

Quarterly Report on Inflation - update -February 2006



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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 that inflation remains near the 3 per cent medium-term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, undertakes 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 to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Quarterly Report on Inflation, published semi-annually and updated twice a year between the two publications since 2006, presents the forecasts prepared by the Economics and Monetary Policy Directorate's staff for inflation, as well as the macroeconomic developments underlying the forecast. The forecasts of the Economics and Monetary Policy Directorate's staff are based on certain assumptions; in producing its forecast, the staff 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.

This publication provides an update for the macroeconomic projection published in the November 2005 issue of the Quarterly Report on Inflation. This update is the first of its kind since the adoption of a new reporting regime for the MNB's inflation projections. Under this new regime, the February and August issues of the Report have been replaced by a shorter report, highlighting the changes in comparison with the central macroeconomic projection presented in the previous (November and May) issues of the Report. Quantitative projections are provided for the consumer price index, GDP growth and its expenditure side components, while developments in other major macroeconomic variables are only presented if they have shifted from the main projections published in the previous Report. The uncertainty around the inflation projection continues to be represented in the form of a fan chart.

The analyses in this Report were prepared by the Economics and Monetary Policy Directorate's staff under the general direction of Ágnes CSERMELY, Deputy Director and Mihály András Kovács, Economic Advisor. The project was managed by Zoltán M. Jakab. The Report was approved for publication by István Hamecz, Director.

Primary contributors to this Report also include, Zoltán Gyenes, Cecília Hornok, Zoltán M. Jakab and Barnabás Virág. Other contributors to the analyses and forecasts in this Report include various staff members of the Economics and Monetary Policy Directorate.

The Report incorporates valuable input from the Monetary Council's comments and suggestions following its meetings on 23 January and 27 February 2006. However, the projections and policy considerations reflect the views of the Economics Analysis and Research staff and do not necessarily reflect those of the Monetary Council or the MNB.

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Summary table of the updated main scenario

(Unless otherwise indicated, percentage changes on a year earlier)

	2004	2005 Actual/Forecast		2006 Proje		2007 ection	
	Actual/						
	Estimate	Nov.	Current	Nov.	Current	Nov.	Current
Inflation (Q4)							
Core inflation ¹	5.3	1.3		-	1.1	-	3.0
Consumer price index	5.9	3.3		-	1.3	-	2.9
Inflation (annual average)							
Core inflation ¹	5.9	2.	1	0.8	0.9	2.8	2.8
Consumer price index	6.8	3.6		1.1	1.3	2.8	2.8
Economic growth ⁶			'	'		·	
External demand (on a GDP basis)	2.4	1.5	1.9	1.9	2.1	2.0	2.0
Fiscal demand impact ²	-0.6	1.0	\leftrightarrow	1.0	\leftrightarrow	(-0.5)-0.0*	\leftrightarrow
Household consumption	3.1	2.8	2.4	3.7	3.8	3.2	3.2
Gross fixed capital formation	8.4	8.1	9.0	5.4	5.6	2.9	2.9
Domestic absorption	2.8	0.9	1.1	6.1***	5.6***	3.1***	3.6***
Exports	16.4	10.3	10.0	9.2	9.9	9.2	9.3
Imports	13.2	6.6	6.1	11.1***	10.9***	8.2***	8.5***
GDP	4.6 (4.4)**	4.2 (4.4)**	4.1 (4.3) **	4.5	4.6	4.3	4.3
Current account deficit ³				'			
As a per cent of GDP ⁶	8.8	8.1	↓	9.1***	\downarrow	8.5***	\
EUR billions	7.1	7.0	\leftrightarrow	8.3***	\leftrightarrow	8.3***	\leftrightarrow
External borrowing requirement ³			1	1		<u>'</u>	
As a per cent of GDP ⁶	8.5	7.4	↓	8.4***	\downarrow	7.7***	\
Labour market						1	
Whole-economy gross average earnings ⁴	7.1	7.9	8.0	6.7	\leftrightarrow	6.1	\leftrightarrow
Whole-economy employment⁵	-0.4	0.1	-0.1	0.5	\leftrightarrow	0.7	\leftrightarrow
Household real income	6.1***	4.0***	1	5.0	\leftrightarrow	2.7	\leftrightarrow

¹ For technical reasons, our projected indicator may be different over the short term 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 Due to the uncertainty surrounding foreign trade statistics, from 2004 the actual current account deficit/external financing requirement may be higher than the official figures or our forecasts which are based on such data. ⁴ In the case of the general government sector, the thirteenth-month salary for 2004 which was disbursed in January 2005 caused a downward bias in the wage increase indicator for 2004, and an upward bias in that for 2005. ⁵ According to the CSO Labour Force Survey. ⁶ The components of GDP and values expressed as a per cent of GDP were not adjusted for FISIM in November; the updated forecast includes data calculated after adjusting for FISIM. November and current projections for GDP, therefore, are not directly comparable.

^{*} Assumption for the fiscal impulse inherently consistent with the macroeconomic path; due to the lack of an effective act on the 2007 budget, we cannot provide a detailed fiscal projection.

 $^{** \} Data \ in \ brackets \ are \ adjusted \ for \ the \ leap \ year \ effect.$

^{***} 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.

^{****} MNR estimate

 $[\]uparrow$ The expected path of the given variable has shifted upwards relative to the November 2005 issue of the Quarterly Report on Inflation.

[🕹] The expected path of the given variable has shifted downwards relative to the November 2005 issue of the Quarterly Report on Inflation.

[←] The expected path of the given variable is consistent with the projection in the November 2005 issue of the Quarterly Report on Inflation.

Overview

The assessment of macroeconomic conditions provided in the November projection needs to be updated in two respects. First, the picture of both external and domestic economic conditions, relevant for economic growth, has improved somewhat since November. Second, although price developments at end-2005 were in line with the projection, the rate of inflation in January 2006 proved to be higher than expected, which was likely to have been closely related to the VAT reduction in early 2006, the effect of which was less significant than the Bank had expected. Nevertheless, it also deserves special mention that, in contrast with earlier trends, the persistently high inflation in market services fell strongly in January – presumably attributable not only to the VAT reduction.

In the updated forecast, GDP continues to grow at a stable rate of above 4 per cent in the next two years. In the short term, economic growth is forecast to be slightly higher relative to the November projection, due to more favourable business conditions abroad and at home. Our projection calls for inflation to be near price stability at end-2007: core inflation is forecast to be around 3 per cent at end-2007, in line with the November projection. However, we have revised up slightly our forecast of inflation at end-2006, due to the higher world market price of oil and somewhat stronger economic activity.

Latest macroeconomic developments

Economic growth remains above 4 per cent

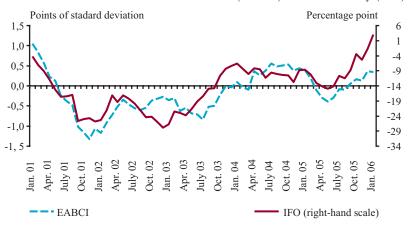
Real economic activity was robust and was higher than the estimated value of potential growth in 2005 H2.¹ The quarterly outcomes for GDP growth were above 4 per cent (4.5 per cent and 4.1 per cent in Q3 and Q4, respectively), and annual average GDP growth in 2005 was broadly in line with the Bank's November projection.² The main contributing factors to this growth were exports and capital formation, with the pick-up in motorway construction by the Government playing a major role in the latter. In addition, the stimulus from rising household consumption growth to economic activity also played an increasingly important role towards the end of the year. Consequently, on the basis of the most recent developments, the outlook for economic activity in both external and the domestic markets seems to be supportive of domestic economic growth.

Favourable prospects for Hungarian exports

Developments in real economic activity in Hungary's main export markets (the euro area and, in particular, Germany) have been reassuring in recent months. On the whole, the underlying developments point to robust economic activity in the period ahead, even though according to preliminary data activity slowed somewhat in Q4, following the extremely good performance in Q3 in terms of economic growth and foreign trade. The picture depicted by business confidence indices, which are generally reliable gauges of expected future developments, is particularly favourable: in January 2006 the euro area business confidence index remained above average, and the German IFO index also rose to a historically high level.

Chart 1

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



¹ Due to the FISIM adjustment of GDP statistics, our estimate for potential output growth is probably higher by a couple of percentage points. For lack of sufficient time series data for FISIM-adjusted GDP, it has not yet been possible to carry out the re-estimation.

² Fourth-quarter GDP is Ecostat's flash estimate. Taking this into account, annual average GDP growth in 2005 was 4.1 per cent (4.3 per cent after adjusting for the leap year effect). Throughout the analysis, GDP data reflect the adjustment caused by the change to the method of compiling statistical data related to allocating FISIM. For a more detailed account of the adjustment, see Box 2-2 in the November 2005 issue of the *Quarterly Report on Inflation*.

The effects of lively activity abroad were also reflected to a certain degree by continued growth in domestic industrial production. In contrast with production growth, growth in industrial sales and exports appears to have stalled in December 2005. Nevertheless, this is thought to be temporary, and exports are expected to receive a boost from robust external demand even over the short term.³

Domestic demand is picking up

The contribution from rising domestic demand to economic growth increased towards end-2005. In the third quarter, growth in household consumption accelerated, in line with our November projection. In the fourth quarter, the growth rate of retail sales remained bouyant, and the preliminary year-end data exceeded our expectations. Nevertheless, due to the reason discussed below, this latter development may not have significant consequences for our November projection for household consumption.⁴

The implications of the expansion in retail sales on the projection for household consumption and, consequently for GDP growth, should be assessed carefully. Recently, the gap between the growth rate of retail sales volume and growth in household consumption has gradually widened, with retail sales increasing more quickly. As retail sales mainly reflect consumption of tradable products and food, whereas household consumption also includes the consumption of services, the gap between these two growth rates may possibly indicate a shift in the consumer basket. A shift in consumption from services towards tradables could be explained by last year's significant decline in the prices of tradables, while the rate of inflation in services remained relatively high.⁵

Slow employment growth and moderating wage inflation

In line with November's projection, private sector wage inflation fell gradually in 2005, adjusting to the low inflation environment. Consequently, the rise in real labour costs was consistent with productivity growth, suggesting much more balanced labour market conditions relative to earlier years. Despite robust activity, the sector's aggregate demand for labour has apparently not risen recently. In contrast with this, the strong increase in the activity rate has continued, resulting in an unemployment rate consistent with the November projection. The effect of the rising labour supply and subdued labour demand towards lower wage inflation, however, is mitigated by the skill mismatches still present in certain sectors as well as by the minimum wage increase in early 2006.

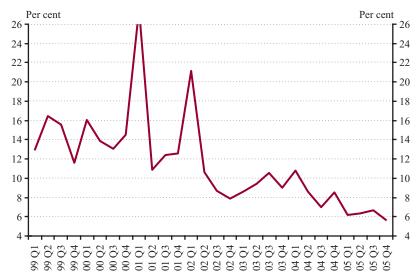
³ In addition to the brisk activity in external markets, there is another reason why we view the slowdown in industrial exports and exports of goods in December as a temporary phenomenon. As has been observed in the past, the noise in (seasonally adjusted) time series for December, characterising foreign trade and industrial export data, may be higher than usual, due to variations in the timing of vacations around the winter holidays.

⁴ Due to the recent methodological (FISIM adjustment) and statistical revisions of the GDP data, our current and November forecasts for annual household consumption growth are not directly comparable. Although it is not reflected by annual growth rates, the projected quarterly path of household consumption growth was revised slightly upwards relative to the November forecast.

⁵ This hypothesis is reinforced by the observation that, in contrast to developments in constant prices, the growth differential between retail sales and household consumption in value terms was negligible.

Private sector wage inflation

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



The development of "trend" inflation is difficult to judge

Inflation developments around the end of 2005 were broadly in line with the November projection. The consumer price index in 2005 as a whole was 3.6 per cent, as expected. Deflation in tradable goods prices continued, while inflation in market services remained at the relatively high level of 7 per cent. The fall in inflation continued in January: the consumer price index and core inflation were 2.7 per cent and 0.5 per cent, respectively. This decline in inflation was closely related to the reduction in the VAT rate from 25 per cent to 20 per cent, which affected a broad range of products in the consumer basket. However, the January outturns for consumer price inflation and core inflation were both higher than set forth in the November projection. In addition, the profile of inflation developments was different than previously expected: tradable prices fell less strongly, while there was strong disinflation in the services sector. It is important to note, however, that inflation figures of a single month are surrounded by a considerable amount of uncertainty.

...and overestimated by CTRI

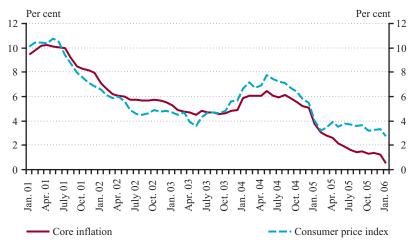
Trend inflation developments are extremely difficult to judge during periods of changes to indirect taxes. The constant tax rate index (CTRI) is an alternative approach, according to which trend inflation rose to 4 per cent in January, from 3.4 per cent in December. It should be noted, however, that this indicator overestimates trend inflation developments, because its calculation uses the assumption that the change to indirect taxes is immediately and fully reflected in prices. Consequently, trend inflation is presumably lower than the CTRI. In addition, the increase in the annual index was also influenced by the base effect of low core inflation developments in early 2005.

⁶ The reduction in VAT rates affected nearly the entire range of tradable goods and 44 per cent of market services. The effect on other product groups was modest. For more details on the expected macroeconomic effects of the VAT reduction, see Special topic 4.4 in the August 2005 issue of the *Quarterly Report on Inflation*.

⁷ If market participants had incorporated changes in indirect taxes (VAT, registration taxes and excise duties) into their prices immediately and fully, the effect on the consumer price index (the so-called technical effect) would have been -1.5 per cent in January, according to the Bank's calculations. The CSO's estimate is below this value; and the reason for this difference remains unclear.

CPI and core inflation

(year-on-year indices)



Effect of the VAT reduction is less apparent than expected in tradable prices

The major source of the difference between inflation in January and our earlier projection is that the decline in tradable prices was much smaller than expected in November based on the estimated price-reducing effect of the VAT rate cut. As we do not know whether the source of this surprise should be sought in the underlying inflation developments (e.g. in a slowdown in the earlier intensification of product market competition) or whether the expected full impact of the VAT reduction will only be felt in later months, it is not possible to judge the extent to which this phenomenon may imply upside risks to inflation over the longer term.⁸

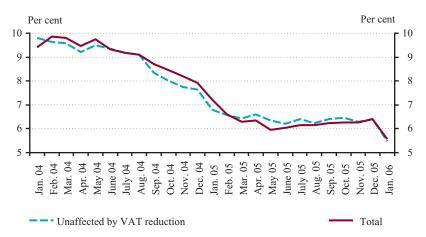
However, disinflation in the services sector began

Nevertheless, there may be downside risks to inflation from the very strong decline in market services price inflation in January. The rate of market services price inflation fluctuated around 6-7 per cent throughout 2005, despite the generally low inflation environment, and even accelerated slightly towards the end of the year. Although in the November Report market services prices were forecast to fall gradually even over the short term, disinflation in January significantly exceeded our expectations. As the decline in inflation in market services which were not directly affected by the VAT reduction was at least as significant as in the case of all services, this surprise disinflation may reflect a shift in underlying inflation developments. Although one-month data generally allows only limited conclusions for the longer term, in the special case of market services the January outturn may be indicative of developments over the whole year, as the bulk of price adjustments occurs in January. Moreover, the likely shift of consumption from services towards tradables might also support the view of a more subdued inflationary effect of the demand for services.

⁸ The fact that the prices of processed foods sold in a similar market environment and less affected by the VAT reduction continued to fall as expected supports the hypothesis that the lower-than-expected decline in tradable prices might not be attributable to underlying inflation developments. In addition, the more modest drop in prices in January may also be explained by the fact that some retailers had already reduced their industrial goods prices at end-2005, in anticipation of the VAT reduction.

Market services price inflation – all services and those unaffected by the VAT reduction

(year-on-year indices)

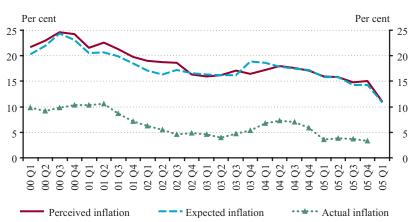


Household inflation expectations fell in January

According to the January survey, households' inflation perceptions and expectations fell to an extent which had not been seen earlier. In our opinion, while this phenomenon was likely to have been caused by the real and perceived effects of the VAT reduction, it also reflected, in part, the increasing credibility of past years' disinflation process. However, individuals' inflation perceptions and expectations are much higher than the actual outturn for inflation, which requires caution when evaluating the results of the survey.

Chart 5

Inflation perceived and expected by households* (for the last and next 12 months)



^{*} Based on the household survey ordered by the MNB and conducted by Medián.

Outlook for inflation and economic growth

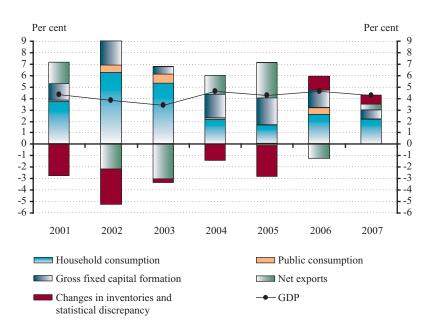
Economic growth was slightly higher than projected in November

In the central projection, GDP grows by 4.6 per cent and 4.3 per cent on average in 2006 and 2007, respectively, based on the assumptions of exchange rates and interest rates set at their average values for January 2006, as well as on the fiscal path outlined in the November Report. The November projection for growth has been revised up slightly, due mainly to the fact that we have modestly increased our forecast of net exports on account of favourable news from Hungary's export markets. However, the composition of GDP growth in the central projection has remained broadly unchanged from November.

In our forecast domestic demand continues to be a main component of economic growth over the next two years, while the contribution of external demand to growth will be lower, in contrast with past years' experience. Within domestic demand, the expansion of household consumption caused by rising real incomes, and buoyant capital formation due to the continuation of investment by the Government in road infrastructure, will be dominant.

Chart 6

Individual factors' contribution to GDP growth* (based on annual changes)



 $^{*\} Data\ after\ adjusting\ for\ FISIM.$

The forecast of external balance has remained unchanged

The November forecast for future developments in external balance has remained essentially unchanged. Hungary's external financing requirement is estimated to have declined significantly in 2005 relative to the previous year. In contrast with this, we expect the GDP-proportionate external financing requirement to increase in 2006, as noted in November. In the current forecast, net savings of households, which rose by 1.5 percentage points to 4 per cent of GDP in 2005, may increase further in 2006. This, however, is not sufficient to counterbalance the anticipated significant rise in the SNA-

based net borrowing requirement of the consolidated general government above 10 per cent of GDP.9

Table 1

Changes in the major assumption relative to November*

	November 2005		Cur	rent	Change (per cent)		
	2006	2007	2006	2007	2006	2007	
Central bank base rate (per cent)**	6.0	6.0	6.0	6.0	0.0***	0.0***	
EUR/HUF exchange rate	251.7	251.7	250.9	250.9	-0.4	-0.4	
EUR/USD exchange rate (US cents)	120.2	120.2	121.1	121.1	0.7	0.7	
Brent oil price (USD/barrel)	61.0	60.0	65.1	66.1	6.6	10.2	
Brent oil price (HUF/barrel)	12,782	12,572	13,483	13,699	5.5	9.0	

^{*}Annual averages. Based on average exchange rates and futures oil prices in January 2006.

Price stability over the longer term surrounded by increased uncertainty The central inflation projection has remained practically unchanged over the time horizon relevant for monetary policy. The forecasts are for both core inflation and the consumer price index to be 2.8 per cent by end-2007, i.e. to remain close to price stability. By contrast, we have revised up our forecast for 2006. The consumer price index is expected to be 1.3 per cent at year-end.

Over the short term, slightly higher inflation may be explained by a number of factors. First, the world market price of oil has increased significantly since November, and the path of oil prices in our projection has risen by 10 per cent by the end of the horizon. 11 Second, our forecast of more robust economic activity justifies slightly higher inflation. Finally, although it is not reflected in our point estimate, higher-than-expected consumer price inflation in January represents an upside risk to inflation over the short term.

As far as longer-term inflation perspectives are concerned, uncertainties have increased both to the upside and downside. On the one hand, an upside risk stems from the fact that it is currently uncertain whether the lower-than-expected price fall in tradables in January is related to a turning point in the inflation trend or simply to a delay in the price effect of the VAT rate cut. On the other hand, the decline in the inflation of services unaffected by the VAT change as well as the recent drop in inflation expectations may confirm expectations of a permanently low inflation environment. On the whole, the aforementioned factors suggest that our November inflation projection for the longer horizon should be maintained.

^{**} End-year figures.

^{***} Difference in percentage points.

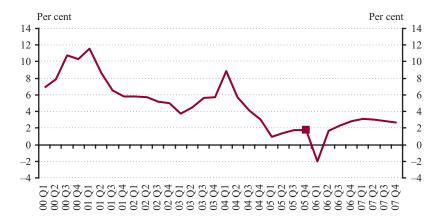
⁹ In addition to the central budget, consolidated general government includes local governments, ÁPV Rt., institutions attending to quasi-fiscal duties (e.g. Hungarian Railways (MÁV), Budapest Transport Company (BKV)), the MNB as well as institutions implementing investment projects initiated and controlled by the government and formally implemented under PPP-schemes.

¹⁰ The acceleration of inflation to close to 3 per cent, as discussed in the November Report, may be explained primarily by expected higher imported inflation and the lower disinflationary effect of a slowdown in the intensification of product market competition.

¹¹ Except for the world market price of oil, our technical assumptions have changed little relative to the assumptions in the November Report. Similarly, our forecast of administered prices has remained virtually unchanged since November.

Projection of core inflation

 $(annualised\ quarter-on-quarter\ growth\ rates)$



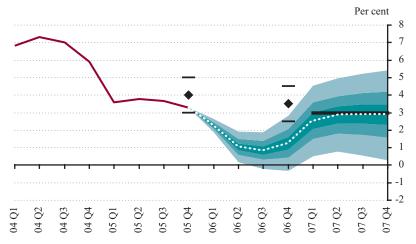
Risks to inflation are evenly balanced

As in the November projection, the uncertainty distribution of the inflation projection around the inflation target is viewed as symmetrical. Apart from the sources of uncertainties outlined above, the potentially stronger-than-projected rise in administered prices is seen as the most important upside risk to the projection. Key factors of downside risk include stronger-than-expected downward pressure of ongoing global disinflation and import competition on domestic prices.

Chart 8

Inflation fan chart*

 $(percentage\ changes\ on\ a\ year\ earlier)$



^{*} The fan chart represents the uncertainty around the updated 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.

Performance of the MNB's forecast of the 2005 inflation

In line with our practice over the past few years, an assessment is provided of the MNB's forecast for 2005 inflation. ¹² Our forecasting activity is once again assessed on the basis of two considerations: on the one hand, forecast errors are decomposed to reveal the extent to which the various macro-economic factors have contributed to the deviation of our forecasts from the actual data (absolute analysis ¹³), and on the other, the performance of the MNB's forecasts is compared to the forecasts of market analysts polled by Reuters (relative analysis).

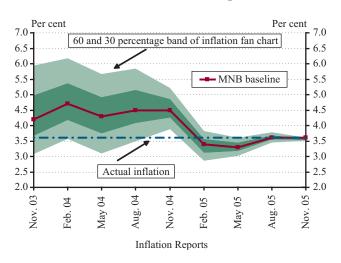
The comparability of central bank and other analyses is rendered more difficult by the fact that market analysts make unconditional forecasts, while the MNB's forecasts are conditional. One of the most important conditions and probably the most different from those applied by market analysts are the exchange rate assumptions. If the MNB's projections had been made with the exchange rate trends assumed by market analysts, our conclusions would have remained essentially unchanged.

Overall, a review of the forecasts of 2005 inflation reveals that the marked disinflation seen in 2005 came as a surprise to all analysts: none of them, including the central bank, anticipated such a significant fall in inflation over a time horizon longer than one year. However, at a horizon of less than one year, the MNB was the first to recognise the evolution of a low-inflation environment and consequently the MNB's short-term forecasts proved to be more accurate than the market average. For the most part, the general surprise caused by lower-than-expected inflation resulted from the combined impact of unforeseen global developments and country-specific inflation trends distinctively characterising Hungary.

The MNB has been publishing forecasts of 2005 inflation since November 2003. ¹⁴ Long-term MNB forecasts overestimated the 2005 average rise in prices by 0.7–1.1 percentage points. Its short-term projections, however, practically corresponded to the actual low inflation rate, as the MNB recognised the pricing developments resulting from the new low-inflation environment at an early stage.

Chart 9

The MNB's forecasts of the 2005 average rate of inflation



It should be pointed out that the MNB's forecasts were based on the nominal path expected in 2004 H1, which differed from the current nominal path to a great extent. The rate of inflation jumped strongly following the hike in indirect taxes in early 2004, and with regard to certain products inflation had actually already risen in the six months preceding the tax hike. During that period wage growth seemed to be stabilising at around 10%, and the nominal exchange rate was far lower than it is currently. These trends suggested that there was a considerable risk that disinflation would come to an end as a result of the hike in indirect taxes.

Accession to the EU and changes in labour market adjustment have generated disinflation in the Hungarian economy

However, the actual data on macroeconomic developments in 2004 H2 failed to confirm these expectations. Thus, the MNB's assessment of adjustment in the economy and the expected new inflationary environment was modified slightly in late 2004 and significantly in early 2005. These changes were dictated by several simultaneous factors: on the one hand, monetary policy successfully sta-

¹² Our previous analyses were published in Sections V.1 and IV.4 of the February 2004 and February 2005 issues of the Inflation Report, respectively.

¹⁸ In the course of decomposition, we endeavour to distinguish technical factors, which are due to differences between assumptions and the realisation of variables considered as 'conditions' (e.g. exchange rates, world market oil prices, fiscal policy) in the MNB's forecasts, and the errors that may be caused by an inappropriate understanding of macro-economic developments or changes in earlier prevailing macro-economic correlations.

¹⁴ Due to the fact that since August 2005, the MNB has been publishing only the forecasts of annual average inflation rates, in contrast to the previous years, from 2006 its forecasts are assessed with the help of this indicator. We wish to note, however, that a similar conclusion could have been drawn from an assessment of the December index.

bilised inflationary expectations by keeping the exchange rate broadly flat and real interest rates high. Meanwhile two factors, both of which were difficult to calculate, also contributed to the development of the far lower-than-expected ex ante inflation rate. We did not expect the economic upturn to encounter practically flat labour demand, and the latter to have insignificant pressure on aggregate wages. Similarly, we could not have expected the rapid increase in labour supply, which reduced the pressure of demand on wage inflation. The combination of these factors resulted in a gradual decline in wage inflation and a rapid rise in productivity in 2004 and 2005. As a result, the rise in the unit wage cost slowed in the corporate sector.

Nevertheless, it should be pointed out that the overwhelming majority of errors in the MNB's forecasts resulted from the unexpected disinflation in tradables. The increase in import competition that followed Hungary's accession to the European Union slowed the pace of price rises, or even reduced prices in a relatively wide range of products directly through cheaper import goods, and indirectly via its disciplinary impacts on competitors' pricing practice.¹⁵

New kinds of disinflationary effects which are difficult to capture have obscured the macroeconomic relationships prevailing in earlier inflationary developments

Developments in world market oil prices reduced errors in the forecasts published by the MNB practically over the entire horizon of analysis, and as a result of a broadly flat exchange rate, technical exchange rate assumptions have had a negligible impact on the differences between the MNB's forecasts and the facts since mid-2004. As exogenous developments (such as trends in the world market prices of oil) and the technical assumptions we applied reduced the forecast errors, the overestimation stemming from the expected macroeconomic developments exceeded the actual error.

As the short-term forecasts provided by the MNB rapidly adjusted to the changed, lower-than-expected inflationary environment, unexplained errors affected the differences between the MNB's forecasts and the facts only slightly or not at all at this horizon.

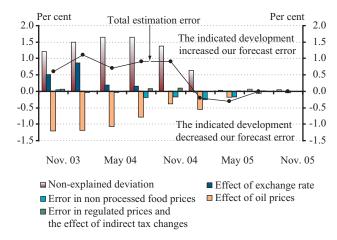
These so-called unexplained errors significantly exceeded similar deviations made in earlier years over similar horizons, especially in the case of forecasts for periods of over one year. Possible reasons primarily include the aforemen-

tioned macroeconomic changes during 2004-2005. One major unexplained modelling error is due partly to the modified nominal adjustment in the economy (moderate labour demand, increasing labour supply, rapidly rising productivity), and partly to the joint impact of the disinflationary exogenous shocks affecting the economy (increasing competition in imports and trade in the wake of EU accession), which cannot currently be forecasted using the explanatory variables at our disposal, and the anti-inflation monetary policy.

Chart 10

Deviation of the MNB's forecasts of the 2005 annual average rate of inflation from the actual data in a breakdown

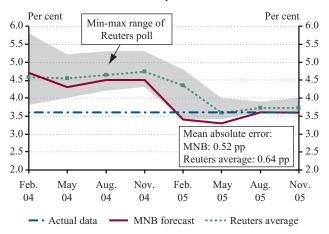
(deviation=projection-fact)



The forecasts made for a horizon over a year, i.e. in 2004, characteristically exceeded the actual average rise in prices by one percentage point. Significant difference is seen, however, between the interpretation of inflation

Chart 11

Forecasts of 2005 inflation by the MNB and Reuters



¹⁵ Similar reasons have also resulted in lower-than-expected inflation in other countries in the region (e.g. the Czech Republic, Poland and Slovakia).

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developments by market analysts and the MNB at the beginning of the previous year. This was the first time the MNB published its assumption that 2005 inflation might permanently drop to levels far lower than previously thought. With a view to the fact that, with a single excep-

tion, the MNB's forecasts were among the optimistic predictions (reckoning with lower inflation rates) over the entire forecast horizon, the actual inflation environment resulted in far larger errors in the case of market analyses than in the MNB's forecasts.

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