



MAGYAR NEMZETI BANK

**QUARTERLY
REPORT ON
INFLATION**

AUGUST 2005

**Quarterly Report on
Inflation**

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Act LVIII of 2001 on the Magyar Nemzeti Bank, which entered into effect on 13 July 2001, defines the primary objective of Hungary's central bank as the achievement and maintenance of price stability. Low inflation allows the economy to function more effectively, contributes to better economic growth over time and helps to moderate cyclical fluctuations in output and employment.

In the inflation targeting system, from August 2005 the Bank seeks to attain price stability by ensuring an inflation near the 3 per cent medium term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of the expected development of inflation every three months, in order to establish the monetary conditions that are consistent with achieving the inflation target. The Council's decision is the result of careful consideration of a wide range of factors, including an assessment of prospective economic developments, the inflation outlook, money and capital market trends and risks to stability.

In order to provide the public with a clear insight into the operation of monetary policy and enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Quarterly Report on Inflation presents the forecasts prepared by the Economics Department for inflation, as well as the macroeconomic developments underlying the forecast. The forecasts of the Economics Department are based on certain assumptions. Hence, in producing its forecast, the Economics Department assumes an unchanged monetary and fiscal policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this Report were prepared by the Economics Department staff under the general direction of Ágnes CSERMELY, Head of Department. The project was managed by Barnabás FERENCZI, Deputy Head of the Economics Department, together with Attila CSAJBÓK, Head of the Monetary Assessment and Strategy Division, Balázs VONNÁK, Deputy Head of the Monetary Assessment and Strategy Division, Mihály András KOVÁCS, Deputy Head of the Conjunctural Assessment and Projections Division, and Zoltán M. JAKAB, Head of the Model Development Unit. The Report was approved for publication by István HAMECZ, Managing Director.

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The Report incorporates valuable input from the MNB's other departments as well as the Monetary Council's comments and suggestions following its meetings on 8 August and 22 August 2005. However, the projections and policy considerations reflect the views of the Economics Department staff and do not necessarily reflect those of the Monetary Council or the MNB.

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Overview

An environment of low inflation with equilibrium risks

The past period saw favourable developments in inflation, with the CPI falling to 3–4 per cent and core inflation below 2 per cent. This moderation in core inflation was attributable to a gradual pick-up in import competition, which reined in prices and evolved against a background of a stable forint exchange rate, as well as modest growth in consumer demand. Corporate wage adjustment to an environment of lower inflation seems to have begun.

Simultaneously, the equilibrium position of the economy also improved slightly, even though the current account deficit continues to be high. The impact of the unfavourable equilibrium situation on risk perception is currently offset by very strong demand in the global capital markets for assets in high-risk investment categories. Thus, the past few months have been marked by relative stability and a moderate decline in yields.

Currently, the prospective economic developments for 2006-2007 are surrounded by higher-than-usual uncertainty. The main underlying reason for this is that the Government has announced a number of measures that may significantly influence economic growth, the external balance and, indirectly, risk perception. However, as these measures are not comprehensive, it will only be possible to assess their overall impact when budgets for the coming years are disclosed.

Increasing number of question marks concerning the fiscal path rendering the outlook fragile

If only the government measures announced so far and the determinations arising from the temporary nature of the measures aimed at improving the 2005 balance were taken into consideration, and no offsetting measures were to be taken, the GDP-proportionate fiscal deficit would grow by over 3 per cent by 2007, accompanied by a considerable deterioration in the current account balance. This economic path cannot be sustained over the long term, as Hungary's increasingly rapid indebtedness would undermine the ability to finance economic activity, and lead to a permanent and marked slowdown in growth.

As an alternative path, we could assume that, in the interest of reducing the budget deficit as undertaken in the Convergence Programme, the Government offsets the impact of the measures announced by taking steps expressly designed to curb demand, and also materially reduces the fiscal deficit. Although such a path undoubtedly points to long-term sustainability, structural reform of

We assume a restrained fiscal policy and stable monetary conditions

Along the central path

increasingly vigorous household demand

generates inflationary pressure,

which, over the longer term, is offset by a moderate increase in labour costs.

general government would be necessary to counteract the current trend towards a much higher deficit.

Therefore, a middle-of-the-road solution was employed in this Report. We assume that over the next two years wages will rise slowly, while operational costs and capital investment remain flat in general government. Under such a scenario, fiscal policy would still boost demand in 2006, but the demand impact would become slightly negative in 2007. An important assumption with respect to the inflation projection is that the forecasts are mirrored in the exchange rate set in the usual manner and an unchanged interest rate. Thus, implicitly, we expect financial markets to perceive this fiscal adjustment as satisfactory and accordingly the current favourable risk perception remains unchanged. On the forecast horizon, the major differences between the individual economic paths are attributable to risk perception and hence yields and future developments in the exchange rate. Relative to this, the actual extent of the fiscal demand effect will precipitate much smaller shifts in the inflation projection.

In our opinion, provided that all these assumptions hold true, the economy could, after a temporary detour, slowly return to a path leading to economic equilibrium and nominal stability. The Report introduces this economic path, emphasising that the projection in it is conditional upon assumptions stronger than ever.

Relying on these assumptions, we project that demand will be stronger than previously anticipated due to fiscal easing. However, the impact of demand on inflation will be offset by supply-side measures. Thus, on the forecast horizon, following a temporary decline in 2006, we expect inflation to stabilise at around 3 per cent. Stronger economic growth results from the acceleration of consumption generated by government measures. A fall in the CPI brought about by the reduction in VAT rates, income tax cuts and the increases in the family support scheme will all raise households' real income. We expect stable growth in the external business cycle. In line with stable business cycle perspectives, exports and corporate investment are expected to continue to grow at a steady pace. Overall, due to trends in consumption and economic growth which are higher than the long-term average, demand-pull inflation is expected to rise.

On the supply side, contrasting trends are expected to emerge. It is difficult to predict the effects of the sizeable, differentiated minimum wage increase scheduled for 2006. Overall, we expect

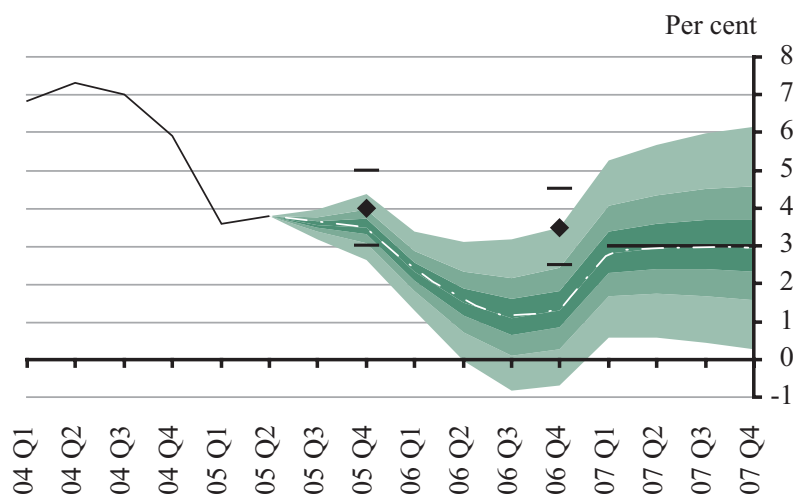
Thus, inflation is expected to stand at around 3% with a symmetrical balance of risks to the central projection.

declining wage inflation to come to a halt only temporarily. Over the second half of the period that our forecast horizon spans, factors reducing inflation may become dominant again, due to the envisaged tax measures (abolition of health care contributions and reduction in social security taxes) which will reduce labour costs. Unit labour costs, along with an expected increase in productivity, may support disinflation.

Consistent with earlier practice, in the distribution of risks in the inflation projection we have not quantified the potential impact of possible changes in forint risk premia, although, as we have pointed out, we perceive greater-than-usual uncertainty in this area. Both the upside and downside risks to our conditional inflation projection are roughly equal.

Faster growth in consumption may pose an upside risk to inflation. Another upside risk to inflation may be represented by the fact that the rise in the minimum wage may, in addition to an immediate increase in labour costs, result in upward pressure on wages feeding through over the longer term. Despite this, however, temporary disinflation in 2006 will cool inflation expectations over the longer term and thus increase the likelihood of lower inflation. Further sources of uncertainty around the projection include the usual factors such as the global market price of oil, domestic price regulations and extreme fluctuations in unprocessed food prices.

Fan chart of the inflation projection



Uncertainty around measuring imports renders the assessment of growth and the external balance difficult

Foreign trade developments represent higher-than-usual uncertainty, as such developments directly affect the current account deficit and may influence economic growth statistics and indirectly affect the risk perception of the economy. Hungary's EU accession last year led to methodological changes in recording foreign trade data, with earlier statistical recording at customs borders replaced by self-declaration-based recognition. Following these changes, the amount of imports recorded in statistics has been lower since 2004 H2 than what would be justified by the business cycle. Currently, the causes of these changes cannot be identified for lack of a satisfactory amount of information. However, in our opinion, import demand is unlikely to have decreased to such an extent in Hungary. Thus, we cannot rule out the possibility that some of the improvement in net exports may be a temporary feature arising from methodological changes.

Summary table of the main scenario

Projections are conditional, with the main scenario reflecting the projection that applies only if all of the assumptions presented in section 3 materialise; unless otherwise specified, percentage changes on a year earlier

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------------------|---------------|---------------|----------|-----------|
| | Actual / Estimate | | Projection | | |
| CPI (annual average) | | | | | |
| Core inflation ¹ | 4.8 | 5.8 | 2.2 | 1.1 | 3.2 |
| Consumer price index | 4.7 | 6.8 | 3.6 | 1.6 | 2.9 |
| Economic growth | | | | | |
| External demand (GDP-based) | 0.7 | 1.9 | 1.6 | 2.0 | 2.0 |
| Fiscal demand impact ² | -0.5 | -0.5 | 0.8 | 0.5-1.0* | -0.5-0.0* |
| Household consumption | 7.2 | 2.5 | 2.4 | 3.5 | 3.0 |
| Gross fixed capital formation | 2.5 | 7.9 | 5.4 | 4.9 | 2.1 |
| <i>Domestic absorption</i> | 5.7 | 2.2 | 1.2 | 5.7*** | 2.7*** |
| Exports | 7.8 | 14.9 | 11.1 | 8.8 | 9.2 |
| Imports | 11.0 | 11.6 | 8.0 | 10.6*** | 7.9*** |
| GDP | 2.9 | 4.0 (4.2)**** | 3.6 (3.4)**** | 3.9*** | 3.8*** |
| Current account deficit | | | | | |
| As a per cent of GDP | 8.8 | 8.9 | 7.6** | 8.6*** | 7.6*** |
| EUR billions | 6.4 | 7.1 | 6.7** | 8.0*** | 7.6*** |
| External borrowing requirement | | | | | |
| As a per cent of GDP | 8.8 | 8.4 | 6.9** | 7.8*** | 6.8*** |
| Labour market | | | | | |
| Whole-economy ³ | 10.9 | 6.1 | 8.2 | 6.5 | 5.4 |
| Whole-economy employment ⁴ | 1.2 | -0.5 | -0.3 | 0.1 | 0.6 |
| Private sector gross average wage | 8.7 | 9.3 | 6.8 | 7.2 | 5.6 |
| Private sector employment ⁴ | 0.7 | -0.3 | 0.2 | 0.4 | 1.0 |
| Private sector unit labour cost | 6.5 | 3.1 | 2.9 | 2.1 | 0.2 |
| Real disposable income of households | 3.9***** | 4.0***** | 3.7 | 4.6 | 2.1 |

¹ For technical reasons, our projected indicator may, over the short term, be different from the index published by the CSO. Our longer term indicators, however, both follow identical trends. ² Calculated from the so-called augmented (SNA) indicator; negative values denote contraction in aggregate demand. ³ In the case of the general government sector, the thirteenth-month salary for 2004 which was disbursed in January 2005 causes a downward bias in the wage increase indicator for 2004, and an upward one in that for 2005. ⁴ According to the CSO Labour Force Survey.

* Assumption for the fiscal impulse inherently consistent with the macroeconomic path; due to the lack of an effective act on the 2006-07 budget, we cannot provide a detailed fiscal projection ** The uncertainty in trade statistics (see section 4.3) may imply a higher current account deficit / external financing requirement by near 1 percent of GDP for 2005. *** Our projection allows for the impact of the procurement of Gripen planes on the current account and its contribution to an increase in public consumption and imports. **** Excluding the leap year effect; original data in brackets ***** MNB estimate.

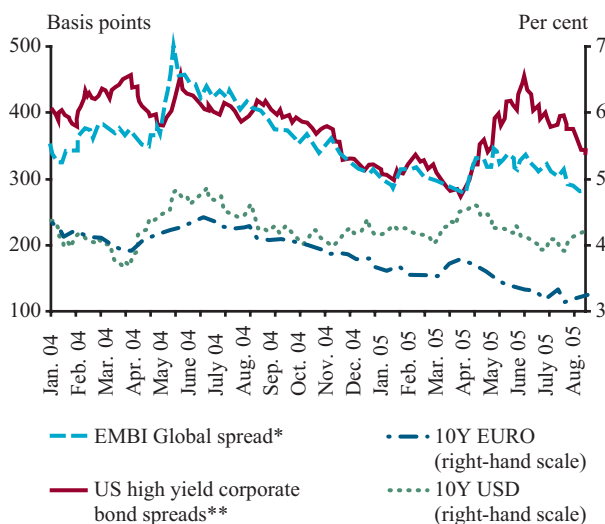
1. Financial markets





Developments in the international financial markets significantly influenced the exchange rate of the forint and yields on government securities in 2005 H1. Overall, global propensity for taking risks was comfortably high, with risk indicators reaching a historically low level. This was coupled with persistently low long-term euro and US dollar yields, despite the fact that the Federal Reserve has raised the federal funds rate by a total of 125 basis points on five occasions this year.

Chart 1-1
Long-term EUR and USD yields and risk indicators



* EMBI Global Composite: interest premium index of sovereign and quasi-sovereign issuers' dollar-denominated bonds as calculated by JP Morgan-Chase.
** Merrill Lynch US High Yield Master II index.

The period since the beginning of 2005 can be divided into three parts. The first one between January and mid-March was marked by increasingly strong risk appetite and a rise in global demand for high-risk bonds. The second phase between March and May was a time of downward adjustment, for which the main underlying reason was the deteriorating risk perception of corporate bonds. The rise in corporate risk also raised premiums on riskier sovereign bonds, although to a lesser extent.

Hence, demand for local currency-denominated assets of emerging markets also declined. In May, investor sentiment changed again, accompanied by a decline in the premium on both corporate and riskier sovereign bonds. By historical standards, the global investment environment has remained favourable. However, because of global imbalances and the level of long-term US yields, which remained low despite the current tightening cycle, many observers perceive the situation as fragile.

Trends in the global market also affected CEE markets. On certain occasions, there was strong co-movement between the Czech, Polish, Hungarian and Slovak currencies, whilst country-specific factors were pushed into the background. Price and yield data as well as investment banks' analyses suggest that the risk perception of the new EU Member States has been even more favourable than the general perception of emerging markets.

In keeping with high international risk appetite and improving assessment of the CEE region, forint

Chart 1-2
Changes in the exchange rates of the currencies in the region vis-à-vis the euro

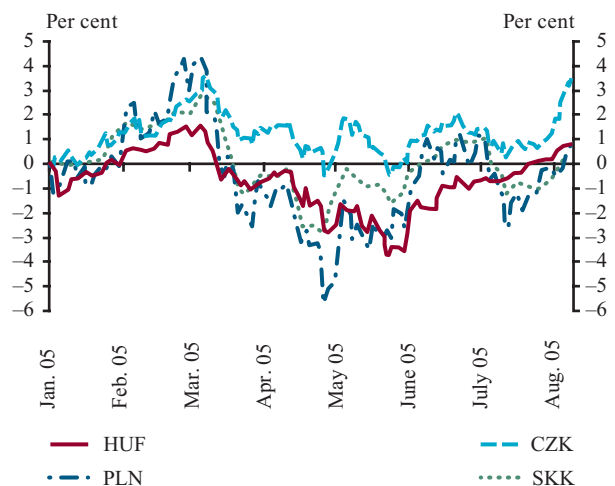
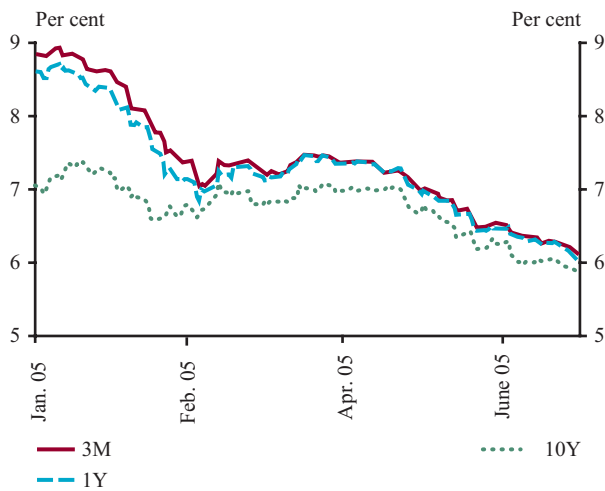


Chart 1-3

Benchmark yields in the government securities market



yields have declined since early this year. The fall in yields was the most substantial in the case of shorter-term government securities. While the 10-year benchmark yield remained broadly flat between early January and late May, its 3-month counterpart declined by close to 2 percentage points. A new wave of falling yields in early June resulted in a parallel shift in the yield curve: after being nearly flat at 7% in May, it dropped to nearly 6%. Regarding the Maastricht interest criterion, the 12-month moving average of the 10-year benchmark yield has lately come closer to the reference value.

Chart 1-4

Maastricht interest criterion

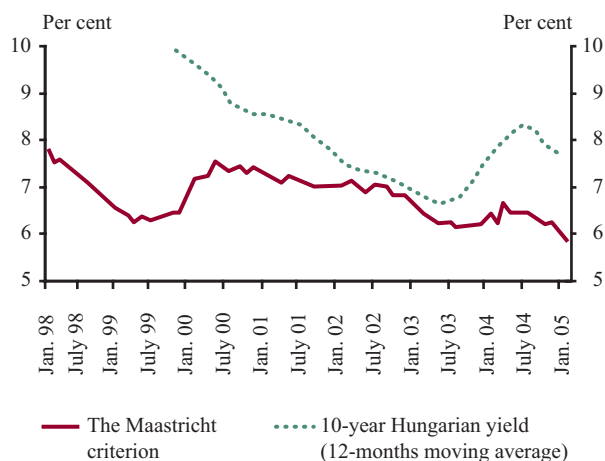
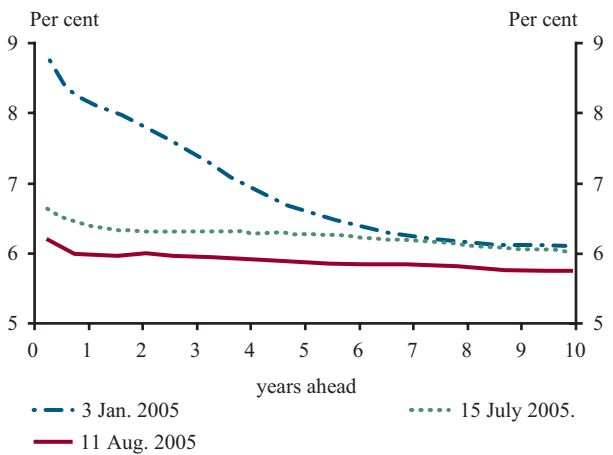


Chart 1-5

Derived 3-month forward yield curves

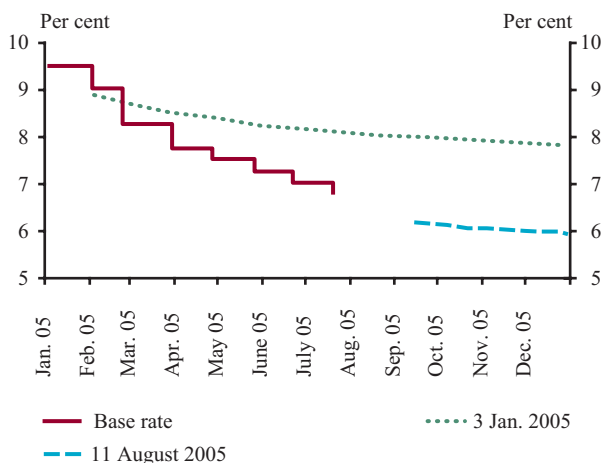


The forward yield curve derived from yields in the government securities market can be considered a good approximation of expected future yields. The shift in the forward yield curve reveals that yields expected within 5 years have fallen significantly, while yield expectations over a period of longer than 5 years only declined perceptibly in the second part of July.

Short-term yields mainly follow the MNB's key interest rate and expectations regarding such. In keeping with the improving inflation outlook and a more favourable perception of short-term risks, the Monetary Council has lowered its two-week

Chart 1-6

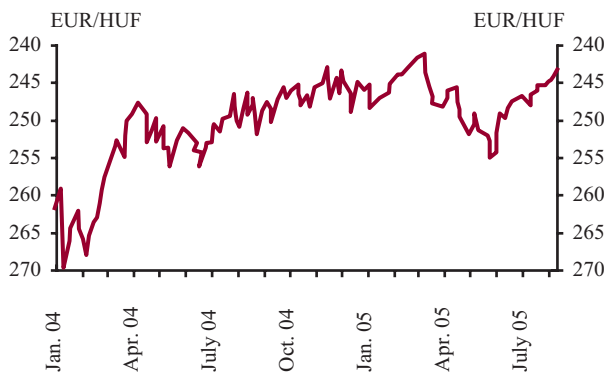
Anticipated path of the central bank base rate based on the forward yield curve



deposit rate, i.e. its key policy rate, by 300 basis points to 6.75% in several successive steps this year. Another 75 basis point fall has been priced into short-term yields for the remainder of 2005.

Chart 1-7

The EUR/HUF exchange rate



Although the current key policy rate and expectations for end-2005 are much lower than anticipated by market participants in January, the exchange rate of the forint has not weakened vis-à-vis the euro overall, despite the wide range in which it has moved. This suggests that the base rate cuts have been made possible by a significant fall in risk premium on forint-denominated assets. Meanwhile, macro-analysts' inflation expectations have not deteriorated, an obvious interpretation of which is

that, according to market participants, the easing of monetary conditions was in line with the improvement of inflation developments.

As reflected by the shift in the yield curve, the decline in the expected risk premia has materialised mainly in the form of falling short-term yields. By contrast, forward rates 5 year ahead have remained high. The forint premium over 5-year euro forward rates 5 years ahead, an indicator of key interest for money market participants, has been moving in a 150–200 basis point range for practically one and a half years. By comparison, it has been below 100 basis points in the case of the Polish, Czech and Slovak currencies for several months now. In addition to the general assessment of the CEE region, this premium reflects the likelihood of Hungary's entry into the euro area as well as the market perception of the external balance and convergence. Reuters surveys indicate that in 2005 no improvement has occurred in either the expected date of the introduction of the euro in Hungary, or the expectations for balance indicators that influence the speed of convergence. This is in turn consistent with the persistently high forward premium.

Chart 1-8

Expectations for the key policy rate based on the Reuters surveys

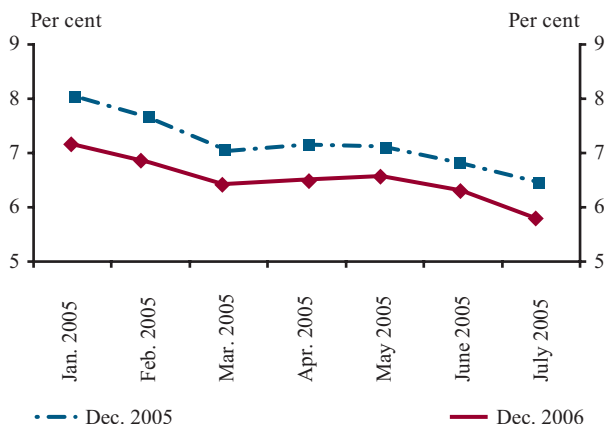
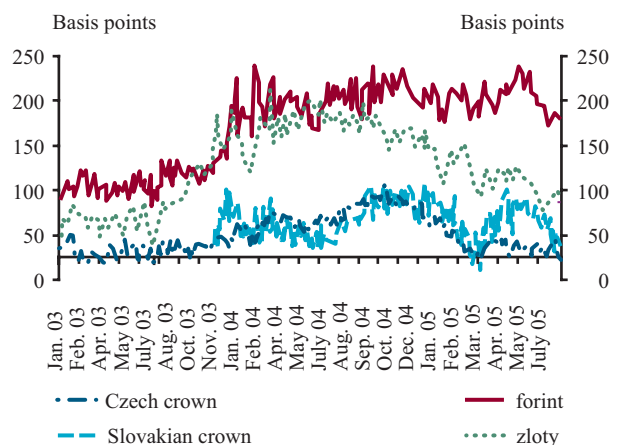


Chart 1-9

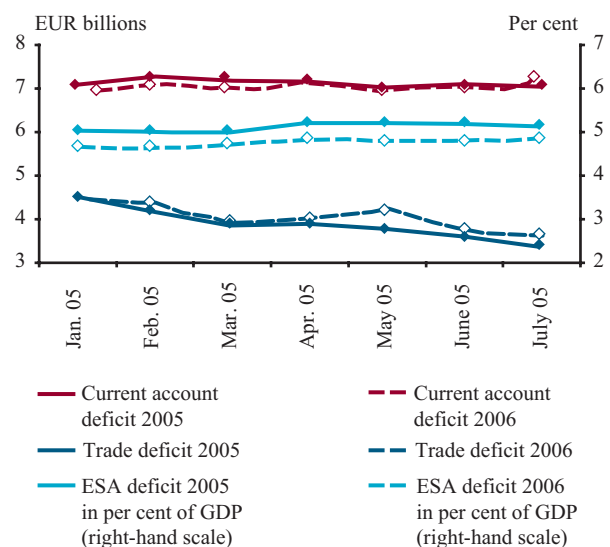
Premia over 5-year euro forward rates 5 years ahead



Another indication of the persistently unfavourable perception of long-term risks is that despite a healthy global risk appetite and falling forint yields, foreign investors' long position has shrunk on the whole. Their interest in forint-denominated government securities has been moderate. It should be noted, however, that one reason for this may be the fact that the State Debt Management Agency has shifted more strongly to financing in foreign currency, which has led to a slower rise in the stock of forint-denominated government bonds.

Chart 1-10

Expectations for equilibrium indicators on the basis of the Reuters surveys

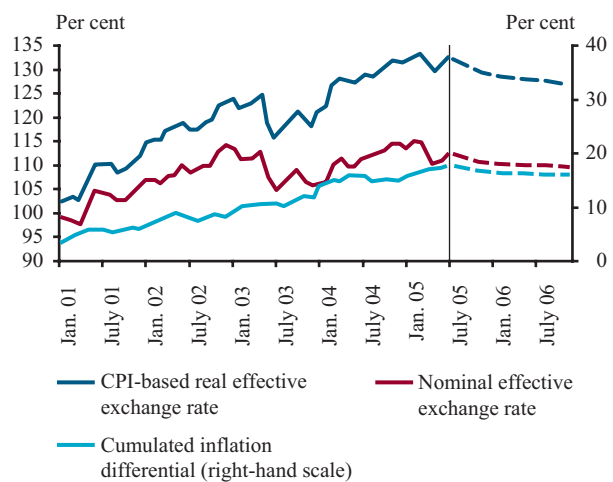


The real effective exchange rate and the forward-looking real interest rate, which are important in terms of monetary policy's impact on inflation, both eased in 2005 H1. In the case of the exchange rate, this can be ascribed to the weakening of the euro vis-à-vis the US dollar, as reflected in the nominal effective exchange rate of the forint. The decline in the real interest rate is attributable to nominal yields which have fallen more rapidly than inflation expectations. Based on the Reuters survey, macro-analysts expect the real effective exchange rate to weaken further. The

anticipated increase in real interest rates in 2006 is the outcome of lower VAT rates mitigating inflation temporarily, and as such it does not represent actual tightening for all economic participants. Overall, judging from analysts' expectations, monetary conditions are expected to shift towards easing over the coming year, however without leading to an increase in inflation.

Chart 1-11

The CPI-based real exchange rate*

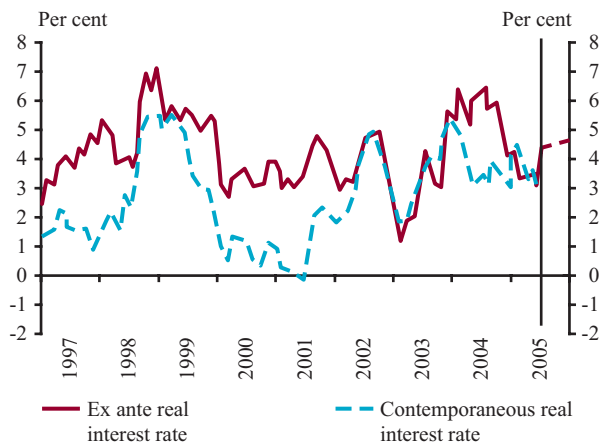


* Real effective exchange rate, 2000 average = 100 per cent. Higher values denote real appreciation. Our estimates of expectations for end-2005 and 2006 are based on a Reuters consensus on inflation and the exchange rate. We assumed that inflation in trading partner countries would not change, relative to a year-on-year average, and that expectations for the appreciation/depreciation of the effective exchange rate would be identical to those for the appreciation of the forint vis-à-vis the euro.

The decline in yields and exchange rate appreciation which started in early June were slightly different from the developments of this year as a whole. Yields fell significantly at longer maturities, due to declines in forward rates at the longer end. The spread over five-year euro forwards five years ahead fell from 200 basis points to 150 basis points. In spite of the fact that currencies in the region depreciated significantly and stayed below their June levels for several weeks, appreciation of the forint exchange rate remained unbroken in early July.

Chart 1-12

Real interest rate*



* Monthly averages of one-year government bond yields deflated by the current 12-month inflation and Reuters' one-year ex ante inflation consensus (year-end values, derived from expectations for average inflation using interpolation). Expectations for December 2005 were calculated using Reuters' inflation consensus (as at end-2006) on one-year yields (as at end-2005).

In addition to global influences, country-specific factors may also have played a role in this process in Hungary. It cannot be ruled out that the improvement in sentiment reflected a better assessment of the country's external equilibrium position, which may have been fuelled by the benign foreign trade data and the low level of imports, in particular. This, however, introduces uncertainty into the improvement in assessments of country risk, as other economic indicators point to higher imports relative to the official statistical data (for more details, see Box 4-5).

2. Inflation and its determining factors





2.1. Economic activity

Due to sometimes contradictory data developments, both European and domestic economic activity are surrounded by strong uncertainty. There are no signs of a decline or even of a sharp slowdown, and Hungary's external markets and its economy tend to suggest an upturn in the business cycle. The volatility of certain developments, however, increased significantly, rendering the pace of growth rather uncertain.

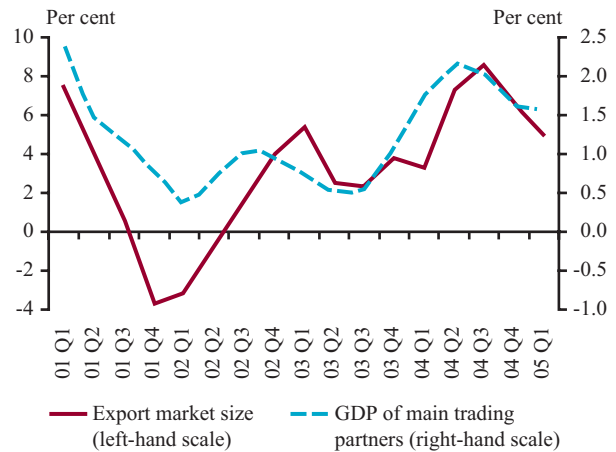
Modest growth in external demand

At the end of 2004, growth in both GDP and import-based external demand was slowing down at Hungary's most important foreign trading partners. At first glance, external demand showed signs of recovery in 2005 Q1, as GDP increased by nearly 1 per cent in Germany and by 0.5 per cent in the euro area, outperforming expectations. It seems, however, that this jump in growth was due to a significant drop in imports (imports fell by 1.4 per cent in Germany and by 1.6 per cent in the euro area relative to Q4 of 2004), driven primarily by an unexpected decline in domestic absorption (especially investments) by Hungary's foreign trading partners.

Data on economic activity in Q2 suggest continued growth in Hungary's export markets, although they do not point clearly in one direction. Industrial production, data on new orders and business sentiment indices, which only improved at the end of Q2 and only to a modest extent, indicate a subdued growth outlook. Oil prices stuck at a high level may also exercise downward pressure on the cost side, although this is partly counterbalanced by the weakening of the euro exchange rate vis-à-vis the US dollar. Eurostat

Chart 2-1

Size of Hungary's export markets* and GDP in its major foreign trade partner countries
(annualised quarter-on-quarter growth rates)

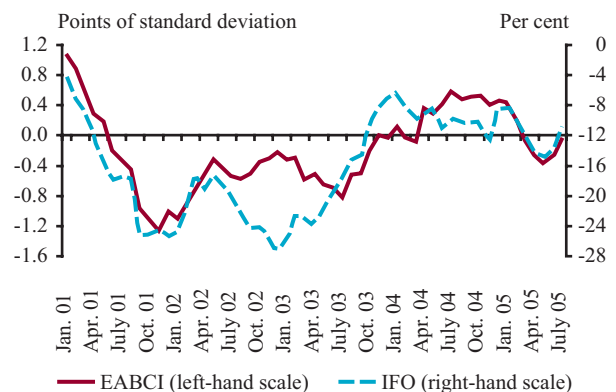


* Weighted average of imports of Hungary's major foreign trade partner countries.

has published an estimate of 0.3 per cent GDP growth (month-on-month) for Q2 for the euro area, with growth in Germany, which is Hungary's largest trading partner, stagnating. While an increase in imports may provide a possible explanation for this development, on the whole, it seems that the growth rate of external demand was subdued in Q2.

Chart 2-2

Business confidence index for the euro area (EABCI) and for Germany (IFO)

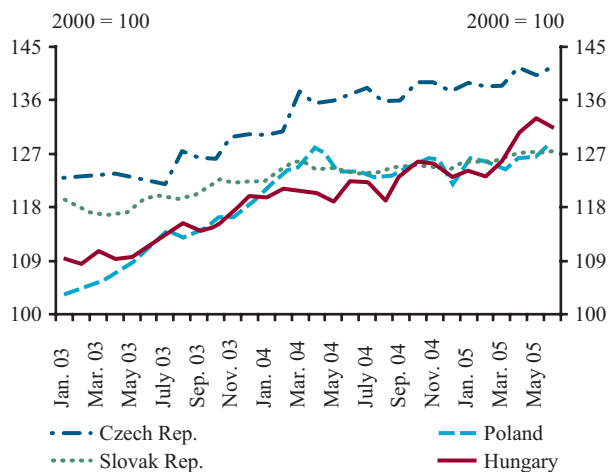


Fluctuations in domestic output

Although industrial output is also expanding (similarly to external demand), its rate of growth fluctuates to a rather great extent. Following the relatively high growth rates at end-2004 (gross industrial output increased by 8 per cent and its value added grew by 4.7 per cent in Q4 in annualised terms), data for 2005 Q1 indicate a slow-down (gross output remained almost flat and value added declined slightly). In Q2, however, growth in industrial output was outstanding again, even in regional terms, despite a slight drop in June.

Chart 2-3

Volume* of industrial output in the region



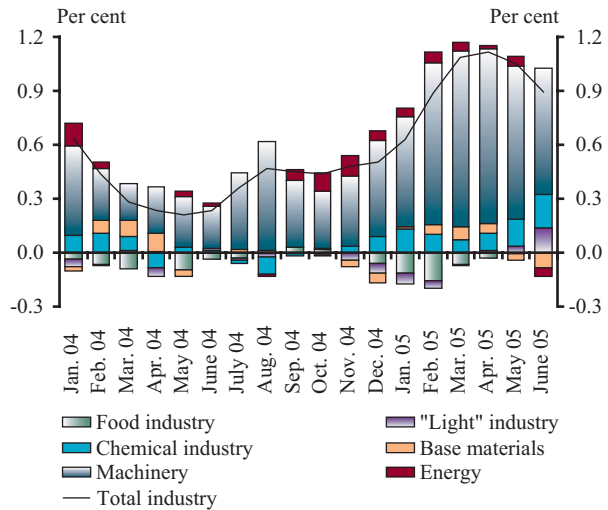
* Data adjusted for seasonal and calendar effects. Sources: CSO for Hungary (MNB adjustment) and Eurostat for other countries.

Growth in industrial output was primarily driven by an upturn in machinery and equipment with high export sales, while the expansion of the chemical industry also contributed to recent higher growth rates to a modest extent.

Following the slowdown in Q1, new export orders started to increase again which suggests that the recovery in output in Q2 can be primarily attrib-

Chart 2-4

Monthly growth rate of industrial output trends and sectoral contributions to growth



Sectors according to CSO sectoral codes: Food industry: DA; Light industries: DB-DE; Chemical industry: DF-DH; Commodity industry: DI-DJ; Machinery and equipment: DK-DM; Energy: E

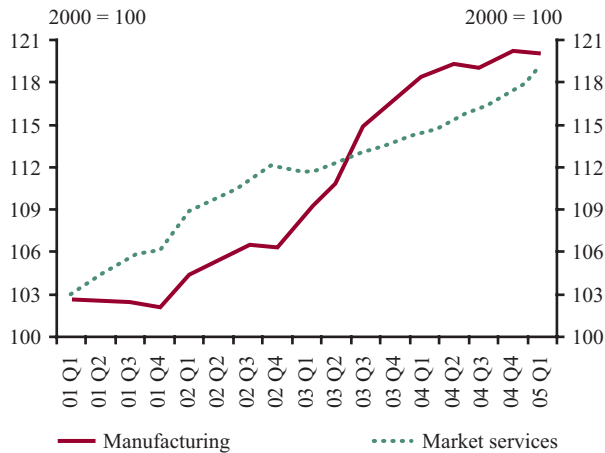
uted to improving opportunities for export sales. Based on recent industrial output data, momentum in domestic sales seems to be building up (following a four-year stagnation). However, only part of this upturn can be interpreted as an increase in net terms according to CSO's methodological notes.¹

Although – based on value added – manufacturing output was weaker in 2005 Q1 (a 1.2 per cent annualised decline), the recovery in gross output in April and May is likely to be reflected in value added in Q2 as well. In Q1, market services (which have a greater weight in GDP) increased by an annualised rate of 6.6 per cent, exceeding expectations. The output of transport and telecommunications services (i.e. mainly also sub-sectors reacting to external demand) continues to expand to the greatest extent, while that of commercial services linked to household consumption grew only moderately.

¹ In its latest publication on industrial output the Central Statistical Office stated that part of the increase in turnover was due to energy-traders' intra-group activity. Since only gross sales are observed, the increase in turnover appears in an accumulated form, causing domestic sales to be biased upwards.

Chart 2-5

Value added in manufacturing and market services



Construction expanded relatively significantly as early as Q1 (based on value added it grew by 15.7 per cent in annualised terms) and the gross monthly output data suggest that the sector will continue to grow in Q2 as well. Due to the slow-down in household investments and the growing difficulties of smaller construction companies, however, this momentum is mainly provided by large government-financed infrastructure investments (above all motorway construction).

Slowdown in household consumption came to a halt

In 2005 Q1, household consumption expenditures increased by a rate of 2.6 per cent in annualised terms, and this rate seems to have stabilized from 2004 H2. The recovery in retail trade turnover suggests some growth in household consumption in Q2 as well. Households, however, have been increasing their financial savings as well and thus, despite a more favourable income outlook, household consumption expenditures are growing at a relatively modest rate.

Chart 2-6

Households' consumption expenditure and retail trade turnover*

(annualised quarter-on-quarter growth rates)



* Based on total retail sales, i.e. including motor vehicles and fuels.

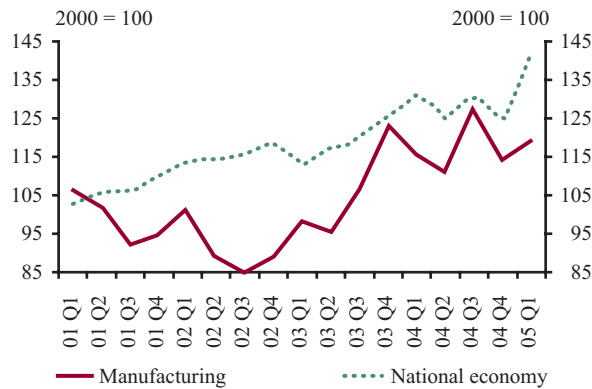
Growing uncertainty regarding investments

Indices reflecting changes in the business cycle relatively keenly (annual indices and trend time series) attest to a continued expansion of overall domestic gross fixed capital formation. Recently, however, almost every new data point significantly changed our assumption of the growth rate.² Based on available data on economic activity we did not consider a significant recovery in early 2005 likely in our last Report. Manufacturing investments, however, exhibited annualised growth of around 20 per cent in Q1, which still fell far short of the 61 per cent annualised growth in overall domestic gross fixed capital formation. As this latter growth was mainly driven by the transport and the telecommunications sectors and as the originally government-financed motorway construction is included in this part of the quarterly investments statistics, we assume that the expansion in these sectors contributed primarily to the outstanding increase in gross fixed capital formation in Q1.

² The growth rate in 2005 Q1 is nearly 13 per cent (i.e. exceeding 60 per cent annualised), pointing to a much sharper increase than suggested by the last actual data available for 2004 Q4 which indicates a significant drop. This is the third successive quarter in which seasonal adjustment has resulted in a significant revision. The adjusted time series also became noisier. In 2004, based on the CSO's seasonally adjusted and balanced data, double-digit percentage growth was followed by a double-digit percentage decline and vice versa quarter by quarter which means that the noise in the time series is significant, and this increase is difficult to explain.

Chart 2-7

Gross fixed capital formation

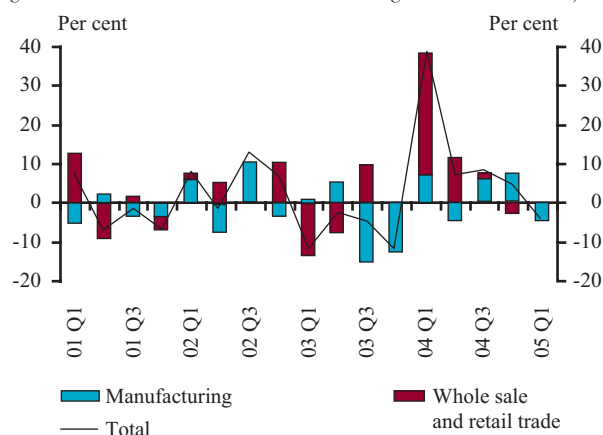


There were no developments in the indices relevant from the point of view of Q2 investments (e.g. capacity utilisation) which would point to a robust recovery of investments in the manufacturing industry. Thus, unless government-financed investments continue to expand at the outstanding rate witnessed in Q1, Q2 may prove to be a negative correction again in overall gross fixed capital formation, similarly to the case seen last year.

Chart 2-8

Inventories

(change in end-of-quarter stocks at constant prices for total: growth contribution for manufacturing and retail stocks)



Manufacturing and commercial inventories both declined slightly in 2005 Q1. Due to robust sales in manufacturing seen already in Q2, we assume that inventories of own production have continued to fall while growing imports may counterbalance

the stock of purchased goods even at the prevailing high sales volumes. Due to possible 'overstocking' in early 2004, commercial inventories are likely to decline further.

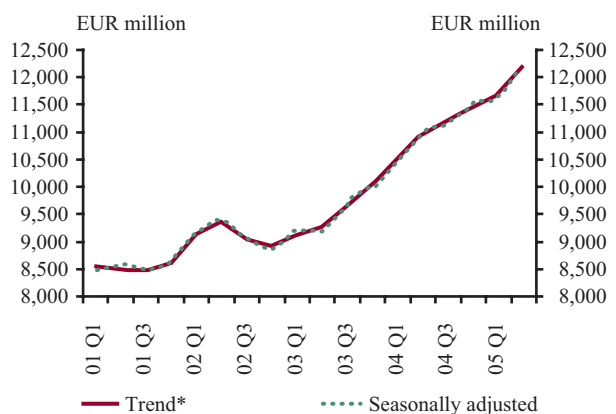
Changing exports orientation, questions in the data on imports

So far in 2005 goods exports have continued to increase steadily. Growth in goods exports is mainly driven by the machinery and equipment sub-sectors and within these, the production of communications technology consumer goods (essentially meaning the production of mobile telephones), which saw significant capacity expansion. Vehicle production was also outstanding. Although the growth rate of Hungary's exports continues to exceed that of its export markets, the increase of our market share within the EU-15 countries clearly came to a halt in early 2005. This was mainly due to the fact that since Hungary's accession to the EU in May 2004 the structure of the country's exports has started to change relatively quickly: the share of exports to new EU Member States grew significantly, primarily at the expense of the share of old Members. One explanation

Chart 2-9

Exports of goods

(at current prices)



* Time series excluding transitory effects. Data for June to be considered preliminary.

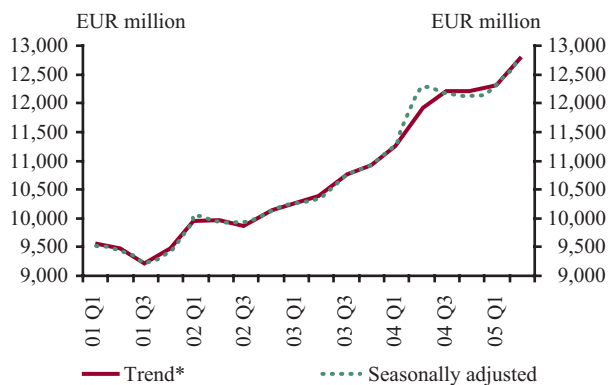
Inflation and its determining factors

nation for this reshaping of export orientation might be that EU-accession along with lifting customs frontiers might have deepened economic integration mainly among new entrants.

Following the earlier period of stagnation, goods imports also began to grow again in Q2. However, such imports remained subdued in terms of levels causing a significant improvement in the 2005 H1 trade balance compared to the previous year. Some caution should be exercised in assessing developments in imports because data are surrounded by a high degree of uncertainty. External balance and GDP data inconsistencies (see Section 4.3) cast doubt on the interpretation of official imports statistics because they point to higher imports than shown in official import statistics.

Chart 2-10

Imports of goods
(at current prices)



* For 2004 we have made adjustments to the trend data series for import purchases brought forward and for the public warehouse effect. The former adjustment meant deducting an amount of EUR 350 million from growth in imports in March and April 2004, which was added to growth during the rest of the year distributed evenly from May. Adjustment in the latter case meant deducting a total amount of EUR 419 million from the value of (the c.i.f. value) of imports during the period between May and July 2004. The value of the public warehouse adjustment was taken out from the data series for goods. Data for June to be considered preliminary.

Economic growth

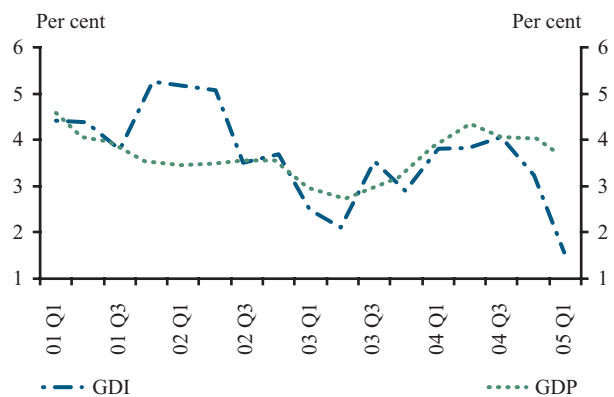
In 2005 Q1, GDP grew by 2.9 per cent relative to 2004 Q1. If we filter out calendar effects, however, the rate of expansion was higher, reaching 3.5 per

cent. On the production side, growth was fuelled more by services than goods production sectors, while on the expenditure side gross fixed capital formation and net exports contributed most to the increase.

If we correct GDP for the deterioration in the terms of trade, we arrive at the indicator Gross Domestic Income (GDI), which is more suited for assessing changes in the external balance than GDP. Due to the deteriorating terms of trade that marked all of 2004, this indicator has shown persistently slower growth than GDP in recent periods and due to the strengthening of the deterioration in terms of trade, it fell significantly behind GDP growth in 2005 Q1 (growing by only 1.6 per cent relative to 2004 Q1).

Chart 2-11

Gross Domestic Income (GDI)* and Gross Domestic Product
(annualised quarter-on-quarter growth rates)



* MNB estimate. Data on GDP are taken from the CSO's seasonally adjusted and balanced times series.

Based on manufacturing activity on the production side and consumption along with net exports on the expenditure side, we expect slightly more buoyant GDP growth in Q2. CSO's research arm, Ecostat published its flash estimate for Q2 on 15 August, expecting fairly strong, roughly 4 per cent year-on-year GDP growth. Yet, the uncertainty mentioned above with regard to import statistics renders assessment of these data more difficult.

Box 2-1 Uncertainties surrounding GDP

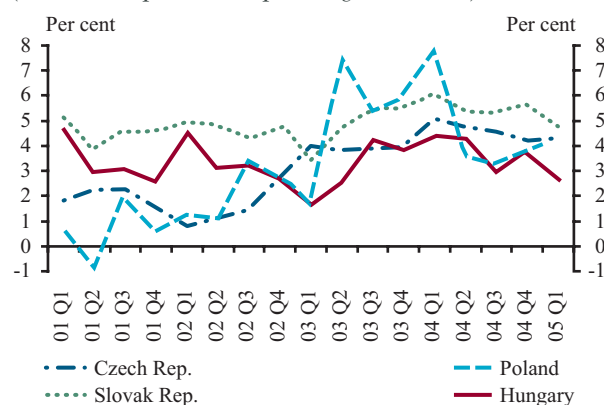
As we wrote in connection with foreign trade and external balance (see Section 4.3), last year's changes in the data collection system may have resulted in lower import data for some time. The question is whether net exports calculated in this manner, which show a better picture than the underlying developments, could also have an impact on GDP in addition to the current account.

In principle, on the expenditure side of GDP, uncertainty in the foreign trade data does not necessarily have an impact on aggregate GDP because as it is taken into account on the production side this will be indicated in the difference between the two sides in the 'statistical deviation' line with opposite signs. In practice, however, in the case of quarterly frequencies in particular, the estimate on the production side is even more uncertain than the one on the expenditure side. Consequently, if low recorded import turnover is not accompanied by an identically low level of domestic absorption,

the downward distortion of imports may imply higher GDP. Examining the recent developments in Hungary's GDP, we can conclude that while net exports have improved significantly since mid-2004, the item 'change in stocks and other, not specified uses' has become negative in a manner not hitherto fore experienced, and to a great extent. Hence, it is possible that the expenditure side, which increased suddenly as a result of measured imports that were lower than could be expected from underlying economic activity developments, may thus be closer to the lower GDP growth rate measured on the production side. This may suggest that the improvement in net exports due to the lower level of recorded imports could only have slightly increased GDP.

In summary, the above question marks increase the uncertainties surrounding the assessment of GDP and thus this year's fact and forecast figures regarding GDP should be treated with due caution.

Chart 2-12
GDP growth in the region*
 (annualised quarter-on-quarter growth rates)



* Seasonally adjusted data. Source: Czech Republic, Slovakia: OECD, Hungary: CSO, Poland: basic data from Eurostat, adjusted by the MNB.

With the exception of Poland, the pace of growth in the new EU entrants from Central and Eastern Europe is declining. In the last two years Hungary's rate of economic growth in quarterly terms was one of the lowest in the region.

2.2. Labour market

In 2005 H1, the labour market was characterised by moderate labour use, growing activity and unemployment, and subdued wage growth. All of this indicates that labour market tightness has continued to ease since 2004 H2. At the same time, however, the latest actual data suggest growing uncertainty surrounding labour use, unemployment and wage inflation.

Labour use continues to be moderate

The earlier recovery in labour use in the private sector came to a halt in 2004 H2 and seems to have remained flat since then. Based on total hours worked (the main indicator of labour use), this stagnation can be attributed to various sectoral developments. Despite growing economic activity in Q2, labour use in manufacturing is continuing to decline, while total hours worked in the segment of market services is increasing.

Labour use in manufacturing has been continuously declining since the end of 2000, despite the upsurge in industrial activity witnessed since 2003. In contrast to this, labour use in the market services sector has shown a smooth, dynamic increase in line with the strong growth in the value added of the sector, although since the beginning of this year this growth has mainly been attributable to the rise in labour intensity, as opposed to an increase in employment.

Similar to developments in the private sector, whole-economy employment (including employment in the government sector as well) also showed signs of stagnation in H1 2005. On the other hand, this general stagnation may be slightly counterbalanced by the increase in the number of recently announced vacancies, which started at end-2004. Although the number of new vacancies is still at the average level for 2002, it cannot be ruled out that a permanent rise may indicate a future turning point in the so far subdued labour demand of corporations.³

Chart 2-13

Total hours worked

(million hours per quarter)

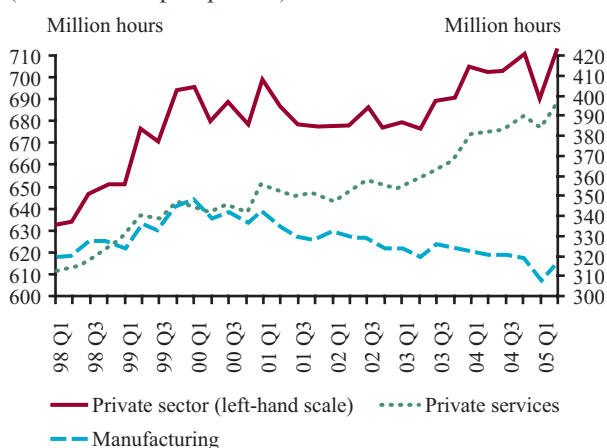
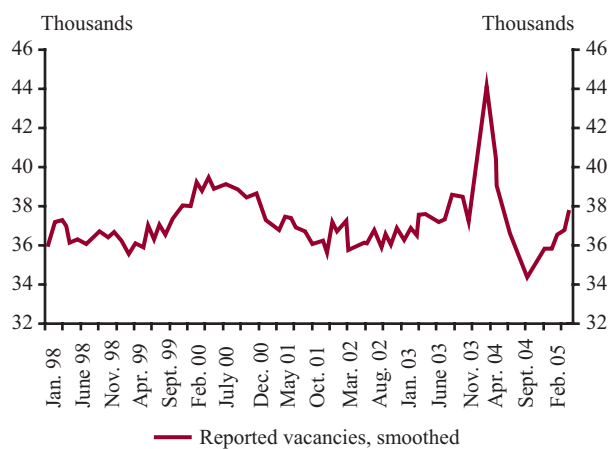


Chart 2-14

Recently announced vacancies



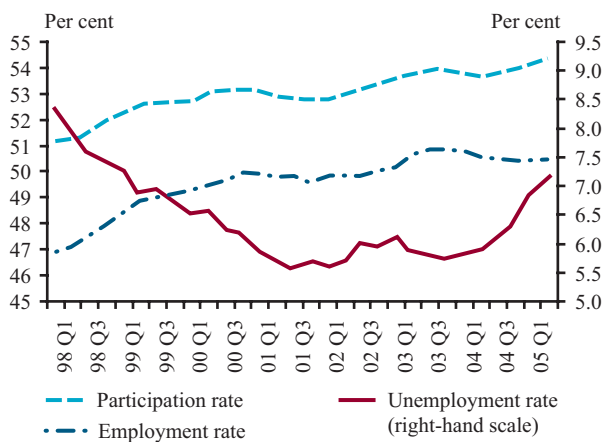
³ The volatility of the series of recently announced vacancies has increased considerably since January 2004. It is unclear so far whether this increase indeed reflects more volatile developments or a methodological change in the time series.

Growing activity, rising unemployment

In Q2, the number of unemployed continued to rise, a process which started at the end of 2003. The rate of unemployment is above 7 per cent and, adjusted for seasonal effects, it still shows a rising trend.⁴

Chart 2-15

Economic activity, employment and unemployment
(seasonally adjusted)



Based on recent developments it seems that in addition to the stagnation of labour demand, a growing labour supply (i.e. increased activity) may have also contributed to the rise in unemployment. Together, these two phenomena might be attributed to the decline in the participation rate and the simultaneous rise in the rate of activity. The upturn in labour supply despite subdued labour demand remains difficult to explain.⁵

Lower rate of wage growth in the private sector with large fluctuations

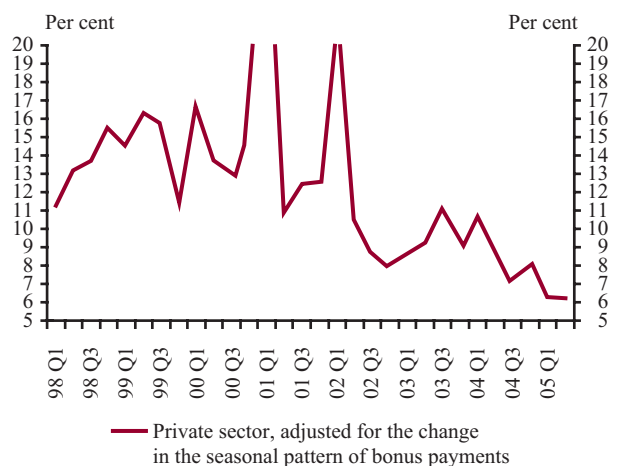
Wage inflation in the private sector continued to decline gradually in 2005 H2. On the one hand,

this phenomenon is in line with the easing of labour market tightness, while on the other hand it indicates that private sector companies are gradually adjusting to a low price inflation environment. Wage inflation fell in both manufacturing and market services, although the slowdown in manufacturing (especially in machinery and equipment) has been more significant since early 2005.

Chart 2-16

Private sector wage inflation*

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



* Due to adjustment for bonus payments, the time series is determined by the dynamics of regular payments. In 2004 and 2005, the adjustment for bonuses was undertaken according to our own estimate on bonus payments.

The rate of the slowdown of wage inflation, however, is surrounded by a rather high degree of uncertainty. The main reason for this uncertainty is that in 2004 irregular payments (i.e. bonuses) were paid at a time different from the usual period, and this made the assessment of developments at the level of annual indices more difficult in 2005 as well. Wage inflation adjusted for the irregular seasonal behaviour of bonus payments, however, is still on the decline. Accordingly, and taking into account

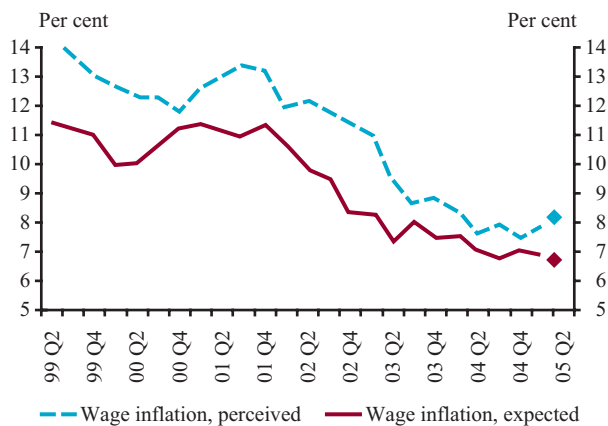
⁴ Although data for June in Q2 indicates a halt, we still consider this a temporary phenomenon, because of the noise of the time series.

⁵ Upon closer examination, the rise in labour market activity is primarily due to the fact that the willingness of inactive persons to look for jobs has increased, resulting in the inclusion of a group of inactive persons in the active category. In demographic breakdown, this development is most prevalent in the growing activity rate of women in the age group of 45-49 and in the activity of the age group of 20-24, which is declining to a smaller extent than in the past few years. This phenomenon is consistent with the hypothesis according to which some inactive persons are attached to the labour market nearly as closely as those with official unemployed status and this group could even be considered part of the whole-economy labour force reserve.

stagnating labour demand and the long-term decline in wage inflation expectations, we expect wage inflation to remain moderate in 2005 H2.

Chart 2-17

Wage inflation expectations and perceptions, MNB survey*



* Based on a corporate survey conducted by Tárki until 2005 Q1 and by Medián afterwards.

Faster growth in unit labour costs is expected to be temporary

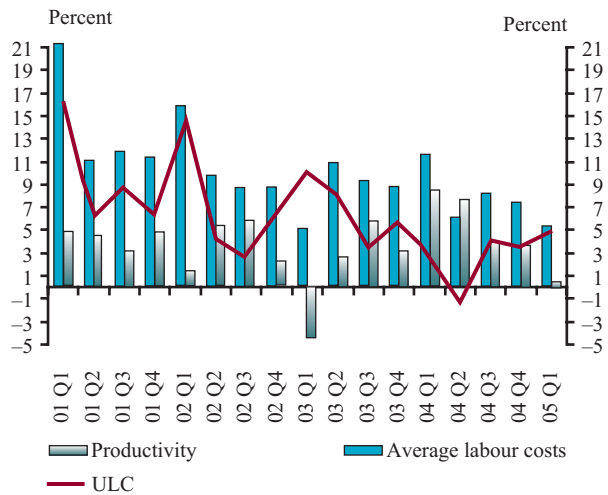
Despite the decline in wage inflation, the rate of growth in nominal unit labour costs in the private sector – one of the most dominant cost-side factors of inflationary pressure – accelerated slightly in 2005 Q1. This increase can be attributed to the fact that the rate of wage inflation exceeded that of productivity (wage inflation fell to a smaller extent). These developments were mainly due to unfavourable manufacturing productivity in Q1, while market services were characterised by a slight improvement in productivity, combined with slower growth in unit labour costs.

According to available data for April and May, however, it seems that the growth in the nominal unit labour costs in the private sector was quite short-lived. We expect that in Q2 the sharp rise in private sector productivity combined with the con-

Chart 2-18

Nominal unit labour cost, productivity and wages in the private sector

(annualised quarter-on-quarter growth rates)

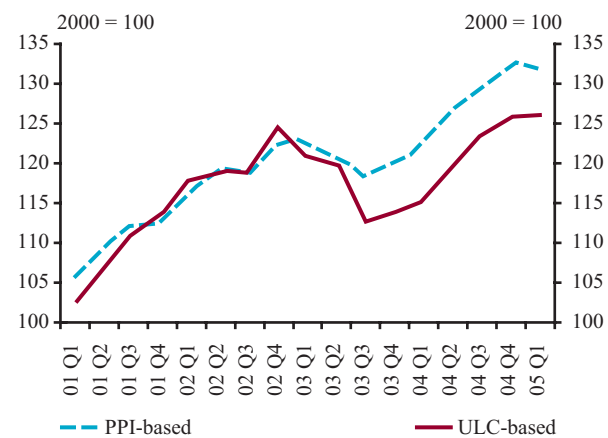


tinuing fall in wage inflation will lead to a decline in unit labour costs.

In Q1, real unit labour costs in the private sector (i.e. the index of nominal unit labour costs deflated by producer prices) also increased. The slight growth in real unit labour costs which started in 2004 H2 could indicate a fall in private sector companies' profitability, while at the same time it seems temporary, as we expect that in Q2 the

Chart 2-19

Real effective exchange rate indices*



* Real appreciation is shown by a higher value. PPI: Producer Price Index, ULC: Manufacturing Unit Labour Cost Index.

Magyar Nemzeti Bank

growing trend of real unit labour costs will come to a halt in line with the slowdown of nominal unit labour costs.

Despite the developments described above, the ULC-based real effective exchange rate index appreciated only slightly in Q1 due to the halt in the appreciation of the nominal effective exchange

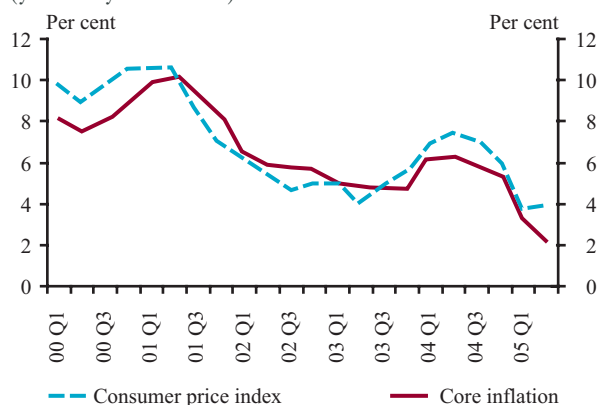
rate. The earlier appreciation trend of the producer price-based real effective exchange rate also seems to be coming to an end. On the whole, all these signs are pointing to a favourable change in the competitiveness of manufacturing companies in foreign markets and, according to data on Q2, this process is likely to continue further.

2.3. Inflation developments

In 2005 Q2, the consumer price index (CPI) stood at 3.8 per cent. This figure is 0.2 percentage points higher than the Q1 index. The rise of inflation in the last quarter was accompanied by a decline in core inflation, meaning that the increase in the price index is attributable to items falling outside the scope of core inflation.⁶

Chart 2-20

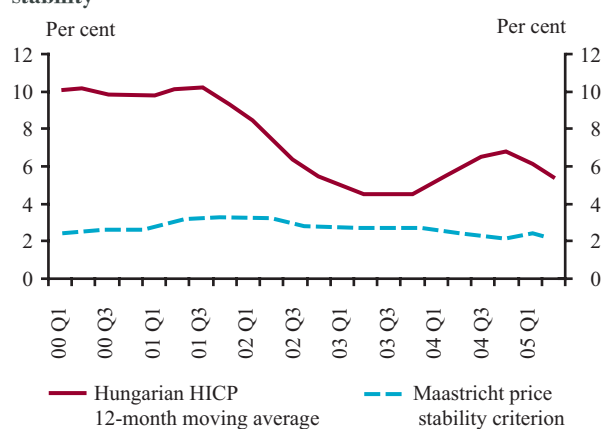
CPI and core inflation
(year-on-year indices)



In the previous quarter, the difference between the 12-month moving average of the Hungarian HICP measure and the value of the Maastricht price stability criterion continued to decrease.⁷

Chart 2-21

Hungarian HICP and the Maastricht criterion on price stability*



*Based on the 12-monthly moving average of annual indices. Based on the EU-25 from May 2004. We excluded Member States with a negative 12-month average inflation rate, following the practice of the European Central Bank applied in the 2004 Convergence Report.

Table 2-1

Main inflation indicators
(annual percentage changes)

| | 2004 | | 2005 | |
|--------------------------------|------|------|------|-----|
| | Q3 | Q4 | Q1 | Q2 |
| Core inflation | 5.9 | 5.3 | 3.2 | 2.2 |
| Unprocessed foods | 11.9 | 1.5 | -2.2 | 5.0 |
| Vehicle fuel and market energy | 7.6 | 10.0 | 6.4 | 8.7 |
| Regulated prices | 8.3 | 7.2 | 4.8 | 6.4 |
| CPI | 7.0 | 5.9 | 3.6 | 3.8 |

⁶ The CSO published the July 2005 CPI data after finalisation of our analysis. The data behind the 3.7 per cent rise in the CPI and the 1.6 rise in the core inflation reinforce the picture outlined in our analysis.

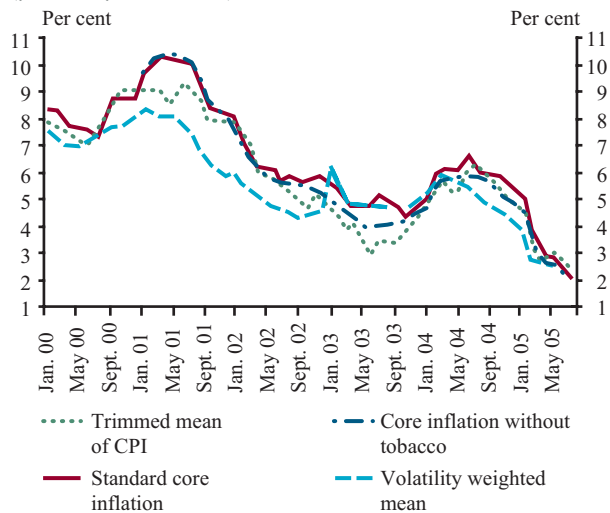
⁷ Although in the previous quarter the rate of domestic inflation was somewhat higher than in Q1, the 12-month moving average decreased as the indices of around 7 per cent in mid-2004 were replaced by indices of under 4 per cent.

Core inflation sinks to a low level

In 2005 Q2, the decline in the annual index of core inflation which started in mid-2004 continued, as confirmed by alternative indicators of underlying inflation as well. Similarly to 2005 Q1, the quarterly index of core inflation at the annual level was around 1 per cent.

Chart 2-22

Indicators of underlying inflation*
(year-on-year indices)



* 20 per cent was cut off the trimmed CPI on both sides. The Edgeworth indicator was weighted with a 24-month backward-looking variance. Core inflation is based on CSO publication; core inflation excluding tobacco is an MNB estimate. See Box 2-1 of our May 2005 Report on underlying inflation indicators.

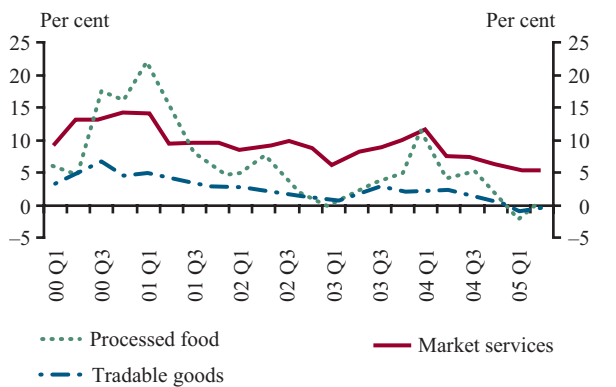
On the supply/cost side, core inflation declined due to numerous factors: strong import competition driven by moderate price increases of imported processed goods; the forint exchange rate, which appreciated during 2004 and has remained stable since then; elimination of most commercial restrictions since EU accession; and the growing number of competitors. Disinflation effects were also felt from the demand side: over the last year and a half the growth rate of household consumption fell well behind that seen in previous years. Inflation expectations also continued to decline. Although the decline in core inflation and its persistently low level cannot be associated with any

product group and, therefore, disinflation within the core inflation group may be considered general, it is still worth examining some of the processes in more detail.

Similarly to the previous quarter, prices of tradables also fell in Q2. It should be noted that within this group prices of non-durables have also been decreasing for the second consecutive quarter. Disinflation was facilitated by the fact that the inflation of tradables reached a historically low level in the EU as well.

Chart 2-23

Inflation of main core inflation items
(seasonally adjusted, annualised quarter-on-quarter growth rates)



The positive effect of Hungary's EU accession on import competition can be clearly felt in processed foods and alcoholic beverages. Following a decline in 2005 Q1, prices of processed foods remained basically flat in Q2, while the inflation of alcoholic beverage prices continues to be much lower than in the previous years, which may be partly due to the fact that excise duties were not raised in 2005.

Items of the consumer basket excluding core inflation increased inflation

In 2005 Q2, rising oil and raw food prices led to an increase in the CPI despite the general disinflation environment.

Inflation and its determining factors

Vehicle fuel prices increased by 7 per cent quarter-on-quarter in 2005 Q2, while oil prices (in euro terms) grew by 13 per cent. According to the data, rising vehicle fuel prices have not yet exerted general inflationary pressures.

Prices of unprocessed foods rose by nearly 8 per cent in one quarter. This increase, which considerably exceeded our previous expectations, could be attributed to the much higher-than-usual price increases of seasonal foods in the period. According to sector analysts, price rises were caused by weak supply, which was not counter-

balanced even by imported goods. A close look at the region reveals that the recent price increase was characteristic only of Hungary, while in the neighbouring countries prices of unprocessed foods remained flat or the price increases were much more modest.

The inflation of regulated prices grew significantly, by nearly 1.5 per cent, in the previous quarter. This, however, was due to the base effect: the 12 per cent decrease in pharmaceutical prices in April 2004 was excluded from the annual index.

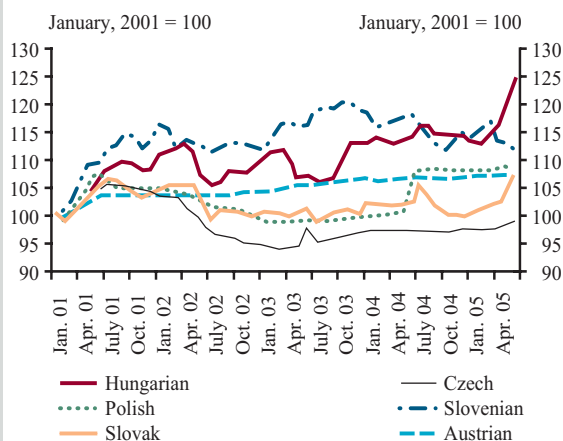
Box 2-2 Prices of unprocessed foods in the region

Over the past few months, Hungarian unprocessed food prices grew by more than 10 per cent, disregarding the normal seasonality pattern. Compared to the other EU Member States in the region, it can be stated that, apart from Hungary, a significant price rise in this product group has only occurred in Slovakia in the past few months, but here too the rise was lower than seen in Hungary.

Looking further back, we also see that since 2001 Hungary has experienced the largest increase in unprocessed food prices in the region.⁸ At the same time, however, the reasons for this are not clear as the price level of the two groups carrying the most weight within the product group (meat and seasonal foods) is not lower in Hungary than in a number of other EU Member States in the region. This

Chart 2-24

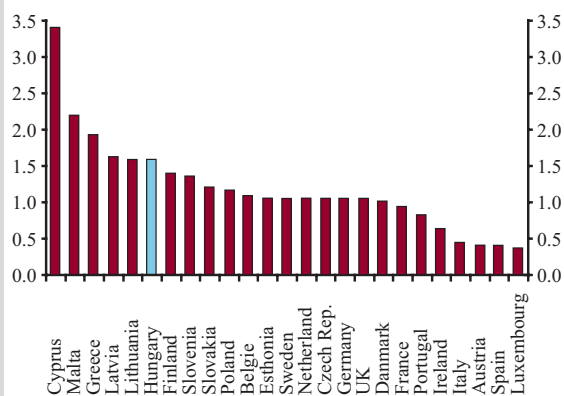
Prices of unprocessed foods in the region
(seasonally adjusted data)



Source: Eurostat.

Chart 2-25

Standard deviation of seasonally adjusted monthly indices of unprocessed food prices*
(percent)



* Source: Eurostat; Sample period: January 2001 to June 2005.

⁸ The comparison has been made since 2001 as this is the year from which comparable times series for each country have been available in the Eurostat NewCronos database.

means that the hypothesis of price convergence alone cannot fully explain this process. It should also be noted that the level of Hungarian prices of unprocessed foods is one of the most volatile in the European Union. This may be

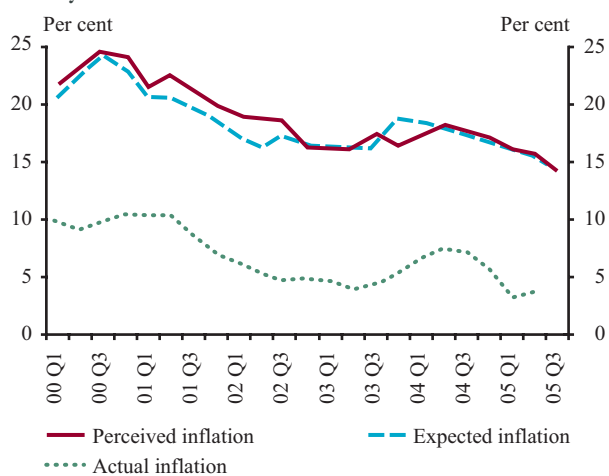
attributable to methodological differences in price statistics or structural differences in the product markets of certain countries (i.e. concerning regulations, the intensity of competition).⁹

Inflation expectations continue to decline

Disinflation in the recent past has been accompanied by a decline in perceived and expected inflation among economic participants. In 2005 Q2, households' inflation 'sentiment' improved according to an MNB survey and remained the same according to a GKI survey.

Chart 2-26

Perceived and expected inflation according to the MNB survey*

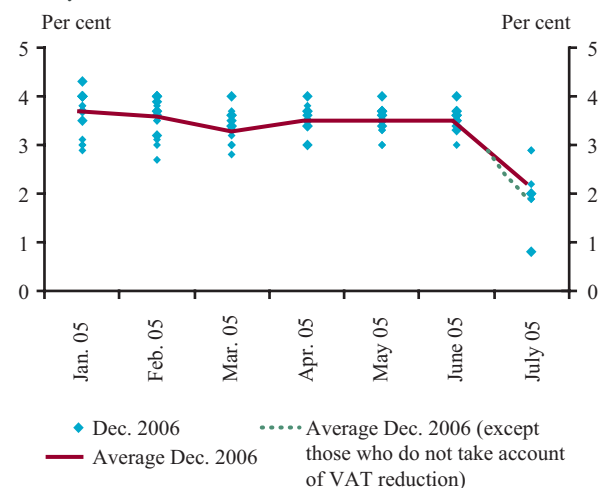


* On the basis of a household survey commissioned by MNB and conducted by Medián.

Professional analysts adjusted their inflation projections for December 2006 downwards by nearly 1.5 per cent in June, which could mainly be due to the government's announcement of the planned reduction in indirect taxes. If we exclude those analysts who, in all probability, did not take into account this reduction in taxes at the time of the survey, the decline in the average inflation value projected by analysts for end-2006 is even more considerable.

Chart 2-27

Inflation forecasts of professional analysts in the Reuters survey



⁹ For related methodological questions, see 'Harmonized indexes of consumer prices: their conceptual foundations' by Erwin Diewert, ECB, Working Paper No. 130, March 2002.

3. Inflation outlook





Our current forecast presents a possible macroeconomic path which is much more uncertain than usual. The reason for this uncertainty is that the recently disclosed measures to be taken by the government provide only partial information and other elements of the 2006–2007 fiscal policy remain unknown. As a result, we had to resort to assumptions regarding their potential total effect. While in the main scenario the measures disclosed so far practically do not change the longer-term inflation path, they significantly increase the risk to stability. All this makes the main scenario very fragile, as fiscal policy with a larger-than-assumed easing or tightening demand effect would involve different growth, inflation and equilibrium paths, which, by influencing sustainability

expectations, would also affect developments in monetary conditions.

Our main scenario projection is based on the assumption that inflationary environment will remain stable over the longer term. In our main scenario, a strengthening of inflationary pressure is anticipated on the demand side: household consumption and GDP are expected to grow faster than earlier. On the other hand, inflation in 2007 is expected to be tempered by the labour cost reducing effect of other measures planned to be taken by the government. Thus, core inflation – following a temporary fall in 2006 – is expected to be slightly above 3 per cent in 2007, i.e. somewhat higher than now, while the consumer price index is expected to be below 2 per cent next year and around 3 per cent in 2007.

Box 3-1 Our assumptions and the fragility of the main scenario

The change in our projection relative to May mainly results from the recent increase in oil prices, which are expected to be close to USD 60 in 2006 and 2007.

Our forecast takes account of the impact of the future measures recently disclosed by the government (tax reduction programme, expansion of the family support scheme, minimum wage increase; see details in Section 4). These measures themselves entail significant fiscal demand easing, while the details of further measures planned to counterbalance this are not yet

known. The implicit assumption underlying our macroeconomic projection is that the government will offset the deficit-boosting effect of the aforementioned measures in a partly contractionary manner through strict wage policy, increasing restrictions on investment spending and reducing the real value of non-determined current expenditure. All in all, in our main scenario – following the projected 1 percent expansion this year – fiscal policy in 2006 and 2007 is expected to stimulate demand by an aggregate impulse equalling 0.5–1 per cent of GDP.

Table 3-1

Major assumptions determining the main scenario

| | 2005 | 2006 | 2007 |
|-------------------------------------|-------|-------|-------|
| Central bank base rate (per cent)** | 6.75 | 6.75 | 6.75 |
| 5-year yield (per cent)** | 6.25 | 6.25 | 6.25 |
| EUR/HUF exchange rate (forint)* | 246.9 | 246.5 | 246.5 |
| USD/EUR exchange rate (cent)* | 124.5 | 120.5 | 120.5 |
| Brent oil price (US dollar/barrel)* | 54.1 | 59.5 | 58.0 |

* Annual average based on the projection of the July 2005 averages. ** Year-end figures.

A pick-up in business activity is anticipated

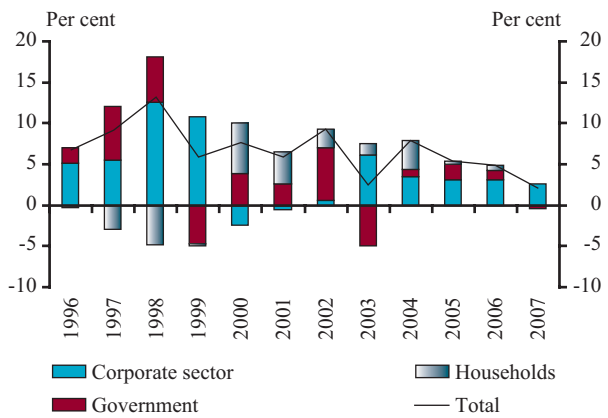
A steady increase in external demand and dynamic growth in Hungary's exports are expected for the coming period. Despite the fact that the expansion of Hungary's export markets was below the expected rate in 2005 Q1, a slow, but steady increase in external demand over the longer term is still assumed. The stagnation in domestic absorption at Hungary's trading partners remains an important uncertainty factor in assuming external demand, although there has been an improvement in European business expectations recently, which slightly brightens the picture.

The increase in Hungary's exports in the first half of the year significantly exceeded growth in external markets. This is considered to be a partly temporary phenomenon, and export growth is expected to return to its trend in the second part of the year. In our assessment, growing export possibilities will prompt companies to continuously expand their capacities, and thus *a steady increase in corporate investment is expected for the coming period*. However, broadly defined public investment, as opposed to the usual cyclic character of the process, is expected to increase only minimally in 2006 and then fall in 2007.

In the labour market the contrasting effects of the announced government measures significantly increase the uncertainty of the assessment of future trends. On the whole, a temporary interruption to the declining wage inflation trend is expected. The underlying reason for this is the planned differentiated rise in the minimum wage in 2006,

Chart 3-1

Investments by sectors*¹⁰



* Individual sectors' contribution to total investment.

the direct effect of which is expected to be only partly offset by the reduction in VAT. It is assumed that in 2007, despite strengthening domestic business activity, wage increases will slow down as a consequence of moderate labour demand.¹¹ Whole-economy employment is projected to grow slower than previously expected. In addition to the presumed staff reduction in the public sector, this projection is justified by the assumption that the number of employees in the business sector will decline slightly due to the rise in minimum wages. As a result of these processes, following an increase in 2004 and 2005, unemployment is expected to stabilise at around 7 per cent, i.e. at a higher-than-earlier level.

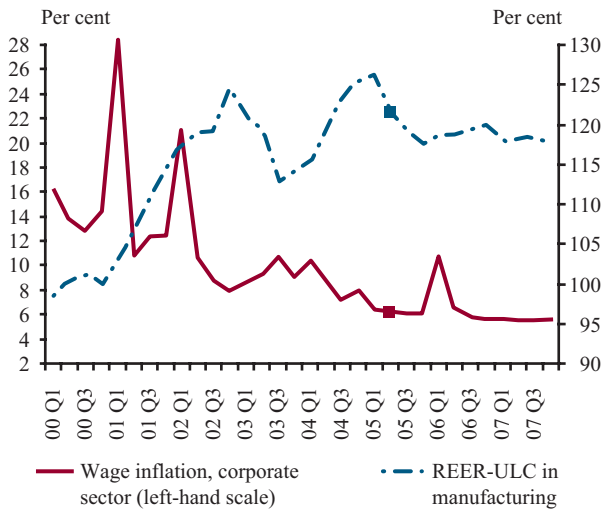
Amidst these conditions, in manufacturing the ULC-based real exchange rate is expected to weaken, which will initially be caused mainly by dynamic productivity growth and then by the assumed decline in incidental costs due to government measures.

¹⁰ It is important to emphasise that the distribution of investments between the corporate and public sectors after 2003 is very uncertain, as no precise data on the volume of motorway investment are available. The sectoral breakdown is released by the CSO with a delay of two years.

¹¹ Neither an increase in labour supply, nor a spillover effect (wage compression) was taken into account when assessing the effect of the rise in minimum wage.

Chart 3-2

Business sector wages and ULC-based real exchange rate*



* Wages: annualised quarter-on-quarter index, real exchange rate: 2000 = 100, increase denotes appreciation.

Following from the government measures disclosed to date – especially the VAT reduction and the expansion of the family support scheme – household real income is expected to increase, which will result in growing consumption, savings and fixed investment.¹² In our projection, the increase in real income is expected to be reflected in household consumption in a subdued manner. Increased cautionary savings is justified by

Chart 3-3

Consumption rate*



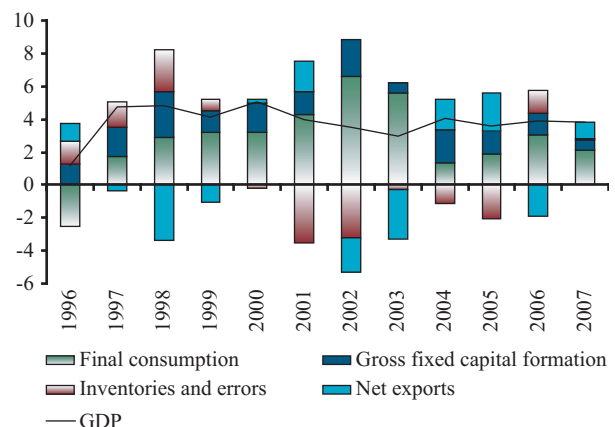
* Household consumption expenditure / disposable income. For 2004 the latter is an MNB estimate.

the persistently high level of unemployment. The increase in real income exceeding consumption is expected to result in a growth of household savings over the forecast period. Moreover, household investment may increase as well, and as opposed to the preceding period, growth in this field may also materialise in 2007.

Due to robust domestic demand, import demand is expected to slow down less rapidly than export growth, and thus net exports are projected to worsen in 2006 (or to stagnate, if the effect of the Gripen procurement is excluded). Nevertheless, a slight improvement towards the end of the forecast period is expected, which is related to the presumed decline in public investment.

Chart 3-4

Contributions to GDP growth*



* Contribution of individual factors to annual GDP growth, percentage points. The Chart also takes account of the settlement of the Gripen procurement.

In the main scenario, our business activity forecast shows a higher-than-earlier growth rate, due to increasing household consumption, which will follow from the announced government measures. Our GDP projection has moved upwards over the forecast horizon; growth rates of around 4 per cent are expected for 2006 and 2007, respectively. Taking into account that in our estimations the so-called potential growth rate of the economy deter-

¹² In connection with the rise in minimum wage, no direct income effect has been assumed (see Section 4.5).

mined by the supply side capacities is in the middle of the 3–4 per cent band, in the coming period a growth rate slightly above the level sustainable in the longer run is projected, i.e. a gradual increase in demand side inflationary pressure is expected.

In the main scenario inflation is expected to be around 3 per cent over the longer term

As a direct effect of the VAT reduction, the consumer price index is expected to decline by 1.4 percentage points in 2006. Compared to the maximum 1.9 percentage point effect, this assumes a partial pass-through (see Section 4.4). Towards the end of the forecast period the indirect effects of the VAT reduction, e.g. through the increase in consumption demand, are expected to gradually offset this price level reducing effect, thus boosting inflationary pressure.

It is assumed that imported inflation will continue to contribute to the development of a low-inflation environment. The effect of the low imported inflation assumed to be stable over the forecast period may be strengthened by a stable exchange rate and continuing fierce market competition. However, an increase in oil prices may result in a mounting inflationary pressure. At the same time, we are of the opinion that the effect of external factors will gradually weaken, and internal factors related to unit labour costs may play an increasing role in developments in inflation.

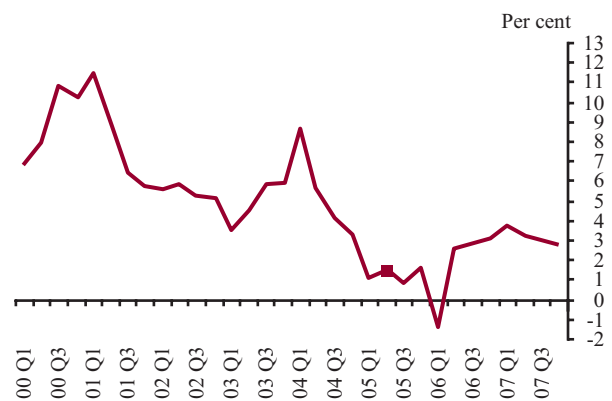
The expected favourable development of unit labour costs will increasingly offset demand-side inflationary pressure as time goes by. In 2006, the labour cost increasing effect of the rise in the minimum wage is projected to be offset by the anticipated dynamic growth in productivity and the gradual reduction in the health care contribution.

In 2007, labour costs will further be lowered by the planned 3 percentage point reduction in the social security contribution and the final termination of the health care contribution. Thus, assuming favourable developments in wages and productivity, in 2007 unit labour costs are expected to remain around the previous year's level in nominal terms as well.

Overall, we believe that the demand effect created by the pick-up in consumption and the above-trend economic path will only be slightly reflected in the consumer price index, due to the direct effect of the VAT reduction in 2006 and the decline in unit labour cost in 2007. Core inflation is projected to temporarily but significantly slow in 2006, and then to fluctuate at around 3 per cent in 2007, provided that the excise duty is raised as usual. Taking into account our assumptions for other items, the projected average increase in the consumer price index will be somewhat below 2 per cent in 2006 and near 3 per cent in 2007.

Chart 3-5

Trend inflation developments in the main scenario*
(annualised quarter-on-quarter growth rates, per cent)



* Weighted index created from four items (processed food, industrial goods, market services, alcoholic beverages and tobacco products) by the MNB for the purpose of analysis and forecasting, to estimate the core inflation index. For technical reasons, this indicator may, in the short term, be different from the core inflation index published by the CSO. Over the longer term, however, both follow identical trends. For 2006 Q1 and 2007 Q1 the usual increase in the excise duty of tobacco and alcohol is assumed (this adds an annual 0.2–0.3 percentage points to core inflation).

The uncertainty of the forecast has increased

In order to quantify the effects of the many government measures announced, several assumptions were made, which substantially increased the uncertainty of our forecast relative to the previous period. The incomplete character of the statements made by the government, which means that it is not yet known how the negative impact of the planned measures on the fiscal balance will be offset, renders our main scenario extremely fragile. However, this impact cannot be quantified.

The magnitude of the direct effect of the VAT reduction – an important factor of projection uncertainty – basically depends on product market characteristics, i.e. the strength of competition, demand elasticity for a given product and price transparency. When assessing the longer-term effects of the VAT reduction, other risk factors also arise. The most notable one is the uncertainty surrounding pass-through of the VAT reduction. Due to the increasing demand, this uncertainty is considered to represent an upside risk from the aspect of inflation. On the other hand, however, it would result in a lower-than-projected inflation path if, in contrast to our basic assumption, the VAT reduction was embedded in inflation expectations or labour supply reacted to the increase in consumer real wages more flexibly than supposed.

The rise in the minimum wage is not expected to result in a direct income-increasing effect, and neither a substantial wage compression effect, nor a positive labour supply reaction is projected as far as longer-term effects are concerned. These assumptions significantly increase the uncertainty of our projections.

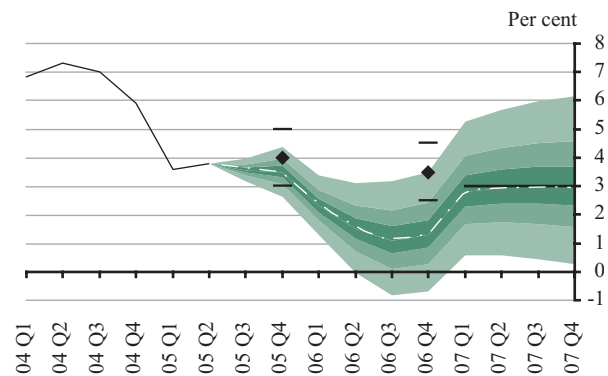
The uncertainties surrounding regulated prices, unprocessed food prices and the price of oil are also significant, although the concrete trends for 2007 are not clear.

Overall, *on the time horizon relevant from a monetary policy aspect, the uncertainty surrounding our inflation projection is comparatively balanced in 2007 around the main scenario.*

Chart 3-6

Inflation fan chart*

(percentage changes on a year earlier)



* The fan chart represents the uncertainty around the central projection. Overall, the coloured area represents a 90 per cent probability. The central, darkest area containing the central projection for the consumer price index illustrated by the white dotted line (as the mode of distribution) refers to 30 per cent of the probability. The year-end points and the continuous, horizontal line from 2007 show the value of the announced inflation targets.

In addition to the projection uncertainty appearing in the fan chart, there is also a significant sustainability risk, as the planned government measures themselves involve an effect which increases the government deficit significantly. It is uncertain how and to what extent this effect will be counterbalanced by the 2006 and 2007 budgets. It is assumed in our projection in an implicit manner that although future fiscal steps will partly offset the demand increasing effect of the planned measures and of the already known other determinants, the budget, on the whole, will stimulate demand.

4. Special topics





4.1. Background information on the projections

Macroeconomic information disclosed since the publication of the May Report has substantially influenced our projection for consumer price inflation for the entire forecast period. While for this year mainly the higher-than-expected price increase of items outside core inflation resulted in

a higher projection, the main underlying reason for changing our inflation projection for 2006 is the effect of the VAT reduction planned by the government.

In our current forecast, the projection for economic growth has gone through a substantial upward

Box 4-1 The effect of certain recently announced measures to be taken by the government on our forecast

Based on information that has become available since the publication of the previous *Report*, decisions made by the government markedly influence the future course of inflation and economic growth over the entire forecast horizon.¹³

The planned 5 percentage point reduction in the 25 per cent VAT rate results in important inflationary and real economy effects for 2006. Depending on the adjustment by the corporate sector, the officially announced VAT reduction resulted in a lower CPI projection for next year, while indirect effects are anticipated to contribute to a somewhat higher inflation and growth in 2007. In parallel with this, increasing household real incomes justify stronger-than-earlier growth in household consumption, which will accordingly be coupled with an upswing in economic growth over our entire forecast horizon (for more details, see Section 4.4).

The differentiated rise in the *minimum wage* justifies a faster increase in consumer prices from the supply side. Growing minimum wages result in increasing labour costs for the corporate sector (see details in Section 4.5).

Through the decline in labour costs, the reduction in 2007 of the *social security* contribution paid by employers and the termination of the lump-sum *health contribution* may partly compensate for the aforementioned secondary, positive inflationary effects deriving typically from the increase in consumption demand.

In 2006, additional household income will be generated by the announced modifications of the *family support scheme* as well. Although the scope of family tax benefits will become much narrower, the amount of the family allowance will almost double at the same time. Since this latter effect significantly overcompensates the termination of tax benefits, this modification may substantially contribute to the increase in household income and consumption demand.

Overall, the announced measures by themselves involve fiscal easing and an increase in the deficit. Although it is assumed that part of this will be offset by the fiscal policy in a demand-reducing manner, the fiscal path implicitly underlying our macroeconomic projection is still laxer compared to the May projection.

¹³ With respect to the announced government decisions, we have taken into account that information which was published officially in the webpage <http://www.magyarorszag.hu/100lepes> [in Hungarian only].

modification. GDP growth, which is stronger than published in the May Report, is mainly determined by the fiscal measures announced by the government (tax reduction, increasing support to

families). These measures will contribute to considerable growth in household income through several channels, resulting in a higher consumption path.

Box 4-2 The effect of the Gripen fighter plane procurement on our forecast

Pursuant to the agreement concluded with Sweden in 2001 (and amended in 2003) Hungary is to purchase 14 Gripen fighter planes in 2006 and 2007. As was emphasised in our previous Report, in the GDP and current account statistics based on accrual accounting and in the ESA deficit of general government the total expenditure will have to be shown upon the planes' physical delivery, although the Hungarian state will pay the acquisition costs of the planes in equal instalments between 2002 and 2016.¹⁴ A similar accounting methodology was followed in 1993 as well, when 28 MIG-29 aircraft were purchased in the framework of the financial settlement of earlier Russian government debts to Hungary.

Pursuant to this accounting methodology, the procurement of the fighters during 2006 and 2007 will have a significant one-off effect on developments in certain components of GDP and the current account deficit. In each of these two years the value of the aircraft supplied is estimated to be around 0.5 per cent of GDP, thus the value of public consumption will grow accordingly, while net exports – as a result of the increase in imports – are expected to worsen accordingly. Overall, accrual accounting of the aircraft does not result in any change in our GDP projection. At the same time, in each of these two years the current account deficit will increase by 0.5 per cent of GDP.

Table 4-1

Effect of the Gripen Agreement on the 2006–2007 forecast

| | <i>In our forecast: taking the Gripen procurements into account</i> | | <i>Memo: excluding the Gripen procurements</i> | |
|--|---|------------|--|------------|
| | 2006 | 2007 | 2006 | 2007 |
| Public consumption | 6.5 | 0.4 | 1.4 | 0.4 |
| <i>Domestic absorption</i> | <i>5.7</i> | <i>2.7</i> | <i>5.2</i> | <i>2.7</i> |
| Imports | 10.6 | 7.9 | 9.8 | 7.9 |
| GDP | 3.9 | 3.8 | 3.9 | 3.8 |
| Current account deficit (as percentage of GDP) | 8.6 | 7.6 | 8.0 | 7.1 |

¹⁴ See details of the macrostatistical recording of the Gripen Agreement in Section 4.9 of the May 2005 *Quarterly Report on Inflation*.

Table 4-2

Changes in the central projections relative to May
(percentage changes on a year earlier unless otherwise indicated)

| | 2004 | 2005 | | 2006 | | 2007 |
|--|-----------------|-------------|--------------|------|----------|-------------|
| | Actual/estimate | Projection | | | | Current |
| | | May | Current | May | Current | |
| Inflation (annual average) | | | | | | |
| Core inflation ¹ | 5.8 | 2.4 | 2.2 | 3.3 | 1.1 | 3.2 |
| Consumer price index (CPI) | 6.8 | 3.3 | 3.6 | 3.4 | 1.6 | 2.9 |
| Economic growth | | | | | | |
| External demand (GDP-based) | 1.9 | 1.5 | 1.6 | 2.2 | 2.0 | 2.0 |
| Fiscal demand effect ² | -0.5 | 0.1 | 0.8 | n/a | 0.5-1.0* | (-0.5)-0.0* |
| Household consumption | 2.5 | 2.1 | 2.4 | 2.8 | 3.5 | 3.0 |
| <i>Memo: Household consumption expenditure</i> | 3.1 | 2.7 | 2.7 | 3.0 | 3.8 | 3.5 |
| Gross fixed capital formation | 7.9 | 4.5 | 5.4 | 5.2 | 4.9 | 2.1 |
| <i>Domestic absorption</i> | 2.2 | 3.1 | 1.2 | 3.4 | 5.7**** | 2.7**** |
| Exports | 14.9 | 8.5 | 11.1 | 9.6 | 8.8 | 9.2 |
| Imports | 11.6 | 7.7 | 8.0 | 9.0 | 10.6**** | 7.9**** |
| GDP | 4.0 (4.2)** | 3.5 (3.3)** | 3.6 (3.4) ** | 3.6 | 3.9**** | 3.8**** |
| Current account deficit | | | | | | |
| As a percentage of GDP | 8.9 | 8.6 | 7.6*** | 8.2 | 8.6**** | 7.6**** |
| EUR billions | 7.1 | 7.5 | 6.7*** | 7.6 | 8.0**** | 7.6**** |
| External financing requirement | | | | | | |
| As a percentage of GDP | 8.4 | 8.0 | 6.9*** | 7.4 | 7.8**** | 6.8**** |
| Labour market | | | | | | |
| National economy gross earnings ³ | 6.1 | 8.4 | 8.2 | 6.3 | 6.5 | 5.4 |
| National economy employment ⁴ | -0.5 | -0.5 | -0.3 | 0.5 | 0.1 | 0.6 |
| Private sector gross average earnings | 9.3 | 7.0 | 6.8 | 6.6 | 7.2 | 5.6 |
| Private sector employment ⁴ | -0.3 | -0.1 | 0.2 | 0.8 | 0.4 | 1.0 |
| Private sector unit labour cost | 3.1 | 2.9 | 2.9 | 1.8 | 2.1 | 0.2 |
| Household real income | 4.0***** | 3.4 | 3.7 | 2.7 | 4.6 | 2.1 |

¹ For technical reasons, our projected indicator may, in the short term, be different from the index published by the CSO. Over the longer term, however, both follow identical trends. The cause of this technical discrepancy is that core inflation calculated by CSO cannot accurately be reproduced from the available group of CPI data, since the CSO breaks down several groups into core inflation items and sub-items excluded from such (e.g. pharmaceuticals).

² Calculated from the so-called augmented (SNA) type indicator; a negative value means a narrowing of aggregate demand. ³ 13th-month salaries carried over from 2004 to January 2005 in the public sector cause a downward bias of the 2004 wage growth indicator and an upward bias of that in 2005. ⁴ According to CSO labour force survey.

* Assumption for the fiscal impulse inherently consistent with the macroeconomic path; due to the lack of a draft bill on the 2006-07 budget, we cannot provide a detailed fiscal projection ** Due to the leap-year, GDP growth excluding calendar effects, which characterises business cycle trends better, may have been about 0.2 per cent lower in 2004 and 0.2 per cent higher in 2005. *** The uncertainty in trade statistics (see section 4. 3) may imply a higher current account deficit / external financing requirement by near 1 percent of GDP for 2005. **** Our projection allows for the adverse impact of the procurement of Gripen planes on the current account and its contribution to an increase in public consumption and imports. *****MNB estimate.

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Annual consumer price inflation stood at 3.8 per cent in 2005 Q2, which is about 0.3 percentage point higher than our previously published short-term projection. The fact that the actual figure slightly exceeds our projection is a result of a higher-than-expected price increase in certain products which are not included in the scope of core inflation (motor fuel, seasonal products), while core inflation was somewhat below our expectations. As we have considered the inflation shock observed in case of products excluded from core inflation to be a persistent one, partly as a result of developments in world market prices (motor fuel) and partly as a result of the domestic supply and demand structure (unprocessed food), influenced by actual data, our price projection for these items has been modified upwards, i.e. towards higher inflation. Changes in the EUR/HUF exchange rate, which constitute one of our major assumptions, have not

had any important effect on our projection this time. However, as mentioned when evaluating the actual figure, the effects on inflation of the upward trend in the futures oil price path are rather substantial. As the US dollar has also appreciated recently, the increase in oil prices in the world market influences forint prices in an amplified manner. As oil prices are expected to remain persistently high, our projection reckons with increasing cost-push inflation both over the short and long run.

Our projection for the 2006 consumer price inflation has mainly been moderated by the technical effects of the VAT reduction. The expected upswing in economic activity will follow from a dynamic growth in domestic demand, which will mainly materialise in the household sector's stronger consumption demand, as a consequence of dynamically increasing incomes.

Table 4-3

Changes in the major assumptions relative to May*

| | May 2005 projection | | Current projection | | | Change (percentage) | |
|-------------------------------------|---------------------|---------------|--------------------|---------------|---------------|---------------------|-------------|
| | 2005 | 2006 | 2005 | 2006 | 2007 | 2005 | 2006 |
| Central bank base rate (per cent)** | 7.5 | 7.5 | 6.75 | 6.75 | 6.75 | -0.75*** | -0.75*** |
| 5-year yield (per cent)** | 7.0 | 7.0 | 6.25 | 6.25 | 6.25 | -0.75*** | -0.75*** |
| EUR/HUF exchange rate | 247.4 | 248.2 | 246.9 | 246.5 | 246.5 | -0.2 | -0.7 |
| EUR/USD exchange rate (cent) | 129.9 | 129.5 | 124.5 | 120.5 | 120.5 | -4.1 | -6.9 |
| Brent oil price (USD/barrel) | 52.6 | 52.6 | 54.1 | 59.5 | 58.0 | 2.9 | 13.1 |
| <i>Brent oil price (HUF/barrel)</i> | <i>10,028</i> | <i>10,087</i> | <i>10,788</i> | <i>12,181</i> | <i>11,880</i> | <i>7.6</i> | <i>20.8</i> |

* Annual averages. Based on 2005 average exchange rates and futures oil prices.

** Year-end figures.

*** Difference, percentage points.

Box 4-3 Impact of data revisions

The latest data released by the CSO are based on a general data revision with retroactive effect as from 2003. The 2003 annual GDP index was revised 0.1 percentage point downward, while that of 2004 0.2 percentage points up. Household consumption expenditure and gross fixed capital formation for both 2003 and 2004 also underwent a downward revision, while the decline in imports exceeded that of exports in 2004. Thus, the data revision resulted in a decline in domestic absorption in 2004, while the contribution of net exports to GDP growth increased.

Table 4-4

Changes in the main components of GDP use and the 2005 Q1 volume indices
(changes relative to previous year)

| | March publication of data | | June publication of data | |
|-----------------------------------|---------------------------|------|--------------------------|------|
| | 2003 | 2004 | 2003 | 2004 |
| Household consumption expenditure | 8.1 | 3.5 | 7.8 | 3.1 |
| Public consumption | 5.4 | -2.1 | 6.5 | -3.9 |
| Gross fixed capital formation | 3.4 | 8.3 | 2.5 | 7.9 |
| Domestic absorption | 5.4 | 3.3 | 5.7 | 2.2 |
| Exports | 7.6 | 15.7 | 7.8 | 14.9 |
| Imports | 10.4 | 14.0 | 11.0 | 11.6 |
| GDP | 3.0 | 4.0 | 2.9 | 4.2 |

4.1.1. Impact of an alternative interest rate and exchange rate assumption on our projection

In line with our earlier practice we present what impact it would have on our projection if we used the expected path drawn by the Reuters analysts' survey, instead of our interest rate and exchange rate assumptions.

We assumed that the central bank base rate will remain at 6.75% over the entire forecast period. By contrast, Reuters analysts expect a gradual decline in the central bank's base rate level, which resulted in an interest rate path 1 percentage point lower than assumed by us by the end of 2006. The underlying assumption is that over the entire forecast period the exchange rate will remain at the average rate of last month's (July) trading days, which was HUF 246.5 per EUR in the current Report. The average of professional analysts' exchange rate expectations shows a more depreciated path (the difference at end-2006 is more than 2.5 per cent).

The interest rate and exchange rate paths expected by Reuters analysts would, relative to our central projection, result in an inflation projection 0.1 percentage point, 0.3 percentage points and 0.2

Chart 4-1

Central bank base rate path based on the July Reuters survey and the assumption with a constant interest rate

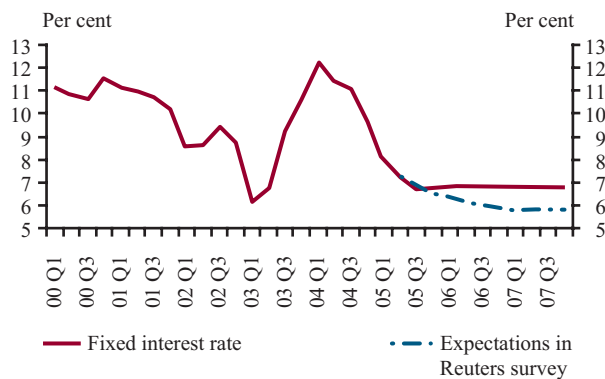
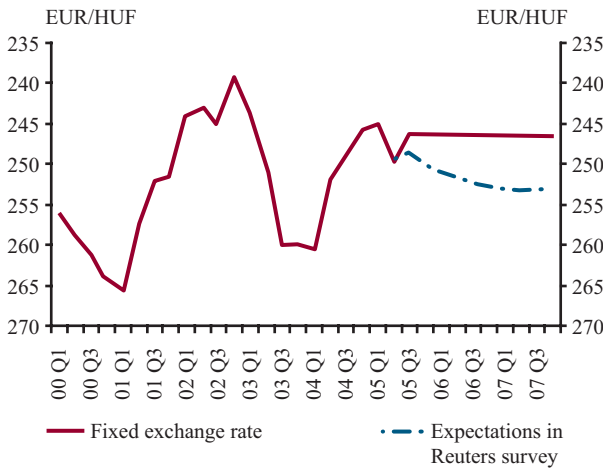


Chart 4-2

Exchange rate based on the July Reuters survey and the assumption of a constant exchange rate*



* Reverse scale.

percentage points higher at end-2005, end-2006 and end-2007, respectively. Provided that the alternative interest rate and exchange rate assumptions hold true, our projection for GDP growth in 2006 and 2007 would temporarily increase by 0.1 percentage point.

4.1.2. A comparison of our projections with those of other institutions

Our projections for the developments in inflation and economic activity in 2005 are broadly identical with other analysts' opinion. However, there are substantial differences in the trends anticipated for 2006. In terms of both the prospective developments in consumer prices and the magnitude of economic growth, our projections are more optimistic than those of the majority of analysts. The underlying reason for this divergence may partly be the difference between the basic assumptions applied and partly the different judgement of the effects of the announced government measures.

Table 4-5

The MNB's main scenario versus other projections

| | 2005 | 2006 | 2007 |
|---|------------------------|--------------------------------|---------|
| Consumer price index (average annual increase, per cent) | | | |
| MNB | 3.6 | 1.6 | 2.9 |
| Consensus Economics (July 2005) ¹ | <i>3.6 – 3.7 – 3.9</i> | <i>1.8 – 2.6 (2.3)** – 3.5</i> | n/a |
| European Commission (spring 2005) | 3.8 | 3.6 | n/a |
| IMF (April 2005) | 4.0 | 3.8 | n/a |
| Reuters survey (July 2005) ¹ | <i>3.4 – 3.7 – 3.8</i> | <i>1.3 – 2.3 (2.0)** – 3.5</i> | n/a |
| World Bank (July 2005) | 3.8 | n/a | n/a |
| GDP (annual growth, per cent) | | | |
| MNB | 3.6*** | 3.9 | 3.8 |
| Consensus Economics (July 2005) ¹ | <i>3.1 – 3.4 – 3.7</i> | <i>3.2 – 3.6 – 4.0</i> | n/a |
| European Commission (spring 2005) | 3.9 | 3.8 | n/a |
| IMF (April 2005) | 3.7 | 3.8 | n/a |
| Reuters survey (July 2005) ¹ | <i>3.4 – 3.5 – 3.6</i> | <i>3.4 – 3.7 – 4.1</i> | n/a |
| World Bank (July 2005) | 3.5 | n/a | n/a |
| Current account deficit (in EUR billions) | | | |
| MNB | 6.7* | 8.0**** | 7.6**** |
| Consensus Economics (July 2005) ^{1,2} | <i>6.4 – 7.1 – 8.1</i> | <i>6.6 – 7.6 – 8.6</i> | n/a |
| Reuters survey (July 2005) ¹ | <i>6.6 – 7.0 – 7.2</i> | <i>6.8 – 7.1 – 8.0</i> | n/a |
| Current account deficit (as a percentage of GDP) | | | |
| MNB | 7.6* | 8.6**** | 7.6**** |
| European Commission (spring 2005) | 8.7 | 8.2 | n/a |
| IMF (April 2005) | 8.6 | 8.1 | n/a |
| World Bank (July 2005) | 8.7 | n/a | n/a |
| General government deficit (according to ESA-95, as a percentage of GDP) | | | |
| MNB | 4.6 – 6.0**** | n/a | n/a |
| Consensus Economics (July 2005) ¹ | <i>4.0 – 4.7 – 5.6</i> | <i>3.8 – 4.7 – 6.0</i> | n/a |
| European Commission (spring 2005) ⁴ | 5.0 | 5.2 | n/a |
| Reuters survey (July 2005) ¹ | <i>5.0 – 5.1 – 5.4</i> | <i>4.5 – 4.8 – 5.0</i> | n/a |
| World Bank (July 2005) | 4.0 | n/a | n/a |
| Projections on the size of Hungary's export market | | | |
| MNB | 4.0 | 5.7 | 5.0 |
| European Commission (spring 2005) ³ | 6.2 | 6.3 | n/a |
| IMF (April 2005) ³ | 6.4 | 6.9 | n/a |
| Projections on the GDP growth rate of Hungary's trading partners | | | |
| MNB | 1.6 | 2.0 | 2.0 |
| European Commission (spring 2005) ³ | 1.6 | 2.1 | n/a |
| IMF (April 2005) ³ | 1.6 | 2.2 | n/a |

MNB projections are so-called 'conditional' projections. Therefore, they cannot always be directly compared to other projections.

* The uncertainty in trade statistics (see section 4.3) may imply a higher current account deficit by nearly 1 percent of GDP for 2005. ** The consensus in parentheses has been calculated excluding the analysts who do not take account of the tax effect. *** Excluding leap-year effect. **** Our projection takes account of the approximately 0.5 per cent GDP-proportionate negative effect on the current account resulting from the Gripen procurement. ***** The band indicates the uncertainty of the application of the ESA methodology in Hungary.

¹ In addition to the averages of polled analysts' responses (the values in the middle), the smallest and largest values are also indicated in italics for the Reuters and Consensus Economics surveys in order to illustrate dispersion. ² Consensus Economics Inc. (London) 'Eastern Europe Consensus Forecasts' specifies current account projections in US dollars, therefore they are converted at the EUR/USD exchange rate assumed in the current Report. ³ Values calculated by the MNB; the projections of the named institutions regarding individual countries are considered with the weights used for calculating the MNB's own external demand indicators. This way, the forecast may differ from the numbers published by the aforesaid institutions. ⁴ For the sake of comparability the projection of the European Commission was corrected taking into account payments to the private pension fund system. Source: Consensus Economics Inc. (London) Eastern Europe Consensus Forecasts (July 2005); European Commission Economic Forecasts, spring 2005; IMF World Economic Outlook (April 2005); Reuters survey, July 2005; World Bank EU-8 Quarterly Economic Report (July 2005).

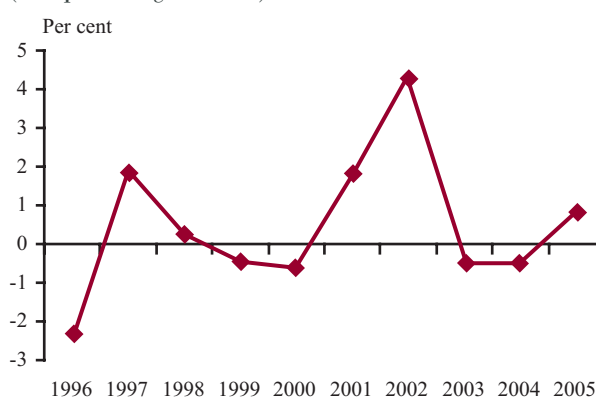
4.2. Developments in general government deficit indicators

Fiscal expansion in 2005 against a possibly lower ESA deficit

Whereas in our central projection, the 2005 ESA and GFS deficits will drop in comparison to 2004, the so-called augmented (SNA) deficit, our estimate of the general government balance taken in a broad sense, indicates an increase in 2005: from 8.0 per cent of GDP projected in the May 2005 issue of the Report, it has risen to 9.1 per cent. The primary reason for the opposite changes in the various indicators is that a considerable part of the costs of motorway construction have been removed from the GFS and ESA deficits, and in our analytical framework, cash flows originating from the sales of motorway sections and similar transactions are not considered

Chart 4-3

Fiscal demand impact, 1996-2005
(as a percentage of GDP)



as deficit reducing revenues, i.e. those from the private sector with a fiscal tightening impact.

Overall, the fiscal demand impact indicator suggests a significant fiscal expansion for 2005 (in our

Table 4-6

Fiscal indicators in our baseline scenario
As a percentage of GDP

| | Actual/Estimate | | Projection | |
|--|-----------------|------|---------------|---------------|
| | 2002 | 2003 | 2004 | 2005 |
| 1) GFS balance | -10.1 | -6.0 | -6.4 | -5.3 |
| 2) Adjustment of the interest balance according to ESA | 0.0 | 0.0 | -0.2 | -0.3 |
| 3) Other corrections on ESA basis | +0.9 | -1.2 | (+1.2)-(+0.6) | (+1.0)-(-0.4) |
| 4) ESA balance (1+2+3) | -9.2 | -7.2 | (-5.4)-(-6.0) | (-4.6)-(-6.0) |
| 5) Balance according to national definition* | -8.5 | -6.3 | (-4.4)-(-5.0) | (-3.5)-(-4.9) |
| 6) Quasi-fiscal expenditure and other adjustments | +1.3 | -2.6 | -1.6 | -3.8 |
| 7) Augmented (SNA) balance ** (1+6) | -8.8 | -8.6 | -8.0 | -9.1 |
| 8) Augmented (SNA) primary balance | -5.0 | -4.7 | -4.2 | -5.1 |
| 9) Fiscal demand impact *** | +4.3 | -0.5 | -0.5 | +0.8 |

* ESA deficit after adjustment for payments from and into private pension funds. ** Cash-based deficit of the general government excluding certain extraordinary income and expenditure, and including the income from quasi-fiscal activities recorded outside the general government. As a result of a recent revision of GDP data, these time series slightly differ from the earlier published ones. *** Calculated from the so-called augmented (SNA) indicator; negative values denote contraction in aggregate demand.

estimate amounting to 0.8 per cent of GDP), thus irrespective of the 2005 developments in the ESA deficit, this year the broad general government sector has borrowed more funds for the purposes of financing its deficit than in 2004.

The difference between developments in the GFS or ESA and the augmented fiscal indicators also reveals that the expected 2005 improvement in the ESA balance is due primarily to the statistical recording of revenues which do not imply a permanent improvement in the fiscal position. This increases the risks to sustainability and the fiscal targets set for the next few years.

Achievement of the 2005 target deficit carries considerable risk

As the methodology of applying the European Union's ESA deficit category in Hungary is not yet clear, the ESA deficit can be projected only in the form of a broad interval. Assuming that the government's subsequent balance-improving measures announced in June and July 2005 are actually implemented, the ESA deficit remains in the (-4.6)–(-6.0) deficit interval we have projected, and thus the 4.7 deficit target can be achieved, although at considerable risk.¹⁵

Similarly to our earlier practice, for the purposes of our central projection on the cash-based (GFS) deficit, we have made several important assumptions.

- Disregarding open-ended expenditures, for the primary expenditure we assume that the expenditure estimates published by the Ministry of Finance in mid-July 2005 will materialise.

- Regarding the earlier earmarked expenditure reserve, the final freezing of HUF 125 billion of the reserve, announced in early summer, has been taken into account.

- For the purposes of our central projection, the interest balance has been considered on the basis of the forward yield curve published on 8 August 2005.

- The Hungarian Government informed the European Commission of government measures taken in order to improve the balance.¹⁶ Subsequently, the European Commission published its analysis of the Hungarian fiscal position, giving details of the measures envisaged by the Hungarian Government. With a single exception, the effects of the measures reported to the European Commission have been incorporated in our central projection. The exception is that our projection disregards the impact of the government measure taken in order to increase the carry-over funds of budgetary units and institutions (carry-over funds must be increased by HUF 50 billion in 2005).¹⁷

If these assumptions are realised, the cash-based (GFS) balance may drop from 6.4 per cent to 5.3 per cent, provided that in H2 the government will be able to control budgetary expenditures more stringently than before.

Some of the risks related to revenues and perceived in May 2005 have been incorporated in our current central projection. As the – partly paid – additional revenues earned on the sale of government properties offset most of this loss, they are

¹⁵ Reliable information will be available on this issue no earlier than March 2006, when Eurostat will publish the preliminary ESA deficit established within the framework of the Excessive Deficit Procedure.

¹⁶ On 13 July 2005, the European Commission published its analysis of the Hungarian fiscal position within the framework of the excessive deficit procedure launched against Hungary. The European Commission's analysis has been made in view of the additional adjustment measures set forth by the Government.

¹⁷ With a view to the accumulated tension perceived in relation to the expenditures of budgetary units and institutions, in our judgment, the government measure of increasing the so-called carry-over funds can be executed only under favourable fiscal and economic conditions in 2005 H2. The growth in such expenditures in 2005 H1 suggests that the performance of statutory responsibilities specified in the Budget Act may require more funds than the amount available for the budgetary units after freezing.

considered in the central projection.¹⁸ Currently, risks towards lower revenues are seen primarily in income taxes. While our projection on the net VAT-payments has dropped by nearly 0.4 per cent of GDP in comparison to the previous Report primarily as a result of a poor cash-based performance in Q2, positive risk is involved in the fact that if dur-

ing the rest of the year the rate of increase in tax payments remains as high as in July, the additional revenues generated this way may approach 0.4 per cent of GDP.

In respect of expenditures, significant risks are perceived relative to the estimate specified in the Budget Act (see Box 4-4 below).

Box 4-4 Risks involved in projecting the expenditures of budgetary units and institutions

The Ministry of Finance expects the amount of 2005 expenditures of central budgetary units and institutions around HUF 2,230 billion. Our projection on primary expenditures corresponds to the Ministry of Finance's forecast, as we acknowledge that they have more information and possibilities to intervene in the expected expenditure-related developments. However, on the basis of 2005 H1 actual data, attention must be called to the risks related to the achievability of this projection; specified as 0.4 per cent of GDP in this *Report*.

Up to 2002, the ratio of budgetary units' net expenditures to GDP gradually increased, followed by a decline during 2003–2004. However, in the meantime carry-over funds, which jeopardise the achievement of the target deficit in the next few years, have increased extremely fast. Using the relatively restricted instruments available in the current structure of government and public institutions (including zero-base planning, the rearrangement of expenditures in the course of the year, freezing, curtailment and the specification of the required year-end minimum carry-over funds etc.), the Ministry of Finance endeavours to prevent budgetary units and institutions from using their funds carried over from previous years, in other words, to keep the overall net expenditure at or below the budgetary estimate for the current year.

Every month in 2005 H1, net expenditures by budgetary units and institutions exceeded the corresponding figure (adjusted for motorway construction expenditures, as in 2005 these

have been removed from the general government budget) on a year earlier. The total amount of 2005 H1 excess is HUF 194 billion. The deficit projected by the Ministry of Finance can be achieved only if the net expenditure is at least HUF 116 billion less in 2005 H2 than in the same period a year earlier, when expenditures were considered so high that cuts were seen as a crucial requirement.

One factor preventing the required substantial reduction in the expenditure is that wages, public utility bills, national contribution to EU funds and the performance of other high-priority responsibilities, which amount to 80–85 per cent of the total amount of payment liabilities, cannot or can only be deferred within confines. Even if in 2005 H2 these expenditures are kept at the average recorded between February and June 2005,¹⁹ in order to achieve the target, no more than 20 per cent of the average amount spent between February and June 2005 could be used for the purposes of other kinds of expenditure, primarily capital investments. (For comparison: in 2004 and 2003, the H2 investment spending was 106 and 150 per cent of the February-June average, respectively.)

Despite the fact that the target is exceeded every month, the possibility that 2005 expenditures can be temporarily reduced by one-off measures and deferring payments to 2006 may not be ruled out. However, such contingent measures can reduce only the cash-based (GFS) and the ESA-95 deficit, and despite possibly deferred payments, expenditures will raise 2005 demand.

¹⁸ The reason why the GFS deficit is lower than projected in May is technical: a planned debt assumption has not been performed within the general government.

¹⁹ The average is exclusive of the exceptionally high January 2005 data.

Table 4-7

Major factors of uncertainty in the GFS deficit projection for 2005
(as a percentage of GDP)

| Central projection of GFS deficit: -5.3 per cent | | | |
|--|-------------|--|-------------|
| Tax revenues will be higher than assumed in the central projection. | +0.4 | Tax revenues will remain below the central projection. | -0.2 |
| EU support to co-financing will be lower than planned. | +0.1 | Measures taken to reduce spending will be performed only in part. | -0.4 |
| Budgetary units and institutions increase their carry-over funds in comparison to the early-2005 data. | +0.2 | Higher than expected increase in open-ended expenditure. | -0.1 |
| Local governments' cash-based deficit will be lower. | +0.1 | Investment spending by local governments will exceed expectations. | -0.1 |
| <i>Impact of favourable developments on the balance</i> | +0.8 | <i>Impact of unfavourable developments on the balance</i> | -0.8 |
| GFS deficit in a favourable case | -4.5 | GFS deficit in an unfavourable case | -6.1 |

Higher risks to achieving the targeted 2006–2007 deficit cuts

As there is no detailed draft budget bill, no point estimate has been made for the 2006 and 2007 GFS and ESA deficits. In order for the government to cut the deficit by the targeted annual 0.6% of GDP, significant measures will have to be taken.

The following table contains quantified data for the determinants and risks resulting from the discretionary measures announced so far or non-discretionary developments. We wish to stress that only those effects can be quantified which result from actually adopted earlier decisions (such as the thirteenth-month pension) or official announcements (e.g. tax cut programme and the extension of family support schemes).

Our calculations rely on the following conditions and information:

- For the purposes of quantifying the effects of the announced tax cuts, we have relied on the measures described in the informative document 'Thirteen steps of a 5-year tax cut programme', published by the Government Spokesman's Office (income tax, VAT, corporate taxes, tax on busi-

ness activity, lump sum health care and social insurance contribution).

- In the May 2005 Report we expected the complete abolition of the lump sum health care contribution as of January 2006, thus the estimated revenue shortfall in this tax category was raised by 0.3 per cent of GDP.

- Changes to the family benefit scheme were announced in the framework of the 100 steps programme and no independent estimate was made of their impact. It is assumed that in 2007 the family allowance will not be valorised.

- The effects of new measures taken to increase tax revenues have been calculated on the basis of data published by the Prime Minister's Office (extension of the contribution base and assessment of luxury tax).

- Regarding one-off revenue losses, the effects of losses resulting from the termination of revenues earned on sales of motorways and the abolition, as of 2007, of the special corporate tax levied on financial institutions have been quantified.

- Of additional expenditures, expenses related to the purchase of Gripen aircraft will have the most significant effect. According to the position taken by Eurostat in this case, expenses incurred in rela-

tion to the procurement of the aircraft must be recorded in the years in which the planes are delivered.

- We have calculated changes in the accrual-based net interest balance on the basis of our own estimates.
- The rest of revenues and expenditures is assumed to change in line with GDP.

Our analysis above indicates the expected extent of the measures the government is supposed to take in order to cut the deficit as scheduled in the Convergence Programme. In our estimate, the aggregate effect of the known fiscal developments

and the announced government measures may increase the ESA deficit by approximately 2.9 per cent of GDP in 2006 in comparison to the expectations relevant to 2005. As a result of the currently known determinants, the 2007 ESA deficit would be higher by another 0.2 per cent of GDP compared to the ESA deficit recorded in the previous year. The announced government measures (tax cuts) would significantly increase the 2007 deficit; however, this impact will be partly offset by factors independent of the government (interest expenditure, pension indexation and the investment cycle of local governments).

Table 4-8

Measures required for achieving the scheduled 2006-2007 deficit cuts

(estimate on the basis of the currently quantifiable determinants²⁰)

| | 2006* | 2007* | Complete |
|--|-------------|-------------|-------------|
| 1) The impact of the announced tax reduction | -1.5 | -1.1 | -2.6 |
| 2) Secondary effects of tax cuts | +0.5 | +0.2 | +0.7 |
| 3) New tax-increasing measures | +0.3 | 0.0 | +0.3 |
| 4) EU relations and customs tariffs | 0.0 | +0.1 | +0.1 |
| 5) One-off revenue losses | -1.2 | -0.2 | -1.4 |
| 6) Pension and pharmaceutical subsidies | 0.0 | +0.3 | +0.3 |
| 7) Family subsidies | -0.4 | +0.2 | -0.2 |
| 8) Additional expenditure (for the most part: purchase of Gripen aircraft) | -0.6 | -0.1 | -0.7 |
| 9) Local government investment cycle | -0.2 | +0.2 | 0.0 |
| 10) Net interest balance | +0.2 | +0.2 | +0.4 |
| 11) Total determinants (1+...+10) | -2.9 | -0.2 | -3.1 |
| 12) Targeted change in the ESA balance (plan) | +0.6 | +0.6 | +1.2 |
| 13) Balance change to be supported by measures (11-12) | -3.5 | -0.8 | -4.3 |

* Change of ESA balance as a percentage of GDP, relative to expected performance in the previous year. Negative sign denote deficit increasing effects.

²⁰ The estimate includes the expected effects of the measures announced up to 27 June 2005. No calculations of our own have been made to assess the effects of the tax measures published on the website of the Prime Minister's Office, as the specific amendments to the tax regulations and the draft codifications of amended tax acts in relation to the announced changes in the tax system are still unknown.

4.3. Developments in the external balance

The current account deficit amounted to EUR 1.5 billion, while the surplus in the capital balance reached EUR 170 million in 2005 Q1. Adjusted for the temporary effects exerted by Hungary's EU accession last year, the seasonally adjusted GDP-proportionate external borrowing requirement was similar to what was experienced in the previous quarter, standing at 7.4 per cent.

There was no material change in the external borrowing requirement relative to 2004 Q4 despite the fact that the seasonally adjusted GDP-proportionate borrowing requirement of the consolidated general government, adjusted for temporary effects, grew from 9 per cent in the previous quarter to 12 per cent in 2005 Q1. The underlying reason for this is that the increase in households' net lending and the decrease in the corporate sector's borrowing requirement offset the increase in the general government borrowing requirement.

Households' net financial savings grew significantly, with their seasonally adjusted value amounting to 3.8 per cent of GDP. The increase in financial savings was also attributable to temporary effects, such as government transfers (e.g. the so-called 13th month wage and part of the 13th month pension). The significant increase in the joint GDP-proportionate borrowing requirement of the general government and the household sector relative to the previous quarter was offset by a fall of a similar amount in the corporate sector's borrowing requirement, which sprang a surprise in a number of respects (see Box 4-5 on the adjustment of foreign trade data to other data series). The possible underlying reasons include reduction in the costs of inventory investment and rise in the profit posted by financial corporations. (Financial corporations' GDP-proportionate net lending was significant in 2005 Q1).

Table 4-9

Current account and financing by sectors
(as a per cent of GDP)

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|--------------------------------------|----------|------|------|------|------------|
| | Estimate | | | | Projection |
| I. Consolidated general government** | -5.2 | -8.9 | -8.6 | -8.4 | -9.4 |
| II. Private sector (=I+2) | -0.4 | 2.0 | -0.2 | 0.0 | 2.5 |
| 1. Households | 5.2 | 2.7 | 0.1 | 1.8 | 3.1 |
| 2. Corporations | -5.6 | -0.7 | -0.4 | -1.8 | -0.7* |
| Financing requirement (=I+II) | -5.6 | -6.9 | -8.8 | -8.4 | -6.9* |
| Current account balance | -6.3 | -7.2 | -8.8 | -8.8 | -7.6* |
| - EUR billions | -3.6 | -5.0 | -6.4 | -7.1 | -6.7 |

* Trade statistics uncertainty (see Box 4-5) may imply a higher current account balance by nearly 1 per cent of GDP. ** Consolidated general government includes the central budget, local governments, ÁPV Rt., the government's quasi-fiscal activity and the MNB.

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Under our projection, the GDP-proportionate borrowing requirement of the consolidated general government may be 1 percentage point higher in 2005 than in 2004, exceeding 9 per cent. By contrast, households' net financial savings may grow at a faster rate, by 1.3 percentage points. Judging from the surprisingly low borrowing requirement in Q1 and the available data in Q2, we anticipate, contrary to our previous projection, a moderation in the corporate sector's GDP-proportionate net borrowing requirement. Thus, although our perception of the combined GDP-proportionate borrowing requirement of the general government and the household sector has not changed materially since May, we have revised down our projection for the external borrowing requirement to 6.9% of GDP, which, with an increase in the capital balance surplus, translates into a current account deficit amounting to EUR 6.7 billion. However, we must emphasise that, based on other available data series on the economy, the risk that

the trade deficit and, hence, the current account deficit may exceed the 2005 figure published in official statistics by as much as EUR 1 billion, i.e. approximately 1 per cent of GDP, is significant (for a detailed treatment of the topic, see Box 4-5). Thus, a sharp rise in the current account deficit projected for 2006 can be attributed to two factors. Firstly, it reflects increased imports that arose from the financial settlement of the fees paid for the lease of Gripen fighter planes and amounted to 0.5% of GDP; secondly, our reservations concerning the persistence of an improve in external balance as experienced in 2005 H1.

Given the structure of the current account, the real economic deficit may significantly shrink in 2005 as a result of an accelerating export growth and slow expansion of domestic absorption. In addition to a fall in the net income outflow related to non-debt generating capital and unchanged net interest expenses, the income account deficit is also likely to decline somewhat. As a result, the GDP-proportion-

Table 4-10

Structure of the current account

(as a percentage of GDP, unless indicated otherwise)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|--------|------|------|------|------------|--------|--------|
| | Actual | | | | Projection | | |
| 1. External balance of goods and services | -1.5 | -2.4 | -4.5 | -3.0 | -2.2* | -2.9** | -2.0** |
| 2. Income account | -5.5 | -5.6 | -5.1 | -6.1 | -5.9 | -6.1 | -6.1 |
| 3. Balance of current transfers | 0.8 | 0.8 | 0.8 | 0.3 | 0.4 | 0.4 | 0.5 |
| <i>I. Current account balance (1+2+3)</i> | -6.2 | -7.2 | -8.8 | -8.8 | -7.6* | -8.6** | -7.6** |
| <i>Current account balance in EUR billions</i> | -3.6 | -5.0 | -6.4 | -7.1 | -6.7* | -8.0** | -7.6** |
| <i>II. Capital balance</i> | 0.6 | 0.3 | 0.0 | 0.4 | 0.7 | 0.8 | 0.8 |
| External financing (I+II) | -5.6 | -6.9 | -8.8 | -8.4 | -6.9* | -7.8** | -6.8** |

* Trade statistics uncertainty (see Box 4-5) may imply a higher current account balance by near 1 per cent of the GDP. ** The projection allows for imports accounting for approximately 0.5 per cent of GDP, attributable to the settlement of the lease fees of Gripen planes rented by the Hungarian Army.

ate current account deficit may, overall, be 1.2 percentage point lower than last year. In 2006, mostly as a result of the one-off effect of the Grpien lease agreement that adds to the current account deficit,

the real economic deficit may temporarily rise, which, provided that the income account deficit remains roughly unchanged, projects an increase in the GDP-proportionate current account deficit.

Box 4-5 Questions concerning developments in imports and the external balance

A spectacularly sharp fall in external borrowing, which is suggested by developments in net exports based on import data for H1, is at variance with other data available on the economy.

This leads to uncertainty about the perception of improvement in the external balance. Our preliminary analyses suggest that the amount of external borrowing in 2005 may easily fall short of the extent that the current state of the economy justifies by over 1 per cent of GDP. Low import figures may also cause higher GDP figures for this year (see Section 2.1).

Available foreign trade data for the first 6 months in 2005 reveal that exports grew steadily, while demand for imports increased only moderately over the period surveyed. As a result, the trade deficit fell considerably. In our opinion, one of the reasons for the revealed low import can be the change in the statistical measurement. Prior to Hungary's accession to the EU, foreign trade data were based on customs statistics. As from May 2004, regarding the EU-25 trade they are based on questionnaire-based surveys, i.e. self-declaration, which may, as international experience confirms, cause lower reliability of foreign trade statistics, and especially a downward bias in imports.²¹

This is suggested by a breakdown by countries revealing that, in contrast to the pre-accession period, the volume of exports from the EU-25 has declined since Hungary's accession to the EU, i.e. since the switchover to the questionnaire survey-based statistics. The volume of imports calculated from consumption, capital formation and the

estimated import demand of exports also indicates higher import levels, as it has been more than EUR 1 billion higher over the past year than that of actual imports, i.e. other economic trends imply higher imports and hence a higher trade deficit.²²

The GDP statistics also indicate that the underlying import may be higher than the officially recorded one. A reduction in the trade deficit entails an increase in net exports in GDP terms. If the improvement in net exports is merely the outcome of announced imports that are lower than actual imports, then – in order to ensure consistency with data on the production – higher net exports must be offset by lower values in the 'Changes in inventories and other unspecified absorption' row, also consisting of errors, in the GDP statistics. In 2005 Q1, seasonally adjusted GDP-proportionate inventories fell to the lowest level to date, which also points to a trade deficit that is higher than has been identified.

Developments in the financing capacity of sectors also point to the significant risk that the recent improvement in external balance may prove only temporary, due to the downward bias in imports. An explanation for this is that, based on available data, the massively falling external financing requirement is closely related to a fall in the corporate sector borrowing requirement rather than the reduction in the combined borrowing requirement of the household and general government sectors. An analysis of sectoral positions compiled on the basis of net export data for the first half sug-

²¹ In the UK, for example, it was only noticed in 2003 that for several years imports from the EU had not been fully reflected in official statistics, due to a series of VAT frauds; this led to an upward revision of the current account deficit for 2001–2002 by 0.7–1.0 per cent of GDP. For more details, see the August 2003 issue of the Bank of England's *Inflation Report* and 'VAT missing trader intra-Community fraud: the effect on Balance of Payments statistics and UK National Accounts', *Economic Trends*, No. 597 (August 2003).

²² For this calculation we used import trend corrected for the 2004 distortionary effects, see the note to Chart 2-10 in Section 2.1.

gests that, quite unusually, the corporate sector became a net saver in the period. For this to materialise, companies must have reduced their capital formation costs, while stepping up exports. Such a scenario would hardly be justifiable economically. Nor is it substantiated by other available data. For this reason, there is a high probability that the improvement in Hungarian firms' position will prove only transient and that the sector will not maintain its net saving position for long.

All this points to the observation that the value of imports may be underestimated in the foreign trade statistics relative to what can be estimated on the basis of cyclical developments. In other words, the improvement in net exports can be attributed to the change in statistical measurement. It is important to keep this in mind in order to avoid swings in investor sentiment with a potential impact on financial market developments as investors closely monitor developments in the trade balance, GDP and the external financing requirement.

Financing the current account deficit

The risk perception of the structure of financing deteriorated somewhat in 2005 Q1. In spite of a relatively high volume of direct investment, the proportion of non-debt generating financing fell to 40 per cent in Q1 from 85 per cent in 2004 Q3 and 65 per cent in 2004 Q4. The underlying reason for this was residents' significant investments in equity and portfolio securities and low reinvested earnings for seasonal reasons.

As for debt generating financing, non-residents increased their government securities and net forint deposit holdings significantly, by EUR 780 million. Households' unfailing demand for foreign currency loans – that is borrowed by the banking system abroad – resulted in a EUR 550 million rise in their exchange rate exposure. The corporate sector's net foreign debt continued to fall further significantly, albeit at a decelerating pace, with the decrease amounting to approximately EUR 470 million.

Table 4-11

External financing requirement
(EUR millions)

| | 2003 | 2004 | | | | 2004 | 2005 Q1 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | Q1 | Q2 | Q3 | Q4 | | |
| 1. External financing requirement | -6396 | -1371 | -2172 | -1680 | -1573 | -6796 | -1326 |
| 1.1 Current account balance | -6364 | -1308 | -2253 | -1850 | -1707 | -7118 | -1497 |
| 1.2 Capital account balance | -32 | -63 | -81 | 170 | 134 | 322 | 171 |
| 2. Financing | 6929 | 1238 | 2574 | 1648 | 2864 | 8324 | 2915 |
| 2.1 Direct investment | 443 | 409 | 483 | 1324 | 680 | 2896 | 714 |
| 2.1.1. Direct investment abroad | -1466 | -252 | -99 | 44 | -119 | -427 | -377 |
| 2.1.2. Direct investment in Hungary | 1909 | 661 | 582 | 1280 | 79 | 3323 | 1091 |
| 2.2 Borrowing by consolidated general government | 2385 | 905 | 74 | 1353 | 1464 | 3796 | 2051 |
| 2.2.1. Borrowing by the MNB | -1849 | -738 | -25 | -61 | -26 | -848 | -475 |
| 2.2.2. Borrowing by Government (excluding securities) | 2512 | 861 | 691 | 450 | 1579 | 3580 | 2051 |
| 2.2.3. Purchases of government securities by non-resident | 1722 | 781 | -592 | 964 | -89 | 1064 | 475 |
| 2.3 Net borrowing by private sector | 3884 | 50 | 1960 | -979 | 631 | 1662 | 315 |
| 2.3.1. Borrowing by credit institutions | 3214 | 314 | 1939 | 107 | 1028 | 3389 | 864 |
| 2.3.2. Portfolio investment (equities) | 223 | 326 | 98 | 99 | 314 | 837 | -175 |
| 2.3.3. Net borrowing by companies abroad | 448 | -590 | -78 | -1185 | -711 | -2564 | -374 |
| 2.4 Net errors and omissions | 216 | -126 | 57 | -51 | 90 | -30 | -166 |
| 3. Change in international reserves (1+2) | 532 | -133 | 402 | -32 | 1292 | 1528 | 1589 |

4.4. The macroeconomic impact of the 2006 VAT reduction

According to the five-year tax reduction programme, the standard 25 per cent VAT rate will fall to 20 per cent as from 1 January 2006. At the same time, however, in order to offset the resultant loss in VAT revenues, the amount of the excise duty imposed on tobacco and alcoholic beverages and registration duty on passenger cars will rise.

The effects of VAT reduction fall into three categories: direct and indirect effects as well as those exerted by expectations. While preparing our projection, we did not take the latter, i.e. that a temporary low increase in consumer prices would feed through to long-term inflation expectations, into consideration. The reason for doing so is that no similar phenomena were seen after increase in the VAT rates in 2004. What did occur was that both employers and employees ignored the resultant temporary increase in prices, and inflation expectations did not rise persistently either.

However, experience from the increase in VAT rates in 2004 provides only modest help with the assessment of the expected impact of the current measures. The main underlying reason is that there was an increase in VAT rates in 2004, while current measures lead to reduction in the tax rates. Further, we assume that companies pass increases in taxes on to consumers more intensively than decreases. Moreover, while the measures in 2004 left tradables unaffected, the current ones will affect them to the largest extent. There are two lessons to be learnt from trends in 2004. Consistent with our expectations, consumer prices

grew to a lesser degree than what would have been justified by the technical impact of the rise in VAT rates, i.e. pass-through was incomplete. Immediate effects took a very short time (a month or two) to emerge, while indirect ones materialised over a longer period of time.²³

Lower VAT rates causes a one-off reduction in the price level

The short-term impact of lower VAT rates is discernible in commodity markets. In order to provide an estimate for such an impact, the extent to which the consumer price level would fall if economic participants fully adjusted their gross prices to changes in VAT rates could serve as a sound basis. At this juncture, we assume that there will be no change in the corporate profit mark-up. The figure thus calculated is referred to as the **technical impact** of the VAT rate cuts on the consumer price level. We calculate it to stand at close to -1.9 percentage points.

Markets differ in the strength of competition, the price elasticity of demand and the transparency of prices.²⁴ Sluggish competition, low price elasticity of demand and low price transparency may spur companies to reduce their gross sales prices to a level that is lower than the VAT rate cuts and increase their profit margin in the short run. The difference between the technical impact exerted by the VAT rate cuts and the actual immediate change in consumer prices is referred to as the **profit impact** of the VAT rate cuts on the price level.

²³ Experience to be drawn from the rise in indirect taxes in 2004 bears only limited relevance to the measures in 2006, due to the differences in the macro-economic environment. The most important difference lies in the fact that while in 2004 consumer demand was slowing down and the exchange rate of the forint strengthened, now the former is increasing slightly and the latter is stable.

²⁴ Products with high price transparency are those where VAT rates are clearly separated from net prices, as is the case of e.g. landline phone tariffs.

Table 4-12

Determinants of direct effects by product groups

| | Weight | Demand price elasticity | Competition | Transparency of prices | Ratio affected by tax cuts (%)* | Impact on profit (%)** | Pass-through (%)*** | Impact of VAT reduction**** |
|----------------------|--------|-------------------------|------------------|------------------------|---------------------------------|------------------------|---------------------|-----------------------------|
| Foods | 18.1 | medium | medium/intensive | medium | 9 | 10 | 90 | -0.3 |
| <i>processed</i> | 5.9 | - | - | - | - | - | - | - |
| <i>unprocessed</i> | 12.2 | medium | intensive | medium | 13 | 10 | 90 | -0.5 |
| Tradables | 27.4 | medium/high | intensive | medium | 85 | 20 | 80 | -2.7 |
| Market services | 18.8 | low/medium | mixed | low/medium | 56 | 67 | 33 | -0.7 |
| Market-priced energy | 1.7 | - | - | - | - | - | - | - |
| Alcohol and tobacco | 9.2 | - | - | - | - | - | - | - |
| Motor fuels | 4.6 | high | intensive | high | 100 | 0 | 100 | -4.0 |
| Regulated prices | 20.3 | low | sluggish | high | 39 | 6 | 94 | -1.5 |
| Consumer price index | 100.0 | - | - | - | 48 | 26 | 74 | -1.4 |
| Core inflation | 66.0 | - | - | - | 52 | 34 | 66 | -1.4 |

* The proportion of products affected by changes in VAT rates among the relevant products. ** Profit impact: the proportion of the VAT rate cuts that is not reflected in (gross) consumer prices. *** Pass-through: the proportion of the VAT rate cuts that is reflected in (gross) consumer prices. **** Impact of VAT rate cuts: impact on the 2006 price level of the relevant group (percentage points).

In order to provide an estimate for the profit impact, the goods and services included in the consumer price index were categorised on the basis of three decisive characteristics (competition, the price elasticity of demand and price transparency). The profit impact is practically negligible in the case of the most transparent goods (e.g. certain deregulated prices and fuels). Here, the VAT rate cuts are reflected in their entirety in the reduction in price levels. On the other extreme are market services, where competition is less strong and price elasticity of demand and price transparency is also low. We estimated the profit impact at two-thirds, thus only one-third of the VAT rate cuts is reflected in

consumer prices. Tradables, where competition is fierce, the price elasticity of demand is relatively high and price transparency is moderate, represent an in-between category. We estimate that four-fifths of the VAT rate cuts is reflected immediately in consumer prices, thus the profit impact is an estimated one-fifth. Processed food responds similarly to tradables. However, in this case the proportion of the goods affected by VAT rate cuts is relatively low.

The combined technical and profit effects on the consumer price level are referred to as **direct impact**. Our estimates show that it stands at 1.4 per cent with respect to the consumer price index.

Indirect impact of VAT rate cuts is more likely to generate inflation

The VAT rate cut-induced reduction in the price level may gradually influence developments in other macroeconomic variables (e.g. real wages and hence consumption), which may in turn affect prices as well. These macroeconomic trends are referred to as the **indirect impact** of VAT rate cuts on inflation. While direct effects mean one-off corrections in the consumer price level, indirect ones may influence longer-term inflation.

In our estimate, the direct impact of the VAT rate cuts will raise the disposable income of households to an extent that is identical to the direct impact. Positive real income shocks lead to a rise in household consumption that is more even than that of income. A pick-up in consumer demand also boosts import demand. As a result, the invigorating effect of VAT rate cuts on GDP will also be somewhat more modest than what would follow from their impact on consumption.

Our calculations show no significant cost-side factors of inflation reflected in the indirect effects of the VAT rate cuts. By contrast, supply-side factors are present. Wage adjustment to changed prices is relatively slow and gradual. In consequence, real wages calculated at consumer prices increase over a span of a year or two. They are further boosted by increasing aggregate demand that invigorates labour demand (and hence wages). This may well have (adverse) effects on employment as well; however, in our estimate, they are not significant. Overall, GDP will be higher, which will entail demand-pull inflation, as an increasingly wide output gap pushes prices up.

Demand-pull inflation somewhat mutes direct (technical and profit) effects on the price level. According to our estimates, indirect effects may precipitate a 0.1-0.2-percentage point rise in infla-

tion with respect to the consumer price index and core inflation in 2007.

In sum, our estimates suggest that the announced VAT rate cuts will, as a combined effect of direct and indirect effects, contribute to GDP growth by 0.1–0.2 percentage points. Meanwhile, the growth rate of households' purchased consumption will be over half a per cent higher in both 2006 and 2007 than it would if there were no VAT rate cuts. The overall impact on the consumer price index and core inflation is estimated at 1.4 per cent in the first year (i.e. in 2006), while the indirect effects of the VAT rate cuts may result in 0.1–0.2 percentage point higher inflation indices.

The question arises as to which of the effects of the VAT rate cuts is captured by what is called the constant tax rate index published by the CSO. As the constant tax rate index only filters the technical impact from the consumer price index, it is unable to capture either profit or indirect effects. Accordingly, it will be higher in 2006 than a (hypothetical) indicator, i.e. 'what would have happened if there had been no VAT rate cuts', that would be able to filter the entire impact of the VAT rate cuts from the price index.

As a result of the planned VAT cuts, we expect the constant tax rate price index to exceed the consumer price index by 1.9 percentage points in 2006 (other changes, e.g. the assumed hike in excise duties might decrease this somewhat).

It should be borne in mind that under extremely tight labour market conditions employees would be able to 'get hold of' the bulk of the profit earned on VAT rate cuts. Under such a scenario cost-push and demand-pull inflation would be higher than what was outlined above. If such a scenario materialises, the estimated indirect impact on inflation may amount to 0.5 and 0.3 percentage points with respect to core inflation and the consumer price index respectively in 2007.

Table 4-13

Macroeconomic effects of the VAT rate cuts
(year-on-year indices, percentage point)

| | GDP | Households' purchased consumption | Private sector nominal wages | Consumer price index |
|-------------------------|--------------------------|-----------------------------------|------------------------------|----------------------|
| Direct effects | | | | |
| 2006 end-Q1 | <i>Technical effect</i> | | | |
| | - | - | - | -1.9 |
| | <i>Profit effect</i> | | | |
| | - | - | - | +0.5 |
| | Aggregate direct effects | | | |
| | - | - | - | -1.4 |
| Indirect effects | | | | |
| 2006 | +0.2 | +0.7 | 0.0 | +0.0 |
| 2007 | +0.1 | +0.5 | 0.1 | +0.1 - +0.2 |
| Aggregate impact | | | | |
| 2006 | +0.2 | +0.7 | 0.0 | -1.4 |
| 2007 | +0.1 | +0.5 | +0.1 | +0.1 - +0.2 |

4.5. Assessment of the effects of the envisaged minimum wage increase

According to an official statement of the government, in 2006 the statutory minimum wage will increase from the current uniform HUF 57,000 in a differentiated manner to HUF 63,000 70,000 and 77,000 thousand for people with primary, secondary and tertiary qualifications, respectively.²⁵ The announced measure implies significant increases in the different qualification categories, namely: 10, 23 and 35 per cent. With regard to the effects of rises in the statutory minimum wage on our inflation projection, the following should be considered.

(1) Direct impact: The number of people concerned and the effect on wages; effects in addition to official statistics.

(2) Expected spillover effects.

Assessment of the direct effects of rises in the statutory minimum wage

Direct effect means the increase caused in the CSO's official wage index by the fact that those who have been paid less than the statutory minimum wage will work for the statutory minimum.²⁶ The assessment of the direct effect, however, raises several concerns. The most obvious solution would be to use the method described in a study by Kertesi and Köllő (2003),²⁷ however, no individual distribution is available for wages. For this rea-

son, we have resorted to a method that results in a rough estimate but captures the right dimensions.

(1) On the basis of the moments of distribution specified in the CSO's publication,²⁸ the distributions of the various wage categories were estimated. As the most recent data referred to 2003, the planned 2006 rise was discounted retrospectively to 2003 by the whole economy wage rises performed between 2003 and 2005. The people below the wage obtained as a result were considered as affected by the 2006 rise.

(2) Those who were found to earn less than the minimum wage calculated as above were classified into the minimum wage category, and this way we could define the aggregate wage shock caused by the minimum wage increase to the people concerned. No wage changes were calculated for people earning more than the statutory minimum wage. However, a wage shock was not considered simply as wage rises for people earning less than the statutory minimum, such a shock was rather compared to the increase in their wages relative to the May 2005 wage projection.

In order to check the reliability of the above-described rough assessment, we also calculated the effects of the 2001 rise and compared our results with the estimate obtained by Kertesi and Köllő (2003) on the basis of a full wage distribution.²⁹

²⁵ See <http://www.meh.hu/tevekenyseg/tevekhirek/ig20050628.html#> [in Hungarian only].

²⁶ This definition is used deliberately, as we have already indicated on several occasions that the official wage statistics, especially pertaining to the statutory minimum wages, fail to correspond to the official wage index.

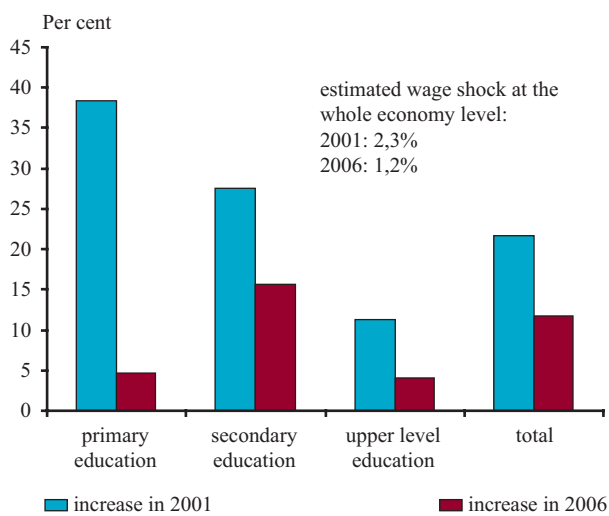
²⁷ Kertesi, G. and Köllő, J. (2003) *The Employment Effect of Nearly Doubling the Minimum Wage – The Case of Hungary*, Budapest Working Paper on the Labour Market 2003/6.

²⁸ Employment, wage and earnings data for 2000, 2001, 2002 and 2003. Whole economy total, National Employment Office, Labour Data Bank.

²⁹ The first step in our assessment roughly reflected the whole economy indicator for the number of people affected by the 2001 rise, although our estimate was significantly lower for people with secondary qualifications. Overall, a 0.5% higher shock was assessed in our estimation than in the quoted study, which was subsequently adjusted by sensitivity tests. According to our calculations, the difference results primarily from the fact that the method is sensitive to our assumption made for the lower end of the distribution. As the specific value of the shock changes fundamentally in line with our perception of the average wage of those who earn less than the statutory minimum prior to the wage increase, in the 2001 assessment the average wage below the statutory minimum was adjusted to reflect the estimate by Kertesi-Köllő (2003). The above adjustment was then carried over to 2006, assuming that the average wage of people earning less than the statutory minimum had been assessed with a similar bias as for 2001.

The achieved results suggest that the 2001 wage increase affected primarily people with primary qualifications, while the 2006 rise may affect people with secondary qualifications. Regarding the impact on wages, it seems that the shock to be caused by the 2006 rise may amount to approximately half the impact of the 2001 rise.³⁰

Chart 4-4
Employees affected and the wage shocks in 2001 and 2006*



* 2001: estimate by Kertesi-Köllő (2003), 2006: own estimate.

Then the data obtained for the whole economy was divided into two sectors: the private and the public sector, and equal distribution was assumed in them. We assumed, however, that in the public sector people with tertiary qualifications would not be affected by the wage rise, as they already earned above HUF 100,000 as a statutory minimum.

No tax evasion was considered in respect of the institutional data, despite the fact that based on anecdotal information major businesses evidently practise it. It is presumable, however, that the practice of reporting employees to the tax author-

ity at the statutory minimum wage is more characteristic of the self-employed, and our calculations actually reveal that for businesses employing less than five persons the statutory minimum wage increase can be considered as a tax hike rather than as additional income.

Comparing the above factors we have come to the conclusion that the minimum wage increase can be considered as an upside risk on wage costs in the entire business sector (either on account of the actual rise in wages or due to the mandatory increase in the duties payable on wages), whereas in terms of household real income, the wage increasing impact and the tax increasing impact will offset one another. This is tantamount to saying that the aggregate household income will not rise simply on account of the rise in the statutory minimum wage.

Finally, it is important to note that the 2006 minimum wage rise will take place simultaneously with a significant cut in the VAT rates, resulting in a 1.4 per cent drop in the CPI. As the VAT cut will change consumer prices in a way that *ceteris paribus* the producer prices remain unchanged, the employers and employees can share the 'profit' made this way in the framework of a labour market bargain, by increasing wages at lower than originally envisaged rates. The specific division of the government's withdrawal between them depends on the relative elasticity of labour demand and supply. Hungarian literature on the subject suggests that labour demand is relatively sensitive to wages, while the activity data reveal that labour supply is relatively insensitive to it. For this reason, 85 per cent of the impact of the VAT reduction expected to be beneficial for con-

³⁰ As mentioned above, in comparison with the more accurate estimate by Kertesi and Köllő (2003), our assessment for 2001 was mistaken precisely with regard to people with secondary qualifications, and therefore, the results should be viewed with a measure of scepticism. As, however, in comparison to Kertesi and Köllő (2003), this method underestimated the involvement of the people falling into this category, the risk is implied more in the fact that those with secondary qualifications may be slightly more affected than assessed by us, in other words, the impact is even more significant than it was in 2001.

sumers, i.e. this measure will *ceteris paribus* hardly reduce producer real wages.

Complex spillover effects may arise

The effects of a minimum wage increase are not simple short-term effects on the people directly affected. As mentioned above, it is likely to affect employment, and still beyond. From a macroeconomic perspective, the statutory minimum wage represents a shock in labour costs, which changes corporate cost functions and thus ultimately affects prices and output.

Below is a brief summary of the mechanism by which the minimum wage affects macroeconomic factors. Statutory minimum wage increases may result in two extreme situations depending on our labour market assumptions (perfect competition versus monopsony). A rise in the statutory minimum wage may reduce or increase employment. Due, however, to the inelasticity of labour supply and other related uncertainties, we have divided the first case into two distinct simulations. In the central scenario described in this *Report*, case (A) is taken as a basis, and the effects of other versions are included among risks.

(A) Labour market is free of imperfections, however, labour supply fails to change as a result of the minimum wage shock (main scenario)

In this case, employment decreases *ceteris paribus*, and as labour supply fails to change, the

rate of unemployment rises exclusively due to falling labour demand. In the long run, rising unemployment curbs spread in wage rises. As a result of the wage shock, labour costs and consequently the inflation rate rise. In the short term, GDP may rise (real wage impact), however, over the longer term it falls as a result of a lower employment equilibrium.

(B) The labour market is free of imperfections, however labour supply increases as a result of the minimum wage shock

This case is extremely similar to the previous one disregarding the fact that effects are more pronounced. This is because unemployment increases as a result of both falling demand and rising supply. Employment equilibrium, and consequently potential output, however, remain unchanged. A faster rise in unemployment, however, moderates initial price rises more than in the previous two cases.

(C) The labour market is characterised by monopsonistic competition.

In the case of monopsony, a rise in the statutory minimum wage increases equilibrium employment, and consequently, also the potential output. For this reason, its effects differ from cases (A) and (B). This is because the rise in the potential output results in a far more moderate impact on prices and wages than in the first two cases.

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