU is not expected to boost demand for homes, and the decline in the outflow of housing loans is likely to cut demand. For this reason, instead of a rise, the MNB expects a downturn in demand. The majority of the participants in the Lending Survey expected slightly rising house prices in the first half of 2004, but some envisaged a slight decline. On the basis of supply prices, real estate agents forecast price rises.<sup>29</sup> It follows from the above that at the national level no major shift is to be expected in home prices in the short term.

## Banks' consumer and other loans

Despite the fact that banks' consumer and other loans increased by 22% during 2003, their share in banks' household loans declined. Housing loans presumably squeezed out consumer loans (as mentioned above, part of the housing loans was spent on consumption), and demand for housing loans is followed by a pick-up in demand for consumer loans with a slight delay in time (as homes are bought first and furnished subsequently), thus a further increase may be expected in this field. The regulatory arbitrage seen in certain market segments also contributed to the declining share of consumer and other loans, as lending shifted towards non-bank financial intermediaries (e.g. financial corpo-

<sup>28</sup> Housing conditions 1999–2003, by the CSO.

<sup>29</sup> It must be noted that an eventual decrease in real property prices appears in databases based on supply prices with a delay, because sellers attempt to sell their properties at the earlier higher prices.

rations – financing motor vehicles). For several years, non-bank loans have been growing in excess of consumer and other loans (in 2003 their growth rate was 68%), and they have now approached the amount of bank loans. It must be noted that a considerable part of non-bank loans are extended by financial corporations established or owned by banks, thus the growth rate of bank loans is actually higher if consolidated.

Fourteen per cent of banks' consumer and other loans is denominated in foreign currencies. If banks are consolidated with their financial corporations, there is a significantly higher exchange rate risk converted into credit risk. The reason for this is that 80%–90% of loans granted by non-bank intermediaries are denominated in foreign currencies.

As a result of changes in the subsidy scheme, the interest rate margins of newly disbursed subsidised housing loans have decreased considerably, and therefore rela-

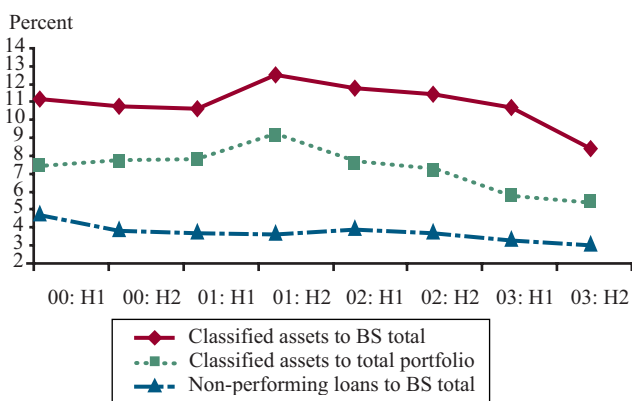
tively higher significance is likely to be attached to the market of consumer and other loans. The Lending Survey reveals an increasing willingness to extend consumer loans; in the respondents' view this market has considerable growth potential. In the course of 2003, banks slightly eased their creditability standards and credit conditions, moreover, they indicated further easing for 2004 H1. All these factors lead to an increase in the sector's credit risks. In the past one and a half years, an increasing number of banks have indicated growing demand, and most of them expect a further rise of demand over the next six months. In contrast to this, in the light of the future prospects of household incomes and the current indebtedness, the MNB forecasts slowing demand for consumer and other loans, leading to a decline in the growth rate of lending, despite a slightly increasing loan supply. Owing to the significant difference between the interest rates of forint and foreign currency-denominated loans, the latter is expected to expand further.

### 2.3 PORTFOLIO QUALITY

Portfolio quality moved in line with the favourable trends which commenced earlier. The total classified portfolio increased by 37.1%. Within the total loan portfolio, outstanding growth was seen in household mortgage lending for housing purposes and in off-balance sheet items. By their very nature, these new assets improved overall portfolio quality, as captured by various indicators: both the share of classified assets and non-performing loans decreased.

**Chart 2-20**

**The quality of loan portfolio of the banking sector**

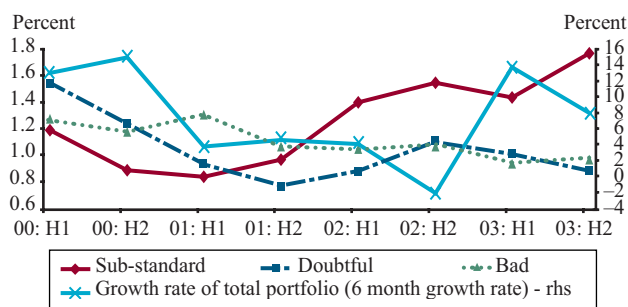


It is worthwhile to divide the total portfolio into three sub-portfolios.

Off-balance sheet items account for nearly one-half of total loans, 97.7% of which are problem-free. Over the past few years, their growth either kept pace with the

**Chart 2-21**

**Corporate loan portfolio**



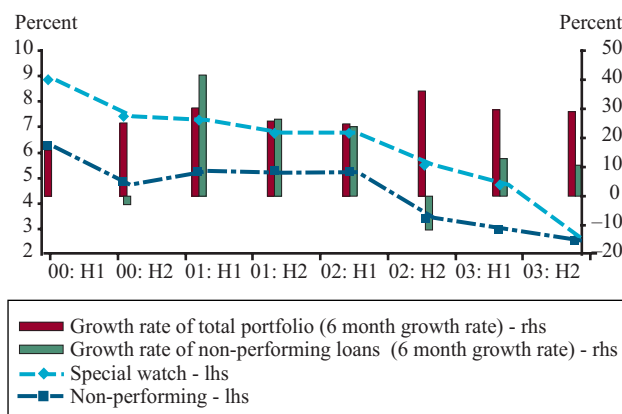
increase of balance sheet items or exceeded it. Thus, they greatly improved the quality of the total portfolio.

Following two years of sluggish growth, corporate loans rose sharply. Meanwhile, the share of non-performing loans remained unchanged; more specifically, sub-standard claims increased, while doubtful and bad ones slightly declined.

The improvement in household loan quality is clearly due to the rapid expansion of mortgage lending. The available data and time periods are insufficient for judging whether the first wave of non-payments has already started or not. In respect of items in default over 30 days, the rate of household to corporate loans did not change in the course of 2003, whereas the share of household loans increased significantly among items less than 30 days overdue.

**Chart 2-22**

**Household loan portfolio**

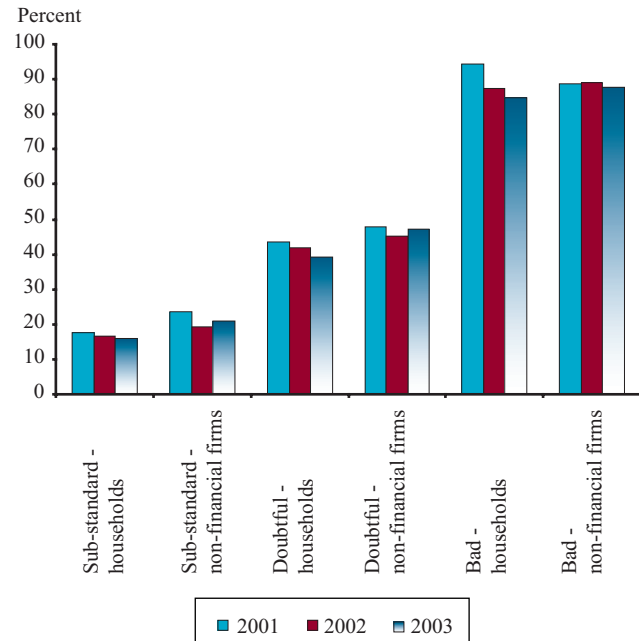


In the individual classification categories, the rate of coverage (the ratio of the value adjustment and provisioning to gross value) continued to decline. For doubtful loans it dropped far below the mean value (50%), whereas in sub-standard and bad loans it was around the mean value (20% and 85%, respectively). Deviation from the mean value is greater in the case of household loans. For lack of sufficient data, it is difficult to judge to what extent this decline suggests prudential conduct and to what extent it is due to banks'

procyclical behaviour. In any case, in light of the extraordinary profitability achieved last year, the continued decrease in provisioning comes as somewhat of a surprise.

**Chart 2-23**

**The ratio of value adjustment and provisioning to gross asset value**



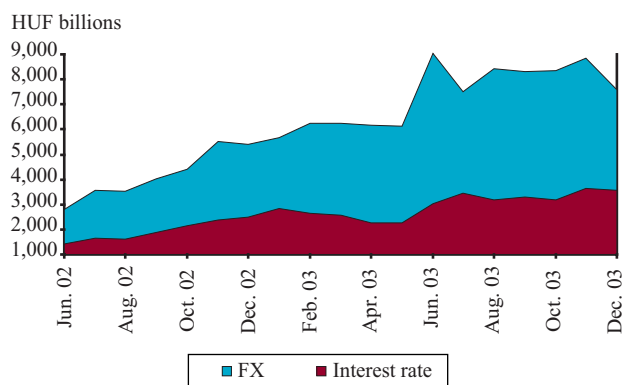
## 2.4 BANKS' DERIVATIVE ACTIVITY AND MARKET RISKS

### 2.4.1 BANKS' DERIVATIVE ACTIVITY

As a result of the significant rise in exchange rate and interest rate volatility in 2003, banks' derivative market activity fluctuated strongly. In 2003 H1, the ratio of the contractual value of derivative transactions to the balance sheet total increased by 27.8%, only to drop by 18.7% in the second half of the year. The foreign exchange market continued to play a pivotal role in shaping turnover. Approximately 70% of the transactions were FX deals, and 28%–29% of them were interest rate transactions, while the off-balance sheet contracts concluded for shares, bonds and other products hovered around a mere 1%.

Chart 2-24

#### Major derivatives at contractual value



Exchange rate futures picked up especially in periods of increased forint volatility<sup>30</sup> (end of January, mid-June and end of November). In respect of structural division, swaps continue to prevail (60%–70%): the powerful fluctuations in FX derivatives are due primarily to swaps. During speculative attacks, non-resident market participants typically entered into trade through FX swap transactions with domestic banks. The vigorous upsurge at the end of 2003 H1 resulted from the fact that banks hedged their derivative foreign exchange positions off the balance sheet (primarily by forwards

traded with corporations), thus the value of positions increased twice as fast. Banks' activity in the foreign exchange options market remained insignificant, and by the end of 2003 the number of open positions had nearly vanished.

In addition to a trend of growth, variations in open interest rate derivatives can also be connected with money market turbulence, although less closely than foreign exchange derivatives. By the end of the year, these derivatives had increased by roughly 42% and exceeded HUF 3,500 billion. With a share of nearly 60%, swaps also prevailed among interest rate derivatives.

The banking system's increasing off-balance sheet activity had no major impact on counterparty risk and the risk assessment of transactions. Even during a relatively more significant derivative uptrend (in January, June), the value of weighted counterparty risk rose by a mere HUF 5–10 billion, which appeared in the balance sheets of no more than 4–5 banks, namely those that are extremely active in derivatives and have capital adequacy ratios far above the average.

### 2.4.2 EXCHANGE RATE RISKS

In an environment of significantly fluctuating forint exchange rates, after a downward trend in the previous years, 2003 saw the share of foreign currency assets recover in the balance sheet. In terms of the denominational structure, the proportion of items denominated in EUR continued to increase and approached 80% by the end of 2003. Approximately 20% of the increment (HUF 725 billion) in the two principal currencies (EUR and USD) was due to the exchange rate effects of HUF depreciation.<sup>31</sup> In terms of volumes calculated without exchange rate effects, just as in previous years, special attention should be paid to foreign currency-based financing to non-bank financial intermediaries and the relatively significant growth of corporate loans denominated in foreign currencies. As foreign exchange lia-

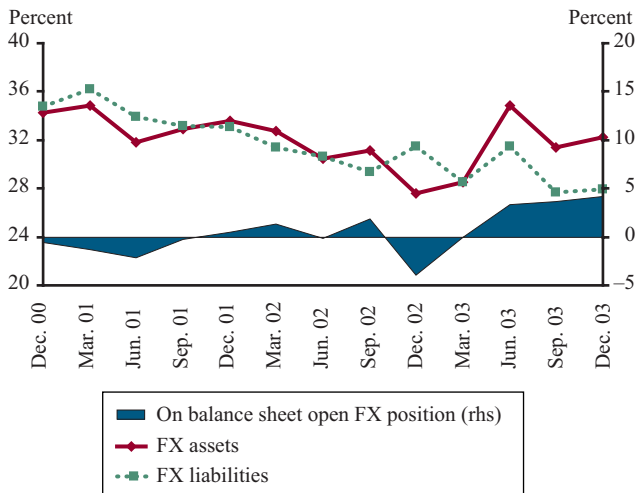
<sup>30</sup> A low level of the total open foreign exchange positions in the banking system indicates that banks actively hedged their open balance sheet currency positions by off-balance sheet derivative transactions.

<sup>31</sup> Based on an average weighting of the base period and assuming an even increase in activity.

bilities failed to remain in tune with the growth of foreign exchange assets from 2003 Q1, a considerable gap was created in the on-balance sheet foreign exchange position of the banking system by the end of the year.

**Chart 2-25**

**Ratio of FX items and open on-balance sheet positions**



Due to increasing volatility in the forint exchange rate, the foreign currency position of the banking system was rather hectic in 2003 in comparison to the previous years, nevertheless its variations can be divided into three clearly defined stages.

1. On-balance sheet long foreign currency position started to open in 2002, but this trend was broken by a speculative attack in favour of the forint. During the attack, non-residents performed a spot HUF purchase simultaneously with an opposite FX swap to open a synthetic forward position, which was then forwarded to the central bank within the framework of a spot foreign currency conversion transaction (band edge intervention) leaving banks' total FX position nearly closed (+/- HUF 10 billion). Following several interventions by the central bank, in mid-January the on-balance sheet long foreign currency position amounting to approximately HUF 400 billion turned into a short currency position worth HUF 350 billion within a couple of days. As a result of the central banks' measures, speculative positions were worked down and non-resident investors regained interest in buying government securities, thus moving the on-balance sheet position of the banking system once again to the long side.

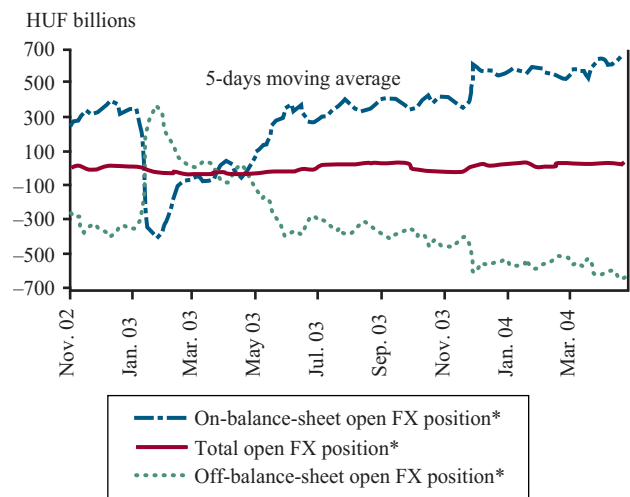
2. The shift of the forint floating band and positions taken up against the forint by non-residents was only

able to halt the rebuilding of long currency positions temporarily. However, instead of the central bank, banks hedged their forward positions generated as a result of the January speculative attack rather against domestic non-bank market participants (primarily corporations) and other non-bank non-residents.<sup>32</sup> The opening of the total currency position seen in this period (plus HUF 50 billion) was due to a one-off item that did not generate any actual exchange rate risk.

3. A rise in interest rates at the end of November gave new impetus to the reconstruction of the long currency position, which increased by nearly HUF 200 billion within just a few days. However, the depreciation of the forint – which preceded the raising of central bank interest rates – had no significant impact on banks' profits (a mere HUF 200–300 million), because the total position of the banking system was nearly closed. In the course of the resulting on-balance sheet position opening, without the aforementioned one-off item, banks kept their position wider (approximately HUF 25–30 billion) than previously.<sup>33</sup> For this reason, a sudden strengthening of the exchange rate could result in a stronger negative effect than earlier, but this is still insignificant for the shock tolerance of the sector.

**Chart 2-26**

**Banking system foreign currency position**



\* Positive value: long FX position

As the total foreign exchange position is kept rather narrow, hectic exchange rate fluctuations had no major aggregate impact upon the profitability of banks. The increase in the exchange rate volatility made the participants of the banking sector more careful. Banks kept their total position at a minimum level by hedging their on-balance-sheet positions via derivatives con-

<sup>32</sup> Theoretically, such transactions do not affect the size of either off- or on-balance sheet currency positions.

<sup>33</sup> The significant increase in the total open currency position was due primarily to the positions taken up by a few banks which previously followed rather conservative policies.

tracted in the OTC market.<sup>34</sup> Similarly to 2002, the capital earmarked pursuant to the regulation relevant to trading books<sup>35</sup> for covering foreign exchange risks moved around HUF 3.5 billion in 2003 H1, whereas the increase in the second half of the year (to HUF 5 billion) resulted from the technical item described above and a more aggressive undertaking of positions by certain banks. Although due to the relatively low level of open bank positions, increasing exchange rate volatility had no major direct adverse effect on profitability, the rapid expansion of foreign exchange denominated assets in 2003 suggests the growing significance of foreign liabilities. This is because if foreign exchange assets continue to increase quickly, the banking system will have to find foreign exchange resources in larger amounts than previously in order to avoid an increase in exchange risk. Otherwise banks will increasingly rely on off-balance hedging transactions, which will soon be limited by the relatively shallow depth of the domestic forward market.<sup>36</sup> The large amount of syndicated foreign exchange loans borrowed in 2004 Q1 suggests an increasing role of non-residents in financing. Additional means of debt financing may include the scheduled issue of mortgage bonds by mortgage lending institutions and, primarily, parent-bank loans.

### 2.4.3 INTEREST RATE RISKS

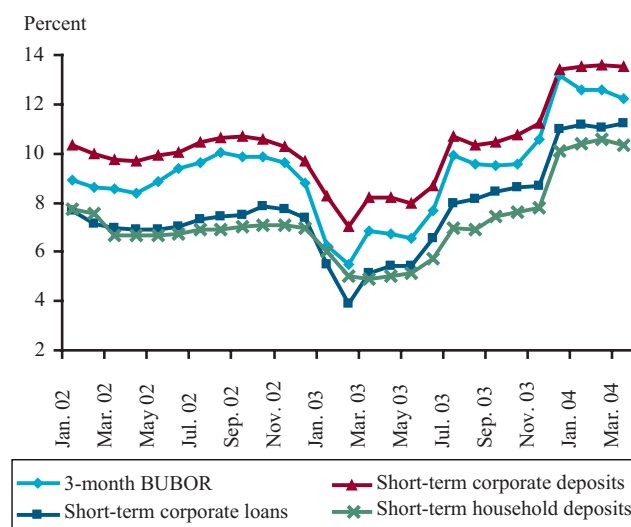
#### Forint interest rate risks

Compared to previous years, the volatility of banks' forint interest rates increased significantly in 2003.

Changes in the central bank base rate had its effect felt differently in the interest rates charged by banks. The effect of interest rate cuts (by 200 basis points) appeared fairly quickly in corporate loan interest rates, and to a smaller extent, in corporate deposit rates, while household deposit rates followed such interest rate cuts slower and in a minor extent.<sup>37</sup> The after-effect of interest rate rises (by altogether 600 basis points) appeared far slower in corporate lending (due to sharp competition) and household deposit rates<sup>38</sup> (owing to higher concentration and market power). Due to sharp

Chart 2-27

#### Interbank and bank HUF customer interest rates



competition, however, corporate deposit rates followed rises in market yields relatively quickly. As a result of government subsidies on housing loans and the strong profit earned on consumer loans, in the short term household credit interest rates were hardly sensitive to variations in central bank rates and market rates. Due to the above, the 2003 movements in rates had more positive effects in the case of banks with major household clientele, and more negative impacts on banks typically specialising in corporate customers.<sup>39</sup> At the level of the individual bank, however, differences may arise from the intensity of competition, the struggle for funding and customers, and the profitability objectives. Whenever banks with typically less customer deposits see a possibility to acquire market share and increase their deposit base, they are faster to follow interest rate rises than banks with major household deposits which therefore give priority to profitability considerations. For this reason, banks pricing practices may divert the actual interest rate risk from the theoretically justified value.<sup>40</sup> Based on the complete repricing scheme, it is clear that in 2002 and 2003 banking system activity was financed primarily from liabilities of short repricing periods.

<sup>34</sup> As of 1 November 2003, Government Decree 41/1996. PM of the Finance Minister, restricting the amount of banks' short and long foreign exchange positions to 30% of the regulatory capital, was repealed.

<sup>35</sup> Pursuant to Government Decree 2002/291 Korm., the capital required of banks in relation to exchange rates is 8% of the amount of larger absolute value of the aggregated long and short foreign exchange positions in excess of 2% of the regulatory capital specified in prudential requirements.

<sup>36</sup> In the event of foreign exchange lending without foreign exchange liabilities, banks will want to sell foreign exchange forward after they have transacted spot conversion.

<sup>37</sup> Central bank interest rates have an insignificant effect on overnight deposit interest rates.

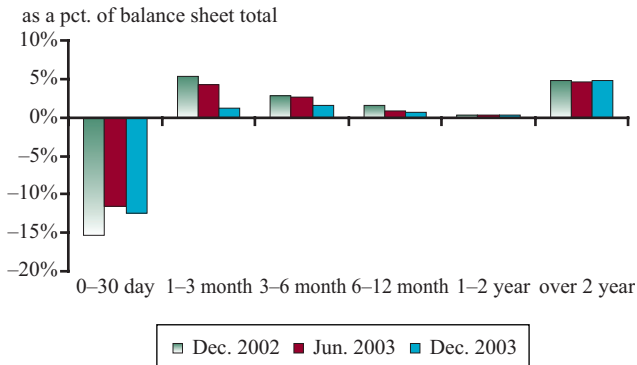
<sup>38</sup> Household deposit rates give a good illustration of the so-called intertemporal smoothing effect, used by banks to smooth volatile yields for households.

<sup>39</sup> As a result of the interest rate ceiling and the 3-month delay in subsidies introduced as of 16 June 2003 (in addition to the amount of government subsidy), sudden interest rate movements also affect the banking system margin on government subsidised housing loans. The unfavourable effects of excessive interest rate rises on income were offset by the issue of short-term mortgage bonds, which temporarily raised the interest rate risks. However, as the interest rate environment became more favourable at the beginning of 2004, the issue of short-term mortgage bonds slowed down.

<sup>40</sup> Repricing gaps offer accurate information on banks' exposure to interest rate risks and the profitability effect only if it is assumed that at repricing times the banks reprice their assets and liabilities in the direction and at the extent of market yield movements.



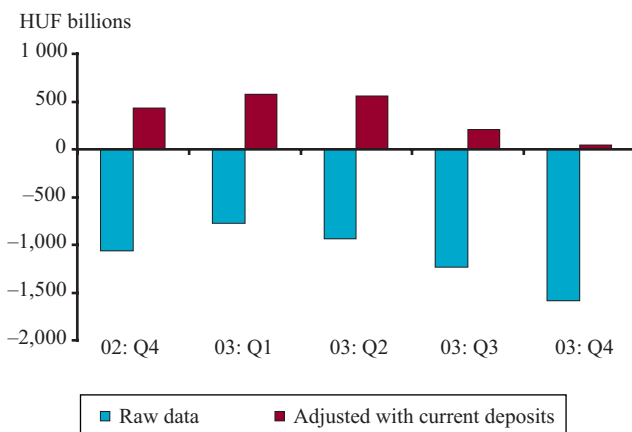
Chart 2-28

Repricing scheme of HUF items<sup>41</sup>

Simultaneously with the increase of forint interest rate volatility, banks' 90-day cumulative repricing gap, calculated with historical data, fell through to the end of 2003 Q1 and then widened steadily. By the end of the year, it exceeded 12% of the balance sheet total. Consequently, the constant upward movement in interest rates in the second half of the year theoretically had an unfavourable impact on banking profitability. However, the fact that overnight deposit rates practically do not follow market yields can greatly reduce this adverse effect. Adjusted for the inflexible part of current account deposits,<sup>42</sup> the value of the 90-day cumulative repricing gap was positive in every period,

Chart 2-29

## 90-day cumulative HUF repricing gap of the banking system



and with the increase of deposits with a short agreed maturity, the adjusted repricing gap nearly closed in 2003 Q3 and Q4.

Although the average remaining maturity of government securities held by banks (1.25 years) rose continuously (from 1.08 years) last year, the considerable weight of floating rate bonds and discount treasury bills prevented it from lengthening further. As a consequence, banks suffered losses that can be considered moderate in comparison to the portfolio size, exceeding HUF 1,300 billion, and the extent of yield rise (up by 600 basis points): the revaluation of securities for trading and investment purposes resulted in a loss of merely HUF 4.5 billion.

## Foreign exchange interest rate risks

Although external financing of the banking system saw a powerful increase in 2003, the size of interest rate risks measured in the major currencies (EUR and USD) remain insignificant. The 90-day cumulative repricing gap moved between 0.5% and 1.5% of the balance sheet total. This is due primarily to the fact that the banks used foreign exchange liabilities of short repricing periods (typically 1-3 months, generally inter-company or syndicated loans) for financing assets of similar repricing periods (corporate loans and leasing through non-bank intermediaries). Foreign exchange based housing loans, launched in 2004, also means assets with short repricing periods, therefore the exchange rate risk is not expected to grow even in the event of a rapid upturn in this business. This means that at a moderate FX interest rate risk in the Hungarian banking system, the direct adverse effect of the potential rise of EUR and USD interest rates can remain moderate.

Thus, with a robust rise of interest rate volatility, the forint repricing gap of the banking system increased in 2003, but adjusted for overnight deposits, the interest rate position remained nearly closed. Due to relatively short durations, the loss suffered on government securities was insignificant. Owing to banks' moderate propensity to undertake risks, the massive rise in foreign exchange lending did not increase foreign exchange interest rate risks.

<sup>41</sup> The net values of repricing gaps measured in the individual intervals as a proportion of the balance sheet total.

<sup>42</sup> Based on short-term interest rate flexibility, considered as constant, adjusted for 90% of the household current account deposits and 65% of the corporate current account deposits.

## 2.5 BANKING SECTOR LIQUIDITY

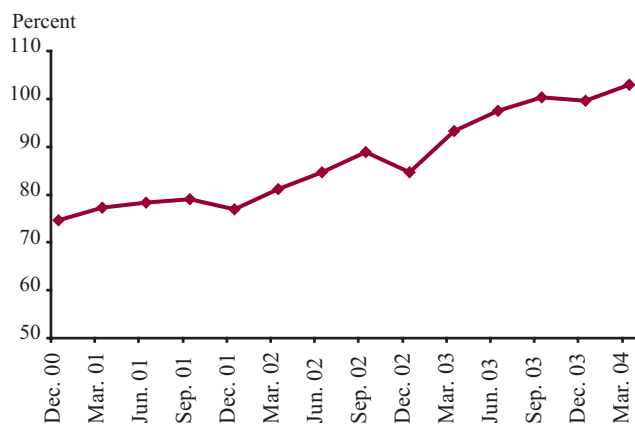
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Similarly to the trends in recent years, growth in deposits was much slower than the very fast pace of lending in the second half of 2003. While the amount of total loans grew by 31.9% in twelve months, the total amount of deposits and securities (excluding mortgage bonds purchased by banks) increased by only 11.9% (and by only 17.6% without this exclusion).<sup>43</sup> Due to this high rate of lending growth and a much more subdued inflow of deposits, banks' loan-to-deposit<sup>44</sup> ratio reached 100% by end-September, then 103% by November (the highest percentage so far) and stabilised at this high rate in the first quarter of 2004.

The robust growth in the loan-to-deposit ratio over the last two years was mainly due to a decline in households' propensity to save, coupled with a strengthening of corporations' net borrowing positions vis-à-vis banks in 2003 to a smaller extent. It should be noted, however, that the growth of households' deposits was faster in the second half of the year than in the previous period: while the growth over twelve months was only 8% in June, this rate grew to 14% by December, probably also fuelled by higher interest rates. In line with the changes in banks' aggregate loan-to-deposit ratio, the market share of banks with a loan-to-deposit ratio exceeding 100% has also increased significantly from 40% to 58%.

**Chart 2-30**

**Loan-to-deposit ratio in the banking sector**



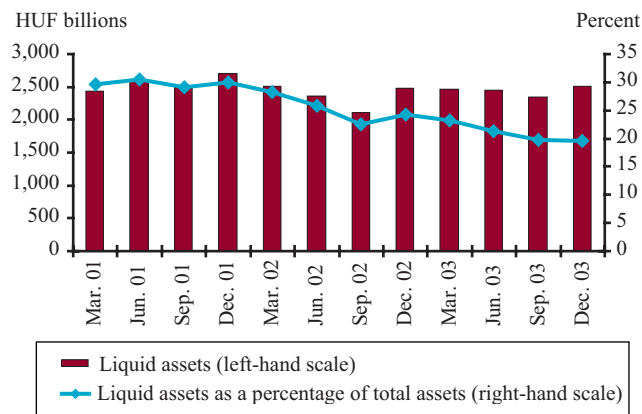
<sup>43</sup> Within this the growth of deposits itself was only 9.3%.

<sup>44</sup> In addition to corporate and household portfolios, loans and deposits include all loans to and deposits and securities of non-credit institutions. The latter does not include securities subscribed to by other domestic credit institutions.

In the second half of 2003, the ratio of banks' liquid assets to balance sheet total further declined, albeit at a slower pace, reaching 19.6% by the end of December. The absolute value of liquid assets changed only slightly compared to that of at the end of June, but showed contrary movements in the third and fourth quarters. While in the third quarter the decline in liquid assets represented an additional source for financing loan expansion, excess liquidity arising from a greater volume of deposits and an inflow of foreign funds in the last months of the year also added to the growth of liquid assets. As a result, the liquid assets ratio did not decline further in the fourth quarter of the year. All this, however, was mainly due to the expansion of foreign exchange liquidity arising from the upswing in foreign interbank deposits at the end of the year.

**Chart 2-31**

**Ratio of liquid assets**



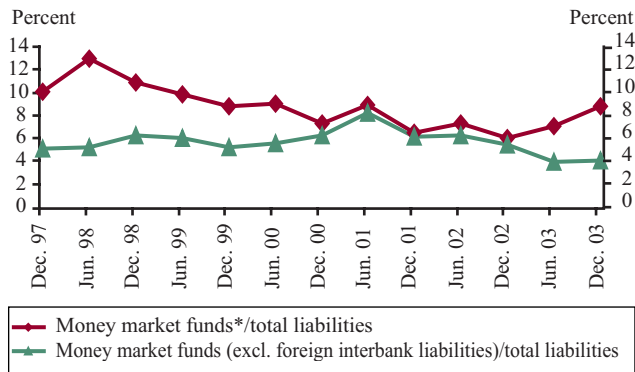
*Liquid assets: cash and current accounts, treasury bills, government bonds (excluding consolidation bonds), central bank bonds, short-term deposits at the central bank and short term claims on foreign banks.*

In the second half of 2003, foreign liabilities played a dominant role in funding the loan expansion at a rate exceeding the growth of deposits. Looking at the year as a whole, the ratio of short and long-term liabilities in the increment of foreign liabilities was 55% and 45%

respectively. As a result of the robust growth in foreign short-term interbank liabilities, banks' exposure to money markets continued to grow in the second half of 2003. A further increase in the ratio of less stable money market liabilities carries certain risks, although its present level can still be considered relatively low.

Chart 2-32

## Money market exposure



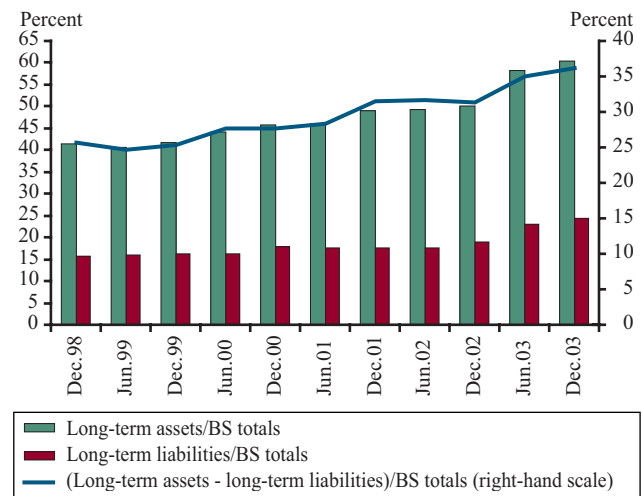
\* Money market funds: short term domestic and foreign interbank liabilities + central bank repo.

In the second half of 2003, the ratio of assets and liabilities with a maturity of over one year continued to rise, albeit at a slower pace than in the first half of the year. The shift towards a longer-term maturity of assets was mainly due to the continued, dynamic growth of mortgage loans, as well as to an upsurge in corporate loans with a maturity of over one year. Mortgage bond issues played a significant role in the rise of the proportion of liabilities with a maturity of over one year, while the increase of foreign long-term interbank liabilities was also considerable. The maturity transformation carried out by the banking system – measured by the difference between the proportion of assets and liabilities with a maturity of over one year – showed a moderate increase compared to the first half of the year. The strengthening of the maturity transformation was partly due to the fact that a part of mortgage bonds

issued to finance subsidised housing loans was subscribed by banks (by the parent bank). In addition, the issuance of a significant volume of short-term mortgage bonds in the second half of the year also increased the maturity mismatch between assets and liabilities.

In summary, taking into account the whole of 2003, banks' liquidity risks – primarily due to the rapid rise in the loan-to-deposit ratio – showed an upward trend. At the same time, the fact that household deposits have been increasing at a faster rate since mid-2003 represents a favourable development. The expected decline in the growth of housing loans also points to a narrowing in the difference between growth in loans and deposits. As far as the corporate sector is concerned, however, an increase in net financing needs can be expected as a result of a growing demand for investment loans in 2004. The above factors are likely to lead to a continuation of the growth of the loan-to-deposit ratio, but at a much slower pace than in 2003.

Chart 2-33

Banks' assets and liabilities with a maturity of over one year and their difference in relation to the balance sheet total<sup>45</sup>

<sup>45</sup> Mortgage bonds subscribed by other credit institutions were not excluded separately from assets and liabilities with a maturity of over one year since the impact of duplication in their difference, which is relevant from a maturity transformation point of view, would be lost.

## 2.6 FINANCIAL POSITION AND CAPITAL ADEQUACY

In 2003, based on preliminary data the banking sector's solvency ratio computed for credit risk only was 11.2% (or 11.9% adjusted by expected reinvested earnings); i.e. the minimum legal requirement of the ratio was fulfilled by all the banks even without including reinvested earnings.<sup>46</sup> Since the law excluded the capital needs for exchange rate, goods and trade risks at book value, removing these risks from the scope of sanctions related to the ratio, in our review of how capital requirements exceeding credit risks are fulfilled, the capital adequacy ratio with the contents effective until 2002 will be used in order to have comparable time series.

In 2003, based on preliminary data and taking into account a conservative estimate of reinvested earnings,<sup>47</sup> the banking sector's capital adequacy ratio fell to 11.5%, down from 13.0% in the previous year.<sup>48</sup> Among the components of this 1.5 percentage point decline, the value of the ratio was reduced by 2.8 percentage points due to the growth of activity and by another 1.1 percentage points due to the growth of deductions, while the growth of regulatory capital improved the ratio by 2.4 percentage points. The growth of regulatory capital compensates for the impact of activity expansion to a great extent.

Accordingly, the fall of the ratio is mainly due to the growth in the items to be deducted.<sup>49</sup>

The unadjusted capital adequacy ratio of only eight banks did not reach 10%, one bank fewer than last year. Nevertheless, it gives cause for concern that among six of these eight (in 2003) as opposed to three (in 2002) are among the ten largest banks and three of them are among the five largest banks. The ratio of four out of six banks (two out of the five largest banks) remained in this range even with the assumption of reinvesting earnings. The ratio of one bank among the ten largest banks does not reach 8% and even if earnings are reinvested it can only exceed this minimal value expected for all regulatory risks to a very small extent. This trend, already outlined by one-half year's worth of data, shows very clearly that for a significant proportion of banks, which are dominant from a system risk point of view, the growth of regulatory capital can effectively hinder the growth of risk-taking and these banks need increasingly more external capital despite the relatively high level of their ability to accumulate internal funds.

Taking into account reinvested earnings, regulatory capital eligible for risks exceeds the audited value of

**Table 2-4**

### Banks' solvency and capital adequacy ratios

Ratio	Solvency ratio			Capital adequacy ratio		
	Preliminary	With reinvested earnings*	Audited	Preliminary	With reinvested earnings*	Audited
2002	-	-	-	11.1%	12.5%	13.0%
2003	11.2%	12.0%	-	10.7%	11.5%	-

\*Assuming reinvestment of 70% of a positive balance.

<sup>46</sup> Since 1 January 2003, there have been a number of changes in the methodology of calculating the capital adequacy and the regulatory capital of financial institutions, all having an effect on our ratios. These changes were summarised in a box of the Report of Financial Stability published in December 2003.

<sup>47</sup> The value of banks' regulatory capital will be increased by '(positive after-tax profits – audited interim profits) \* (1-dividend payout ratio)'. Although last year this ratio was significantly lower than in recent years standing at 14%, based on conservative estimates we continued to use a 30% index for the dividend payout ratio, probably underestimating the banking sector's capital strength.

<sup>48</sup> Based on preliminary data, the value of the capital adequacy ratio was 10.7% without the estimated reinvested earnings. The rate of decrease was moderated by the possibility of including mid-year audited profits in the regulatory capital. This opportunity, appearing in 2003 for the first time, was used by five banks. Without the audited mid-year profits of HUF 55 billion, the capital adequacy ratio would have fallen to 10% in the banking sector.

<sup>49</sup> Among the deductible items, the 78.4% growth (HUF 52.5 billion) of the amount deducted due to the capital invested in financial institutions, investment enterprises and insurance companies (PIBB) and the subordinated loan capital provided to them, had the greatest impact on volume.

the previous year by HUF 76 billion. External funds (the owners' capital injection of HUF 29 billion and the growth of received subordinated loan capital in the amount of HUF 44 billion) were important factors in the growth of regulatory capital. Based on conservative preliminary estimates, banks' high profitability increases core capital by another HUF 65 billion, indicating an exceptionally strong ability for internal funding even in 2003.

The total capital requirements for the amounts in excess of large exposure limits and for country risk increased by 34%.<sup>50</sup> In the near future, a further decrease of limit excesses relating to subsidiaries can be expected. On the one hand, as far as closely related companies are concerned, the legal large exposure limit defined as 15% of the regulatory capital will be increased to 20% following accession, while on the other, accounting rules applicable to the consolidation of 'affiliated companies' also came into effect on 1 May 2004. Accordingly, banks requiring compliance based on consolidated supervision – having fallen out of the scope of consolidated supervision due to the 2003 amendment of the law – can now fulfil the requirements and are exempt from the application of the limit if they hold a supervisory permit. The growth in the number of banks involved in risk taking limit excesses vis-à-vis their clients and especially the tripling of this volume (growth exceeding HUF 20 billion), clearly indicate that without further funding certain large domestic banks could be excluded from financing the largest Hungarian companies of favourable risk classification, or in order to avoid this, a greater number of banks may wish to transform into a subsidiary than expected.

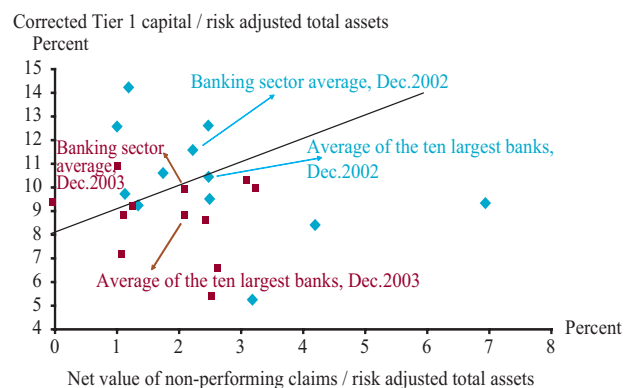
The capital requirements for the trading book were doubled reaching HUF 30 billion, and the capital requirements for exchange rate risks grew to nearly HUF 8 billion, two and a half times the original amount. Nevertheless, this volume does not pose a significant risk for the banking system.

Banks' activity grew by 27% calculated by the risk adjusted balance sheet total. In contrast to the trends in recent years when as a rule the denominator of the capital adequacy ratio grew by an extent significantly exceeding the balance sheet total, the growth rate of the balance sheet total and the risk adjusted balance sheet total began to converge by end-2003: the difference between them fell to 0.6 percentage points.

The structure of weighted assets changed. The ratio of balance sheet items moved to above 80% once again. It is especially noteworthy that the amount of mortgage loans for housing with medium risk rating (with 50% weight) nearly doubled in 2003 following the exceptional growth in the previous year: its percentage reached 8.1% within overall exposure. The growth rate of the weighted value of contingent liabilities and commitments amounted only to half of all the weighted asset items. The banking book items to be weighted represent a smaller and smaller part of derivatives transactions (only 14% in 2003). The weighted value of counterparty risks of derivatives transactions in the banking book has nominally also decreased by 18%. This decrease was mainly due to a nearly 30% decline in the amount of written options of 100% weight. At the same time, following the increased volatility of the forint exchange rate and the rise of interest rates the structure of derivatives transactions has also changed: the role of the much more flexible and liquid swap markets became more dominant in managing interest rate and exchange rate risks as opposed to the role of forward and futures transactions.

Chart 2-34

**The ten largest banks, the capital position of their average and the banking sector's average and the risks measured at maximum losses for non-performing claims at the end of 2002 and 2003**



The adjusted capital adequacy ratio for core capital (after deductions, remaining for covering credit risks) fell to 9.9% in the whole sector.<sup>51</sup> As a result of the improvement of the portfolio, the decrease in the value of the stress-CAR<sup>52</sup> (calculated from the adjusted core capital adequacy ratio assuming maximum losses in the non-performing balance sheet items) was smaller

<sup>50</sup> Based on preliminary profit data, similarly to last year, in the case of audited data a significant decrease in both limit excesses in investments and related companies and in sovereign risk capital requirements can be expected.

<sup>51</sup> The contents and the name of the ratio introduced in the December 2002 issue of the *Report on Financial Stability* was amended: Adjusted core capital adequacy ratio = (Core capital after deductions – capital requirements for trading book, exchange rate and commodity risks)/risk-adjusted balance sheet total.

<sup>52</sup> The contents of the ratio introduced in the December 2002 issue of the *Report on Financial Stability* was amended: Stress capital adequacy ratio = Core capital after deductions - capital requirements for trading book, exchange rate and commodity risks – net value of non-performing balance sheet items)/( risk-adjusted balance sheet total - net value of non-performing balance sheet items).

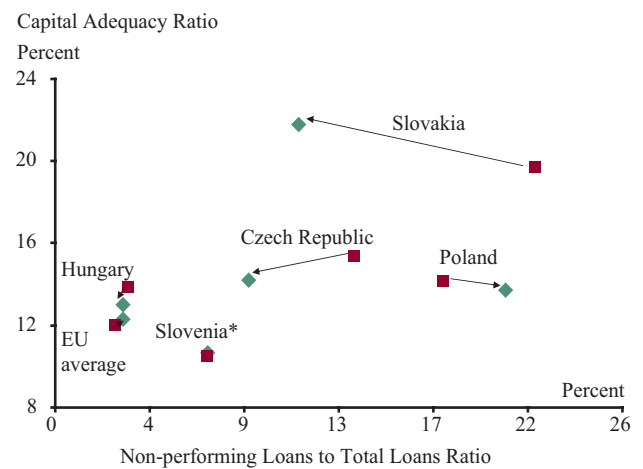
than this and reached 8.0%, in line with the regulatory minimum. The average stress-CAR of the ten largest banks dropped from 8.1% in 2001 to 6.9% in 2003. Taking into account the extreme nature of the scenario, this indicates an acceptable level of stability both in the banking sector and as the average of the largest banks. The position of the ten largest banks (with the exception of two) was characterised by the fact that their ability to cope with stress has deteriorated significantly. While the regulatory changes relating to core capital applied to only one bank, the stress CAR based on core capital assuming maximum losses and after adjusting profits reached at least 8% only in the case of three banks, while this number was six in 2002. The two rapidly growing banks in the group would have had difficulties in coping with a scenario of this nature in 2003.

The banks in the region serving as the basis for international comparison (with the exception of Slovenia) had a capital adequacy ratio exceeding that of the EU as early as 2002, justified by higher risks than in Western Europe. The ratio of non-performing loans to total loans in the region (with the exception of Hungary) is significantly higher than in the EU. Among the acceding countries of Central Europe, Hungary's ratio was closest to that of the EU both in 2001 and in 2002. Caution is needed, however, when drawing conclusions from the comparison of different countries' positions as different accounting and portfolio classification regulations are applied in different countries. In 2002, compared to 2001, Slovenia's position did not change, the position of the Czech Republic and

Slovakia improved to a great extent following the completion of the consolidation of the banking sector, while Poland's position deteriorated due to prolonged economic recession (shifts are indicated by arrows). Based on this, the capital position of the Hungarian banking sector seems satisfactory and stable at present; the CAR exceeds the average ratio in the EU and the level of the non-performing portfolio is at the same level as in the EU.

Chart 2-35

**Capital adequacy ratio and non-performing loans to total loans ratio in five Central and East European accession countries and in the EU 15 (2001–2002)**



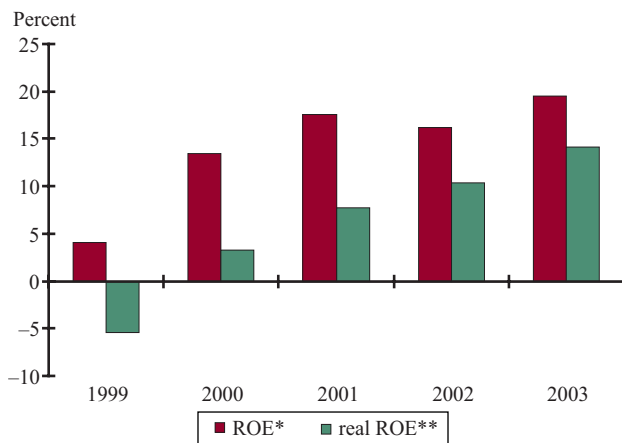
\* Slovenia: total portfolio.

## 2.7 PROFITABILITY

In 2003, the Hungarian banking sector recorded record-setting financial results: after-tax profits, at HUF 176 billion, were nearly 40% higher than in the base period. ROA and ROE both improved spectacularly relative to a year earlier. ROA rose from 1.38% to 1.54% and ROE from 16.2% to 19.5%.<sup>53</sup> Real ROE was at its highest level ever, amounting to 14.1%. It should be noted that improved ROE is also attributable to the fact that, in contrast to the preceding two years, leverage increased in 2003. An extremely rapid increase in subsidised housing loans, which earned significant additional interest income and, to a smaller extent, profit on commissions and fees for banks, played a key role in the improved profitability of the banking system.

**Chart 2-36**

### Banking sector ROE and real ROE



\* Calculated with after-tax profit.

\*\* Deflated by annual average CPI.

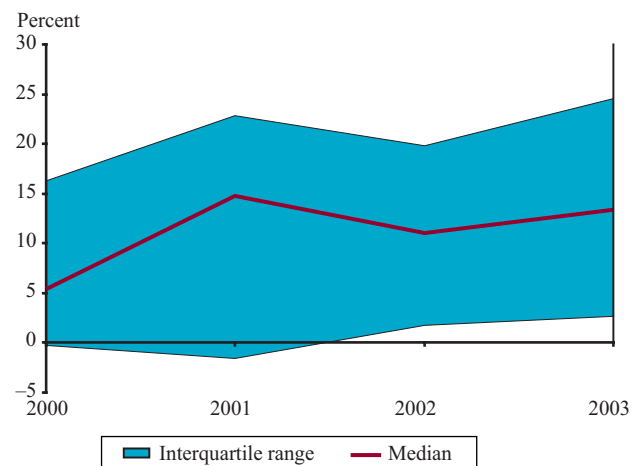
A 2002 international comparison of profitability indicators reveals that the profitability of the banking system well exceeds the EU average. As regards the three largest CEECs, ROA was the highest in Hungary, while ROE was highest in the Czech Republic.

A dynamic increase in banking system aggregate profits was accompanied with a simultaneous rise in the profitability differences among banks. In terms of profitability, the gap between the upper and lower quarters of banks grew considerably. Although there was no change in the number of banks with positive real ROE (24) in 2003, their joint market share fell from 92% to 82%. From a systemic stability point of view it is a favourable development that loss-making banks continue to include companies of lesser size only, as reflected in their low aggregate market share (5%).

**Chart 2-37**

### Differences among banks in terms of profitability

(based on ROE)



**Table 2-5**

### International comparison of banking system profitability (2002)

	Czech Republic	Poland	Hungary	EU average
ROA	1.1	0.5	1.4	0.4
ROE	22.1	6.7	16.2	8.6

<sup>53</sup> Compared to the way it was previously calculated in earlier Reports, the calculation of ROE has changed. Equity minus accrued profits replaces equity including the annual accrued profit in the denominator.

Table 2-6

## Banking sector profits

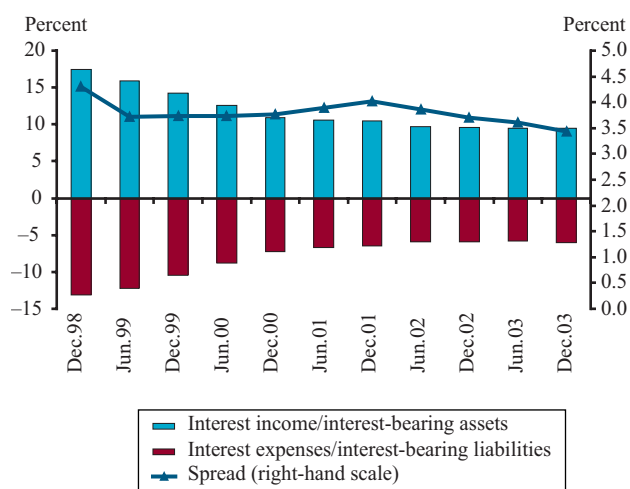
	2002	2003	Change	
			HUF billions	Index
Net interest income	385.0	451.2	66.2	117.2%
Dividend income	8.3	21.7	13.5	263.3%
Net commission and fee income	129.0	167.9	38.9	130.1%
Net profit on financial operations	42.1	52.2	10.1	124.1%
Net profit on other operations	-44.3	-57.3	-13.1	129.5%
General administration costs	341.4	389.8	48.4	114.2%
Change in value adjustments and provisions	-27.2	-35.9	-8.7	131.8%
Net profit on ordinary business activity	151.4	210.0	58.6	138.7%
Extraordinary profit	3.0	3.8	0.8	127.2%
Pre-tax profit	154.3	213.7	59.4	138.5%
After-tax profit	126.9	176.1	49.2	138.8%

A study of profitability as per business activity reveals that it was banks specialising in household lending that were the most successful in 2003. Mortgage banks experienced the most significant improvement, with their joint ROE soaring from 9.3% to 46.5% in 2003. Credit institutions specialising in consumer loans also experienced considerable improvement, with their aggregate ROE rising from 25.7% to 34.5%.

In respect of the changes in the major components of banking system revenues, in contrast to 2002, interest income became the most dominant component. A vigorous 17% rise in interest income on the previous year was primarily attributable to expanding housing loans with higher-than-average interest margin. In our estimates, in 2003, subsidised housing loans accounted for approximately 15% of interest income.<sup>54</sup>

Chart 2-38

## Spread and its components

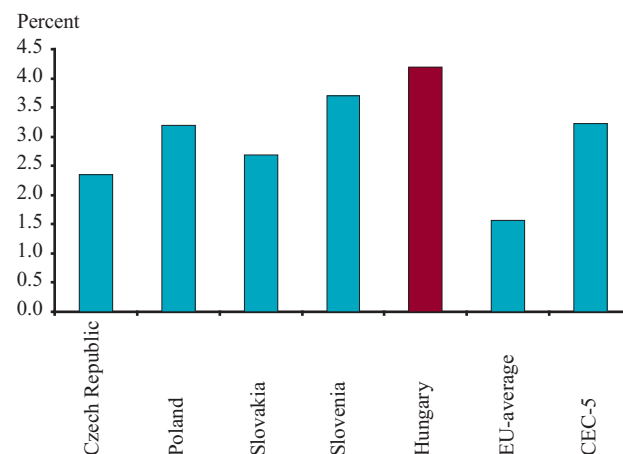


The spread shrank by close to 30 basis points to 3.4% in 2003. The underlying reasons for this include, for the most part, the rising average cost of interest-bearing liabilities and, to a lesser extent, a decline in the average return on interest-bearing assets. Further causes of the decline in the spread included an increase in the proportion of FX balance sheet items and a larger annual average proportion of banks' long FX positions.<sup>55</sup>

Hungarian banks' net interest margin continues to be high even by international standards. Based on 2002 data, the 4.2% net interest margin of the Hungarian banking system exceeds the EU average and even the CEEC-5 average (the latter by 1 percentage point).<sup>56</sup>

Chart 2-39

## Net interest rate margin in international comparison (2002)



A product-by-product analysis of margin reveals that the higher-than-EU average interest margin is attributable to higher margins on household loans as well as

<sup>54</sup> Including revenues such as disbursement fees and bank service charges, etc. to be recorded in the interest income line.

<sup>55</sup> Long balance sheet FX position as a proportion of the balance sheet total grew from 1.1% to 1.7%.

<sup>56</sup> The international comparison is based on the net interest margin calculated from the net interest income/average total assets ratio. The reason why this indicator is higher than the spread, used in the analysis, is that a certain part of interest-bearing assets is financed by equity.



corporate and household deposits. The primary reason for the considerably higher-than-EU average margin on consumer credits is higher risks. Furthermore, it may also reflect the lack of price competition (or the greater market power of Hungarian banks). Lower-than-EU average corporate lending margin, by contrast, suggests very tough competition in this segment.

**Table 2-7**

**Interest margin on loans and deposits with a repricing period or maturity within one year (2003)<sup>57</sup>**

	EU	Hungary
Corporate loans (< EUR 1 million)	2.0	1.9
Corporate loans (> EUR 1 million)	1.0	0.4
Corporate deposits	0.1	1.4
Consumer credit	5.1	11.7
Household deposits	0.2	1.9

As well as dynamically increasing net interest income, the 30% growth in net fee and commission income also contributed to the spectacular improvement in banks' profitability. Differences based on the contribution of commissions and fees to profit, however, continue to be sharp, with the concentration of profits on commissions and fees consistently high in the banking system. Three banks earn 64% of the total net fee and commission income of the banking system. Vigorous growth in the amount of net commissions and fees was attributable to revenues related to housing loans (e.g. appraiser's fee, creditworthiness fee and government cost reimbursement of the refinancing and sale of mortgage loans, etc) and commissions and fees in the card business, owing to a sharp 24% rise in the turnover of card transactions.<sup>58</sup>

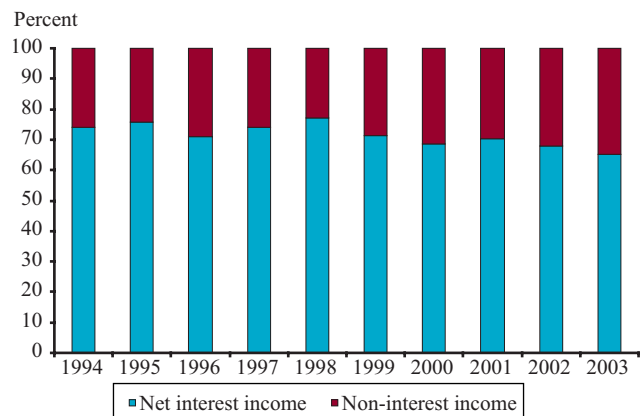
Overall, in the short run, the strong interest and exchange rate volatility in 2003 affected banks' profitability favourably, with net profits on financial transactions rising 24% on the previous year. Within this, net profit on FX operations, accounting for the bulk of the profits on financial operations, and from changes in FX rates in 2003 H2 was 47% higher than in the base period. The upsurge in yields, however, hit banks' profits adversely through losses realised on government securities and arising from revaluation. Net profit on securities for trading and investment purposes (amounting to HUF -1.8 billion) was a combined HUF 6 billion lower than in 2002, owing mainly to the price losses in 2003 H2.

As regards the distribution of revenues, the proportion of non-interest income continued to grow, rising from

31.8% in 2002 to 34.9% in 2003. In addition to the above factors (i.e. commissions and fees and FX operations), rising dividend income also had a significant role to play. Dividends from subsidiaries and other affiliated companies grew by over 2.5 times to HUF 22 billion in 2003.<sup>59</sup> Examining the changes in income structure reveals that the proportion of the types of revenues that change in a relatively volatile manner grew markedly. Such types include profits on FX operations, dividends received and that portion of interest income, commissions and fees which is related to housing loans and which is, therefore, rather exposed to regulatory risks.

**Chart 2-40**

**Proportion of interest and non-interest income in gross operating income**



In 2003, the net increase in value adjustments and provisions was 32% higher than in the base period. However, loans account for only one quarter of this increase. The loss in value/gross value of loans ratio also decreased in the case of both corporate and household loans (from 2% to 1.8% and from 2.2% to 1.5% respectively). A major portion of the growing loss in value materialised in provisions for equity participation. While net changes in loss in value recognised on them were positive in 2002 (HUF 1.4 billion), they were deep in the red (HUF -6.2 billion) in 2003.<sup>60</sup>

Operating costs rose significantly faster (by 14.2%) than annual average inflation (4.7%) in 2003. Within this, personnel costs accounting for the bulk (i.e. 43%) of costs rose by 15.4%, owing to a 3.6% and 11.4% rise in average staff and per capita expenses respectively. As gross operating income rose by 29%, the cost-to-income ratio, notwithstanding a significant rise in the real value of costs, improved markedly, falling from 60.5% a year

<sup>57</sup> Interest margin was calculated on the basis of the 3-month EURIBOR and BUBOR. Lending margin: lending rates–interbank interest rates. Deposit margin: interbank rates–deposit rates. Data denote annual averages.

<sup>58</sup> It should be noted, however, that card business is an important source of income only in the case of a few large banks, since three banks accounted for 82% of total card issuer turnover in 2003.

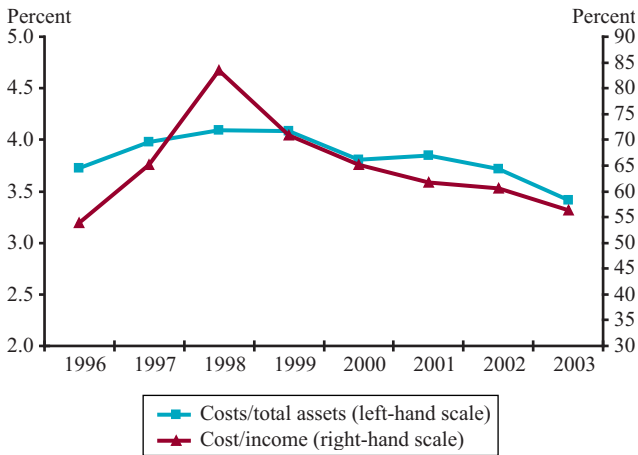
<sup>59</sup> This can be attributed partly to one-off factors, such as the maintenance of OTP's capital adequacy because of its DSK transaction.

<sup>60</sup> It should be added, however, that this jump was mostly attributable to the recognition of loss on a transaction by a major bank. As a result of the transaction, other income in an identical amount was generated; thus, the net profit impact was neutral.

earlier to 56%. The rise in costs fell sharply behind the rate of business expansion, with a resultant decline in the cost-to-balance sheet total ratio to 3.4%.

**Chart 2-41**

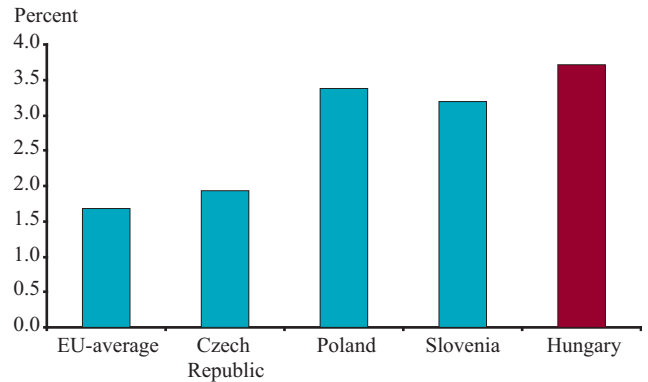
**Operating costs as a percentage of total assets and the cost-to-income ratio**



The cost-to-balance sheet total ratio is still high by international standards, and well exceeds the EU average (in 2002: 1.7%) and is also the highest in the CEE region.

**Chart 2-42**

**Operating costs as a percentage of total assets in international comparison (2002)**



After the good profitability figures in the previous year, banks' profits are expected to grow at a slower rate in 2004. One of the main factors behind this slowdown may be the anticipated decline in profits on housing loans, caused by the drop in the growth rate and the shrinkage in the average margin of loans. Data on financial results for 2004 Q1 appear to underline the expectations related to a more modest increase in profitability; however, they still indicate that banks have retained their strong earnings potential: pre-tax profits in the first quarter of 2004 were up by 25% on a year earlier.

## **3 SAVINGS CO-OPERATIVES**



### 3.1 MARKET SHARE AND CAPITAL POSITION

After several years of growth, savings co-operatives suffered a loss of market share in 2003, expressed as a proportion of the balance sheet total. The underlying reasons for this are trends in the market of housing loans and the subsidy scheme, since the sector managed to keep pace with banks in the area of corporate lending and, as regards household and corporate deposit-taking, it even outperformed the growth rate of banks (18%–19%).

In contrast to the majority of previous years, this year the sector's equity grew faster than the balance sheet total in 2003. Nevertheless, the sector-level capital adequacy ratio declined, the reason for this being that during the year there was a significant shift towards higher-risk customers in savings co-operatives' activity. The weight of government securities and deposits declined significantly (2.6% and 1.6% respectively). By contrast, that of loans, especially household loans, grew markedly (0.7% and 3.6% in

the case of corporate and household loans respectively). In 2004, the capital adequacy ratio of OTIVA members is expected to decline further, as savings co-operatives have begun to increase their ownership interests in their respective prime banks. This will be a multi-stage process, with the first phase of its financial implementation scheduled for 2004. As a result, data will reflect an expected decline in the capital adequacy ratio owing to acquisition of ownership interests only in 2004. Even so, member savings co-operatives' acquisition of majority ownership in their respective prime banks can be considered as one of the necessary steps in order that international best practice be readopted. However, this step alone represents only a necessary, but not yet satisfactory condition for sector risks to be markedly reduced. In order to increase stability, close integration and a system of cross guarantees, also based on the ownership of the relevant prime bank, should also be in place.

**Table 3-1**

#### Market share of domestic savings co-operatives in the entire sector of credit institutions

	1998	1999	2000	2001	2002	2003
Balance sheet total	5.63	5.95	6.15	6.59	7.11	6.70
Equity	4.81	5.03	5.14	5.20	5.36	5.33
Household deposits	11.98	12.32	12.67	13.34	15.32	15.73
Household loans	18.16	18.25	19.79	19.35	15.12	12.39
Corporate deposits	2.61	2.95	3.39	3.04	3.21	3.40
Corporate loans	2.52	3.37	3.33	2.84	3.28	3.27

As of 2001, private entrepreneurs are included in the household sector. Prior to 2001, they were included in the corporate sector.

**Table 3-2**

#### Capital adequacy ratio of domestic savings co-operatives

Number	2002			2003		
	OTIVA-members	Others	Total	OTIVA-members	Others	Total
CAD between 8%–10%	15	2	17	21	3	24
CAD between 10%–12%	24	2	26	24	2	26
CAD between 12%–15%	41	4	45	42	4	46
CAD above 15%	86	9	95	72	8	80
Aggregate CAD ratio	16.5%	15.7%	16.4%	15.4%	15.8%	15.5%

Source: HFSA.

**Table 3-3****Equity of domestic savings co-operatives**

	2002			2003		
	OTIVA-members	Others	Total	OTIVA-members	Others	Total
Less than HUF 100 million	14	2	16	0	0	0
Between HUF 100–250 million	96	1	97	79	2	81
Between HUF 250–500 million	41	8	49	56	6	62
More than HUF 500 million	15	6	21	24	9	33
Average equity (HUF million)	253	423	269	320	514	339

At year-end 2003, close to half (or 81) of the co-operatives failed to reach the HUF 250 million threshold for regulatory minimum equity set for year-end 2007. This proportion is rather high, seeing that the EUR 1 million (approximately HUF 250 million) threshold for regulatory minimum equity represents a reduced limit, which is only to be applied only under certain conditions.<sup>61</sup> This clearly indicates that domestic savings co-operatives are seriously undercapitalised. At year-end 2003, OTIVA members' average equity per savings co-operative amounted to HUF 320 million (year-end 2002: HUF 253 million), and non-OTIVA members' to HUF 514 million (year-end 2002: HUF 423 million).

A sharp increase in average equity can be attributed partly to reinvested earnings and partly to mergers. As expected, the statutory requirement of HUF 100 million in equity, which was to have been met by year-end 2003, bolstered mergers (there were 7 altogether) temporarily in the course of 2003. Not too many mergers are expected to occur in 2004 or 2005. A temporary increase in mergers is likely to take place in 2006 and 2007, as co-operatives' equity will have to reach the HUF 200 and 250 million limit prior to year-end 2006 and 2007 respectively.

<sup>61</sup> For details see the Council's Article 4 of Decree 2 89/646 (EEC) of 15 December 1989.

## 3.2 LENDING ACTIVITY, PORTFOLIO QUALITY

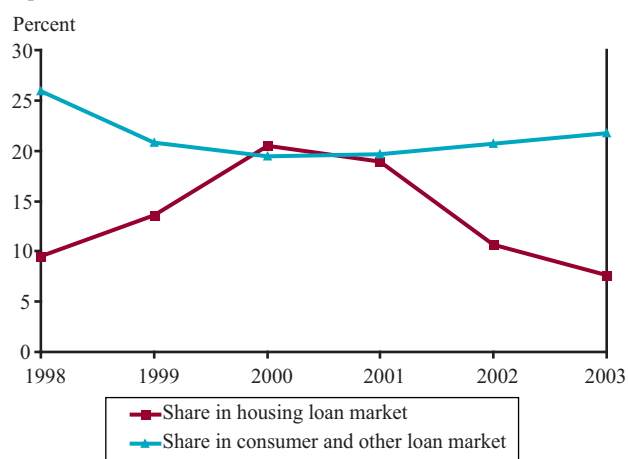
In 2003, the growth rate (22.5%) of co-operatives' corporate lending kept pace with the rate of corporate lending growth in the banking system. Standing at 30%, the growth rate of co-operatives' consumer and other loan portfolio was substantially higher than that of banks. It should be noted, however, that banks' group-level lending exceeds that of co-operatives, as the lending activity of bank-owned financial enterprises expanded vigorously. With regards to property loans, despite a 38% increase, co-operatives suffered a further 3% loss of market share in 2003. The major underlying reason for this was that savings co-operatives were unable to directly participate in liabilities side subsidised mortgage-based housing loan scheme,

a facility which was most sought-after by households, as savings co-operatives are not included amongst the counterparties of mortgage banks.

As the loss of market share that co-operatives suffered in the market of household loans is attributable to the subsidy system, and the considerable tightening in December 2003 is expected to slow down the rate of the sector's loss of market share in 2004. It should also be noted, however, that banks now offer foreign currency-based housing loans, which co-operatives are unable to, since the scope of their activity is limited and does not include the provision of FX or foreign currency-based loans.

**Chart 3-1**

**Market share of savings co-operatives in the two types of markets of household loans**



Differences in the quality of co-operatives' portfolio and that of banks' further widened in 2003. The quality of OTIVA member co-operatives' aggregate loan portfolio deteriorated somewhat in 2003. On the other hand, the quality of the aggregate loan portfolio of the banking system improved, a natural consequence of consistent reduction in the age of outstanding debt, owing to the dynamic upswing in subsidised housing loans. The consistently poorer quality of non-OTIVA member co-operatives' portfolio remained unchanged.

As the quality and age of savings co-operatives' loan portfolio are poorer and older respectively, the share of loss of value with respect to the entire portfolio and/or to the entire portfolio of what is considered, for the purposes of our analysis, to be non-performing, sub-standard, doubtful and bad loans, is higher than in the banking system.

**Table 3-4**

**Quality of savings co-operatives' balance sheet items**

	OTIVA-members		Others		Banking sector
	2002	2003	2002	2003	2003
Problem-free	67.2	63.7	62.7	67.5	91.6
Special watch	27.4	30.6	29.3	24.6	5.4
Substandard	2.2	2.3	2.5	2.7	1.5
Doubtful	1.3	1.5	3.1	3.1	0.7
Bad	1.9	1.9	2.5	2.1	0.8
Qualified total	32.8	36.3	37.3	32.5	8.4
Non-performing	5.4	5.7	8.0	7.9	3.0

Source: HFSA.

**Table 3-5****Ratios of loss of value of savings co-operatives' balance sheet items**

	OTIVA-members		Others		Banking sector
	2002	2003	2002	2003	2003
Special watch	3.1	3.1	2.3	3.2	2.4
Substandard	19.7	20.3	15.3	18.6	20.7
Doubtful	50.2	51.9	46.2	49.3	44.9
Bad	92.3	91.1	88.9	84.9	85.6
Total portfolio	3.7	3.9	4.7	4.6	1.4
Non-performing	52.8	51.8	49.8	48.1	43.0

Source: HFSA.



## 3.2 PROFITABILITY

Savings co-operatives have seen their profitability improve over the past three years. OTIVA-member co-operatives have been operating much more profitably than their non-member counterparts, which can be attributed to integration improving the economies of scale and the efficiency of their range products. Return on equity recorded by OTIVA-member co-operatives in 2003 was broadly the same as that recorded by the banking sector. However, given the poorer capital

strength of savings co-operatives relative to banks, a closer look at co-operatives' return of assets is of key importance. Co-operatives' ROA remained well below that of banks in 2003, similarly to previous years. Nevertheless, it should be noted that the sharp rise in subsidised housing loans improved the profitability of the banking sector significantly, and only affected savings co-operatives, and hence their profitability as well, to a lesser extent.

**Table 3-6**

### Profitability of savings co-operatives

	2002		2003	
	ROE	ROA	ROE	ROA
OTIVA-members	16.3	1.28	17.6	1.39
Others	10.3	0.82	12.2	0.98
Total	15.4	1.21	16.8	1.33
Banking sector	15.3	1.60	17.9	1.86

*Equity and balance sheet total calculated on the basis of two year-end averages.*

*ROE calculated on the basis of after-tax profit; ROA calculated on the basis of pre-tax profit.*



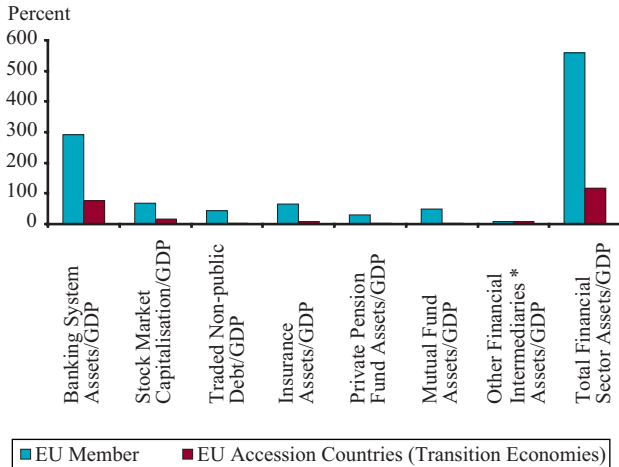
## **4 NON-BANK FINANCIAL INTERMEDIARIES**



Of the countries that acceded to the EU in 2004, the 8 CEECs also witnessed a spectacular development of non-bank financial intermediaries<sup>62</sup> after the transition to a market economy. However, the shortcomings of non-bank financial intermediation relative to the banking sector are still significant in the area of both regulations and the size of intermediation. The extent of the relative underdevelopment of the capital market is hardly reflected in 2002 figures, the reason for this being that a prolonged crisis in the capital market hit the stock exchanges in developed countries harder than those in emerging markets.

**Chart 4-1**

**Assets of financial intermediaries as a percentage of GDP in EU Member States and acceding transition economies in 2002**



Source: World Bank.

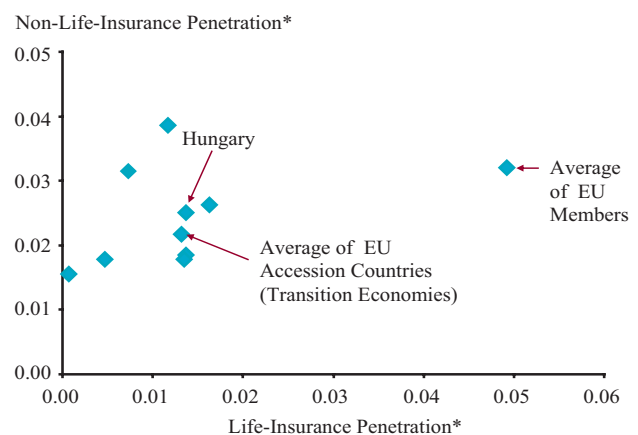
\* Factoring, leasing and venture capital.

The financial systems of the accession countries are traditionally bank-based, with the insurance sector being the first to develop. The distribution of the penetration of the insurance sector (premium income as a percentage of GDP) clearly reflects the characteristics of low income and delayed marketisation. It is still non-life insurance that accounts for the bulk of insurance premia, in contrast to developed market economies, where

life insurance, which can be regarded as a real financial intermediary, carries considerably more weight.

**Chart 4-2**

**Skewness of insurance penetration\* (2002)**



Source: World Bank.

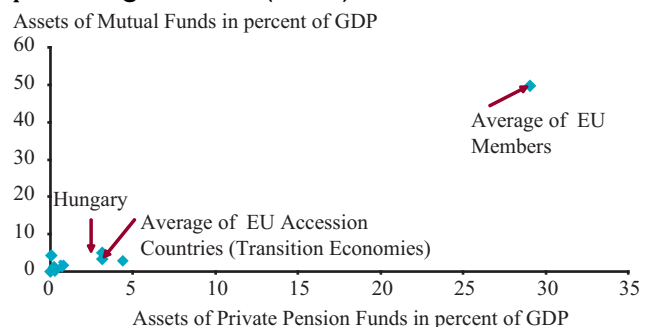
\* Premium income/GDP.

Underdevelopment in the CEECs and the Baltic states is particularly striking in the areas of pension and investment funds.

Among non-bank financial intermediaries, the sectors (leasing and factoring enterprises) that are less regulated also in international practice are the least backward in acceding countries.

**Chart 4-3**

**Assets of mutual and private pension funds as a percentage of GDP (2002)**



<sup>62</sup> The institutions analysed within non-bank financial intermediaries are identical to those included in earlier Reports. Neither the activity, nor the role of investment enterprises is tackled, for this sector has been narrowing to an increasing degree, thereby carrying fewer risks.

## 4.1 FINANCIAL ENTERPRISES

### General

The activity of financial enterprises, of which 188 were licensed to operate by the Hungarian Financial Supervisory Authority at year end 2003, continued to expand dynamically last year as well, with a 67% growth rate well exceeding that of the banking sector (26%). As a result, total assets of financial enterprises crossed the HUF 1 billion mark (HUF 1.279 billion).

This marked expansion continued to be driven by the increased activity of bank-owned financial enterprises. Their portfolio of outstanding loans grew by 77%, in contrast to the 35% growth rate of corporate and household lending in the banking system. As a result, banks were able to increase the size of their corporate and household portfolio through their financial enterprises.

The underlying reason for the sector's marked expansion was an outstanding rise in the leasing and loan portfolios of bank-owned enterprises, with the size of the portfolios nearly doubling in both business lines. The sector is strongly concentrated, with bank-owned enterprises dominating the market segments of both leasing and lending.

**Table 4-1**

#### Concentration as per the main activities of financial enterprises

	Leasing	Lending	Factoring
Five largest enterprises	57%	62%	62%
Ten largest enterprises	75%	82%	82%

Parent banks provide the bulk (i.e. 92%) of the liabilities of bank-owned enterprises. Relative to the entire corporate and household loan portfolio, the proportion of loans that banks extended to their own enterprises rose from 13% to 15.8%. In the case of four banks this ratio exceeded 30%.

### Risks

Lending risk is the major source of risk facing financial enterprises to an increasing degree. After several years of spectacular expansion in the sector's portfolio, last

year saw the first perceptible deterioration. The portfolio of financial enterprises mainly comprises loans financing car purchases, accounting for 70% to 80% of the entire portfolio. Within this, leasing and lending are dominant, representing 90%. Thus, the deterioration of the portfolio primarily affected these business lines. The stock of overdue loans grew from 3.9% to 4.6%.

**Table 4-2**

#### Proportion of overdue loans as per different sub-portfolios

	31. Dec. 2002	31. Dec. 2003
Leasing	2.8%	3.7%
Lending	4.7%	5.1%
Leasing+Lending	3.9%	4.6%

There is a marked difference between the portfolio of bank-owned enterprises and that of non-bank-owned firms. In 2002, it was the portfolio of only non-bank-owned enterprises that deteriorated. In 2003, however, the proportion of overdue loans in the case of bank-owned enterprises, which account for the overwhelming majority (i.e. 80%) of the sector's portfolio, rose from 3.5% to 4.3%, mainly with regard to loans that are preferred by households.

The significant deterioration experienced in 2003 can be attributed to a number of factors.

- Last year, several market leading bank-owned enterprises launched so-called 'junk car financing'. This loan facility, which involves practically no downpayment and poses exceptionally high risks to the lender, was chosen predominantly by customers with poor creditworthiness who could not afford a downpayment. In order to cover the downpayment, financial enterprises set higher-than-average APRCs. The resultant increase in the amount of instalments led to mass overdue payment or default on payment, which, in turn, resulted in a sharp rise in default on loans. The danger of a substantial increase in overdue loans is inherent in this type of facility.

- Lending began to grow spectacularly in 2001. Thus, the 'ageing' of the portfolio was accompanied by more

significant deterioration of the loan portfolio quality last year.

- Increasingly fierce competition led to a decline in lending standards. Furthermore, there was also a shift in the market towards car purchase financing and, within that, towards the even riskier used car purchase financing, where market risks failed to recede also last year.
- Simultaneously with a take-off in car purchase financing, the indebtedness of households, owing to their increased demand for housing loans, also reached high levels. Any change that may affect the solvency of households adversely is more likely to lead to an overdue payment of car purchase rather than housing loans.
- Sharp volatility of the exchange rate of the forint in 2003 also contributed to the deterioration of the portfolio.<sup>63</sup>

The growth rate of car purchase financing is expected to decline somewhat in 2004. After the deterioration of the portfolio quality in 2003, 2004 will be a year of product consolidation, i.e. the exclusion of high-risk products and gradual adoption of forms of financing common in the EU.

**Table 4-3**

**Proportion of loan-loss provision as per different sub-portfolios**

	31. Dec. 2002	31. Dec. 2003
Leasing	1.9%	1.7%
Lending	1.8%	1.6%
Leasing+Lending	1.9%	1.6%

Owing to the deteriorating quality of their portfolio, market participants had to recognise substantial losses, amounting to approximately HUF 10 billion, in 2003. Simultaneously, however, their dynamically growing portfolio led to a reduction in specific loan-loss provisions coverage.

It is predominantly market-leading bank-owned enterprises specialising in car purchase financing that recognised the overwhelming majority of loan-losses. However, their coverage for loss in value is usually above the average (approximately 2% to 3%) in the sector.

Though the recognition of the loss in value hit their profit figures negatively, financial enterprises still operate with remarkable profitability, and in 2003, they greatly contributed to the profit of the individual banking groups. In 2003, their pre-tax profit amounted to HUF 39.6 billion, twice the amount in the year before.

Growth is expected to slow down in the years to come, which in its own right will lead to ageing and deterioration of the portfolio. Furthermore, unless parent banks tighten the lending standards of their subsidiaries and pay closer attention to their prudent operation, significant deterioration of the portfolio is likely to occur, which, in turn, may lead to profit loss within the relevant banking group.

In a change to relevant legal regulations to enhance the stability of the system of financial intermediation, a Ministry of Finance decree on the calculation of consolidated regulatory capital and capital adequacy took effect in November 2003. Furthermore, banks' data provision obligations will also include consolidated data provision in 2004.<sup>64</sup>

<sup>63</sup> As regards foreign currency based credit facilities (mainly CHF and EUR), constituting the bulk of leasing transactions and outstanding loans, some borrowers faced a significant rise in their instalments on several occasions during the year. Depending on the extent to which the forint weakened against the euro, the prevailing amount of the instalment, relative to what had been stipulated in the loan agreement, may well have increased by up to 15% during the year. A 15% weakening of the exchange rate of the forint may translate into a HUF 5,000 to 6,000 rise in a standard HUF 30,000 to 40,000 monthly instalment. Furthermore, any potential increase in the base rate also leads to a rise in the amount of monthly instalments. As a rule, foreign currency based-credit facilities are pegged to either the 3-month LIBOR or EURIBOR, both close to their historical lows currently. Thus, over the medium term, which period happens to be the average term of loan and leasing agreements, these rates are likely to increase by 1 to 2 basis points.

<sup>64</sup> Ministry of Finance Decree 23/2003 (X.2.) PM.

## 4.2 INSTITUTIONAL INVESTORS

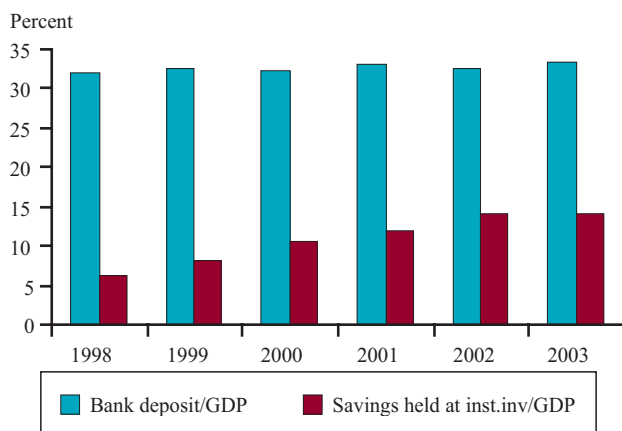
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### General

In the system of financial intermediation in Hungary, along with the dominance of banks, the role of institutional investors is steadily growing in importance. Their products soak up an increasingly large proportion of the savings of enterprises and households. Their increasing significance is clearly reflected in the GDP-proportionate share of household and corporate savings deposited with them.

**Chart 4-4**

### GDP-proportionate share of household and corporate savings deposited with financial intermediaries

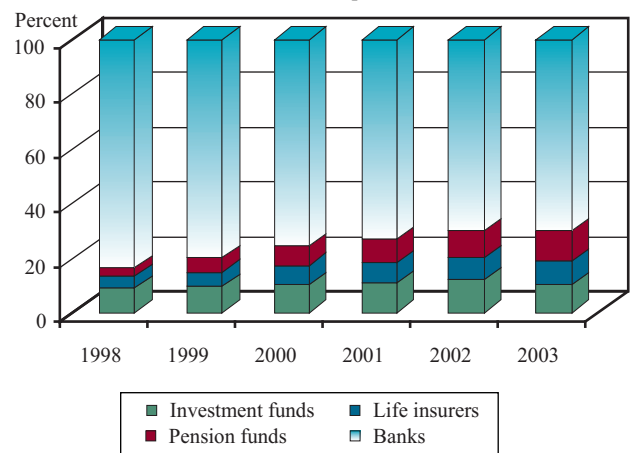


A close look at trends in recent years reveals that the annual rate of expansion in the financial instruments of institutional investors exceeded that of GDP, although to a lesser degree in 2003. This is accurately reflected in the share of institutional investors in households' gross financial wealth.

The share of household savings deposited with institutional investors grew continuously until 2003 H1. Sharp fluctuations in exchange and interest rates in 2003 H2 hit the net asset value of investment funds most adversely. Furthermore, the net asset value of pension funds declined as a result of non-realised loss-

**Chart 4-5**

### Distribution of household and corporate savings deposited with financial intermediaries in a breakdown of institution types



es stemming from a decrease in government bond prices.

### Investment funds

The amount of assets managed by investment funds rose dynamically up to late May 2003, and subsequently began to decline, marking the end of a trend lasting for several years, and finally fell dramatically in December.<sup>65</sup> Compared to the highest value of wealth in May 2003, there was a HUF 264 billion loss in asset value up until year-end 2003, HUF 124 billion of which was materialised in December. As a result, net asset value was HUF 42 billion lower at year-end 2003 compared to the previous year, attributable to capital withdrawal amounting to an estimated HUF 78 billion and a HUF 36 billion rise brought about by revaluation.

It was mainly low-risk domestic bond and money market funds, so far the engines of growth, which suffered losses in asset value, even though their market dominance remains unbroken. Close to 79% of total wealth

<sup>65</sup> The outflow of capital from investment funds was triggered by the 300-basis point raise in the MNB's key policy rate in June, and further fuelled by sagging investor confidence due to permanently high interest rates and by another 300-basis point raise in November 2003.



managed is concentrated in these funds; their market share, however, decreased by 9% last year. With their net asset value and market share rising remarkably dynamically, last year's undisputed winners were real estate funds, which were able to generate consistently stable returns.

With a market share of 94%–96% in terms of assets managed, investment fund management companies owned directly or indirectly by banks dominate the market. Holding close to 75% of investment fund shares, households are the primary owners of such shares, though this ratio has declined recently. Highly unfavourable backward-looking yields prompted households to withdraw a huge amount of savings from funds, whereby households realised losses. The savings thus withdrawn from funds were placed mainly in bank deposits, owing to the attractive interest rates prevailing in 2003 H2.

Hectic fluctuations in exchange and interest rates strongly determined the profitability of funds. Yields realised by government securities funds, dominant in the sector, were extremely volatile, and were negative on a number of occasions.

The halt in the several-year-long trend of rising asset value seen in 2003 H2 is unlikely to continue for long.

### Pension funds

In 2003, both private and voluntary pension funds expanded in terms of assets managed, membership and revenue from membership fees. However, with respect to annual returns, they closed one of their least lucrative financial years.

The total amount of pension-related savings accumulated by members of both types of pension funds grew dynamically, rising by 24.7% last year. The underlying reason for this favourable development was primarily changes to regulations governing private pension funds. Pursuant to the regulations, under-30s may become private pension fund members on a voluntary basis again, and it became obligatory again for entrants into the labour market to join the so-called mixed scheme, i.e. they must become members of the state pension fund and a private one.

The number of participants in the pension fund market also decreased last year, the underlying reason for which was the consolidation process underway in the sector.

Owing to unfavourable changes in the market price of government securities, which constitute the bulk of their portfolios, pension funds' returns fell by 50% rel-

ative to 2002. The conservative investment policy, which had previously secured consistently stable returns, was unsuccessful in 2003. In order to offset the losses in government bond prices, pension funds also strove to increase the share of short-term government securities in their respective portfolios. However, they were unable to fully counterbalance the losses realised on longer maturities.

### Life insurers

Savings in the form of life insurance products have been growing continuously over the past years, with an 18.1% increase in 2003. Unit-linked products continued to be the engine of growth last year as well, with reserves representing a 24% share, which can be regarded as high in international comparison.

The importance of the life insurance market is expected to increase over both the short and the medium term. The underlying reasons for this include favourable changes in tax legislation affecting insurance policies, the rising financial awareness of households and – following Hungary's accession to the EU – the expansion of cross-border bancassurance services.

It is predominantly foreign professional investors who own the insurance sector.

### Risks

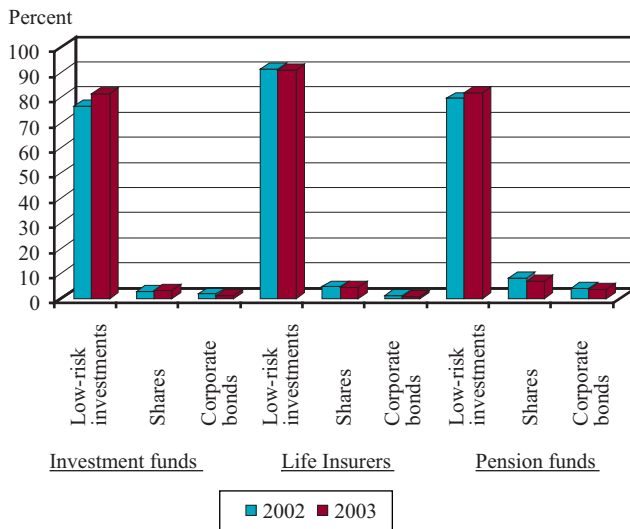
All three markets are strongly concentrated. As regards the insurance sector and private pension funds, the first five market participants account for a market share of over 80%. As to investment funds, the decline in concentration can be attributed to the loss in net asset value in 2002 H2, hitting major participants the hardest. The market share of the first five investment funds dropped to 59%.

The portfolios of all institutional investors continue to predominantly consist of lower risk products, i.e. government bonds, treasury bills, mortgage bonds and bank deposits. Investments in riskier corporate shares and bonds represent a much smaller share.

In contrast to a 33% share in the euro area, investments in equities represent a mere 1% in the general account portfolio of life insurers, the investment risk of which is borne by insurers. Although the proportion of shares is higher (16%) in the separate account portfolio, the investment risk of which is borne by policy-holders, government securities remain dominant (70%). Insurance products offering a guarantee on the fund value or a minimum return, which therefore represent a direct market risk to insurers, are gaining in popularity.

Chart 4-6

### Share of low-risk components and corporate shares and bonds in the portfolio of institutional investors



Under the new insurance act taking effect upon Hungary's EU accession, prudential regulations will be tightened, and solvency and security capital requirements will be increased, which will necessitate a significant increase in own funds in certain cases. Simultaneously, amendments to the law will also result in fewer restrictions on the investment policy of technical reserves. This, in turn, is expected to lead to an increase in insurance corporations' investment and exchange rate risk exposure over the longer term.

In order to encourage savings in the form of investment fund shares, investment funds offer an increasingly large number of products with return guarantees. In principle, the growing share of products with return guarantees and the protection of capital may increase the risks that funds face. Since these guarantees must be covered by bank guarantees, the risks implied are borne by parent banks within banking groups. Experience shows that, with guaranteed returns set realistically, investment funds offering such returns do not substantially add to banking group level risks.

Investment risks in the case of pension funds, just as in the case of investment funds, are borne directly by members, leaving the solvency of funds unaffected; however, in terms of profitability, the selection of the asset management company is crucial. One adverse trend is that the growth rate of asset management fees has been consistently higher than inflation over the past few years. Furthermore, most pension funds have no regulations protecting the interests of members and ensuring compulsory, fair tendering for asset management services.

Starting from 2004, in the case of voluntary pension funds a gradual withdrawal of accumulated savings of members with membership exceeding ten years may pose the greatest risk to stability. If no spectacular improvement in pension fund returns materialise in 2004, 2005 may well see a substantial decline in assets managed, particularly in the case of pension funds that record large employer contributions.

### 4.3 THE RELATIONSHIP BETWEEN BANKS AND INSURANCE COMPANIES, BANCASURANCE

With the weight of financial conglomerates and the intensity of the linkages between the financial sub-sectors on the increase, co-operation and risk-taking between credit institutions and insurance companies are increasingly taking centre stage.

#### Advantages of bancassurance relations as regards risks are as follows:

- As the range of services increases, so does customer retention and hence the future customer base becomes more stable. Therefore, from a profitability point of view it is a benefit that unit sales cost can be reduced through more efficient utilisation of existing distribution channels (mainly those of banks).
- By combining activities that react differently to exogenous shocks (e.g. weak macroeconomic environment and adverse capital and money market events, etc.) and various stages of the business cycle, the income volatility and therefore risk exposure can be reduced. An ECB study<sup>66</sup> suggests that diversification may improve slightly, based on the extent of the correlation between the market prices of shares issued by banks and those by insurance companies.

#### Risks inherent in bancassurance

- One negative implication of bancassurance co-operation is the increased risk of reputation contagion. Intense cross-selling, shared marketing and – generally if shareholding links exist – brand-sharing all increase the likelihood of customers perceiving the bank and the insurer as one entity. Thus, the adverse affects of faltering confidence in one member may easily spread to the other.
- As a consequence of bancassurance co-operations, groups of considerable size are emerging, which, in turn reduces diversification within the financial sector, running counter to the trends within the groups. If sev-

eral major groups simultaneously experience a crisis due to an exogenous shock, this may undermine financial stability in several sectors.

- Both insurance companies and banks in Western Europe appear to hold portfolios including an increasingly large proportion of equities. As a result, any loss in share prices in the capital market may impact both sectors strongly. If one party holds capital share in the other, a capital market shock may be felt even more acutely, given the loss in the market price of participating interests on the balance sheet.
- Studying the impact of direct risk-taking between banks and insurers on financial stability, the ECB survey<sup>67</sup> reveals that risks implied in direct lending and the purchase of bonds are not yet high in EU member states. Given the low, but constantly increasing level of related risk-taking, supervisory authorities are paying closer and closer attention to identifying the nature and extent of off-balance risks in the OTC and CRT (Credit Risk Transfer) markets. Owing to differing capital requirements in the two sectors, it may easily be the case that various techniques of risk transfer lead to regulatory arbitrage. This, in turn, means that capital requirements for identical risks become more relaxed at the group level, which adds to the vulnerability of the group.

#### Bancassurance in Hungary – common forms of co-operation

Bancassurance has continuously grown in importance in Hungary over the past years, and this trend is expected to intensify. This development is corroborated by the fact that demand for insurance policies is forecast to increase, the growing pressure on credit institutions to increase their commission revenues due to shrinking margins, and the fact that competition on the insurance market is expected to become increasingly fierce.

<sup>66</sup> Source: ECB: Risk diversification in the financial sector: a correlation analysis between insurance activities and banks in the euro area based on stock market information, December 2003.

<sup>67</sup> Source: Banking Supervision Committee: The relationship between banking and insurance in the EU and acceding countries, April 2004.

Similarly to EU member states, co-operation-based agreements<sup>68</sup> are the most prevailing form in Hungary, with expansion most dynamic in this area.

Co-operation on the basis of ownership or common parent company is found in the case of four credit institutions and insurance companies. Each of the four credit institutions involved have a dominant market share (amounting to a combined market share of 39% at year-end 2003), but by contrast, only two of these insurance companies have significant market shares. In the other two cases, the relatively small (under 1% of market share), but dynamically expanding insurance companies are mainly built up on the relevant banks' distribution networks, and are almost exclusively responsible for 'breeding' new products.

One Hungarian banking group has cross-border reach, in the case of which the acquisition of foreign credit institutions has been accompanied with the purchase/setting up of insurance companies as well. After Hungary's EU accession, the role of cross-border bancassurance agreements is likely to rise, since such agreements also allow for the possibility of low-cost market entry/expansion abroad.

#### The degree of direct risk-taking in Hungary

Hungarian credit institutions bear a low level of risks vis-à-vis insurance companies, and the volume of risk transfers between the two sectors is small.

Compared to entire loan portfolio, credit institutions take only very low risks vis-à-vis insurance companies through their lending activity, while risk-taking via the purchase of bonds issued by insurers is completely non-existent.

As regards credit institutions' off-balance sheet receivables from insurance companies, contingent liabilities in the form of credit lines are dominant, and the related risks are relatively low. Insurance companies in

**Table 4-4**

#### Hungarian credit institutions' risk-taking vis-à-vis insurance companies at end-2003 (HUF millions)

	2003
On-balance sheet risk-taking	13.535
Of which	
– Participating interests	8.203
– Outstanding loans	48
– Other on-balance sheet risk-taking*	5.284
Off-balance sheet risk-taking	4.949
Of which credit line	4.381

\* As a rule, accrued income and other accrued settlements, the majority of which were temporary at year-end 2003.

Hungary do not yet use any new alternative risk transfer techniques such as insurance bonds or insurance derivatives (e.g. catastrophe call option and catastrophe swaps, etc.). Thus, Hungarian credit institutions take no related off-balance sheet risks.

Insurance companies' investments account for 6.7% of receivables from domestic credit institutions, the bulk of which is mortgage bonds (66%).

As insurance companies do not conduct derivatives transactions (or when they do the volume of such transactions is small) and given that no derivatives market has emerged in Hungary, at present off-balance sheet risks vis-à-vis banks, a major concern for EU authorities, are low in Hungary.

No direct data on insurance corporations' off-balance sheet risk-taking are currently available. Data provision by banks suggests that the value of derivative transactions that banks conclude with insurance companies is rather low. As of 1 May 2004, insurance companies are allowed to conduct derivative transactions not only for hedging purposes, but in order to create efficient portfolios and for reasons of arbitrage. Thus, the weight of such transactions is expected to increase, with no simultaneous rise in the risks assumed.

<sup>68</sup> Major forms of co-operation include sales of insurance policies via bank branches and a joint offer of banking and insurance products. A more sophisticated form of co-operation is joint product development, i.e. combining banking products with insurance policies into one integrated product, e.g. housing loans and life insurance policies.

# **5 THE IMPACT OF MONEY MARKET EVENTS ON PAYMENT SYSTEMS IN 2003**



### Payment systems and financial stability

The payment systems for handling transactions between credit institutions may transmit financial shocks to other participants. Central banks pay special attention to these systems, assessing potential risks to mitigate or eliminate them. In developed economies central banks usually operate large value payment systems.

Credit institutions strive to optimise their asset portfolios and earn the highest possible return even on the most liquid assets included in them by investing in, for instance, deposits or government securities. As the central bank pays interest only on statutory reserves on their account balance, they seek to hold as little central bank money as possible.

Though real-time settlement systems are rather safe, since they can eliminate credit risks completely, commercial banks' practice of return maximisation generates liquidity risks in the system. In developed economies the value of daily transactions of commercial banks in the payment system is a high multiple of (often as much as a hundred times) their average account balance. Given the high turnover/large amounts of account balance, it can occur that some banks are temporarily unable to make transfers when they exhaust their account balance or credit limits. The reason for this is that the counterparty bank is late transferring (e.g. by one-half hour) the agreed transaction amount that the other bank is expecting. Central banks have a number of instruments at their disposal to reduce the liquidity risk posed by real-time systems. Such instruments include, for instance, intra-day credit facilities against securities as collateral. The payment system can also resolve gridlocks.

### Money market events with a major impact on payment systems in 2003

In 2003, there were three money market events which had a significant impact on payment systems, and on VIBER in particular.

- On 15 and 16 January, foreign investors sold a large amount of foreign currency, and mounted a specula-

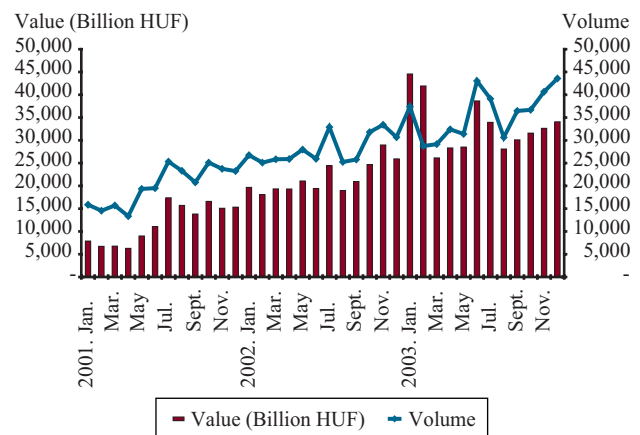
tive attack against the forint's intervention band to force the exchange rate of the forint to appreciate.

- Faltering confidence in the forint caused by a shift in the intervention band of the forint resulted in a rapid weakening of the currency in June 2003.
- In November 2003, following a considerable depreciation of the forint's exchange rate, the Monetary Council decided to raise the base rate by 3%.

The following chart shows transactions in VIBER.

**Chart 5-1**

### Value and number of payments in VIBER in a monthly breakdown January 2001–December 2003



The chart displaying monthly data for the past three years clearly illustrates how events in January–February and June–July 2003 upset the trend of increasing turnover in VIBER. In the following, a detailed discussion of the impact of these events on payment systems is presented.

### The impact of events on payment systems

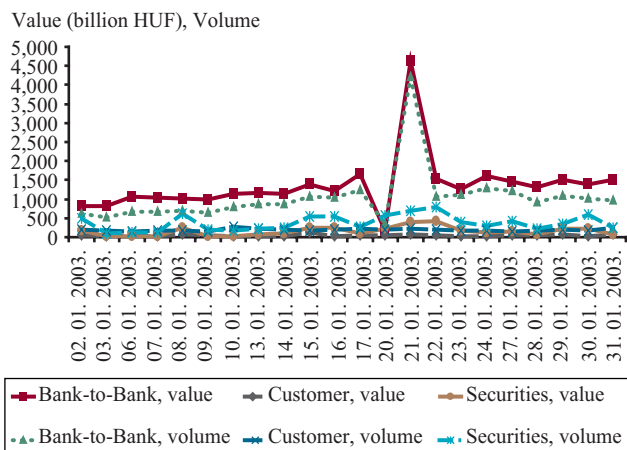
#### *Speculation on appreciation of HUF*

At year-end 2002, the exchange rate of the forint started to appreciate and reached the strong edge of the

intervention band by 15 January 2003. Many non-residents believed that if they forced the Bank to take action, the Government and the Bank would rather shift the band than intervene. Within the span of a single day a large amount of foreign currency (approximately HUF 1,200 billion or 6.5% of GDP) was converted into HUF.

Chart 5-2

### Interbank, customer and DVP transactions in VIBER in January 2003



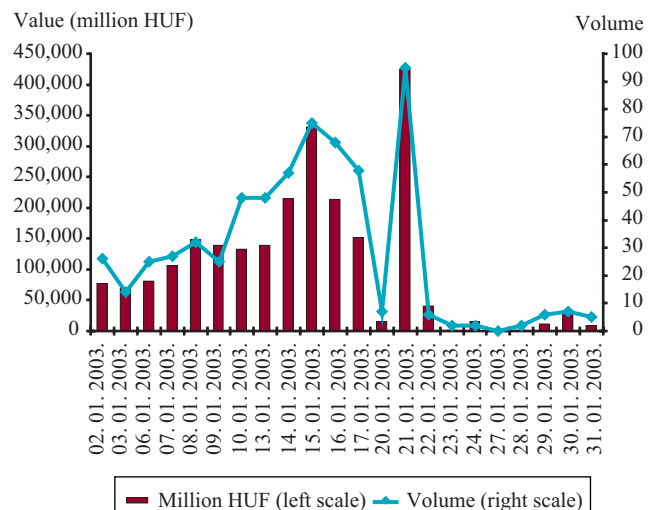
This was also clearly reflected in VIBER turnover, which was exceptionally high in January, in terms of both the number of transactions and the value of such. It was not the 15th or 16th, but rather the 21st of January when a record was set: a total of 5,221 transactions were settled in an amount of HUF 6,043 billion (representing approximately one-third of GDP in 2003). The time lag was attributable to the fact that though foreign currency conversion takes 2 business days on average, and owing to a bank holiday abroad, it took T+3. Certain banks were unable to handle the astronomical jump in the volume of turnover, and the Bank therefore extended the business hours of VIBER by one hour.

In the course of the conversion transactions non-resident customers purchased forint from their respective account-keeping banks in Hungary; the latter, in turn, purchased forint from the MNB. FX swaps accounted for roughly one-half of the transactions. As a result of the measures (i.e. a further 1% lowering of the base rate, restrictions imposed on the availability of the 2-week deposit facility and a further 2% widening of the interest rate corridor for standby facilities) taken by the MNB's Monetary Council on 16 January, the commercial banks keeping the accounts of this customer portfolio had to face the fact that they were unable to deposit the amounts converted by their customers with the MNB. Furthermore, the Bank only paid interest on statutory reserves, and it was sometimes the case that it was only willing to 'safekeep' deposited amounts,

without paying any interest on them. This was a situation unacceptable for speculators. Thus, they sought to find ways of depositing their forint amounts. A smaller amount of the hot capital fled into government securities and another (equally smaller) portion of it into interbank deposits, which resulted in a further rapid fall in yields. FX swaps were consistently rolled over.

Chart 5-3

### Queuing in January 2003



As all commercial banks could borrow money more cheaply than before and the central bank imposed restrictions on the availability of its 2-week deposit facility, participants in the payment system had excess liquidity. The chart above shows that, owing to excess liquidity, compared to the first half of the month, average queuing diminished considerably in the second half, and remained in that way also in the first half of February. Surprisingly enough, queuing occurred several days in the Interbank Clearing System operated by Giro Rt, which was, however, attributable to an underestimated balance of sent and received transactions.

As a result of silent intervention, signs of 'business as usual' were discernible already in February. In contrast to what happened in January, when approximately HUF 1,200 billion 'poured in' on a single day, foreign currency took several weeks to flow out, with no extraordinary events occurring. Thus, though the number of transactions was higher than usual, they were more evenly distributed in time.

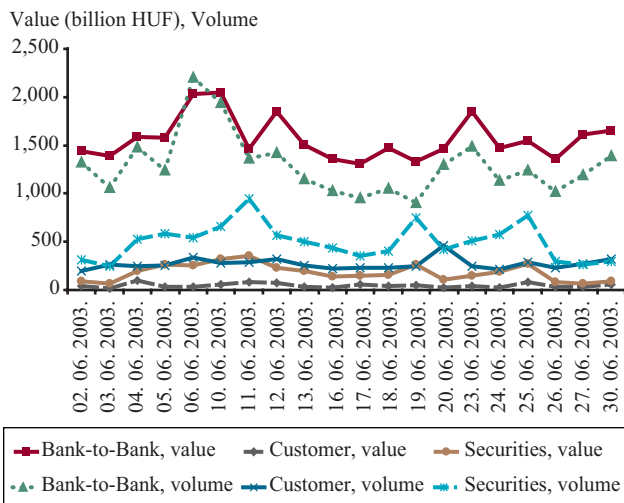
### A shift in the intervention band

On 4 June, the Government and the MNB announced a 2.26% shift towards the weak edge of the forint's intervention band. During the day the exchange rate of the forint weakened by close to 4% to HUF/EUR 268. The Monetary Council raised the base rate to 7.5% and 9.5% on 10 and 19 June respectively.



Chart 5-4

## Interbank, customer and DVP transactions in VIBER in June 2003



During this period approximately HUF 400 billion was converted. The fact, however, that this period, unlike the one in January, lasted longer than one day, was a positive development in terms of stability. The shock that occurred was less severe. Similar to January, FX swaps were predominant, with resulting peaks in VIBER turnover on the 6th and 10th of June. Higher-than-usual turnover was experienced all through the month. The 19 June raise in the base rate was also reflected in VIBER with a time lag, but with no significant impact whatsoever. Though high in proportion, the number of DVP transactions was not high in terms of absolute value. Turnover in June turned out to be a peak in Q2, owing to an increase in the number and value of transactions. The business hours of VIBER had to be extended on 9 business days during the month.

Similarly to 21 January, queuing was exceptionally high on 10 June and then returned to normal, except for 25 June. The reason why excess liquidity on a scale experienced in January failed to materialise was that the MNB did not intervene on that occasion.

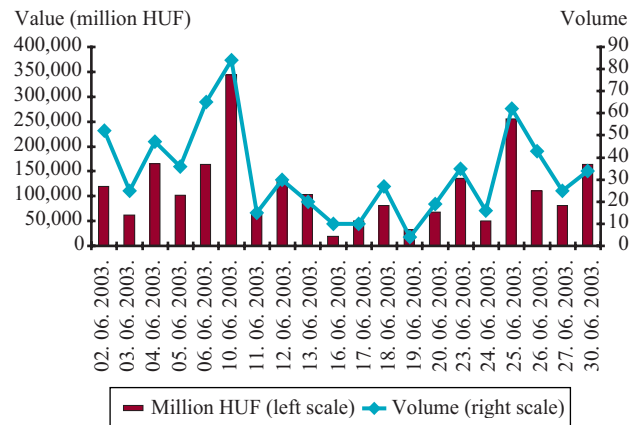
Similarly to January, only a negligible proportion of transactions remained in queue in ICS, due to miscalculations.

#### Depreciation of the exchange rate of the forint in November and the 3% raise in the base rate

On 28 November 2003, the Monetary Council raised the base rate by 3%. During the period immediately

Chart 5-5

## Queuing in June 2003



preceding this move, approximately HUF 200 billion, i.e. an amount less significant than what had been involved in earlier transactions, was converted into foreign currencies through FX swaps.

Although turnover was higher on certain days than on others, the increase was not significant. Overall, the impact on VIBER turnover was negligible. Nevertheless, because of technical problems facing commercial banks, business hours in VIBER had to be extended on 4 and 10 occasions in November and December respectively.

Chart 5-6

## Interbank, customer and DVP transactions in VIBER in November and December 2003

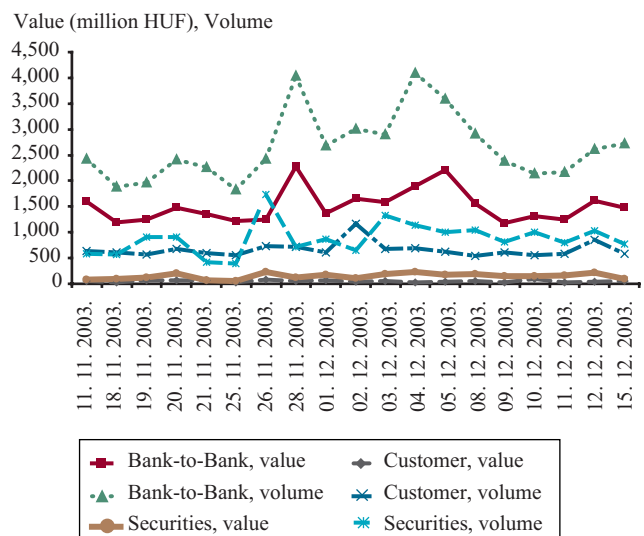
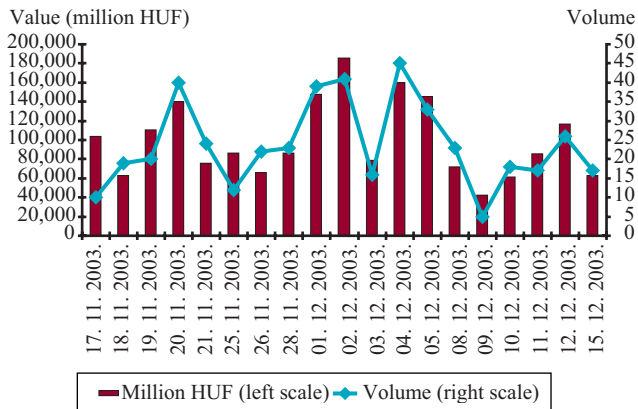


Chart 5-7

## Queuing in November and December 2003



Queuing remained average, with a negligible impact on liquidity. Queuing in the Interbank Clearing System was also attributable to miscalculations (representing, as a rule, several tens of millions of HUF).

## Summary

Overall, it is safe to conclude that it was the speculative attack in January that had the most profound impact on the turnover and operation of payment systems. The reason for this was that a huge amount of money was transacted within a very short period of time. Both of the other two major events in the money market had a smaller impact on the operation of the financial system, since their impact was more evenly distributed over time in the system.

From a technical point of view, these events had no serious consequence as regards the MNB-operated RTGS platform, for even the above 'exceptionally high' number of transactions is low relative to the capacity of the system. Operation was continuous. Neither technical nor liquidity problems arose.

## **6 CURRENT TOPICS RELATED TO STABILITY**



## 6.1 ADDITIONAL RISKS OF FOREIGN CURRENCY-BASED HOUSE PURCHASE LENDING

### New situation in house purchase lending

In December 2003, the Government tightened the conditions of the house purchase subsidy scheme. Accordingly, the amount of government subsidy, subject to market rates and granted for purchasing new and used homes, was reduced. Consequently, the costs of borrowing for customers increased, with a simultaneous decline in the banking sector's gross margin to 1.8%–3.2%.<sup>69</sup> Banks realise an average 5.2% margin on foreign currency-based facilities currently available. The maximum amount of loan available for purchasing used homes was reduced from HUF 15 million to HUF 5 million. As an effect of the increases in official interest rates in June and November, the difference between forint and foreign currency interest rates rose dramatically. Subsidised loans became considerably more expensive for customers.<sup>70</sup> These two factors led to a new situation in the market of loans for house purchase, which directed the attention of both borrowers and lenders to foreign currency-based products.

In our assumption, also reinforced by banks' experience, a significant part of loan applicants make their borrowing decision on the basis of the monthly costs of a loan, calculated on the basis of current interest rates and exchange rates. Typically, they choose the credit facility which has the lowest monthly instalment, without considering additional risks. In the near term, therefore, foreign currency-based loans will probably crowd out all market-based forint loans and a part of subsidised loans for the purchase of used homes (where in addition the possible amount of loan is lower), or complement the latter, explained by their lower costs. Currently, they are even competing with subsidised loans for purchases of new homes.

### Direct risks of the sector

If interest payable on a loan is composed of a reference rate and a fixed spread, a bank's spread will decline to the extent that its ability to raise funds weakens. But, assuming that a bank opts not to fix its relatively quickly repriced product to a reference rate, then the rising costs of funds can be passed on to the borrower, who in turn becomes exposed to the lender throughout the entire term of the loan.<sup>71</sup>

Currently, it is the borrower who bears the exchange rate and interest rate risks related to foreign currency-based loans in full. In the case of non-performance or prepayment by the borrower, causing the bank's foreign currency position to open up, the bank may no longer be protected. However, the risk of the repricing gap opening up for the same reason is not significant, as the bank's liability is for the short term.

### Indirect risks of the sector

Instalment amounts on foreign currency denominated loans may change to a greater extent and more frequently than those on forint loans, due to the short repricing period and the immediate passing by the bank of the exchange rate risk on to the borrower. Households are unprotected in the face of such changes, as the majority of them do not have natural cover. The extent to which risks undertaken by the sector are transformed into credit risk depends on the intensity and persistence of a given interest rate and/or exchange rate change. Obviously, the likelihood of delinquency increases if the debtor decides the maximum amount of loan on the basis of interest rates and exchange rates prevailing on the day of borrowing.

<sup>69</sup> Expenses are subtracted from interest income (taking account of subsidies). This is apportioned by commercial banks and mortgage banks.

<sup>70</sup> According to data for April, the average cost of a loan for purchases of new homes was 8%–9%, those for purchases of used homes 10%–11% and market-based forint loans cost on average 17%–18%. The average cost of Swiss franc-based loans was 6% and that of euro-based loans was around 8%.

<sup>71</sup> This statement is also valid for forint loans.

Currently, interest rates are extremely depressed, moving at historical lows, in both the euro area and Switzerland.<sup>72</sup> Taking past data as a basis, official interest rates are highly likely to be raised over the medium term, by up to 1.5%–3%. The forint exchange rate may undergo a period of depreciation, either as a simultaneous or an independent episode. The likelihood of an increase in the instalment amount is not inconsiderable.

### Bank margin and collateral requirements

Currently, the average margin on foreign currency-based bank products is approximately double the margin on subsidised forint loans, which banks do not have to share with mortgage bank. In spite of all this, we do not know whether pricing is proportionate with the additional risks undertaken, due to a lack of experience.

Higher credit risk related to foreign currency loans may be offset by higher margin, on the one hand, and by a lower loan-to-value (LTV) ratio, on the other. According to information currently available, the majority of banks set a lower maximum LTV for their foreign currency based loans. If no negative shock occurs and the debtor defaults for some other reason, then a higher collateral value may result in a lower loss ratio and, through this, it may earn a higher profit for banks. But the increasing popularity of foreign currency-based lending makes the banking sector more sensitive to external shocks, which may lead to a wave of simultaneous defaults on a large number of loans. Due to the relative homogeneity of collateral assets, banks may be faced with difficulties in selling collateral, which, in turn, may lead to a massive increase in the loss ratio. This risk may be mitigated by diversifying collateral assets (for example, by involving life insurance).

### Implications for financial stability

The share of foreign currency-based loans within the total outstanding housing loans is low (1.4%). However, if foreign currency-based loans, carrying lower costs at the time of granting a loan, give a significant boost to demand for credit and lenders join this process, then the resulting credit boom, which may even entail a rise in asset prices, would expose financial stability to risks, increasing the sector's exposure to external shocks. If, due to competition or other factors (for example, inexperience), banks inadequately take account of the additional risks related to foreign currency lending in establishing their prices and other conditions for lending, the risks to stability may increase.

### Regulatory responses

There are examples of foreign currency-based lending to households increasing in popularity in several European countries (for example, in Austria and Norway). Various regulatory responses are possible to reduce the additional risks related to foreign currency lending.

In Austria, foreign currency loans to households, mainly variable rate Swiss franc or Japanese yen-based products, account for 25% of the total. In 2003, the outstanding amount of such loans exceeded the stock of foreign currency loans to the corporate sector. Due to the increased risks to financial stability, the Finanzmarktaufsicht, Austria's supervisory authority, has set minimum requirements for banks in the area of foreign currency lending and managing foreign currency loans.<sup>73</sup>

In Norway, banks are required to call every client's attention to the risks related to indebtedness in foreign currency in a special leaflet before the lending process gets underway, in order to increase debtors' risk awareness.

**Table 6-1**

### Percentage increases in monthly instalment amounts in the case of various negative shocks

EUR, CHF interest rate increase / HUF depreciation	0%	10%	20%
0 percentage point	0.0 %	10.0 %	20.0 %
1.5 percentage points	9.3 %	20.3 %	31.2 %
3 percentage points	19.1 %	31.0 %	43.0 %

Note: Assuming that a loan is granted at a 6% interest rate for a term of 15 years and that the changes occur one year after the loan is granted.

<sup>72</sup> Viewed from a longer-term perspective, the three-month Swiss franc LIBOR rose to its highest level in 2000 H2 (3.6%); and has been falling steadily since then, standing at 0.25% at end-March 2004. The three-month deutsche mark LIBOR was also at a peak of 5.1% in 2000 H2. At end-March 2004, the three-month euro LIBOR was 2.07%.

<sup>73</sup> These include stock limits; risk spreads by quality categories; more thorough examination of income and/or wealth position; limits based on debtor creditworthiness; continuous monitoring of fluctuations in the LTV; stress-tests for the outstanding foreign currency loans.

## 6.2 SENIOR LOAN OFFICER OPINION SURVEY ON BANK LENDING PRACTICES

In spring 2003, the Magyar Nemzeti Bank launched its ‘Senior loan officer opinion survey on bank lending practices’ (or the ‘Lending Survey’ in short), a semi-annual questionnaire-based poll aimed at better understanding banks’ lending behaviour. The Lending Survey was modelled on the Federal Reserve Board’s survey of the same title (hereinafter: the SLO) conducted four times a year in the form of a questionnaire. The MNB also adopted some special features of the lending survey recently launched by the European Central Bank for harmonisation purposes.

Below, we summarise in brief the most important features of the Lending Survey. A detailed description of the survey and the results of the first three surveys conducted can be found on the Bank’s website.<sup>74</sup>

### The theoretical background of the survey

As regards the factors affecting the supply of credit, creditworthiness standards and non-price terms and conditions in the allocation of bank credit are of primary importance, while pricing often proves to be of secondary significance. Creditworthiness standards are internal rules which define clients or client groups (on the basis categorising them into economic branches, geographic location, size, financial indicators, etc.) and the types of loan (collateralised, non-collateralised, investment purposes, credit line) a bank provides. Non-price terms and conditions in the allocation of bank credit (collateralisation requirements, debtor covenants, maximum size of credit/credit lines, etc.) are specific elements of loan contracts; a bank originates loans only if these terms and conditions are met. A theoretical explanation of this could be found in the 1950s when interest rates were fixed by the authorities. According to the ‘availability doctrine’ of the time, the available amount of bank loans depended mainly on non-price factors because of the fixed nature of prices. Modern theories of ‘quantity rationing’ also emphasise the primacy of non-price conditions. According to these, interest rates are kept low by problems related to adequate information and motivation and not by government intervention. Consequently, the price in bank

loan markets, unlike in other markets, does not contain sufficient information and cannot bring supply and demand into equilibrium.

Effective financial intermediation plays a very significant role in the functioning of the economy. Banks play a particularly important role in providing loans to households and small and medium-sized enterprises with no access to capital market financing. A change in banks’ overall willingness or ability to grant loans (often reflected by a change in non-price factors) may lead to a predominantly cyclical lending practice, inconsistent with the financing requirements of the demand side. In a worse scenario, this may reinforce the cyclical nature of the economy, leading to pro-cyclical lending practices, which is crucial to prevent from a financial stability perspective. In addition to data on quantity, qualitative information on credit supply and demand may also contribute to the timely perception and management of such types of risks.

Due to their important role in the economy, banks’ decisions on the supply of loans may have a significant impact on the monetary transmission process. A better understanding of variations in the supply of and demand for credit and the factors affecting such may facilitate a more accurate analysis of the relationship between monetary events, lending and real economic cycles, which eventually may lead to better informed monetary policy decisions.

### The Fed’s experiences

The US Federal Reserve officially launched its ‘Senior Loan Officer Opinion Survey on Bank Lending Practices’ in 1967, which it conducts on a quarterly basis.

The results of the survey are used by a wide range of entities. Users include the regulatory authorities, central banks and a number of market analysts. The survey is used for analytical purposes (for example, to support monetary policy decisions, assessments and forecasts of general macroeconomic activity and risks to finan-

<sup>74</sup> At: <http://www.mnb.hu/module.asp?id=263&did=2681>.

cial stability), as well as for conducting applied and academic research. The SLO survey, institutionalised by the Fed, brought about major scientific benefits as well. The modern theories of 'quantitative rationing', the theoretical foundation of the survey, were proved by empirical tools. Applied research also regularly relies on the SLO. For example, Lown, Morgan and Rohatgi [2000]<sup>75</sup> made the following conclusion based on the SLO survey: (i) credit standards are relatively exogenous factors compared with other macroeconomic variables, (ii) due to their significant negative relationship between credit standards and loan growth, credit standards are good indicators of future changes in outstanding loans and, through this, of economic growth and, (iii) consequently, the frequently heard claim that the role played by the USA's banking sector in the economy declined significantly in favour of capital markets in the 1990s can no longer be held.

### **The objectives and expected benefits of the Lending Survey**

Although the US is considered to be a country whose financial intermediation is based on capital markets, use of the SLO survey came to important conclusions. Accordingly, in a country like Hungary, where financial intermediation is predominantly based on banking, conducting a survey similar to the US SLO seems even more justified.

A regular Lending Survey can shed light on the role that non-price factors play in the credit supply of Hungarian banks. The responses to the questionnaire may provide important additional information about the stability of the financial sector and the cyclical nature of lending. In Hungary, the MNB faces the challenge of drawing a line between the deepening of financial intermediation and the procyclical behaviour of the sector, an important differentiation from a macro-prudential point of view. The real question is whether the dynamic growth of outstanding loans can be attributed to the deepening of financial intermediation driven by economic development and the convergence process, or if it is primarily due to the banks' procyclical lending activities, whose risks to stability were discussed above.

The Lending Survey can help to address topical issues related to certain market segments, for example, to better understand the risks of a boom in loans for real estate purchase (both to households and enterprises) and in loans to micro, small and medium-sized enterprises. From the point of view of the survey's success, it is essential that senior lending officers express their

opinion sincerely when answering the questions. To enable this, the MNB does not conduct the survey as a supervisory authority, and it only uses aggregates in its analyses and only publishes aggregate data. With the survey, the Bank also intends to provide a service to the banking sector, helping market participants to better understand the processes and to position their own banks in the market.

Another benefit of the survey is that, by keeping the questions relatively unchanged over a period of time, it may contribute to a better understanding of the role banks play in the economy and provide a wider range of topics for applied and academic research in Hungary.

### **Structure and method of the questionnaire**

The structure of the questionnaire used in our survey was modelled on that of the tried and trusted US SLO, modified according to the special characteristics of Hungarian financial intermediation. We also included certain modifications of the SLO questionnaire applied in a similar survey by the Bank of Japan that we found useful from a Hungarian point of view. Special features of the recently launched euro area survey were adopted primarily for harmonisation purposes.

### **Classification of credit market segments**

The Lending Survey contains two credit market categories: lending to households and lending to non-financial enterprises. The category of lending to non-financial enterprises is further divided into two segments: lending to non-financial enterprises excluding commercial real estate loans and loans for commercial real estate. Classification by size proved to be the most problematic part of our survey. The issue to be addressed was the number of classes by size and the criteria of classification. Three size classes were established: small- and micro-sized enterprises, medium-sized enterprises and large enterprises.<sup>76</sup> As commercial real estate loans are often issued in the form of project finance, there was no reason to categorise such loans according to size.

The category of loans to households is divided into two segments: loans for house purchase and consumer credit.

### **The questions**

In general, we can say that the MNB's questionnaire is slightly more detailed than the questionnaire used by

<sup>75</sup> Lown, Cara S., Morgan, Donald P. and Rohatgi, Sonali (2000): Listening to Loan Officers: The Impact of Commercial Credit Standards on Lending and Output, FRBNY Economic Policy Review, July 2000.

<sup>76</sup> The size classes for enterprises were defined differently from this in the first survey: micro-enterprises, small and medium-sized enterprises and large enterprises. Since almost all the banks defined their classes according to annual turnover, these two classes were combined into one.



the Fed or the ECB, as it contains more types of questions. The questionnaire contains mainly qualitative questions, most of which are backward-looking, while there are also forward-looking questions relating to future expectations.

### **Conducting and assessing the survey**

Foreign surveys are usually conducted four times a year. In the Bank's view, at first it is sufficient to conduct a survey twice a year in the first and third quarter of the year, covering the preceding six months.

The survey is regularly conducted among participants significant from the perspective of financial stability. Since their number is rather low, our aim was to cover a minimum of 75 per cent of the market.

As the questionnaire does not cover the whole credit market and, moreover, it contains rather personal questions, the MNB decided to conduct the survey using the method of direct contacting. The Bank's

managing director directly contacts the senior enterprise and household lending officers of the banks included in the survey and asks them to come to the MNB to fill in the questionnaire in the course of an interview.

When aggregating and assessing the responses, our primary intention was to define the direction of the changes, rather than to define their intensity. As an indicator of changes, we used the net percentage change (i.e. the number of changes with the opposite sign is deducted from the number of all changes), expressed as a percentage of the respondents where no differentiation is made between the responses 'changed considerably' and 'changed somewhat'.

The MNB's policy on publishing the results of the survey is to conduct each survey referring to the past six months within 45 days following the review period. The overall results, the related analysis and a set of charts will be published on the Bank's website at the beginning of the third month.

### 6.3 ASSESSMENT OF THE RISKS IN THE HUNGARIAN SECURITIES SETTLEMENT SYSTEM AGAINST STANDARDS<sup>77</sup> FOR THE USE OF EU SECURITIES SETTLEMENTS SYSTEMS IN ESCB<sup>78</sup> CREDIT OPERATIONS

Securities clearing and settlement have undergone significant changes in the past decade, as a result of which central bank's attention to the operations of securities settlement systems<sup>79</sup> has increased.

The typical statutory core duties of a central banks include (i) developing and implementing the monetary policy serving the protection of the value of the national currency, (ii) ensuring the safe operations of the payment and settlement systems and (iii) promoting the stability of the financial system. In recent years, these duties have been complemented with the task of overseeing the securities clearing and settlement systems. In the case of the MNB, this was embodied in the amendments to the Central Bank Act which came into force at the time of Hungary's accession to the EU.

The robustness and efficiency of the financial intermediary system, including the payment and settlement infrastructure, available for market participants, as well as the safe and efficient relationship between the payment system and the securities settlement system ensuring the fast execution of central bank operations, is crucially important for monetary policy implementation. However, providing adequate liquidity for the steadily increasing turnover in the payment system requires that a safe, flexible and swift connection should be in place between the payment system and the securities settlement system used by the market participants to move collateral securities efficiently.

The Asian and Russian financial crises of the second half of the 1990s clearly indicated that shocks affecting capital markets may cause systemic risks to the financial system of a country or even an entire geographical

region. From this perspective, the operations and interactions of securities clearing and settlement systems, serving capital markets, and payment systems, serving financial markets, play a crucial role. In order to prevent one system from transmitting risks to another and from becoming a medium for transmitting systemic shocks, it is equally important that both systems should have stable legal, risk management, institutional and technical backgrounds.

Recognising this need, analysis of the operations of securities clearing and settlement systems, the development of standardised requirements and the evaluation of national payment systems against the accepted international standards have become more intensive. This work has been spearheaded by a number of international organisations, including the BIS, the IMF and the World Bank, central banks and supervisory authorities. Two types of standards are distinguished: the user standard and the oversight (or prudential) standard. Whereas the former deals with risks from the perspective of the entities using the system, the latter focuses on the considerations of the institutions safeguarding financial stability relating to systemic risk and prudential operations.

In 1998, prior to the introduction of the euro, the European Monetary Institute<sup>80</sup> developed nine requirements, which the securities settlement systems aspiring to participate in Eurosystem credit operations<sup>81</sup> should meet. The objective of these requirements, defined from the perspective of users, is to minimise the risks Eurosystem central banks are faced with in the provision of credit. Moreover, according to the Statute of the ESCB, credit transactions should always be covered by collateral.

<sup>77</sup> Standards for the use of EU securities settlement systems in ESCB credit operations.

<sup>78</sup> European System of Central Banks (ESCB).

<sup>79</sup> A system which facilitates the transfer of securities. This may happen free of payment (for example, in the case of pledge), or against payment. Settlement of securities involved in transactions may occur on the securities settlement accounts held with the central depository, while payments may be executed in the central depository, a commercial bank or the central bank.

<sup>80</sup> Predecessor of the European Central Bank.

<sup>81</sup> At the time of publishing the standards, the assumption was that all Member States would adopt the euro, hence the name of the ESCB in the title. However, the standards apply to the current Eurosystem and not to the European System of Central Banks.

In September 1998, in the spirit of preparations for the introduction of the euro, the EMI assessed the securities settlement systems of EU Member States.<sup>82</sup> It drew up recommendations for the operators of the systems, and in addition set up operational conditions for the systems eligible for use in credit operations of the Eurosystem. This examination is repeated every year and it concentrates on compliance with the recommendations formulated earlier. If the operations of a system change substantially in terms of architecture, risk management, etc., then the entire system is re-evaluated.

In 2002, at the request of the European Commission and related to the completion of accession process, the ECB prepared a detailed analysis of the accession countries' payment and securities settlement systems and the efficiency of the oversight role of central banks. According to the findings of the report, the current infrastructure in a few acceding countries has deficiencies which may be an obstacle to the accession of the countries affected to Economic and Monetary Union. For this reason, in September 2002 the Governing Council of the ECB proposed to evaluate the securities settlement systems of acceding countries, on the basis of the criteria and methodology developed by the Eurosystem. This proposal served the dual objective of discovering potential deficiencies at an early stage and finding solutions for the problems thus revealed. In contrast with the inaugural evaluation conducted by the EMI in 1998, the survey of acceding countries' systems has not had any consequences, as it has served the purpose of preliminary analysis. The formal assessment of the individual systems will only be carried out prior to accession of the relevant country to EMU.

The Hungarian securities clearing and settlement infrastructure is integrated both horizontally and vertically. This means that stock exchange spot and derivatives transactions as well as OTC transactions are cleared and settled by a single institution, the Central Clearing House and Depository Ltd (KELER). As the single domestic central securities depository (CSD), KELER performs all duties related to keeping records of forint-denominated securities issued in Hungary and to safe-keeping for such securities. KELER has been operating as a specialised credit institution since 1 January 2004, which enables it to keep the accounts of investment service providing enterprises and to extend credit to members of the system in order to ensure settlement.

The MNB was affected by the evaluation of the domestic securities settlement infrastructure not only as the institution responsible for the implementation of monetary policy and for safe operation of the national pay-

ment system, but also as the major owner of KELER.<sup>83</sup> Below, we present the standards serving as the basis for the assessment conducted in 2003, the methodology of the evaluation and its major findings.

### Methodology

As a first step of the assessment, the ECB together with the accession country central banks, prepared a questionnaire consisting of 45 questions. KELER was required to respond to the questions, in a manner that it had to present its operational framework and detailed rules for each question.

KELER's responses were first evaluated by the MNB's experts. The ECB and the Central Bank of Luxembourg, conducting the secondary evaluation of responses, received the assessment report of the MNB together with the original responses of KELER.

As the next stage of the analysis, the experts of the Luxembourg central bank evaluated the documents prepared by the experts of KELER and the MNB, and conveyed their opinion to the ECB. Based on the three documents available, the ECB prepared the final assessment and drew up a detailed report which was discussed by the Securities Settlement Working Group (SWG), the Payment and Settlement Systems Committee (PSSC) of the ESCB and by the Governing Council. The PSSC was assisted in assessing legal issues by the Legal Committee (LEGCO) of the ESCB.

Work began in January and was completed in December 2003. A summary of the entire report, intended for the general public, was prepared on the results. This is available on the ECB's website ([www.ecb.int](http://www.ecb.int)).

The securities settlement systems of the ten acceding countries and the two associate members (Bulgaria and Romania), altogether 20 institutions, were covered by the survey. Making the evaluation more difficult, significant restructuring processes, affecting the operations and legal regulation of the systems, were underway in a number of countries.

While endorsing the report, the Governing Council remarked in connection with each system whether, based on its current operation, it could be used in Eurosystem credit operations, and it drew up recommendations in respect of the specific areas where it expected further progress. No deadline was set for implementing the recommendations; however, the national central banks affected were obliged to provide an account each year (the next one due at end-2004)

<sup>82</sup> There were 29 systems operational in the EU in 1998, compared with 21 at end-2003.

<sup>83</sup> KELER Rt is owned 50% by the MNB, 25% by the Budapest Stock Exchange and 25% by the Budapest Commodity Exchange.

of the changes implemented for the competent committees of the ESCB.

### Assessment of KELER

In the following, we present the observations drawn up in relation to the various standards. At the beginning of every point, the original text of the relevant ESCB requirement can be read.

#### 1) Legal soundness

*All securities settlement systems (SSSs) and the links between such systems must have a sound legal basis, ensuring that the settlement of payment and securities transfers is final and must provide for adequate protection for the rights of the NCBs and the ECB in respect of securities held in their account in such systems.*

The analysis of legal soundness focussed on five particular areas: (i) the legal nature of the owner's entitlement to the rights of securities held by the system, (ii) the rights, obligations and liabilities of each party, (iii) ensuring settlement finality, (iv) legal enforcement of netting and (v) protecting the rights of bona fide holders of securities. According to the findings of the assessment, the external and internal regulatory framework of KELER are adequate, ownership titles to securities are enforceable and the responsibilities are adequately detailed. At the time of conducting the survey, ensuring settlement finality and the legal enforcement of netting were open questions, and were pointed out as deficiencies; however, Act XXIII of 2003 on 'The settlement finality in payment and securities settlement systems', enacted on 1 May 2004, addressed these issues.

#### 2) Settlement in central bank money

*SSSs must use central bank money for the delivery versus payment (DVP) settlement of ESCB credit operations.*

There are systems in which securities transactions are settled in commercial bank money, instead of central bank money. In these systems the members of the systems run the risk of non-performance by a given commercial bank and complete settlement failure. The NCBs of the Eurosystem are not willing to undertake this risk. Consequently, a regulation has been adopted which mandates them to use systems in which central bank money is used as the settlement asset. In this respect, the structure of the system in Hungary has been unchanged for years. KELER keeps the settlement accounts of investment service providing enterprises and the MNB keeps those of credit institutions. Accordingly, the securities leg of transactions is always settled by KELER and the cash leg is settled by KELER in the case of investment service providing enterprises and by the MNB in the case of credit institutions. As

only credit institutions may be the counterparties of the MNB in monetary policy operations, this requirement is met. All three systems (i.e. the keeping of cash accounts by the MNB, the keeping of securities accounts by KELER and the keeping of cash accounts by KELER) operate in real time, on a gross basis. Establishing a real time link between VIBER and KELER in 1999 made it possible to settle central bank credit operations in the most secure way, on the principle of delivery versus payment (DVP). However, currently the MNB does not make use of this facility, but instead provides credit against pre-deposited securities. Composing the pool of pre-deposited securities, and providing a pledge to back any specific transaction in particular, can be performed continuously, in real time and on a free-of-payment basis, making use of the interlinkages between the two systems.

#### 3) Custody risk

*To limit custody risk as much as possible, SSSs must have a unique and direct relationship with the issuer or a direct link with an SSS which has this relationship. Links must have reconciliation procedures for balances at least once a day. All EU SSSs should permit direct access appropriately to all other EU SSSs which meet these standards and other relevant requirements.*

Settlement systems must have in place adequate arrangements against custody risk, to ensure that the securities of participants are protected, particularly against the claims of creditors. One method for this can be segregation, another can be double-entry accounting or a stringent internal audit system. In addition, the Eurosystem considers it important to have as close as possible, preferably a direct relationship between the issuer and the settlement system. The reason for this is that the higher the number of indirect participants in the settlement chain, the greater the risk of uncertainty in respect of settlement finality and the more difficult it is to ensure the reliability of records. In other words, it cannot be guaranteed that there are no more securities in circulation than in the books of the operator. In Hungary, this problem does not exist for traditional reasons, since there is only one securities depository operational, which at the same time is the CSD. Thus KELER has a direct, exclusive relationship with the issuers of securities safekept in the custody, and no other participant (e.g. depository, custodian, etc.) is wedged in between the issuer and the central depository.

Under this point, the link between national depositories is also discussed. The essence of this is that, as far as possible, depositories should have links with other national or international central depositories to perform cross-border securities transactions. Under this requirement, national CSDs may not discriminate,

which means that, if another depository wishes to establish a link and complies with the relevant standards, CSDs may not refuse to fulfil the application for the establishment of a link.

In contrast with the settlement systems of most of the other acceding countries, where foreign institutions are often barred from joining the system, KELER has a long-standing account relationship with Clearstream Bank Luxembourg and Österreichische Kontroll Bank, Austria's central depository. Its statute has made it possible for long for foreign clearing houses and securities depositories to open accounts with KELER.

#### 4) Regulation, control and oversight

*An SSS or a linkage between SSSs that is not subject to regulation and/or control by the competent authorities must not be used by NCBs.*

Securities settlement systems can have a profound impact on financial stability for the reasons discussed above. Consequently, experts of the institutions, i.e. supervisory authorities and central banks, safeguarding financial stability, can only rest assured if they are confident that the systems are placed on adequate bases, in respect of their financial, personnel and physical conditions, and their risk management methods. The objective of this requirement is for the NCBs of the Eurosystem to make use of systems, in the case of which they have adequate information in respect of operations and they have the appropriate licences to check the reliability of such information. KELER satisfies this standard in every respect, as two institutions have the supervisory and oversight powers provided for by law in respect of its operations, its most major owner being the MNB, vested with the responsibility to ensure financial stability. The Capital Market Act contains regulations for securities clearing and settlement as well as for the operations of the central depository. It is basically the task of the Ministry of Finance to develop the regulations relevant for the central depository. The Ministry performs this duty in close co-operation with the Supervisory Authority and the MNB. The Capital Market Act authorises the Hungarian Financial Supervisory Authority (HFSA) to licence both the institution and the activities, to approve its business rules and to carry out on-site inspections of its operations on a regular basis. The HFSA must involve the MNB in on-site inspections, if certain specific aspects of the depository's operations are examined (for example, operational reliability, risk management). In 2000, the MNB

and the HFSA signed a Memorandum of Understanding, which contains the division of labour in respect of supervising the securities clearing and settlement systems. At the time of amending the Central Bank Act in December 2003, the MNB's core duties were complemented with the oversight of securities settlement systems and the promotion of the safe and efficient operations of the systems, consistent with best European practice. Accordingly, the MNB may request data, carry out analyses and check compliance with international requirements in respect of the domestic securities clearing and settlement systems.

#### 5) Transparency of risks and conditions for participation in a system

*SSS operators must provide the NCBs with an insight into the potential risks of the settlement of securities (e.g. they must provide timely, orderly and reliable information about the potential risks resulting from participation in the system). Access and exit criteria for participation in the SSS must be objective and public.*

Central banks must be aware of the entire scope of risks they may be exposed to as participants in the system. To this end, they need transparent rules for membership, and regular information on changes in risk profile of the system, developments in turnover, failed transactions, system breakdowns, etc. The MNB has several channels for collecting the necessary information. First, as an overseer, it can collect data on a regular basis and perform inspection on or off-site. Second, on the basis of the Memorandum of Understanding signed with the HFSA, it can have access to information, which the HFSA collects from the operator of the system. Third, the MNB, as a 50% owner, has a significant influence on the activities of the decision-making bodies of the KELER. Currently this is the most efficient way of collecting information. Consequently, the Bank receives information on the more important proposals for changes affecting KELER's operations through its representatives during the planning phase by management. Fourth, there are international requirements to disclose information, the most important of which is the G10-IOSCO disclosure framework.<sup>84</sup> This contains those pieces of information, which may be of relevance for users, before they decide to join a system. KELER responded to the questionnaire in 1998, however, since then it has not updated its responses. This is expected to occur in the course of this year, on the basis of the ECB's recommendation.

<sup>84</sup> IOSCO: International Organisation of Securities Commissions.

## 6) Risk management

*SSSs must adopt risk management measures as appropriate to the individual system, in order to cope with the effects of a default of participants. SSSs must be structured and operate in such a way as to avoid, or if not possible, to minimise any conflict of interest possibly arising from their other operations.*

Most securities settlements are now able to process securities transactions on a DVP basis, i.e. to synchronise the settlement of the securities and cash legs of a transaction. Consequently, participants do not run credit risk vis-à-vis their counterparties. However, any system is potentially exposed to liquidity risk, which may arise from late delivery or from unwinding, when the transactions of one counterparty, which become insolvent in the period between the entering and settlement of a transaction, have to be deleted and positions have to be recalculated. In order to lower risks, securities settlement systems have developed risk management mechanisms, which are capable of coping with the problems caused by the counterparty at default with the largest net debtor position (or even those caused by the 2–3 largest debtors). The asset ensuring settlement in the system may be securities lending on the securities side and collateralised lending as well as various arrangements for settlement guarantee funds on the cash side. Similarly, risks facing counterparties can be reduced by CCP<sup>85</sup> clearing. Under this scheme, the clearinghouse is interposed between the buyer and the seller of a security, and guarantees settlement for both parties. As in such cases the clearinghouse undertakes high risks, it needs to have in place a more sophisticated risk management system.

KELER's three-level guarantee system (individual collateral, collective guarantee fund and its own capital), coupled with daily mark to market collateral assessment and immediate clearing provides high-level risk management. In addition, KELER, unusually in Europe, also performs the tasks related to the clearing of spot and derivatives market transactions. It acts as a CCP on both markets, functions as a central securities depository, keeps settlement accounts and grants credit to facilitate settlement. In the interest of protecting the accuracy of securities registries and the operation of the central depository, the latest international best practice suggests that, wherever possible, the CSD and CCP functions should be separated into different legal entities. If this is not possible, high-risk CCP and risk-free CSD activities should be clearly separated and risks managed adequately. The ECB formulated a similar assessment, according to which combining the activities of a central counterparty and the central depository in one company may expose Eurosystem

credit operations to some degree of risk, as providing a settlement guarantee by the CCP means taking credit risk. The MNB, in collaboration with KELER's co-owners, has addressed this issue. Currently, various alternative options are being considered.

## 7) Intraday finality of settlement

*SSSs must provide facilities to settle certain ESCB operations (those involving intraday and overnight credit) with intraday finality (i.e. settlement that cannot be reversed or unwound). SSSs used for the settlement of central bank transactions shall have facilities in place to allow the option of intraday DVP settlement in central bank money. This may take the form of real-time gross settlement, or a series of batch processes with intraday finality.*

Intraday finality in the euro area lies in the ability to use the same security as collateral several times in the same securities settlement system during the operating hours of TARGET, thereby increasing the amount of disposable liquidity for the smooth implementation of monetary policy operations and operation of the payment systems. This is extremely important for central banks, as it often happens that, during late afternoon hours, mostly immediately in the period preceding the close of the payment system, operations must be performed very quickly in the market. The settlement of securities with intraday finality is supported by a number of technical solutions in the securities clearing and settlement systems. An example is DVP settlement in a real-time gross settlement system, or in a gross system with intraday multiple batch processing cycles, or, perhaps, in a net system with multiple batch processing cycles. The most perfect arrangement is the real-time gross system, as settlement immediately becomes irrevocable and final, while in batch systems some time passes between entering instructions and final settlement of such. Obviously, the higher the number of settlement cycles in a batch system, the shorter the time which elapses between the two events.

In 1999, both KELER and the MNB introduced a real-time gross settlement system and established real-time linkage between the two systems. This technical solution ensures the possibility of intraday settlement finality using DVP procedures; however, this opportunity is guaranteed only until 4 p.m., when KELER's operating hours end on each business day; and VIBER closes shortly afterwards, at 4.30 p.m. In this respect, the ESCB's requirement remains unfulfilled, as TARGET is open from 7 a.m. until 6 p.m., in contrast with the domestic systems, which close earlier in the day. However, counterparties provide collateral for central bank credit operations not on a DVP, but on a free-of-payment basis. The composition of the pool of securi-

<sup>85</sup> Central Counterparty.

ties, mentioned under the second standard on settlement in central bank money, can be altered freely during the operating hours of VIBER. The time needed for processing these orders equals the timeframe of DVP repo transactions.

### 8) Operating hours

*Operating hours and opening days of SSSs must be in compliance with NCBs' requirements for the TARGET system and for the cross-border use of eligible securities.*

Securities settlement systems must be open on TARGET operating days, and their operating hours must be harmonised with those of TARGET, in order for allowing cross-border use of collateral in case a central bank is granting a credit in the Eurosystem. Although national holidays differ widely, TARGET is only closed six days a year.<sup>86</sup> Receipt of payments is compulsory by rule even when there is a national holiday in one country, but TARGET is operating; however, it is not compulsory to send instructions. Harmonisation of the daily operating hours of a payment system and a securities settlement system does not mean that any transaction can be input at any time. For a securities settlement system, various acceptance deadlines are set, which are aligned with the operating hours of the payment system. Typically, customer instructions can be entered until early afternoon, while interbank transactions and those for central bank operations can be entered even immediately before the close. However, the systems must be prepared to be at the disposal of the banking system and central banks by extending operating hours in case of emergency.

Understandably, the operating calendar of none of the new Member States is harmonised with that of TARGET. Every country sets operating days in accordance with the needs of its market participants and its national holidays. In Hungary, the systems are closed on nine working days<sup>87</sup> due to national holidays. Two more days are added in 2004, due to the transposition of working days, in exchange for which, however, the systems are open on two Saturdays. This is a special Hungarian problem, which will have to be solved until adoption of the euro by Hungary the latest. Daily operating hours are also not in synchrony with those of TARGET, as currently market participants do not request KELER to be in operation longer. The underlying reason for this is that VIBER also closes earlier than TARGET, and the system should switch to two shifts if operating hours were extended. For the time being, market demand does not justify shouldering the increased costs related to such an extension. But, once

a country joins the Eurosystem, it has to adapt its systems to the requirements of the single market. KELER has indicated that, should the MNB and market participants voice such a request, it is ready to start preparations for extending its operating hours.

### 9) Operational reliability and availability of adequate backup systems

*All SSSs must ensure the operational reliability of technical systems and the availability of backup facilities capable of completing daily processing requirements.*

Operational risk refers to the loss which may arise from unforeseen system failures, negligent behaviour, external attacks, corporate governance or management errors and put the operability of an entire system at risk. Drawing the lessons from the attacks against the USA on 11 September 2001, the issues of ensuring business continuity, and the existence and operability of backup facilities have become the centre of operational risk management activity in the Eurosystem. Although not all debates on the matter have reached a conclusion as yet, it is certain that more stringent standards relative to those in the past will be adopted for TARGET and the securities settlement systems participating in Eurosystem credit operations. Nevertheless, the ESCB assessed the systems on the basis of its current standards. However, it has called operators' attention to closely monitor the work currently underway.

At the time of conducting the survey, KELER did not have an operating, tested business continuity plan (BCP) and a remote disaster recovery facility and, therefore, the report referred to these as deficiencies. However, both development projects were underway, of which the BCP was completed by 2003, and it was tested and implemented. Procurement of the hardware and software elements of the remote disaster recovery facility took place in early 2004. Trial operation and testing of the system will be accomplished this summer. Full operation of the system is expected to start in November 2004.

### Statement by the Governing Council of the ECB

Based on the detailed assessment, the Governing Council of the ECB formulated the following view on the Hungarian securities settlement system:

'KELER is eligible for use in Eurosystem credit operations, with the restriction that this is only possible with pre-deposited collateral after 4 p.m.'

<sup>86</sup> On 1 January, on Good Friday, on Easter Monday, on 1 May and on 25–26 December.

<sup>87</sup> On 1 January, on 15 March, on Easter Monday, on 1 May, on Pentecost Monday, on 20 August, on 1 November (All Saints Day) and on 25–26 December.

The restriction in the statement refers to the 8th standard, as the operating hours of KELER's real-time settlement system are harmonised with the operation of VIBER and fulfil the needs of domestic capital and financial market players and not with those of TARGET, processing large-value payments of the Eurosystem.

### **The MNB's opinion on the evaluation**

The MNB was satisfied and reassured by the excellent rating given to the Hungarian securities settlement sys-

tem in the assessment conducted by the ESCB and that it was considered as having been prepared to perform the related tasks after adoption of the euro by Hungary.

As an owner and overseer, the MNB will continue to closely monitor the further development of the domestic securities clearing and settlement systems, and, by eliminating the existing minor deficiencies, it will make efforts to bring the operations of the system into full harmony with the requirements of the Eurosystem by the time of adopting the euro.



## 6.4 MATURE MARKET INTEREST RATE CYCLES AND EMERGING MARKET CAPITAL INFLOWS

### Introduction

Given the small size of the Hungarian economy and a very high degree of openness of the country's capital market, foreign interest rates (mainly EUR and USD), and global risk perception influence domestic financial markets considerably. Looking at the currency composition of Hungarian government debt, forint-denominated debt is dominant. Based on the experience of recent years, however, foreign investors have been playing an increasingly important role in financing Hungary's forint-denominated debt. Despite the fact that the spread on euro-denominated Hungarian government bonds, currently at 30-40 basis points, is substantially lower than bond spreads on typical sovereign issues of emerging countries, the majority of foreign investors classify Hungarian forint-denominated bonds as a high-risk asset. The interest rate differential between forint-denominated bonds and euro or dollar-denominated bonds with similar maturities is several hundred basis points, explained mainly by the exchange rate risk premium required by investors. In addition to country-specific factors, common or global factors may also influence developed-country investors' demand for high-risk financial assets. Lending particular importance to our analysis, the amount of capital flows into emerging market debt instruments in 2003 was unprecedented since 1998, which was associated with a significant decline in risk premia on government bonds. In the current market environment, the anticipated reversal in the interest rate cycle in developed markets raises the issue as to whether the currently low level of interest rate spreads is sustainable and, after all, how robust emerging market capital inflows are.

The EMBI+ spread, an indicator of spreads on emerging market dollar-denominated sovereign debt, narrowed by 347 basis points in 2003. Pull factors, such as the improvement in emerging countries' economic fundamentals, played an important role in this decline, but in addition to fundamentals, push factors, including low dollar and euro interest rates as well as ample global liquidity, also contributed significantly to the massive increase in demand for high-risk assets. If this

improvement in fundamentals proves to be a lasting process, better risk perception will be reflected in the upgrading of countries' sovereign debt. Global liquidity conditions are determined by dollar and euro interest rates. However, monetary conditions in developed countries, and interest rates on the key currencies in particular, show cyclical patterns, depending on variations in the business cycle. Consequently, the favourable financing environment, created by the abundance of liquidity, can also be viewed as a cyclical development. Global investors' propensity to take on risks may also change, which may be reflected in the increase in risk spreads. These raise the question as to what extent the current low level of risk premia may be sustainable.

### Capital flows into emerging markets in the past decade – general facts

The highly intensive flow of capital into emerging markets in the 1990s and the series of financial crises in Mexico, Asia and Russia, partly attributable to these inflows, provide a number of useful lessons about the nature of international capital flows.

The most striking fact is that flows into equity instruments, such as portfolio and direct investment, remained the dominant component of capital inflows to emerging countries throughout the decade, irrespective of the crises noted above. By their nature, these flows are more stable than flows into debt instruments, which is well illustrated by the fact that some three-quarters of capital flows were accounted for by direct investment in the period under review. By contrast, flows into debt instruments tend to be extremely volatile. Their volume was profoundly affected by the financial crises of the 1990s.

Interestingly, the Mexican crisis which began at end-1994 only had an transitory impact on capital flows into emerging countries.<sup>88</sup> As a direct consequence of the crisis, significant withdrawals and major waves of sales of bonds and shares were experienced in emerging markets in the beginning of 1995, equally affecting

<sup>88</sup> BIS 66th Annual Report, June 1996.

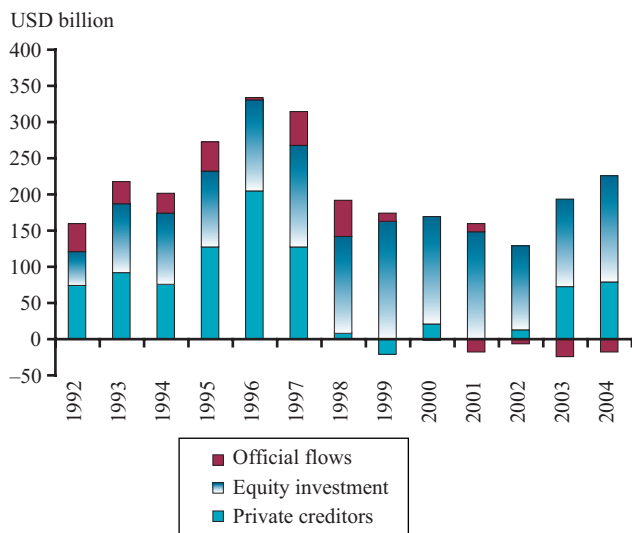
Asia and Latin America. But the situation was soon stabilised, thanks to co-ordinated and rapid international assistance as well as economic policy consolidation, with the result that investors quickly resumed buying emerging-country instruments.

Capital flows into emerging markets peaked in 1996, at a time when interest rates were falling in mature markets, economic growth was particularly robust in Asia and there was a resulting unusually vigorous demand for capital. Subsequently, the intensity of inflows gradually waned. For the most part, capital flows were channelled through by the banking sector and, as a result, currency risk mounted in the balance sheets of Asian banks. That, in turn, had serious implications for the banking systems and economies of the countries affected at the time of the outbreak of the currency crisis one year later. In the wake of the crisis, investors mainly shut down flows of credit and portfolio capital, while the volume of direct capital inflow remained stable.

In 1998–99, as a repercussion of the Asian crisis and in response to the turbulence in Russia, investors' global portfolio reallocation mainly affected debt instruments again: throughout the entire period, inflows were at

**Chart 6-1**

**Emerging market capital inflows**



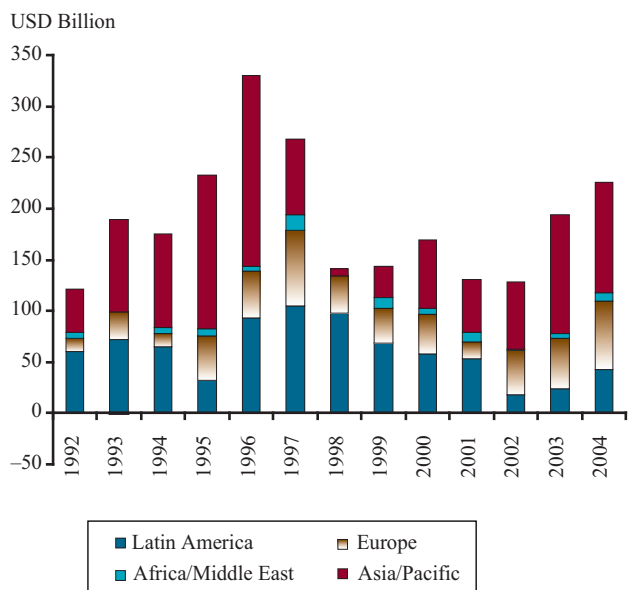
Source: Institute of International Finance.

their lowest in 1998, followed by capital outflows in 1999.

The lessons of the crises discussed above can be summarised as follows. All of the crises shared the common feature that they were preceded by significant

**Chart 6-2**

**Capital inflows to regions**

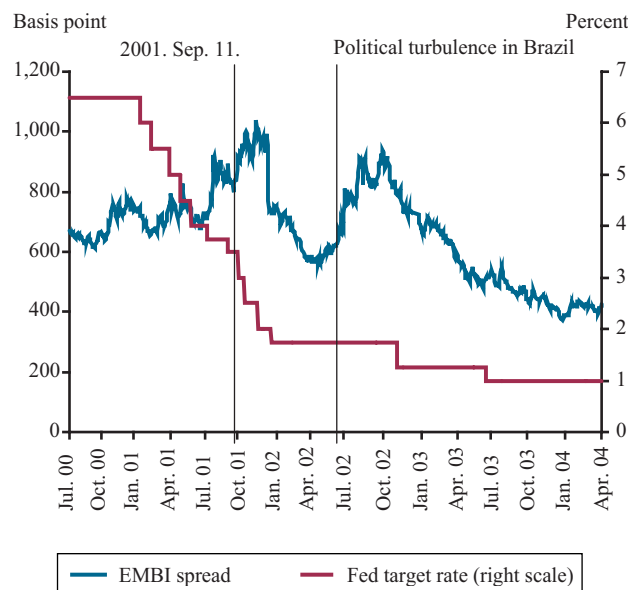


Source: Institute of International Finance.

capital inflows. These inflows were associated with low developed-country interest rates and ample liquidity, and resulted in easing risk spreads. In some cases, this was coupled with an upsurge in foreign currency debt, which meant both mounting interest rate and exchange rate risks. Another common feature was the substantial devaluation of currencies of the countries in the wake of the outbreak of crisis, as a result of which

**Chart 6-3**

**EMBI spread and the Fed target rate**



Source: Institute of International Finance.

<sup>89</sup> A frequent conclusion of empirical studies dealing with these crises is that currency depreciation was exaggerated relative to what it might have been estimated on the basis of data for the period preceding the crisis.

the banking and corporate sectors incurred heavy losses on their balance sheet open foreign exchange positions.<sup>89</sup> A third shared characteristic was that, in most cases, the effects of crises of the past decade spilled over to other emerging markets which were otherwise not confronted with fundamental problems.

Consequently, in the light of the experiences with crises of the 1990s, the gradual decline in risk spreads from 2002 Q4 and the low interest rates in developed countries, the question may be raised as to whether or not other factors also played a role (in addition to the improvement in fundamentals), in explaining the recent pick-up in flows into emerging markets and the related massive decline in risk spreads.

### **Fundamentals vs. liquidity – the role of dollar and euro interest rates in the fall in risk spreads<sup>90</sup>**

From a financial stability perspective, the question whether emerging market inflows are sustainable or volatile, or, to put it differently, whether there is any likelihood of a substantial capital outflow coupled with extreme currency depreciation, is of fundamental importance. There is a consensus in the financial stability literature that capital inflows can be regarded as robust and sustained, if they have been induced by an improvement in economic fundamentals of the countries affected. However, in the 1990s, when emerging market credit spreads were falling and capital flows were gaining momentum, the view was increasingly widely shared that developed-country liquidity conditions and investors' risk appetite also played a role in developments in capital flows, in addition to fundamentals. Early studies trying to explain variations in risk spreads failed to demonstrate the explanatory power of liquidity conditions. But this factor has become significant in a large body of the more recent assessments.

On purely theoretical grounds, the following arguments may be raised in favour of the explanatory role that global liquidity conditions play in developments in emerging countries' foreign currency bond spreads.

Falling dollar and euro interest rates tend to reduce the debt service costs of bonds denominated in such currencies. As in this case debtors' cash flow position and their financial position in general improve, investors

revise up their assessments and, consequently, they require lower premia on the instruments issued. In addition, debtors can refinance existing loans at lower interest rates, which also improves their financial position.

Due to the drop in interest rates, investors' risk tolerance is expected to increase, as, after a time, returns on risk-free investments do not ensure the return required by investors. Recent market commentaries often label this phenomenon as 'quest for yield' or 'hunger for yield'.

Investors determine the return required on high-risk bonds relative to returns on risk-free government bonds and treasury bills. This means that they expect higher returns on emerging-country government bonds than on those issued by the governments of the US and developed European countries. This additional return is the risk premium. The risk premium is positively correlated to the risk-free return; consequently, with the decline in developed-country government bond yields, the risk premium also falls.

Despite these relationships, early empirical studies failed to demonstrate the role of global liquidity conditions in the fall in emerging-country risk spreads. By contrast, almost all of the studies documented the explanatory power of economic fundamentals.

But in the majority of studies, fundamentals explain much more the differences among spreads across countries than the changes in spreads over time.<sup>91</sup> Consequently, the legitimate question may be raised as to whether changes in spreads may be attributed to other factors, such as risk appetite or investors' mass behaviour (herding).

More recent studies emphasise the role of interest rates and liquidity conditions. Other authors<sup>92</sup> documented a positive correlation between short-term US yields and emerging-country spreads; and a more recent paper<sup>93</sup> found a positive correlation with short-term yields and a negative correlation with long-term yields.

Reinforcing the arguments in favour of the effects of these factors, regression analyses using only fundamentals have in the past predicted significantly higher

<sup>89</sup> In this section, we rely on the analysis in the April 2004 issue of the Global Financial Stability Report by the IMF.

<sup>90</sup> Eichengreen, B. and Mody, A., 1998: 'What Explains Changing Spreads on Emerging Market Debt: Fundamentals or Market Sentiment?' NBER Working Paper No. 6408.

<sup>91</sup> Arora, V. and Cerisola, M., 2001: 'How does US Monetary Policy Influence Sovereign Spreads in Emerging Markets?', IMF Staff Papers, Vol. 48 pp. 474–98.

<sup>92</sup> Ferucci, G., 2003: 'Empirical Determinants of Emerging Market Economies' Sovereign Bond Spreads' Bank of England Working Paper No. 205.

<sup>93</sup> Sy, A., 2004: 'Emerging Market Bond Spreads and Sovereign Credit Ratings: Reconciling Market Views with Economic Fundamentals' Emerging Market Review, Vol. 3, Issue 4, pp. 380–408.

risk spreads than observed. For example, a quite recent paper<sup>94</sup> found that spreads continued to be lower even in the wake of the increase following the Fed's announcement in January 2004, hinting at a turn-around in the interest rate cycle of developed countries, than might have been thought on the basis of the models relying only on economic fundamentals.<sup>95</sup>

The theoretical considerations and pieces of market information, discussed above, are also reinforced by the latest analysis conducted by the IMF. The quality of fundamentals and liquidity conditions were captured by the rating of sovereign debt and three-month dollar LIBOR respectively. In addition to these, the variables included investors' demand, approximated by the volume of new bond issuance, and VIX, an indicator often used to capture investors' risk tolerance.<sup>96</sup> Each of the variables, discussed above, proved to be significant. Meeting the expectations, rating and investor demand correlated negatively with the risk spread and positively with the short-term dollar interest rate, capturing the effect of global liquidity, and the VIX. However, one novel finding was that the short-term dollar interest rate, an indicator of global liquidity conditions, had a stronger explanatory power in both statistical and economic sense in developments in risk spreads in 2002–2003 relative to earlier periods.

#### Effects of the situation in the US in 1994 and the subsequent selling wave on emerging markets – lessons<sup>97</sup>

From the above discussion it can be seen that global liquidity conditions played a more important role in recent capital flows into emerging markets and in the fall in risk spreads than in earlier years. However, liquidity conditions and the related increase in risk appetite should be seen as a transient episode – a sudden rise in developed-country interest rates may cause a massive revision of investment decisions, significant capital outflows and an increase in yields in the bond markets of emerging countries. The developments in global bond markets in the wake of the surprise interest rate hikes by the Fed in 1994 provide a useful lesson in this respect.

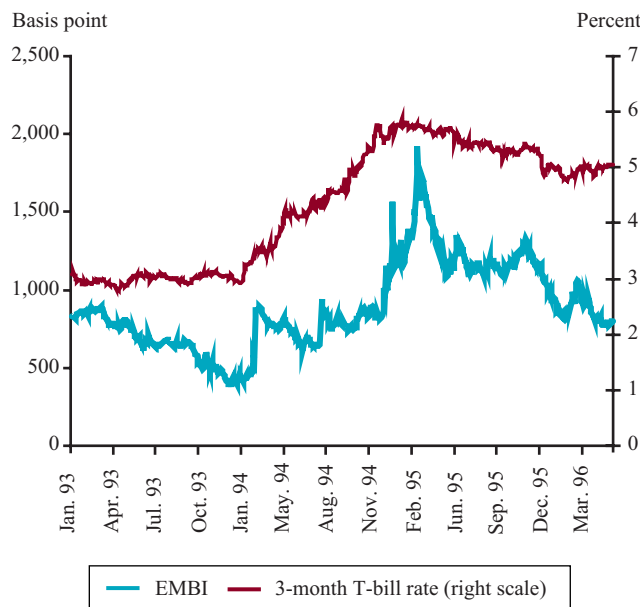
In early 1994, financial markets expected a gradual rise in key US interest rates from their four-year low; and substantial amounts of capital flowed into European bond markets, in anticipation of reaping profits from the decline in high interest rate levels following the

ERM crisis. However, the extent and speed of the Fed's interest rate increases<sup>98</sup> took markets by surprise; moreover, European interest rates fell by less than markets expected. As a result of these unanticipated events, investors reassessed their earlier decisions, and the increase in interest rates was followed by a wave of bond selling.

As a consequence, ten-year US dollar bond yields rose 250 basis points, with short-term yields rising even more strongly. In the face of developments in developed financial markets, global investors reduced their exposures to emerging markets, as a result of which emerging market government bond spreads doubled in the period between end-1993 and end-1994. The situation was further aggravated by the Mexican crisis at end-1994, which was deepened even further by the rise in dollar interest rates, as the Mexican government was unable to refinance its short-term US dollar-denominated bonds maturing in that period. Popularly known as the tequila crisis, the events had an enormous impact on emerging markets: the average risk spread doubled again. Although risk spreads on emerging-country dollar-denominated bonds fell in the first quarter of 1995, after the rapid international aid and

Chart 6-4

#### US dollar-denominated emerging market sovereign spread and the 3-month US Treasury bill rate



<sup>95</sup> According to the model, if a country's credit rating improves by one category, spreads fall by 14%. This, with 500 basis point bond spread, translates into a 70 basis point drop. By contrast, most spreads were lower by more than 200 basis points than those predicted by the model, which means even an upgrading by two categories would not be sufficient to explain the individual declines in spreads observed. It must be added, though, that, in periods when the fundamental model overestimated the risk spread, the likelihood of upgrading sovereign debts was higher. This suggests that upgradings have closely followed the narrowing in spreads, at least in the past.

<sup>96</sup> The VIX is an index of implied volatilities derived from options on S&P 500 stock index. A decline in the value of VIX can be interpreted as an increase in investors' tolerance against uncertainty.

<sup>97</sup> In this section, we rely on the analysis in the April 2004 issue of the Global Financial Stability Report by the IMF.

<sup>98</sup> Between February 1994 and February 1995, the Fed raised its key policy rate from 3% to 6%, in a series of seven steps.

economic policy consolidation, they only reached their pre-crisis level a year later, in early 1996.

The current situation is in many respects similar to the one 10 years ago. The most important common feature is that developed-country interest rates are now at historic lows. An analogy with the events of 1994 is that markets currently expect developed-country interest rates soon to increase. The greatest factor of risk for emerging markets is closely related to this, given that, if interest rates rise above expectations, then this may eventually lead to a significant repricing of emerging-country instruments en masse and, finally, to a flight of capital.

However, there are several differences as well. First, short-term US interest rates were some 2 percentage points lower in early 2004 than they were in early 1994. Second, with lower interest rates and a higher supply of capital, the likelihood that investors have overvalued higher-risk assets is greater, which, in turn, may cause problems, should market sentiment take an abrupt turn. This is aggravated by the fact that, according to anecdotal information, the mass behaviour of investors (herding) is a real source of concern, to which markets with small size and lower liquidity are exposed the most.

Another significant difference relative to the situation 10 years ago is that central banks of Asian countries, which tend to hold their foreign exchange reserves in US Treasuries which they have piled up as a result of interventions conducted in order to stabilise their national currencies, have increasingly been present in the US government securities market as buyers. A related uncertainty arises from the fact that Asian central banks may revise their exchange rate policies and withdraw from US markets, which, in turn, may contribute to an unanticipated rise in bond yields, although market participants currently do not expect this to occur soon.

But, opposite to the factors discussed above, certain macroeconomic variables foreshadow a decline in risks. Although the current recovery in the US is stronger and the fiscal deficit much higher than 10 years ago, inflationary pressure is smaller, explained, in part, by the more robust gain in productivity. All

these circumstances appear to lower the risk of a sudden increase in interest rates.

The implications for Western Europe of the events in the US bond market 10 years ago may also be especially relevant for the new EU Member States. Namely, an interesting yet alarming analogy arises from the fact that, as was the case in the Western European markets 10 years ago, the vast majority of investors in accession-country assets have been expecting official interest rates to fall in recent years. In 1994, investors anticipated a general reduction in high interest rates in the aftermath of the ERM crisis and purchased government bonds of countries participating in the European exchange rate mechanism. After the rapid increases in US interest rates, the direction of capital flows into Western Europe took a sharp turn, as US investors attempted to mitigate their losses incurred in the domestic market by unwinding their investments in European financial assets. By analogy with this development, convergence players are betting on an expected drop in interest rates and have entered the bond markets of acceding countries in recent years. The events of 10 years ago warn us that the demand of these investors for government debt securities issued by the new Member States may be sensitive to variations in US interest rates.

### Conclusion

The intensive flow of capital into emerging markets which began at end-2002, coupled with a decline in risk spreads, cannot be explained solely by improvements in economic fundamentals of the countries involved. Low interest rates in developed countries and ample global liquidity have also been playing a significant role in the development of historically low bond spreads. Expectations of increases in developed-country interest rates are mounting: consequently, emerging market credit spreads are likely to increase. However, the size of this anticipated increase is surrounded by uncertainties – it will largely depend on the extent to which investors in assets of emerging markets are surprised by rises in developed-country interest rates. Foreign investors' demand for foreign currency-denominated Hungarian government bonds is likely to be affected less by the increase in risk premia; however, with the decline in global risk appetite, foreign demand for forint-denominated government bonds,

## 6.5 GOVERNMENT DEBT MANAGEMENT FROM A STABILITY PERSPECTIVE

6

Due to considerable shifts in investor sentiment, in the past emerging countries have encountered considerable declines in demand for their government securities in both international and domestic markets, making it more difficult and expensive to finance their deficits and maturing debts. In the past, the unsustainability of their macroeconomic paths has only been made evident by the fact that that government deficits have become impossible to finance. Although in most cases this has been caused by the large size and rapid accumulation of debt, debt management also often contributed to the outbreak or further deepening of crisis, as it failed to take adequate account of risks. Prudent debt management therefore may reduce significantly a country's vulnerability and exposure to liquidity shocks, taking into account the following major sources of risk:

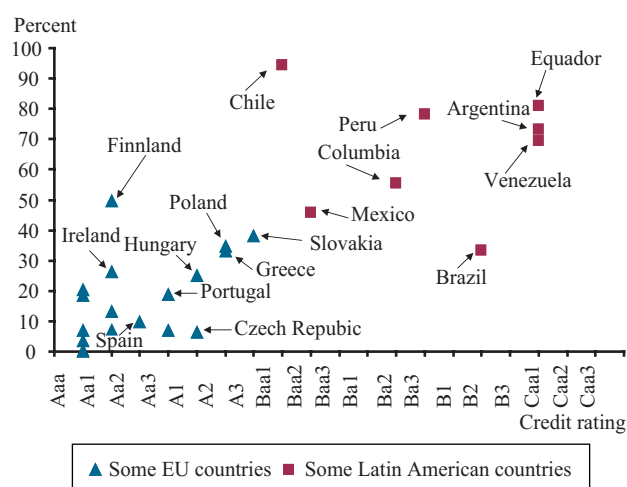
- exchange rate risk,
- financing risk,
- interest rate risk.

### Exchange rate risk

In Hungary, the interest burden on the domestic currency equivalent of foreign currency debt and the forint amount of foreign currency debt payable on maturity depend on the prevailing exchange rate. As general government raises revenues in the domestic currency, a potential weakening in the exchange rate may have an effect on the interest balance of the government budget and the domestic currency equivalent of foreign currency debt. This, in turn, may influence the foreign currency position of the government budget and the various debt and debt service ratios closely monitored by investors. The higher the share of foreign currency debt within general government debt, the stronger restrictions are required in the primary balance to offset a unit exchange rate depreciation. Consequently, with a higher foreign currency debt, the sustainability and credibility of the fiscal path react more sensitively to variations in the exchange rate and the costs of a potential depreciation are higher as well.

Chart 6-5

Relationship between the weight of foreign currency debt and credit rating (2002 data)



Based on the above consideration, a higher share of foreign currency debt issued abroad should in principle increase the credibility of the exchange rate regime, given a commitment by both the central bank and the government to maintaining a strong exchange rate. However, past experience with exchange rate crises show that the high and increasing share of foreign currency debt is a good predictor of the occurrence of exchange rate crises and that countries with a higher share of foreign currency debt tend to have a worse credit rating. An answer to this apparent contradiction may be that, typically, governments in countries do not grow indebted in foreign currency where it would be justified, for example, because government revenues are mainly denominated in foreign currency, but those that do not have access to loans in their own currency, due to the low credibility of the exchange rate system and the underdevelopment of the domestic capital market, or those that are not willing to pay the high exchange rate risk premium. The reason for this is that, characteristically, emerging countries are only able to raise finance at substantially higher interest rates, due to the exchange rate premium, and therefore they are tempted to finance their government debts through apparently cheaper foreign currency borrow-

ing. However, neglecting exchange rate risk may take its toll, because if the exchange rate depreciates, any potential financial crisis may be further aggravated by the domestic currency equivalent of payments to service the country's debt.

### Financing risk

Investor sentiment related to emerging-country government securities may take rapid and extreme turns. For example, demand for government securities declines dramatically during contagious financial crises. If the deficit is high or a significant amount of maturing debt has to be rolled over (the gross borrowing requirement is high<sup>99</sup>) during this period, then financing general government over the short term may become uncertain, which, in turn, may further reduce investor demand for bonds. The debt management agency may alleviate this risk by increasing the duration of debt, facilitating a decline in debt to be renewed over a standard period. Smoothing out the maturity profile of debt may further reduce risks and make it possible to avoid having maturities concentrated around certain dates. In addition to these, exposure to liquidity shocks may be reduced by holding adequate liquid assets on the Treasury Account and by agreements on callable credit lines.

### Interest rate risk

The interest rate risk to debt is high, if the major part of the possible effects of yield movements on the interest balance is quickly reflected in net interest expenses. As net interest expenses may influence the overall balance of general government significantly, yield movements in the context of an unfavourable structure of debt may have a dramatic impact on the general government deficit even over the short term. This not only makes it difficult to meet the deficit target in the Budget Act (the government has only limited leeway to take action to counterbalance a rapid deterioration in the interest balance), but, based on experience with financial crises, it may easily contribute as well to the development of self-fulfilling expectations and the escalation of an exchange rate crisis.

The repricing period of debt directly influences the sensitivity of the general government interest balance to movements in yields. In the case of a shorter repricing period, the interest balance improves (deteriorates) rapidly, in response to a potential fall (increase) in yields. If the percentage share of variable rate debt is higher, repricing is faster as interest payable on variable rate debt is determined by the actual level of inter-

est rates or their average over the previous six months: consequently, a shift in yields quickly feeds through to interest expenses. A high gross borrowing requirement of general government or a large short-term fixed rate debt are other factors which may also speed up repricing. In the case of issuing primarily fixed rate bonds, the high gross borrowing requirement means that the share of instruments issued under new conditions with-in debt and its interest payable tend to rise rapidly.

### Relationships between the various types of risk

The types of risk discussed above are not independent of each other. Typically, the capital markets of emerging economies lag behind those of developed countries in terms of depth and sophistication, and inflation also tends to be higher and more volatile. Consequently, markets are only willing to accept long-term fixed rate debt instruments which carry higher risk premia. This is the reason why the majority of emerging countries do not, or only partly, finance their deficits by issuing fixed rate debt denominated in domestic currencies, which could facilitate a reduction in the exchange rate, rollover and interest rate risks of debt simultaneously. In the past, many emerging countries opted for higher exchange rate risk and financing their deficits on the basis of foreign currency debt at a lower nominal rate, suitable for developing a longer-term debt portfolio, which often led to the escalation of exchange rate crisis, as mentioned above. Governments with preference for financing in their own currencies would tend to take on higher rollover risk, in order to reduce exchange rate risk, given the resulting shorter duration of debt. All this also carries higher interest rate exposure, as not only the maturity of the debt portfolio in own currency is shorter, but the yields of emerging currencies are more volatile than yields on key currencies.

### Debt management in Hungary and its implications for stability

Two major factors have dominated the management of debt in Hungary in past years. First, Hungary's Government Debt Management Agency (ÁKK) has gradually reduced the share of foreign currency debt within deficit financing. Second, it has increased the share of fixed rate forint-denominated debt. This strategy has made it possible to reduce the exchange rate and interest rate risk of debt significantly. The average term to maturity of existing debt and the related financing risk have barely changed, despite the decline in the importance of foreign currency debt with a longer maturity profile and higher exchange rate risk.

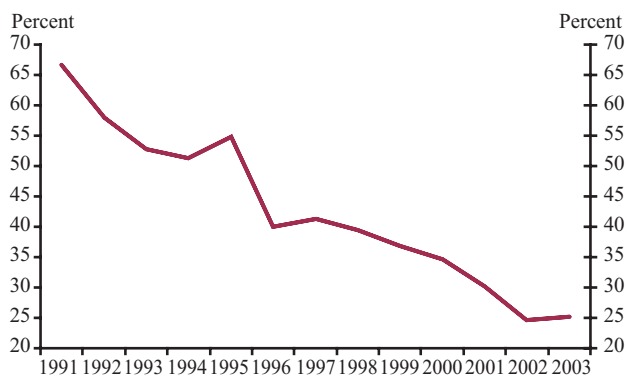
<sup>99</sup> Renewing maturing debt (rollover risk) and financing the deficit cannot be separated from a debt management perspective, as its task is to meet the gross borrowing requirement of general government.

**Exchange rate risk**

Foreign currency debt as a proportion of the total fell gradually from 60% in the early 1990s, and then declined quickly to as low as 24% by end-2002. Since then, it has fluctuated between 24%–26%. This meant that the share of Hungary’s foreign currency debt fell close to the levels characterising developed countries. If in the coming years the Debt Management Agency exclusively finances Hungary’s maturing foreign currency debt and its interest from foreign currency loans, then the percentage share of foreign currency debt will continue to decline over the medium term, to 18%–20% by end 2010, according to our calculations.

**Chart 6-6**

**Weight of foreign currency debt within total government debt in Hungary**



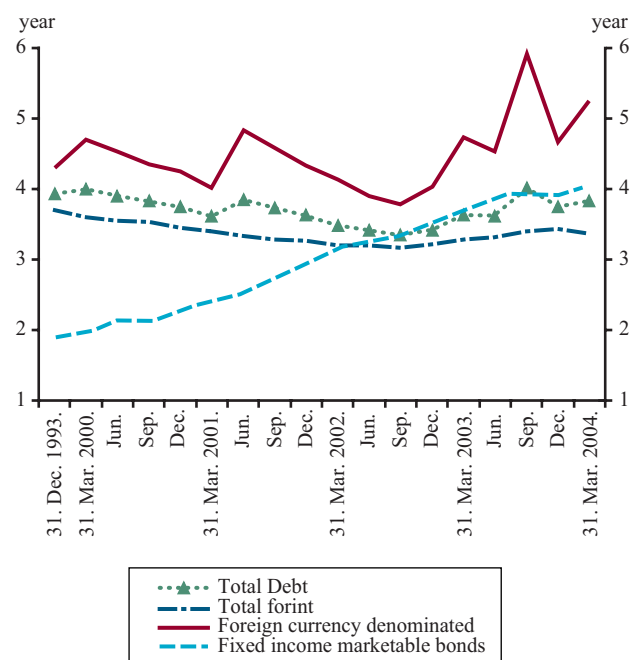
Source: Government Debt Management Agency.

**Financing risk**

The Debt Management Agency is currently unable to sell a portfolio, that has a maturity as long as in the Member States of the European Union, due to high inflation and exchange rate volatility. Nonetheless, the Agency has gradually stepped up the share of long-dated fixed rate bonds which reduce exchange rate, interest rate and maturity risks within deficit financing, in order to reduce financing risk. The outstanding total of these bonds is expected to increase to 50% of total debt by end-2004. Owing to this, the average remaining maturity of total debt has changed only slightly, despite the significant decline in the share of foreign currency debt, suitable for developing a portfolio of longer-dated securities. However, outstanding stock of treasury bills is high, and renewing these instruments accounts for some half of the annual gross borrowing requirement, due to the need to roll over the stock once a year, or even several times a year in the case of 3 and 6-month discount treasury bills. The rising general government deficit has contributed to the high gross borrowing requirement in the past years.

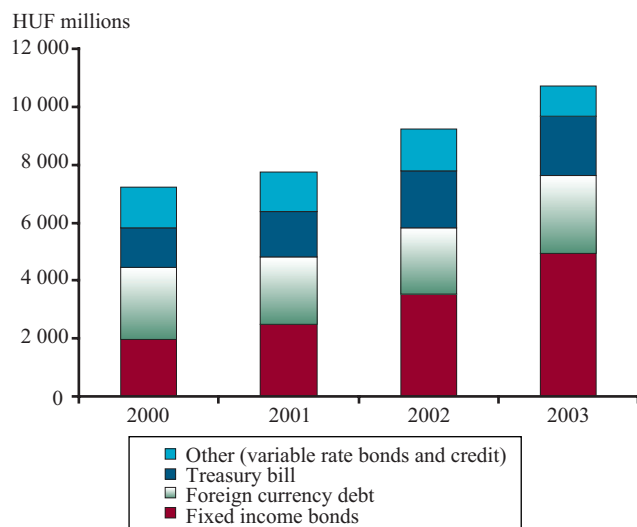
**Chart 6-7**

**Remaining maturity of government debt and its components in Hungary**



**Chart 6-8**

**Size and components of the government debt**



In developing the maturity profile of the Hungarian government debt, the ÁKK must consider a number of factors. The Agency sells bond series at several auctions, with the result that larger, more liquid bonds series are built up. All this tends to reduce the liquidity premium and the costs of financing, in addition to facilitating the development of the government securities market. However, larger bond series result in a more concentrated maturity structure. In the past, the size of maturing bond series has not reached a level which would have caused financing risk. But the size



of series in the market, maturing in future years, often exceeds HUF 400 million. The ÁKK may mitigate the risk arising from this factor by replacing and repurchasing bonds outstanding in the market.

Compared with developed countries, the average balance on the Treasury Account is relatively high. The aim of the Debt Management Agency with a high balance is to reduce financing risk. By adjusting the balance to the required level, the ÁKK's objective is to ensure smooth financing for the government budget, even in the face of a potential drop in auction demand in reaction to a liquidity shock. This is also facilitated by the fact that the ÁKK adjusts the balance on the Treasury Account to the optimum using repo transactions and a liquidity credit facility which can be drawn down quickly on demand.

### Interest rate risk

Interest payable on fixed rate bonds, accounting for an increasing portion of government debt, is not influenced by movements in yields, and so their increasing outstanding stock reduces the sensitivity of the interest balance (according to the ESA accounting method<sup>100</sup>) to variations in the yield curve. This effect, coupled with the steady fall in variable rate bonds outstanding, is also reinforced by the lower volatility of long-term forint yields relative to short-term forint interest rates, due in large part to the future adoption of the euro. Consequently, interest payable on fixed rate bonds scheduled to be issued in the course of a given year can be calculated more accurately. (If the ÁKK financed the total government debt by issuing discount treasury bills, the 2004 interest balance would deteriorate by some HUF 150–200 billion, caused by high short-term yields.)

### Stability issues

In the past years, the ÁKK has significantly reduced the risks arising from debt management and, consequently, the risks related to debt mainly arise from factors exogenous to debt management. Explanation for this is that the general government deficit increased substantially in 2002, and fell only marginally in 2003. As a consequence, the downward trend of the debt-to-GDP

ratio reversed and turned upwards. Furthermore, the level of and fluctuations in inflation as well as the volatility of the risk premium currently do not allow for the ÁKK to meet the general government borrowing requirement in full by issuing long-dated, fixed rate debt instruments. As a result, with the reduction in foreign currency debt, holdings of short-term treasury bills increased, in addition to those of fixed rate bonds, which limits the room available for further reducing financing and interest rate risks.

In the coming years, the ÁKK's debt management strategy is expected to increasingly concentrate on further reducing the share of foreign currency debt

**Chart 6-9**

### General government debt-to-GDP ratio (ESA 1995 methodology)



while increasing that of fixed rate bonds, with a resulting further decline in the exchange rate, financing and interest rate risks of debt. The Government's Pre-Accession Economic Programme has set the objective of gradually reducing the general government deficit in the years ahead. The lower deficit target may allow it to reduce the outstanding amount of discount treasury bills which are renewable several times a year. This may contribute to the reduction in the gross borrowing requirement both directly and indirectly.

<sup>100</sup> The interest balances on the ESA-95 and GFS bases are considerably different from each other in terms of methodology and their sensitivity to yield movements; see the May 2004 issue of *Quarterly Report on Inflation*.



## **7 ARTICLES**



## 7.1 THE PRACTICE OF CORPORATE GOVERNANCE IN COMMERCIAL BANKS<sup>101</sup>

BY ISTVÁN CZAJLIK AND ANIKÓ SZOMBATI

Anglo-Saxon economic literature has focussed on corporate governance in its current sense since the 1980s. The financial crises of emerging markets and the world economic recession after the turn of the millennium played a significant role in increasing attention on this concept since the second half of the 1990s. By the end of the 1990s it became widely accepted that a well-functioning corporate governance system is one of the important elements of an adequate financial infrastructure (e.g. IMF-World Bank (2003)). Stability literature addresses questions of corporate governance as well. The questions of external and internal governance are examined with regard to the market's disciplinary power and the optimal regulatory regime. The Financial Stability Forum<sup>102</sup> listed corporate governance recommendations among the 12 recommendations considered of utmost importance for the creation of a prudent, stable and well-functioning financial system.

Our study summarises the most important findings of the corporate governance survey conducted jointly by the Magyar Nemzeti Bank and the Hungarian Financial Supervisory Authority. In this survey we requested and received replies from nine selected commercial banks representative of the Hungarian banking system in terms of the method of exercising the ownership rights and the market position obtained. In the survey we attempted to obtain the clearest possible picture of Hungarian bank governance practices by sending out questionnaires, reviewing internal regulations and personal interviews.

### 7.1.1 The concept of corporate governance

Corporate governance is a relatively new concept. According to the wording of the OECD (2004) recommendation 'corporate governance involves a set of relationships between a company's management, its

board, its shareholder, and other stakeholders', which determines the process of laying down the objectives of the company, providing the tools to the company for reaching these objectives, and organising the monitoring of performance. An adequate corporate governance structure provides the management board with incentive to pursue objectives which are in line with the interests of the company and its shareholders. The OECD Code covers the following main areas: 1) general corporate governance framework, 2) shareholders' rights and exercising ownership rights 3) equal and fair treatment of shareholders, 4) role of other interested parties, 5) disclosure and transparency, 6) tasks of the governing bodies.

The quality of corporate governance strongly influences the efficient allocation of resources, the financing of companies and the development of financial markets (Walkner (2004)). Efficient corporate governance is a basic condition of capital market financing and increases investor confidence in transition economies. It is clear from the OECD definition that corporate governance deals with many aspects of corporate life. On the basis of the literature and the preliminary analysis,<sup>103</sup> we decided to limit the current survey to an examination of the methods of exercising the ownership rights and the function of the governing bodies.

### Recommendations of international organisations on exercising the ownership rights and the function of the governing bodies

The functions of the governing bodies are organisation, strategic management and supervision. To summarise the recommendations of OECD (2004) and the Basel Committee on Banking Supervision (1998, 1999), the specific tasks of the body responsible for corporate

<sup>101</sup> We would like to express our gratitude to Dr. Klára Csoór-Kóvári, who took part in the survey on behalf of the Hungarian Financial Supervisory Authority and contributed to the study with several useful remarks. We would also like to acknowledge the contribution of the associates of the Bank Supervisory Division of Hungarian Financial Supervisory Authority, who greatly helped our preparation for the interviews.

<sup>102</sup> The Financial Stability Forum is a consultative forum consisting of the national authorities of the countries counting as significant financial centres and the representatives of the international financial institutions.

<sup>103</sup> See Czajlik (2003).

governance are derived from these functions, and these specific tasks are as follows:

1. The body responsible for corporate governance (hereinafter: the Board of Directors) is responsible for regularly overseeing the strategy of the company. The Board of Directors is responsible for defining the objectives of the company.
2. The Board of Directors shall ensure the adequate functioning of checks and balances within the organisation.
3. The Board of Directors shall select and set the objectives and evaluate the performance of the senior management. In setting the objectives it shall develop a system of incentives compatible with the long-term strategy.
4. The Board of Directors shall approve the business plan and the most important projects affecting the bank as a whole.
5. The Board of Directors shall regularly review the performance and risk profile of the company. It determines the institution's willingness to take on risk.
6. The Board of Directors shall ensure that the conflicts of interests are properly managed within the organisation, and shall keep records on any transactions in which the possibility of a conflict of interest arises.
7. The Board of Directors shall set the ethical standards expected within the organisation and shall consciously create a high-level organisational culture.
8. The Board of Directors shall hold regular meetings, evaluate the performance of the body as a whole and the performance of its members, set the tasks of its members and its own agenda, and formulate an annual work schedule.

The Board of Directors operates by carrying out management and oversight activities, but it does not take part in making daily operative decisions. In international recommendations there is an increasingly strong emphasis on the requirement that operative and strategic management be clearly divided at level of top management of large companies. At larger (banking) corporations the practice of having separate risk committees within the Board of Directors is spreading, with these committees responsible for the strategic management of the risks of the institution, as well as for determining the willingness to accept risk.

Only some of the above tasks are obligatory on the normative basis set forth by national legal systems. The rest are only recommendations on the most important

tasks of the Board of Directors of an independent company operating in accordance with best practices.

In addition, corporate governance literature contains general principles that help judge the specific organisational questions and delegate the relevant powers. Independence is necessary if a conflict of interest occurs that may unfavourably influence the operations. For example, management control over the internal audit unit is not a good solution. The principle of separation requires the executive management to separate ownership control and strategic management. This separation ensures that two bodies or persons do not have authority in the same question. The delegation of authorities and tasks shall be clear and transparent so that the associated responsibilities can be asserted (Basel Committee on Banking Supervision (1999)). The authorities shall be set down accurately and the limits shall be respected during operations. The basic principle is that ultimate responsibility lies with the Board of Directors. Accordingly, the Board of Directors delegates each authority within the organisation. Following the basic principle, the Board of Directors shall consciously develop the system of organisational powers and shall take responsibility for what competencies to keep within its own authority and what competencies to delegate. It is also a basic principle that the decision-making powers shall be unambiguous within each organisational unit (Anders (2004)). In practice, this means that the sphere of decision-making powers of each organisational unit shall be clearly defined.

Most listed companies have dispersed ownership, i.e. there is no owner that could have a dominant influence in the General Meeting. With such an ownership structure, common action by the owners is more expensive, and it is thus more difficult to exercise control over the management through the General Meeting and the Board of Directors; therefore, listed companies have additional obligations. These additional obligations include strategic management and control independent of the management, transparent operations, strict management of conflicts of interest and rules of disclosure to ensure the above. These additional obligations compensate for the lack of a controlling shareholder.

In summary, the Board of Directors of a corporation operating on the basis of best practices is expected to meet regularly and act as a body. The internal regulations of the company shall accurately lay down the authorities of the Board of Directors, together with the most important rules of procedures. The Board of Directors shall consciously delegate the powers within the organisation and shall take responsibility for transparency. The Board of Directors shall have a strategic management role and shall control the most important characteristics of the company's operations, with special regard to the risks undertaken and their manage-

ment. The Board of Directors shall determine the information it requires (the reporting system) and shall also receive the reports of the bodies with significant decision-making powers.

### 7.1.2 Characteristics of the domestic banking market

With the bank privatisation of 2003, the privatisation process of Hungarian banks was completed. As a result state ownership decreased to an insignificant level in the banking sector and the shares of foreign and domestic ownership are expected to remain stable over the medium term. Expressed in figures this means that in Hungary the proportion of foreign ownership exceeds 80% in the banking sector, which can be regarded as high in international comparison.<sup>104</sup>

In terms of ownership structures, the owners are mainly credit institutions. In total, 73% of Hungarian credit institutions are controlled by strategic investors, mostly credit institutions. Typically, these institutions hold a 100% or almost 100% interest. Foreign and domestic non-strategic investors also include private individuals and investment funds as well as production companies.

#### Organisational characteristics

For foreign strategic investors appearing at the beginning of the 1990s, Hungarian bank ownership presented a myriad of challenges. Compared to the situation in developed market economies, in addition to the general insecurity of the transition economy in Hungary, they also had to understand the unknown banking environment and consumer behaviour as well. This was, however, accompanied by a quick return on invested capital and high profit expectations for the long run as well.

The objectives set by the owners are a response to these uncertainties and explicitly quantifiable risks. Deciding such objectives directly influences the formation of strategy and the ensuing development of the business plan and an organisational structure capable of implementing the strategy. On the basis of discussions with top managers of the banks taking part in the survey it turned out, however, that owners have quite varied expectations when it comes to the Hungarian banks they own. These expectations are often less explicit and quantifiable, and are not limited to the positive net present value generally found in the standard financial literature.

In the course of our survey we became aware of the following expectations:

- appreciation of the share price,
- as strategic investors, high dividends over the long run,
- achievement of the return on equity accepted for the region/country,
- reaching the return on equity accepted for the group,
- establishing presence in the region, utilising the given market potential through the presence in Hungary,
- serving international clients at the usual high standards, with high profit expectations and an increasing level of activity,
- serving international clients with a minimum of staff and suitable cost-efficiency.

The direct contribution of the owner to reaching these objectives may be very limited. The profile and function of the foreign banks which appeared in the domestic market as buyers and that of the bank which were bought were significantly different in many cases. These differences, together with the strategic expectations of the owner limit the convergence opportunities of the two organisations. Apart from organisational changes considered necessary by the owners and in harmony with the above-mentioned strategic objectives, the direct support provided by the foreign strategic investor is generally confined to the transfer of know-how. In practice, this means setting up operational rules and adopting the high-level international standards in the field of the controlling and risk management.

There are two kinds of solutions to minimise the risks incurred due to the limited controlling powers of the owners. Some banks limit local activity, so that it should represent the minimum possible amount of exposure. On the longer term, however, this involves a danger of being driven out of the market. The other option is to operate the bank relying on local management, giving it a high degree of authority. These autonomous bank leaders manage their banks based on their own experience and local knowledge. The management structures created this way are inevitably unique and may only be compared to existing models to a limited extent. In this case, however, the authorities protecting the interests of depositors and owners should pay special attention to such issues as whether checks and balances exist in the management structure to prevent excessive risk-taking; whether the remuner-

<sup>104</sup> It should be noted here that this proportion shows direct foreign ownership only and taking the multi-level indirect ownership conditions into consideration the proportion of foreign ownership is even higher.

ation process of top managers is appropriate; and whether the delegation of powers and the distribution of responsibilities are correct, with special regard to potential stressful situations. In the following part of the study we discuss these questions.

### 7.1.3 The Board of Directors and the Supervisory Board

Below we summarise our observations on the composition, decision-making authorities and functions of the Board of Directors at Hungarian commercial banks and describe the Hungarian practice relating to some of the tasks belonging to the Board of Directors.

#### Composition of the Board of Directors

According to corporate governance literature, the board members shall have integrity and possess the required professional experience and suitable qualifications. As a whole, board members shall be familiar with the areas of accounting and controlling (Cadbury (2002)). A further requirement for banks' Boards of Directors is that members should have in-depth knowledge of the various areas of risk management (Basel Committee on Banking Supervision (1999)).

According to the data of the survey, the Boards of Directors at Hungarian banks typically have 7–10 members, with the size of the bank usually influencing the number of members. Board members usually have university-level business qualifications, but university level technical and legal qualifications are frequently found as well. The number of outside directors generally exceeds the number of members from the company itself. Due to their management structure, large international banks usually delegate the managing directors of the controlling corporation to the boards of the local banks, in accordance with the regional management structure. In the case of regionally significant banks, we even find example of the parent bank's representation at the board level. The composition of the management in the larger banks is quite stable, in the case of most banks the CEO has usually been managing the bank for more than ten years. On the contrary, in the smaller banks within this period the person of the CEO has often changed several times. As a part of the survey, the employees of the supervisory authority processed the curricula vitae of the members of the Boards of Directors. On the basis of the summaries, it was found that outside directors have generally been working in the field of banking for a long time and in some cases have several decades of professional experience. This is a significant difference from the banking system of other, more developed countries, where the

lack of outside directors with adequate qualifications is a serious problem.

#### Decision-making powers and functioning of the Board of Directors

In general, we can state that the procedural rules of the Board of Directors of Hungarian banks are quite simple, are not very detailed and that their organisational and operational rules are also very restricted as regards the Board itself. Internal regulations show that with an increase in the size of the bank, the decision-making powers increase accordingly.

We reviewed the operations of Boards of Directors by reviewing the board minutes. The content of the board minutes is determined by the Credit Institutions Act. According to the Credit Institutions Act, the minutes shall contain the proposals made, the place and date of the meetings and the names of the people in attendance.

On the basis of the minutes, it can be established that there are more meetings in more significant banks. The boards of the larger banks meet 7–8 times a year. Medium-sized banks characteristically meet every quarter. The fact that the parent bank's board members are also members of the boards of the regionally significant subsidiaries may also add to the factors that result in more infrequent board meetings. In most cases the strategic management role of the board of directors is limited to the approval of proposals. In some companies the operative executive committee meeting plays a significant role in strategic management as well, and this is where important questions are raised, e.g. developing the strategy and the organisation, management of subsidiaries, etc. Among the proposals to the board of directors we generally find the business plans, reports on the bank's past performance and the materials for the general meeting. The role undertaken by board members differs very much in the field of organisational questions, risk management and the creation of the internal control system. On the basis of the interviews and the minutes, it can be observed that most of the bank boards do not carry out work as a body.<sup>105</sup>

Noticeably, in most of the banks we did not see any reports prepared for the Board of Directors on the operation of the most important committees. That is, we did not see the reports of the executive committees and the asset – liability committees among the proposals. The control function of the board of directors would be more effective if the reports of the management committees were regularly on the agenda, especially when the executive committee has a significant decision-

<sup>105</sup> Over the past few years the Supervisory Authority took measures against the two banks in the survey, because their governing bodies did not operate in accordance with the laws.



making authority. It would also be possible to clearly document the matters in respect of which the board of directors is informed.<sup>106</sup> On the basis of the answers to the questionnaires, Boards of Directors generally do not receive any other reports apart from the proposals. Usually only the executive members have access to the management information systems and the outside members may continuously monitor certain data of the bank's activities on the basis of the data provided to the parent bank. During the interviews we inquired into the role of outside directors. Monitoring the performance of the bank was highlighted as the main task of these persons. In several banks it was emphasised, however, that spirited argument is not typical in the meetings. Outside directors in most cases have the role of 'stamp-givers', as the details are not discussed at the meeting, but before. Outside board members sometimes have a role in remuneration and performance evaluation, though this function is not attached to their board membership, but rather to their role as managing directors of the parent bank.

### Role in formulating strategy

International best practices show that the general authority of the Board of Directors is the approval of strategic proposals and provision of strategic advice to the executive management. We hold the view that one of the key decisions of the owners in the field of corporate governance is how much independence and authority is provided in relation to the preparation of strategic proposals. In the case of smaller institutions a frequent solution is that the parent company only determines the general strategy, which usually means that the bank may only appear on those markets where the parent bank has a presence and that it has to serve global clients. On the level of these banks there is no regular strategic planning at all. In the case of banks operated via network control, this method of control significantly influences strategic planning as well. This means that the process of strategy formulation is highly co-ordinated within the network (region, cluster). The scope of freedom given in strategic questions strongly depends on the position within the network, that is, how much priority the Hungarian subsidiary has within the network. From this aspect the regional situation is favourable, since the subsidiaries in the central and eastern European countries are usually successful in representing the growth potential of the region in the competition for resources within the network. Banks with a significant influence in the region formulate regional strategies for their subsidiaries, but our impression is that these strategies only give a general framework for the main direction of specific planning. Regional strategies primarily define the target markets and plan certain market-share related and

profitability ratios. During the interviews it turned out that a closer strategic co-operation among the subsidiaries in the region is constrained either by differences in development of banking markets in the various countries or by significant differences in cultural environment and consumer behaviour as well. In the largest banks an independent unit is responsible for strategic planning. The boards of directors of these banks regularly discuss strategic proposals and their modifications.

### The role of the Board of Directors in performance evaluation

The recommendations require performance evaluation in two fields: the bodies shall evaluate the efficiency of their own work and of the work of the executive management. As regards the remuneration policy, it is expected not to encourage short-term profit maximisation.

In several cases, we received the answer that the board members basically conclude individual agreements, and therefore they can only talk about their own contract. This indicates that it is not yet general practice to standardise performance evaluation. From the answers it turned out that Hungarian banks do not evaluate their performance at the level of governing bodies. Separate compensation for membership is only due in some cases, in general acting in local boards belongs to the sphere of work of the outside members. It is clear from the results of the survey that in the remuneration policies the profitability of the bank has a decisive role, and it is generally compared to equity (ROE). Apart from the profitability ratios several other ratios are used in the performance evaluation of the managing directors, with various weights. Usually one of the cost ratios appear (in general the cost-to-income ratio). It is remarkable that the market share only appears among the objectives of the executives at the largest banks. Risk-adjusted profitability ratio only appeared among the objectives of the executive directors at one bank. Apart from one case, the information received show that the performance evaluation and remuneration of the executive directors depends on ratios covering a wide spectrum of the bank's operations.

It can be seen that the performance of the executive management is evaluated in most banks with the participation of the parent bank. The form of participation varies, depending primarily on the management system of the parent bank. In the case of banks with a global network, performance evaluation is carried out at the regional management level, in a highly standardised form. Some of the banks with regional presence have already organisationally separated the manage-

<sup>106</sup> Naturally, the Board of Directors may, in principle, obtain information on each essential question through the company-internal members.

ment of the group-members, while some have not done this yet. In the latter case, generally the board members of the parent bank take part in performance evaluation.

### **Risk awareness of the Board of Directors**

Risk awareness of the governing bodies may be judged through the process of defining the risk profile of the institution, the role played in defining the organisational framework of risk management and the participation in specific decisions of undertaking risks.

In our opinion, the approval of the risk profile falls under the authority of the board. Within this framework, identification of the intentionally undertaken risks at the level of strategy should occur together with the determination of the maximum risk exposure at the highest management level. Furthermore, the board is expected to approve the risk limits of the individual business areas, to be aware of the risks of each business area and the potential sources of risks, and to pay special attention to the business areas exhibiting significant growth.

We can summarise the lessons of the representative survey conducted among Hungarian banks as follows. It can be established that the participating institutions have the technical background and methodology required by their size and the complexity of their operations, which should render them able to provide a fair picture to their governing bodies with respect to their exposure to risks. Development of the management of credit risks at a portfolio level and better awareness of operational risks is required.

On the other hand, it is clear that the aspects of risks do not play their deserved role in the work of the governing bodies. The specific risk profile created within the framework of strategic planning rarely means more than observing the limit of the solvency ratio appearing as a regulatory minimum and in connection with this, it is not characteristic of the institutions to make economic capital calculations. On the basis of our face-to-face meetings with the top managers of Hungarian banks we had quite a mixed impression on how they intend to adapt their strategic decision-making process to the high-level risk management principles represented in the more flexible regulatory requirements provided by the New Basel Capital Accord. It is not general to find the regulations directly influencing risk-taking and the limit structure on the agenda of the governing bodies. Boards usually discuss risk exposures quarterly, supported by a fairly complex risk report. The management information systems available for the members of the management rarely contain risk ratios, with the main emphasis on turnover and profit figures. In the survey we saw that the risk management experts do not

appear as separate decision-makers in the boards and can rarely influence the formulation of strategy. As a whole, they have much less influence than the representatives of the various business areas.

This behaviour may lead to problems even over the medium term, with special regard to the credit risks attached to the key element of their activity and the loan portfolio. With special regard to the adoption of the latest Basel regulatory principles, however, banks will be forced to examine the quality of their portfolio more thoroughly and to make their decisions on the basis of more regular risk reports prepared according to a more complex methodology. An external incentive will be the fiercer competition and the more limited capital resources, because on the basis of their current strategy most of the banks plan intensive growth.

### **The role of the chairman/CEO**

In most of the Hungarian banks the chairman/CEO has an outstanding role in the strategic management of the organisation. The organisational and operational manuals set down the authorities and tasks of the CEO up to various depths. The owners usually appoint the top managers only (CEO and deputy), but the CEO has a great informal influence in appointing his direct associates. It is usually the CEO who exercises employer's rights – up to various depths – over the rest of the executive managers. In several cases the organisational and operational manuals contain the formula that the CEO may exercise all the decision making powers that are not exclusively delegated to the governing bodies of the bank. There are some typical areas controlled by the CEO, such as human resource management, controlling and accounting. The CEO has a determining role in maintaining the connection with the owner. During the interviews it became clear that it is the CEO's role to obtain the support of the top management of the parent bank in the most essential strategic questions. In some cases the CEO greatly influences the formulation of the organisational structure of the bank and characteristically specifies the tasks of the organisational units and the most important internal procedures in the form of instructions.

### **Summary statements**

Most of the boards function differently from the model described in Chapter 1. The size of the bank and the role of the owner can explain the differences. After evaluating the role of the boards of the banking subsidiaries, we can say that compared to the independent corporations they have less independent decision-making powers, fewer meetings and more limited characteristics as a body. The role of the Board of Directors is also influenced by the management structure of the parent bank. With a centralised management model

the local board of directors has a more limited, sometimes just a formal role. The formal functioning of the Board of Directors means withdrawal of authorities in extreme situations. In our opinion it is natural to have a more limited scope of decision-making powers in the boards of banks with strategic owners. It essentially becomes the authority of the parent bank to give an opinion on the strategy, the parent bank determines the general objectives of the banking subsidiary as well. The regulations of the parent bank are – to various extents – implemented and the organisational units of the parent bank may monitor the position of the banking subsidiaries through the intensive data supply. Apart from this, we hold the view that the local boards should lay a great emphasis on developing the organisation, a transparent system of delegating the authorities and the proper functioning of the internal control systems. In banks operating in the form of Hungarian public limited companies the owners are also expected to set forth their expectations in a transparent and properly documented manner by way of the General Meeting and the Board of Directors (or supervisory board). Apart from the added value, the strengthening of the character as a body is of outstanding importance from the point of view of asserting the responsibilities as well.

### The Supervisory Board

Hungarian law defines the supervisory board (SB) as a supervisory body and only allows certain authorities – should the owners wish so – to be delegated to the supervisory board. In light of continental practice this is unusual, because in the European regulations the supervisory board is a strategic governing body. On the basis of the regulations, the Hungarian supervisory board rather looks like an Anglo-Saxon audit committee with the primary function of ensuring that the financial reports of the company properly reflect the financial situation of the company. The stipulations of the Credit Institutions Act strengthen this function by separating the internal audit unit from the executive management and placing it under the control of the supervisory board.

With regard to the functioning of the supervisory boards, we had the general impression that they discharge the tasks required by the law. Most of the supervisory boards – with a few exceptions – meet once or twice a year. The members usually receive the proposals prepared for the supervisory board, but do not receive any regular reports apart from this and do not generally have access to management information systems. They receive the information necessary for their work case by case through the internal audit unit or

from the management. The Chairperson of the supervisory board regularly attends the meetings of the Board of Directors of several banks. Within the framework of their supervisory function they do not usually give opinion on risk-taking and risk-management regulations and in most cases they do not deal with the main risks undertaken by the institution as a separate item on the agenda.

### 7.1.4 Types of banks from the point of view of management

In this section, we introduce the three types of management that we identified at the banks participating in the survey.

#### Companies with Stock Exchange listing

OTP Bank Rt. forms a separate group from the point of view of both its ownership structure and the operation of its governing bodies. Due to its dispersed ownership structure, we identified the bank as a classical organisation under management control.<sup>107</sup>

#### Locally managed banks

The banks – which belong to the category of large banks – following OTP in the banking system on the basis of their balance sheet total, are similar from the management point of view and on the basis of international terminology they are called the group of locally managed banks.

It is generally characteristic of the group that the banks have a subsidiary status and their operations are in accordance with this corporate form. The current owners generally obtained them through the privatisation process, which means that parallel to the development of market economy the predecessors were quickly created and developed a stable – primarily corporate – client base. Owing mostly to this they are representatives of medium-sized banks on the basis of their balance sheet total. Corporate clients – with some differences according to the branch of industry – dominate the clientele of each bank, although the retail segment plays a more and more important role among their sources of revenue. The medium-term expectation of parent banks is usually to serve the targeted clientele as a universal bank. As for the clientele the parent banks do not have any special preferences and their regional strategy is usually confined to defining the market share they wish to obtain. In order to develop a universal character, in the past few years each bank formulated an ambitious retail strategy, the successful implementation of which may seriously influence their posi-

<sup>107</sup> As the publication policy of the Magyar Nemzeti Bank does not support the analysis of a single bank's features, we will not analyse this bank, forming a separate group, within the framework of this *Report on Financial Stability*.

tion compared to each other. Due to their similar size and similar target segment keen competition is developing among these medium-sized banks.

With regard to the management structure of these banks, it can be seen that the important decisions are made locally. This is so in spite of the fact that the parent bank usually has absolute majority in the governing bodies, the Board of Directors and the supervisory board. These employees of the parent bank, who do not usually have any other relationship with the local bank, only rarely meet the local management and hold Board of Directors or supervisory board meetings with a frequency to meet the minimum requirements stipulated by law. On these occasions several comprehensive proposals evaluating the bank's situation are approved, and the Board of Directors make the most important strategic decisions on these occasions as well. The formal influence of the owner is almost exclusively exercised during the work of these bodies.

During the period between the meetings the local CEO and the executive committee meetings controlled by the CEO function as the main decision-making authorities. This committee has relatively wide-scale decision-making powers beyond operative questions. In many cases the employees of the parent bank only give their opinion or approval on decisions made by this committee and generally do not have veto right. Preparation of the strategic decisions is also made within this group in the case of locally managed banks, and then the Board of Directors formally approves the strategy and the business plan. There are only informal discussions with the owners in the phase of planning. Apart from this, the independent strategy-making and implementation is only limited by the owner via keeping international expansion in his own competence and giving freedom to the banks only in domestic affairs. According to the above, when introducing a new product no preliminary permission must be obtained from the parent bank.

Strategies are usually drawn up for three years. The strategic objectives are divided into annual phases via rolling-over plans and are usually summarised in 3–4 financial ratios. The performance evaluation of the management is based on reaching the targeted figures expressed through these ratios, but as for their remuneration is concerned, only the payment of the bonus elements depends on these results.

Generally the local CEO decides over the structure of the organisation and the selection of the management. It can be seen that a decentralised decision-making network is created in several cases, i.e. the headquarters delegates a considerable amount of the local decision-making powers to the regions or to the lower-level management. As regards adopting the organisational

and methodological solutions of the owner, steps have been taken at some banks to integrate risk management systems, but that is all. Preparation for Basel 2 may slightly speed up this process, since the banks at the top of the groups will have to prepare their consolidated reports on the basis of the new method.

Operative connection with the parent bank is also hampered by the fact that the two institutions usually have different profiles. Another reason is the fact that the organisational and technological solutions are mostly adopted by the local banks only if they are advantageous from the business point of view. Due to their independent operations, they are able to keep up an adequate level of relationship with the clients, to make independent decisions on risk-taking on a broad scale and naturally, the results appear in relation to the domestic organisation. Trading activity between the parent and the subsidiaries is not significant, either, as trading is generally done on business grounds, taking the offered price into consideration.

However, a large number of detailed reports are prepared for the parent institutions regarding the figures, risk exposures and performance ratios, and these reports are directly submitted by the controlling, treasury and risk-management departments to the relevant units of the parent. In our opinion these reports play an important role in securing the retroactive control of the owner over the banking processes.

In most cases, owners carry out internal auditing of their Hungarian subsidiaries directly as well. These audits are complemented by the reports submitted by the local internal audit unit.

### **Network-operated banks**

Both from the point of view of the size and the powers of local managers the third group consists of the banks specialised in serving a narrow clientele. We will refer to these banks as the group of network-operated banks.

On the basis of the ranking according to the balance sheet total these market participants count as small banks, specialised in serving a narrow client base. Targeted clients are mainly the global enterprises belonging to the client base of the parent bank, but apart from this, a narrow group of high-income elite clients appears as well. The owner expects the bank to offer simple, easy-to-understand products and contributes to this by transferring the required know-how.

A common characteristics of these banks is the fact that they were established as green-field investments, that is, the founder did not have to take into consideration any previous management structure. Management usually is exercised in a two-dimensional, so-called

matrix-structure, which means that besides the local manager the regional professional manager also controls the procedures. The balance of forces are in most cases more favourable for the regional manager, therefore the manager in the local hierarchy has only limited decision-making power. However, the local CEO is formally responsible for the operation of the local bank as a whole. Due to the network management structure the functions of the local governing bodies are also limited and they often have formal meetings. Accordingly, the owner does not consider it important to represent its requirements through outside board members. The real local decision-making powers are exercised either by the top manager in one person or are delegated to the professional committees (e.g. Credit Committee, Asset-Liability Committee, Operational Risk Committee).

The strategy-making process is also centralised, the strategies of the subsidiaries are derived from the strategy of the parent bank. Since the strategic focus of these global players changes from time to time and since the top managers responsible for the domestic implementation of the strategy rotate within the worldwide network, the domestic managers have had to implement two or three radical strategy changes over the past decade. As part of the strict control exercised by the owners, the strategies set down particular benchmark figures for expected profitability and the expected level of costs. These benchmarks are determined on the basis of the group characteristics, but also take the local market circumstances and the performance of the past few years into account, on an interactive basis. Apart from the high expectations of profitability and efficiency, the intention to strengthen the market position is more vague. The fulfilment of the expectations described in the strategy is usually supervised in relatively short periods within a year. Apart from the comparison of plans and facts at the level of branches and profit centres, the owner also exercises strict control over the quality of the portfolio. The high expectations of profit come parallel to a conservative risk appetite.

Formally or informally, owners place most of the decision-making competence under their own authority. In general they make the most important decisions in questions related to credit and partner limits, risk exposures exceeding the limits, introduction of new products, investment decisions, equity, strategy and human resources.

In the case of introducing new products, risk appetite is taken into consideration in a broader sense: it is also examined whether there is adequate professional background and experience in the local bank – not only at the business level, but at the service level as well.

Apart from this, the parent bank carries out active internal audit at the members of the group, which also includes special overall supervisions from time to time. We must emphasise the fact that local professionals have the opportunity to take up direct connection with the parent bank, should they feel necessary, avoiding the local hierarchy. In addition, each main organisational unit sends detailed reports on its activities to the respective unit of the parent bank, that is, to the units of compliance, finance, risk management and treasury.

Due to the centralised decision-making and strict control by the owners, the actual operations of the banks and their competence for risk-taking does not exceed the limits established by law for branches. The limits stipulated by the Credit Institutions Act in effect before the EU accession were equally strict for the branches and the subsidiaries of foreign banks. Therefore, neither newly founded banks nor ones with a new owner within the framework of the privatisation process wanted to operate as branches. As consequence of the favourable conditions resulting from accession, however, several banks in the survey would find attractive a corporate form meeting the conditions of branch operations. The regulatory burdens, however, make the structural transformation of the already existing banks quite lengthy and complicated. Over the past few years the supervisory authority has called pointed out the inconsistency between the corporate and the operational form in the case of several banks, at the same time requiring them to operate their governing bodies in accordance with the law. Although these requirements were met (through a somewhat formal solution), during the personal interviews the managers stated that they would be glad to be transformed, should there be a quick and cost effective way.

With the operation on a branch basis, the lending and trading activities of the banks would be more simplified, because the prudential and partner limits would not restrict their operations, as they could automatically use the limits of the parent bank. This would mean the unlimited responsibility of the parent bank, but there would be advantages as well, due to the unified management and operational systems and the exclusivity of home regulation.

### 7.1.5 Regulatory aspects of corporate governance in Hungary

As regards the relevant regulations, it can be stated that legislators took into consideration the management questions of financial institutions and established a fundamentally well-operating system. In certain questions, which EU legislation will put on the agenda in the near future as well (such as new regulations on auditing firms) further development is expected. Now

we will discuss three questions where corporate governance is closely linked to the effective regulations.

### **Transformation of banks of subsidiary status to branches**

As mentioned above, after EU accession operation of the subsidiary banks in the form of branches may be an attractive option for owners registered within the Union. For an already established banks, with operational forms similar to branches, it is an unresolved question of how to be transformed into branches. From the logic of effective regulations it can be concluded that commercial banks intending to be transformed into branches must apply for liquidation and simultaneously establish a new branch. Meanwhile, the bank transfers its assets to the branch. This process is costly: tax and duty obligations arise, and there are considerable administrative burdens as well. Apart from the above, transformation engenders risks related to reputation as well, as the change of operational form and the associated asset transfer may cause insecurity among clients.

We hold the view, however, that only those banks, which are backed up by a parent bank with a centralised management and control system, may consider transforming into branches over the medium term. It is a costly and time-consuming process. These structures are not typically characteristic of universal banks and target the needs of a special client base with global presence, who need the products and services they are used to in each country. In addition, at the level of the branches the experience on specific market segments and greater adaptability may be attractive. Due to the distinct client base and product structure only limited local knowledge and local strategy is needed in the case of these global service providers.

In our opinion, these banks can be very well identified within the banking system. Their size and client base is limited, and they are insignificant from the point of view of systemic stability. Due to the previously discussed organisational and management features, in our opinion these companies already show the characteristics of branches. In other countries in the region the 'branch' company form was generally chosen officially as well. In the Hungarian case the responsibilities and the authorities of the aforementioned group of banks do not necessarily coincide due to the difference between the operational and the corporate form. Since they only formally meet the organisational requirements of a public limited company, the transparency of their real operation is also limited for the supervisory authorities.

Transformation into a branch depends solely on the decision of the parent bank; the regulatory, superviso-

ry authorities cannot influence this decision. Even at the present stage of regulation, the legal framework for transformation already exists. Although due to the lack of concrete cases the costs of realisation are not known, it is possible to make estimations. With the increasing integration of the European banking market presumably more and more of the domestic banks will be placed under central management. In addition, the European Company, as a new type of incorporation will provide a possibility for subsidiaries to quickly transform into a branch at the EU level. This is why we can take it for granted that we will not have to wait long for the appearance of branches in Hungary. As long as the weight of these institutions is insignificant from the systemic stability point of view – as a newly formed institution or a transformed one – we do not regard it as a problem should the prudential supervision of these institutions carried out by non-Hungarian authorities.

### **Stock Exchange recommendations**

In most countries, regulation of corporate governance of listed companies is included in the self-regulatory activities of the Stock Exchange. However, a wide-scale professional negotiation precedes the acceptance and the significant revisions of the recommendations. The Hungarian recommendations were prepared in accordance with this framework. After preliminary consultations, the Budapest Stock Exchange published its Corporate Governance Recommendations in February 2004. The Recommendations will hopefully influence the management systems of listed banks in a positive way. Influencing the best stock exchange practice is not only important from the point of view of the three banks listed on the Budapest Stock Exchange, but it may indirectly influence the management of non-listed banks as well.

### **Provisions of the Act on Credit Institutions (Credit Institutions Act) in force**

The Credit Institutions Act contains relatively detailed regulations on the issue of management, as indicated by the title of Chapter II of Act, 'Exercising of Ownership Rights of Credit Institutions and Financial Enterprises, Administration and Control'. In reviewing this chapter we think that the regulation could be made more effective in certain areas. From among our recommendations we look at the question of Fit and Proper regulations in this study.

### **Regulations on executive officers as stipulated by the Credit Institutions Act**

While the Credit Institutions Act does not refer to them as Fit and Proper regulations, it does contain provisions on executive officers. These regulations pursue the fol-

lowing logic: the Companies Act and the Credit Institutions Act specify general integrity rules for executive officers and other persons of executive positions.<sup>108</sup> In effect, the causes of exclusion on the basis of the two acts are fundamentally related to: 1. lack of professional and management experience, 2. conviction and criminal record, 3. liquidation of another financial institution due to personal responsibility, 4. offence related to business activity. All four criteria can be judged on the basis of strictly objective factors. Objectivity has the advantage of creating an unambiguous situation and is relatively simple to decide whether a particular person can obtain the permission of the supervisory authority on the basis of the legal criteria. The price of objectivity is the fact that it does not provide a solution for situations falling outside the system of criteria.

In countries with developed financial markets the Fit and Proper regulations regard honesty, integrity, reputation, competence and settled personal financial situation as a standard, on the basis of which the suitability of a person can be judged. It is clear that these criteria lay a much greater emphasis on the personality and professional and business reputation of an executive officer than the strictly objective standard of the Credit Institutions Act. The Fit and Proper tests exactly define the positions where the test applies. Members of the board of directors, the executive management, the auditor and certain consultant positions belong to this circle.

We are of the opinion that on the basis of international best practice, it has to be considered what suitability criteria should be added and what supervisory rights are needed so that the members of the governing bodies should face higher criteria. Professional and business reputation should be added to the requirements in any case. This way the operation of the governing bodies could be indirectly affected. In our opinion the organisational culture can be more strongly influenced by the bodies of adequate composition than by the regulatory description of the authorities of the governing bodies. The need to meet higher professional and ethical standards is also based on our finding that the executive directors have a very significant influence on institutions operating as local banks.

### 7.1.6 Conclusions

In our study we analysed the governance questions of Hungarian commercial banks. We observed that more than 80% of the ownership rights of the domestic banking system is in the hands of foreign owners. In the overwhelming majority of banks the ownership rights are exercised by an individual strategic investor. When

entering the Hungarian market the owners, depending on their organisational culture and the method of entering the market, used fundamentally two governance strategies in order to limit their ownership risks. In most of the banks acquired during the privatisation process significant management independence has remained in the hands of local management, complemented with the owner's control. A more centralised method of governance is typical in most greenfield banks.

The local management of banks with a considerable market share owned by strategic investors has managed to retain a high degree of independence in decision-making. The relatively small size of the subsidiary compared to the parent bank, an outstanding profitability level, the accumulated reputation and the necessarily high level knowledge of the local market are all factors which help to preserve this local independence. Local management has considerable independence in formulating the strategy and developing the business plan. The owner formulates its requirements with regard to the market segments to be obtained, the desirable market share over the medium term and the profitability and cost expectations of the bank. In most cases the local CEO has a dominant influence in shaping the organisation of the bank. These banks have usually adopted the most important risk management and controlling solutions stipulated by the regulations of the parent bank. Significant differences in the level of development and consumer preferences in the markets of the various countries in the region represent obstacles to more centralised management of the regional banking groups. Therefore, significant local knowledge and free management capacity will be necessary in the coming years for an efficient centralisation of management, and it is doubtful whether the new method of management could produce any added value.

We found that most smaller network banks in our sample already operate in close connection with the parent bank's organisation. The supervisory investigations found that management authorities have been taken over from these banks (in contravention of legal regulations) in several cases. Local strategic management is in most of the cases lacking and the banks are operated partly through regional or centralised strategic management, in accordance with the centralised management model. Their activities are strictly carried out on the basis of the internal regulations of the parent bank. Their risk willingness is exactly defined: they usually have smaller local lending limits and the owners try to limit the opportunities of independent risk-taking. Their target markets are usually limited to the global clients and certain trading activities/niche markets. New products are only introduced with the permission

<sup>108</sup> According to the definition in the Companies' Act, senior officials are the members of the Board of Directors, while Credit Institutions Act defines members of the Board of Directors, managing directors and members of the Supervisory Board in commercial banks as executive officers.

of the parent bank, under its strict control. The representatives of these banks mentioned in several cases that due to their global management model, they would find it more advantageous to operate as a branch. We hold the view that the transformation into branches of the institutions currently operating as network banks would not involve significant risks, but this would result in better operational conditions from the point of view of their businesses.

With regard to the operation of bank boards, the parent bank's role in management functions and the local management's degree of independence has a strong influence. In organisations operating under the control of a parent bank this management level has relatively little real decision-making power: they monitor the performance of the bank, carry out their legal duties, and approve the results of organisational bargaining processes (strategy, business plan).

In the case of local banks, governing bodies hardly operate as a body, though in many cases it is only this body where the will of the owner can be realised.

In the case of banks generally operated in a centralised way, in a network form the Board of Directors plays limited role, which is clear from the fact that meetings take place more rarely and have less authority. In the case of two banks under the scope of the survey according to the supervisory authority's conclusion, operation has not taken place according to the regulations in the past years. The actual role of the Board of Directors is diminished by the functional management line being present within the network.

Looking through the regulations, we found that the Hungarian laws place considerable emphasis on management issues. In accordance with international regulations, the Companies Act and Credit Institutions Act lay down the framework for the operation of the governing bodies (Board of Directors and Supervisory Board) and the questions of responsibilities. We hold the view that it is not reasonable to stipulate any other requirements relating to governing bodies by law. On the basis of our observations binding regulations would only imply formal compliance. The regulatory authorities may, however, indirectly influence the essence of the operation of the governing bodies as well.

Determining the integrity and professional requirements of executive officers belongs to the scope of binding regulations. The operation of governing bodies may be indirectly influenced by these rules. We may say that in our opinion regulatory measures can exercise influence through the membership requirements of these bodies more effectively than by regulating particular the authorities and operations of the governing bodies. Regulations can ensure the minimum profes-

sional and integrity requirements that greatly influence the organisational culture. Hungarian regulations should be much more flexible in this field, taking more aspects into consideration and laying greater emphasis on integrity requirements and business reputation.

Another option for regulation is to work out supervisory recommendations supporting best practice. This may be necessary if the supervisory authority would like to lay emphasis on management questions in its methodology and investigations. The role of the recommendations could be to set down the best practice on the authority of the board of directors, on the delegation of authorities and on the reporting system. The requirements for operations as a body and the desirability of the performance evaluation as a body could be formulated. The recommendations would list the minimum requirements concerning the basic principles. This could support the transparency of the institutions and strengthen the control functions of the Board of Directors, which could significantly contribute to the accountability and the assertion of responsibilities within the organisation. The recommendations would primarily provide orientation for companies operating as local banks, because these companies have the autonomy required for devising their own organisational solutions.

From the point of view of financial stability we attach a positive value to the fact that a large part of the banking system is managed by strategic owners, who have transferred to Hungarian banks a significant amount of knowledge in the field of bank operations and established clear management structures. Members of the governing bodies of the banks are mostly well-qualified, with significant professional and business experience. In the case of larger banks the number of meetings is close to the international average. Apart from the traditional corporate governance control factors a further balancing factor against the autonomous operation of the governing bodies is the wide-spread information provided to the parent banks, supplemented in most subsidiaries by the regular on-site investigations carried out by the internal audit unit of the parent bank. However, by the evolving economic and financial integration the unique nature of the domestic financial market is expected to weaken, which will presumably affect the governance methods as well.

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## 7.2 SOME INTERRELATIONSHIPS BETWEEN NATIONAL AND INTERNATIONAL WAGE SHARES

BY GÁBOR KÁTAY, MIHÁLY ANDRÁS KOVÁCS AND GÁBOR PULA

### Introduction

This study seeks to find an answer to the question of how the wage level in Hungary compares to the earnings potential of the economy. The topicality of the issue is based on the fact that the sustainability of and temporal changes in the wage level are key to economic convergence. Furthermore, professional journals in Hungary have published a number of contentions claiming that EU-proportionate gross wage level in Hungary is much lower than GDP per capita.

Discussing the sustainability of wages, Oblath (2003) pointed out that the allegations made in the professional journals referred to above were untenable for a number of reasons.

1. If the competitiveness of the labour factor were to be compared, the total cost of labour would have to be considered. As the proportion of non-wage costs is higher in Hungary than the European average, the inclusion of all wage costs significantly reduces the number of differences identified by international comparisons.
2. If wages were to be compared in terms of welfare, net rather than gross wages would have to be used. The welfare-based approach would also have to allow for factors, such as the quality of health care or education, which are much harder to quantify than wages.
3. Finally, the comparison of GDP per capita with wages is significantly influenced by the number of employed as a proportion of the entire population, which depends on the rate of unemployment and/or economic activity, but even more heavily on demographic factors such as the proportion of working-age people within the entire population.

This analysis focuses exclusively on the issues of competitiveness. Thus, it will not discuss the second of the above assertions. As the proportion of those employed within the entire population falls outside the scope of monetary policy, this study does not intend to dwell on this aspect of the reports appearing in the press. Thus, there remains one single issue of primary importance in terms of com-

petitiveness for us to discuss in detail, namely the issue of how total cost of labour per employee compares with output per employee, i.e. how wage share compares with that in other European countries.

This analysis deliberately focuses on the wage-output indicator, as it is the most accurate economically. It follows that so are conclusions on the wage share. Essentially, this paper consists of two parts: one is an economic theory-based summary of the factors influencing developments in the wage share; the other, relying on national and international data, examines how theoretical correlations materialise empirically.

### 7.2.1 What does the wage share measure? Theoretical considerations

The wage share is an indicator defined as the ratio of total labour income and nominal GDP. The reason why it is conceptually significant is that it shows the size of labour share in GDP. The remaining share can be construed as part of capital, i.e. a kind of unit profit indicator.

A standard economic formula and some minor rearrangements lead to the effective breakdown of the wage share. In this respect, the wage share is the ratio of real compensation of employees and productivity.

$$\text{Wage share} = \frac{W * L}{P * Y} = \frac{W/P}{Y/L}$$

where

W denotes total employee compensation;

L is the number of employed;

P is a GDP deflator; and

Y is GDP.

The above formula clearly indicates that the wage share remains unchanged only when the rate of changes in the real compensation of employees calculated with the GDP deflator is identical to that of productivity. For this assumption to hold true, however, a rather specific situation is required. The starting point of our analysis is what is called the simplest textbook model, under which, in order for this assumption to hold true, there is an all-market equilibrium.

### The textbook model

If, in line with neo-classical requirements, capital and labour are consistently substitutable, any technology can generate a given level of output. In this sense, capital and labour share is the indicator of production structure.

It is worth adopting the simplest textbook structure of production, i.e. the Cobb-Douglas production function, where the elasticity of substitution between labour and capital is unity.<sup>109</sup> Provided that technological advance is neutral and markets are elastic, it is immediately clear that the share of factors of production in income is permanent in time. The underlying reason for this is that under such circumstances companies will increase or decrease their use of the relevant factor of production whose price has changed to exactly the same degree as the price of the production factor has increased or decreased. Thus, their total cost remains unchanged. So does their output, as the factors of production are completely substitutable. Consequently, when technology can be described with this set of functions, and the adjustment of input factors is flexible, the wage share is permanent in time.

However, it has been proven on a number of occasions that, except in the USA, the elasticity of substitution between capital and labour cannot be regarded as one unit, i.e. the use of the Cobb-Douglas production function cannot be substantiated empirically.<sup>110</sup> Moreover, the adjustment of input factors is far from being smooth as well, and wages and profit may, depending on the structure of goods and the labour market, also comprise extra benefits in addition to productivity. The proportion of production factors may also be influenced by the tax policy of the government. In the light of this, developments in the wage share are worth examining from two aspects, i.e. the aspect of technology and that of market structure.

### How does technology affect the wage share?

By means of a technological function, more general than the ones outlined above,<sup>111</sup> and supposing that markets are perfectly elastic, it can be proven that the respective shares of input factors are endogenously determined, depending on technological development, capital intensity and the elasticity of substitution between capital and labour.

Essentially, the sign of the correlation between the wage share and the above variables depends on whether the value of the elasticity of substitution is higher or lower than 1.

The literature<sup>112</sup> reveals that no consensus on this issue has been reached yet. Estimates relying on Hungarian data have so far resulted in values for the elasticity of substitution lower than 1.<sup>113</sup> The first striking consequence of the value of the elasticity of substitution being lower than 1 is that as income grows, *ceteris paribus*, so does the share of labour (see A. Ripatti and J. Vilmunen [2001]). The reason for this is that, with the price of labour increasing, labour demand (i.e. employment) decreases to a lower extent, thus the share of labour in output rises.

If the value of the elasticity of substitution is lower than 1, technological development expanding labour has a beneficial effect on the wage share through increased labour productivity. The underlying reason for this is that increased labour productivity may also generate an increase in wages, which, however, remains unaccompanied with reduction in employment on a similar scale. It follows that, if technological development expands capital, i.e. it enhances capital rather than labour productivity, exactly the opposite of the above process will occur, i.e. the wage share will decline.

Overall, based on correlations offered by theories on growth, it is deductible that the only viable long-term type of technological advance is one which expands labour.<sup>114</sup> With the value of elasticity below 1, this implies that economic growth leads to an increase in the wage share over the long term. The case is exactly the opposite if the value of elasticity is above 1, i.e. economic growth will increase the wage share over the long run.

<sup>109</sup> Unit elasticity of substitution means that a 1% change in the prices of relative factors induces a 1% change in the relative production input.

<sup>110</sup> See Rowthorn (1999) and Duffy-Papageorgiu (2000).

<sup>111</sup> The assertions that follow hold true for a relatively wide range of production functions called linearly homogeneous production functions.

<sup>112</sup> See the two references above, Rowthorn (1999) and Duffy-Papageorgiu (2000).

<sup>113</sup> See Holland-Pain (1998), Kőrösi (2002) and Jakab-Kovács (2003).

<sup>114</sup> Barro and Sala-i-Martin (1996)

## Sectoral shifts

Thus far, we have addressed the issue of the wage share as an aggregate indicator of the national economy. Relatively permanent shifts in sectoral structure may, however, affect developments in the aggregate wage share significantly.

Serres et al. [2002] pointed out that a strong composition effect underlay fall in the wage share experienced in EU member states since the early 1980s. As changes in aggregate labour share can be broken down into changes in the proportion of sectoral value added and those in sectoral wage shares, the authors concluded that shifts in aggregate production towards sectors with lower wage shares alone were able to reduce the aggregate wage share markedly. The composition effect has proven to be nearly the only explanation for the fall in labour proportion in the case of a number of countries.

However, it should be noted that, although filtering sectoral shifts is a statistically justified procedure, it raises several issues in terms of economics. One is that economic convergence alone may result in the structure of converging economies approximating that of developed economies. As a result, filtering these effects would distort the very description of convergence. Another issue is that it is unclear whether or not structural shifts are closely related to sectoral wage shares, i.e. whether it is the very sectors where lower wage ratios reflect different technological development or competitiveness that develop faster.

Overall, we can conclude that the reason why the filtering of sectoral structural effects may be important is that it may enable us to establish to what extent changes in the wage share may be attributed to correlations at the level of national economy and to what extent to sectoral behaviour.

## The role of labour and commodity markets

As mentioned, technology can exert an unequivocal impact on developments in the wage share only if commodity and labour markets are perfectly elastic. In reality, however, chances are that competition in both is imperfect, owing to monopolistic market structure, government interference or trade union activity.

It follows then that the larger various market imperfections in the labour market are, the higher the wage share is, because pressure from trade unions to keep wages high may increase it. Analyses by OECD experts<sup>115</sup> reveal that one of the most popular explana-

tions offered for reduction in wage shares in Europe is increase in the elasticity of the labour markets there. They remark, however, that data do not seem to substantiate this claim.

Further major variables affecting the wage share include various relative prices (e.g. the ratio of producer/consumer prices) via the labour market. While consumers would want to maximise real wages reflected by consumer prices, producers wish to establish an optimum on the basis of the wages reflected in producer prices. When, relative to producer prices, consumer prices increase, employees' wage demand become stronger. If their negotiating position is strong enough to secure higher wages, which companies fail to offset by a lower rate of employment, the wage share will increase. It follows from the above reasoning that international terms of trade may also influence developments in the wage share, for they affect producers and consumers differently.

Similar to labour market imperfections, imperfections in the commodity market may influence the wage share significantly. However, in principle, they increase profit and hence capital share. Let us suppose that companies compete with each other in a monopolistic manner. Depending on the elasticity of demand, their mark-up rate rises or falls. The more capable companies are of behaving in a monopolistic manner in terms of their products, the higher amount of extra profit they can earn, relative to the scenario of perfect competition. Thus, their mark-up in income is higher and the wage share is lower.

## The wage share and the business cycle

The existence of companies competing with each other in a monopolistic manner raises further interesting issues concerning developments in the wage share. As company profit depends on the price elasticity of demand, which in turn varies subject to business activity, the unit profit of companies fluctuates continuously throughout the business cycle. Theoretical considerations adopt, as their starting point, the assumption that developments in demand are determined by consumers' attachment to products. If the price elasticity of demand is higher during an upturn in the business cycle (owing to stronger competition), it will be in the course of this very upturn that companies' vested interest lies in moderating their prices in order to attract customers. If price elasticity is below 1, lowering prices will entail falling profits, i.e. profit behaves counter-cyclically.<sup>116</sup> International experience reveals that profit can behave both pro and counter-cyclically.<sup>117</sup>

<sup>115</sup> See Serres et al. (2002).

<sup>116</sup> Naturally, costs also affect profits. Literature is also divided on the relationship between costs and business activity. However, our study does not address this aspect.

<sup>117</sup> See Flaig-Steiner (1990) for the former and Rotemberg-Woodford (1992) for the latter.

## Can the wage share be regarded as an indicator of competitiveness?

So far, factors determining the wage share over the longer term have been discussed. Developments in the wage share were regarded as a type of structural and equilibrium variable. Comparing various countries, literature on real interest rates uses the inverse of the wage share, also known as profit-based real exchange rate, as an indicator of competitiveness evaluating, in particular, exchange rate policy.<sup>118</sup>

### The exchange rate and the wage share

In terms of exchange rate policy, changes in the wage share can reflect changes in competitiveness only over the short run. Any potential weakening of the nominal exchange rate leads to a short-term rise in productivity, which is soon followed by rising prices. If nominal wages are fixed, increasing productivity and falling real wages reduce the wage share. Since, however, wages are also repriced in order to reflect their new long-term equilibrium value, neither productivity nor the wage share changes compared to its original value. The question is how long it takes for nominal stickiness in economy not to be felt any longer. As prices and wages change at least once a year even in developed economies, one instance of change in the exchange rate may well be reflected in data on the wage share<sup>119</sup> for as long as a year. Certain types of real stickiness (e.g. slow adjustment of expectations and persistent inflation, etc.) may lead to an even longer-lasting impact on competitiveness. The time limit for this is 3 to 4 years at the most even in developed economies with a flexible exchange rate regime and a more stable inflation environment. On average, it takes approximately this long for PPP to be felt.<sup>120</sup> It follows that in an environment of higher inflation and with more frequent pricing, the relevant time limit is lower, as it takes shorter for the exchange rate to feed through than in developed economies.

The nodal point of our theoretical reasoning was the assertion that, failing market imperfections, changes in the wage share reflected the impact of technological factors. We also claimed that, if production factors were perfectly substitutable with one another, any selected combination of capital and labour would be able to produce a certain level of production. Given that both labour and commodity market imperfections affect the wage share, the question arises whether longer-term changes in it can reflect any shift in competitiveness.

The reason for this is that perfect substitution between capital and labour is not necessarily the case, though this may lead to problems only at the micro level. What is even more important is whether it is a fortunate solution for a given society if companies replace labour input with capital. Suppose that in a given economy trade unions can, in the bargaining process, negotiate wages that are higher than labour productivity. Under an ideal scenario, companies striving to maximise their profits replace a portion of labour with capital, thereby reducing the level of employment. As a result, as the wage share rises, and so does unemployment, but the latter affects social welfare adversely.

Similar but opposite trends are discernible in the case of commodity market imperfections. As a rule, monopolies are granted benefits, thus their wage share is lower. This, however, leads to output that is lower than it would be in an environment of perfect competition. At the level of national economy, this also fails to live up to what would be a sound and profitable private sector.

Depending on the degree of commodity or labour market imperfections, a rise in the wage share may equally reflect improving or deteriorating competitiveness. What makes the situation even more intricate is that, as was mentioned, production technology is a major factor influencing the wage share. However, this has nothing to do with competitiveness. Overall, this being the case, it is hard to tell whether movements in the variable reflect substantial or non-substantial trends in terms of competitiveness.

### 7.2.2 What do data reflect? Developments in national and international wage shares

The following provides an overview of developments in the wage share in Hungary between the early 1990s to date, and of how it compares to international data.

Chart 7-1 plots developments in Hungarian and EU-15 wage shares between 1993 and 2003. Based on the chart, it is clear that since 1992 developments in the Hungarian wage share have followed a roughly U-shaped trajectory, which can be divided into three separate stages. The wage share in Hungary declined consistently between 1992 and 1999, falling from 74% to 59% overall. This, in turn, meant that, its initial level exceeding the EU average, the ratio fell below the European average. Between 1999 and 2000, it was stable, then started to rise in 2001, reaching close to 65% by 2003.<sup>121</sup> The wage share in Hungary was consistent-

<sup>118</sup> See Lipschitz-Macdonald (1992) and Kovács (1998).

<sup>119</sup> It is important to remember that we are talking about a one-off change in the exchange rate here. If changes in the exchange rate are unexpected and trend-like, this may result in a more permanent change in the trends of the wage share.

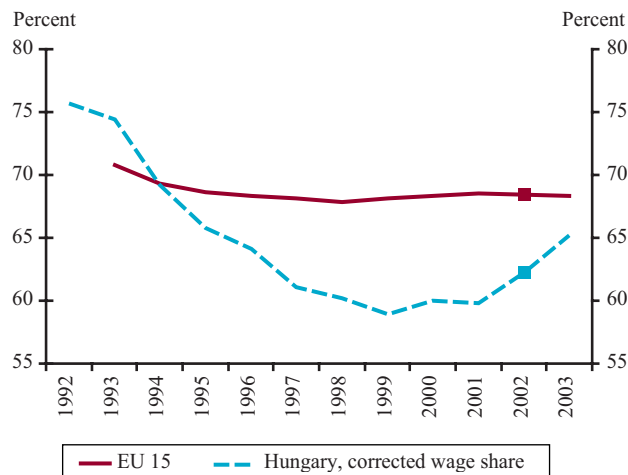
<sup>120</sup> See, for instance, Rogoff (1996).

<sup>121</sup> The fact that no up-to-date CSO data on 2002 and 2003 are currently available advises caution in the evaluation these data. For the estimation method, see MNB Background Studies, Kátay, Kovács and Pula, 'Some interrelationships between national and international wage shares', a study currently under publication.

ly below that in the EU-15 after 1995, with the difference between the two amounting to 9% in 1999. It has shrunk to 3.2% only recently.

**Chart 7-1**

**Wage share in Hungary and EU-15, 1993–2002**



Sources: AMECO, the Bank's own CSO-based calculations and the Bank's own estimates for 2002 and 2003.

The study of the Hungarian wage share, which fluctuates more sharply than the EU average, raises two major issues.<sup>122</sup>

One approach focuses on how the wage share changes in time. A major issue is to what extent such changes are to be regarded as equilibrium trends that leave competitiveness unaffected and to what extent they reflect changes in competitiveness. It is by no means irrelevant to identify how the changes observed are linked to economic policy measures. Logically, the two are interrelated, for, as the section devoted to theoretical considerations reveals, chances are that shifts defined as related to equilibrium in nature are unrelated to economic policy interference.

The other approach strives to provide a cross-section of data. It intends to identify the level of the wage share in Hungary in international comparison, examine whether differences are significant and provide an explanation for such differences.

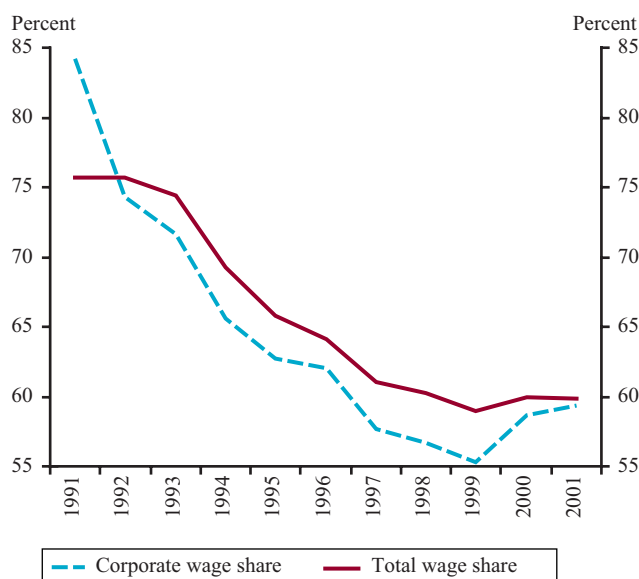
**A history of the wage share in Hungary: the time dimension**

When the time dimension is examined, as a first step, the general government impact is excluded from the

wage share indicator. The reason for this is that, if the above dynamics are attributable to movements in the government sector, and changes in the wage share in the corporate sector are relatively stable, it is economic policy that is the key player in shaping trends. However, the chart below shows that the wage share in the corporate sector moved in close conjunction with the whole-economy wage share, i.e. it had nothing to do with the impact of the government sector.<sup>123</sup> This alone, however, does not mean that economic policy would not have been able to affect changes in the wage share through influencing the corporate sector.

**Chart 7-2**

**Whole-economy wage share and the wage share in the corporate sector, 1991–2001**



Source: Bank's own CSO-based calculations.

With respect to developments in the wage share, another equally important issue is the extent to which they depend on aggregate shocks and movements of sectoral attributes. As was discussed in the theoretical section, developments in the indicator can be divided statistically into the sum of the combined effect of two factors, i.e. changes in the wage shares of the individual sectors and in their weight relative to one another. The latter is called the composition effect, which can be linked to sector-specific factors (e.g. changes to the structure of foreign trade) rather than general macroeconomic trends.

The breakdown of the corporate wage share<sup>124</sup> reveals that its following a U-shaped trajectory in the period

<sup>122</sup> Naturally, the fact alone that the EU value is an average, whereas the Hungarian time series relates to one single country leads, theoretically, to the conclusion that the Hungarian time series is, ceteris paribus, more volatile if the individual European time series also include individual effects.

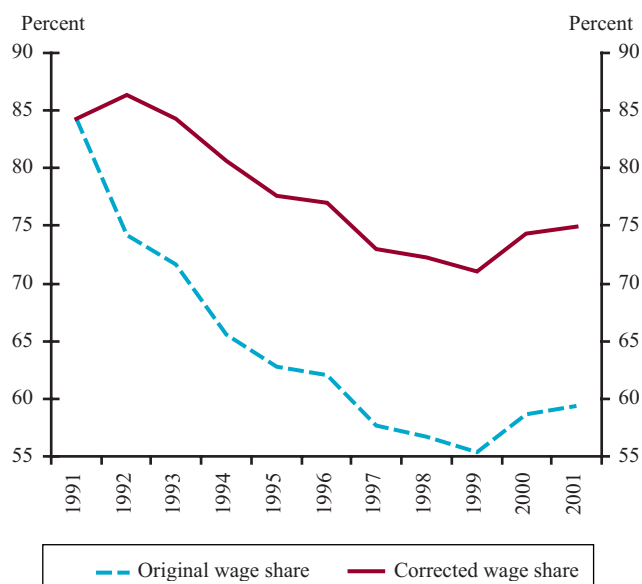
<sup>123</sup> The above breakdown was only possible to provide for the period up until 2001, because the CSO publication of the detailed national accounts is only available with considerable delays. The wage share in the corporate sector is more consistent than the whole-economy share, which can be attributed to the fact that the government sector is more labour-intensive than the private sector. It should be noted, however, that the wage share in the government sector is not necessarily an unambiguously interpretable indicator, for the CSO, failing appropriate information on output, provides estimates for the added value of the government sector, relying on wage costs.

<sup>124</sup> The above breakdown is valid only for the corporate sector, because of the above measurement problems in the government sector.

under review can be attributed primarily to sectoral shifts rather than the aggregate scenario. This is clearly proven by the fact that the filtered wage share was much more stable than the original time series. The decline in the 1990s was much less significant than that in the original time series. Between 1995 and 2001 it stood consistently around 75%.<sup>125</sup> In the early years of transition, changes in the sectoral composition of production, or rather the phasing out of primary sectors, were responsible for the bulk of the decline. It is important to note, however, that in 1995 there was no clear-cut discontinuity in the trends of the wage share that would suggest a definite increase in the unit profit (the inverse of the wage share) of companies after 1995.<sup>126</sup> Instead, overall, the indicator declined prior to 1999, and then increased slightly. However, such shifts were hardly significant in the second half of the 1990s.

**Chart 7-3**

**Corporate wage share corrected by sectoral composition effects**



Source: Bank's own CSO-based calculations.

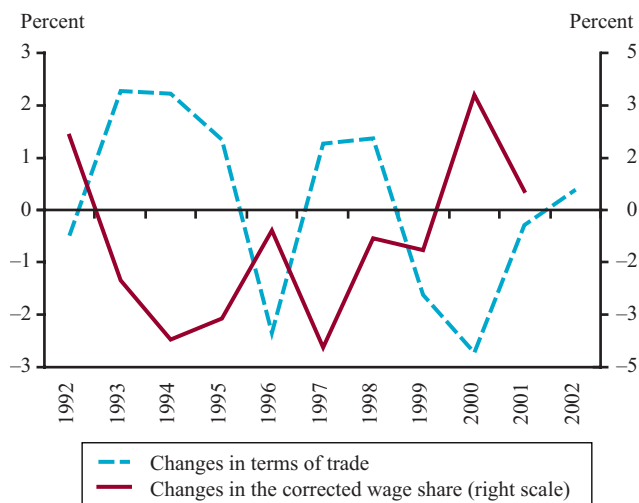
As was discussed in the theoretical section, terms of trade and business activity may both affect the wage share, and hence corporate profit. As wages are relatively inflexible over the short term, fluctuations in profitability must be reflected in the profit ratio. In the case of terms of trade, obviously, deterioration (or improvement) in them leads to deteriorating (or improving) profitability, hence increasing (or decreasing) wage share. The chart below clearly shows that in years when there were considerable changes in the wage share, such changes occurred simultaneously with movements in terms of trade in the expected direction. Thus, in both 1997 and 2000, serious

deteriorations in terms of trade were accompanied with a definite rise in the wage share.

**Chart 7-4**

**Corporate wage share corrected by sectoral composition effects and terms of trade**

(Annual changes)

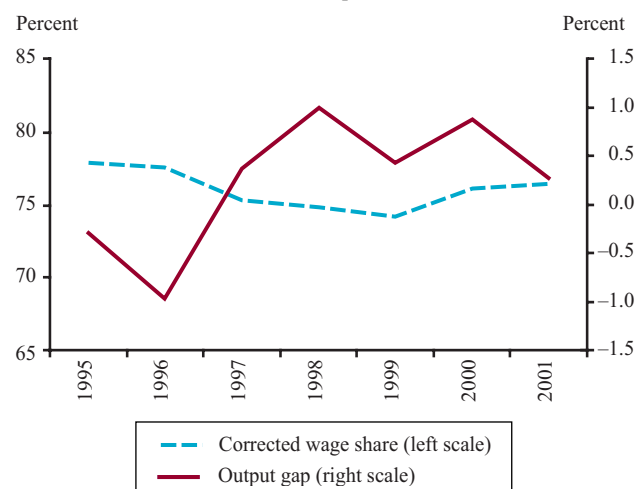


Negative numbers denote a deterioration in the terms of trade.

Apparently, the impact of another major factor influencing corporate profitability, i.e. business cycle, can also be seen in short Hungarian data. The chart below attests to the fact that the corporate wage share and the output gap ran counter to each other, i.e. profit was procyclical. In principle, this is at variance with the expected relationship; however, as was mentioned in the theoretical section, it fits international experience neatly.

**Chart 7-5**

**The output gap and the corporate wage share corrected by sectoral composition effects**



Sources: NEM database and the Bank's own CSO data-based calculations.

<sup>125</sup> There was first a minor decline and then a minor increase also after 1995; their proportion was, however, negligible.

<sup>126</sup> It is puzzling that significant moderation in consumer real wages should have been unaccompanied with fall in the wage share in 1995, i.e. a jump in corporate unit profit. The underlying reason for this is that hardly 1% increase in the added value of the corporate sector was accompanied with a much larger increase in private sector employment, i.e. corporate profitability shrank.

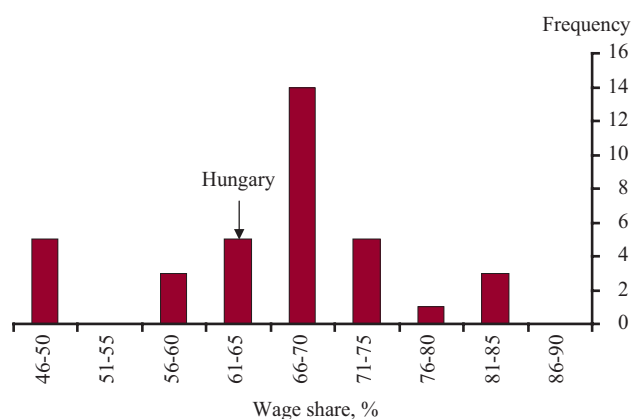
For lack of recent CSO data, it is hard to establish what happened to the filtered corporate wage share in 2002 and 2003. Data on the national economy, however, suggest that it rose sharply. This can be attributed partly to the minimum wage raise in 2002 and partly to significant raises in wages in the government sector. Furthermore, the slowdown in business activity is also likely to have been a minor contributor.

### The wage share in international comparison: the cross-section dimension

Thus far, we sought to provide an explanation for temporal changes in the wage ratio. A further interesting issue is how closely the wage share in Hungary conforms with international trends. The chart below clearly shows that the wage share in Hungary is approximately equal to or slightly below the OECD average.

Chart 7-6

#### Distribution of the wage share in OECD countries between 1995 and 2001



Sources: AMECO database and CSO.

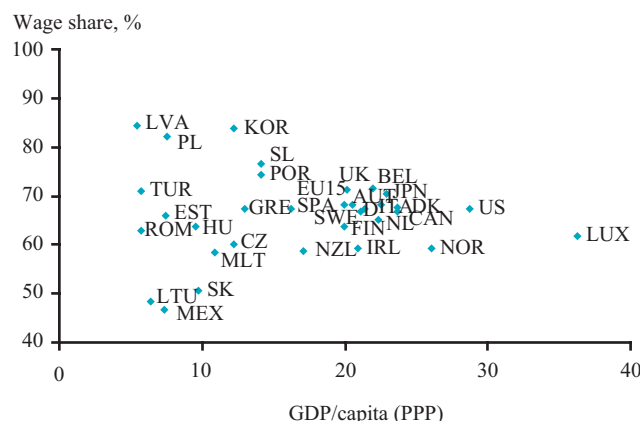
A closer comparison between current EU periphery countries and acceding ones also ranks the wage share in Hungary around the EU average. Thus, its value is far from being an outlier, in contrast with Poland for instance, where the value of the wage share is the highest in this group of countries (over 80%).<sup>127</sup> Another interesting issue, worth examining, is how shifts in time series represent significant movements by international standards. Estimates of the wage share up until 2003 and a close look at the lowest (in 1999) and the highest (in 1995 and 2003) values point to the fact that shifts so far have been of no importance. The reason for this is that, compared to the lowest value, the only occurrence was that the Hungarian wage share had moved towards the average.

International comparison thus substantiates our standpoint that no dramatic shifts have occurred in the value of the wage share since the second half of the 1990s. Overall, the wage share in Hungary is approximately equal to or slightly below the OECD average and the EU periphery and acceding countries.

Given the foregoing and based on theoretical models, a number of interrelationships may present themselves between the development of and the wage ratio in a country over the long term. If the value of the elasticity of substitution is lower than one, the interrelationship is positive; if higher, it is negative. Relying on the AMECO database, we sought to quantify these relationships; however, we found that no relationship could be established between income and the wage share based on the data studied. Interestingly enough, in developed countries, irrespective of their level of development, wage share is rather similar. By contrast, in converging (acceding) countries it is distributed rather unevenly despite a similar level of development. This suggests that, in converging economies, factors other than the level of development (e.g. the sectoral composition of production and the institutional characteristics of the labour market, etc.) affect changes in the wage share to a larger extent than they do in developed economies. It is equally probable, however, that in converging economies the very quality of available data, too, is poorer, or that, owing to the lack of international data harmonisation or the disadvantages of such lack of harmonisation, certain data on converging economies lend themselves to comparison less easily.

Chart 7-7

#### GDP per capita and the wage share in international comparison; 1995–2000 average



Source: AMECO database.

<sup>127</sup> This is attributable to a different structure of employment in Poland, with the share of agriculture amounting close to 20% in 2002 (Employment in Europe 2002).



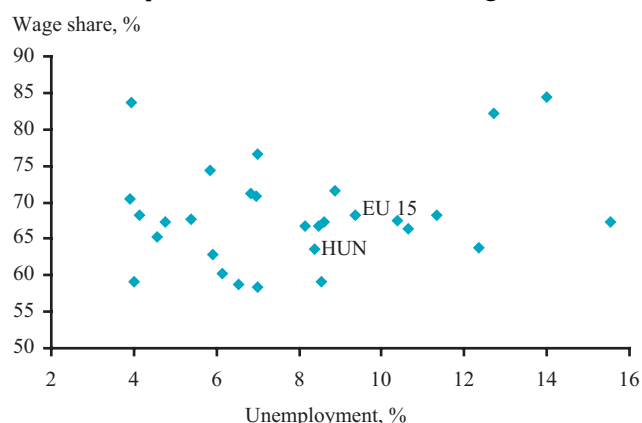
Finally, we examined the extent to which the various levels of the national wage share could be attributed to the differing levels of the labour market elasticity. Currently, available data on labour market institutions in the EU and, particularly, in the countries of the CEE region are few and far between, and, to make things worse, they are also hard to compare. Yet, based on them, the following two major conclusions can be reached. One is that, although institutional elasticity of the labour market is rather unevenly distributed in the countries examined, the average elasticity of the labour market in acceding countries is similar to that in the EU-15 countries. The other is that the elasticity of the labour market in Hungary within the group of the countries studied is broadly average. This is the outcome of several factors with impacts running counter to each other, though, in terms of employment protection, the Hungarian labour market is the most flexible in the region. Nevertheless, taxes on labour are also the highest in Hungary.

As no data in the time dimension are available, the institutional characteristics of the labour market cannot be used to explain temporal changes in the wage share. It is equally important to emphasise that the database on which this analysis relies is rather incomplete as regards, especially, acceding countries. Furthermore, data are incomparable from a number of aspects. Consequently, our results cannot be regarded as robust.

Owing to the foregoing, we attempted to grasp labour market elasticity indirectly, i.e. using the employment rate. Based on this, supposing that the elasticity of the Hungarian labour market is higher than average, calculations can be based on a lower equilibrium wage share than the EU average. The chart below shows that there is some relationship between the rate of unemployment and the wage share, at least visually, which is, however, statistically insignificant.

**Chart 7-8**

**GDP per capita and the wage share in international comparison; 1995–2000 average**



Source: AMECO database.

## Conclusions

Our analysis examined developments in the wage share in Hungary. We took a group of factors which, according to the relevant economic theory, determine the level and dynamics of the wage share. We focused also on the factors, amongst those identified by the theory, that might have affected the wage share in Hungary in the 1990s.

Based on international literature, our theoretical conclusion is that it is influenced by what we label as equilibrium, mainly production technology-related, factors, including substitution between capital and labour and the type of technological development. The reason why we call them equilibrium factors is that they generate a wage share that changes in time also in developed economies, with economic development following an ideal path.

However, owing to price and wage stickiness in the economy as well as government interference, the actual wage share, as a rule, differs from this, because of also commodity and labour market imperfections and changes in the tax system and, in the short run, in the nominal exchange rate. Theoretically, the difference between the equilibrium and the actual wage share can be interpreted as an indicator of competitiveness; however, quantifying it would have been outside the scope of this paper, due to the lack of a structural model. Rather, we emphasise that, at the aggregate level derived from the wage share, it is difficult to determine to what extent changes in the indicator are caused by technological development or to what extent they reflect the influences of other, transient factors.

The empirical section concluded that the wage share in Hungary, which had, in effect, been lower than the EU average since the mid-1990s, has been catching up with it rather dynamically recently. Since 1992 developments in the Hungarian wage share have followed a roughly U-shaped trajectory. It declined steadily up until 1992 and has been edging up equally steadily since 2001.

One of the characteristics of temporal changes in the wage share in Hungary is that the corporate wage share moves in close conjunction with whole-economy data, which suggests that the experienced phase-out cannot be contributed to government sector impacts. In the first half of the 1990s, the bulk of the decline was attributable to the sectoral restructuring of production, which is likely to have been a phenomenon related to economic transition, and hence to equilibrium. The wage share, sectoral effects excluded, also declined continuously up until 1999, then grew steadily from 2000. It is important to note here that the effects of economic policy interference, including the austerity measures in 1995 and the minimum wage raise in

2001 cannot be detected in data prior to 2001. In 2002 and 2003, however, there was a definite increase, which may have been related to the minimum wage raise and a considerable rise in government sector wages. The lack of CSO data on 2002 and 2003, however, calls for caution in this evaluation. In the second half of the 1990s, fluctuations in international terms of trade and business activity are also likely to significantly have affected movements in the corporate wage share excluding the composition effect. The direction of co-movement also fitted in with the relationship expected to exist on the basis of the theory.

The study of cross-sectional changes in the wage share in Hungary revealed that, compared to that in OECD, EU periphery and acceding countries, it was broadly average or below average, however, by no means outstanding. Compared to international data, temporal changes in the wage share in Hungary suggest that shifts in time series are of little importance.

Finally, we compared theoretical considerations concerning changes in the wage share to the distribution of data on OECD countries. The comparison led to the following conclusions. Theoretical considerations, as a rule, imply growth in the national wage share, though no relationship could be detected in international samples between higher income and higher wage share. Based on institutional indicators, the flexibility of the domestic labour market does not differ from the EU-15 average; at the same time, if the unemployment rate is used to serve as an elasticity indicator, some relationship can be established between the wage share and the flexibility of the labour market. This factor is likely to be able to provide, to some extent, an explanation for the lower-than-average Hungarian wage share.

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