MAGYAR NEMZETI BANK

Quarterly Report on Inflation

- update -

February 2007

Published by the Magyar Nemzeti Bank
Publisher in charge: Gábor Missura, Head of Communications
1850 Budapest, 8–9 Szabadság tér

www.mnb.hu

ISSN 1419-2926

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.*

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 Gergely Kiss, Economist. The *Report* was approved for publication by István Hamecz, Director.

Primary contributors to this *Report* also include, Judit Antal, Péter Gál, Zoltán Gyenes, Cecília Hornok, Hedvig Horváth, Zoltán M. Jakab, Éva Kaponya, Szabolcs Lőrincz, Gábor Orbán, Dániel Palotai, Balázs Párkányi, 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 12th of February and 26h of February 2007. 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.

Contents

Overview

Sharper decline in inflation in 2008

The most important message of our forecast is that inflation may be lower than previously expected over the policy horizon, if our assumptions are realised. In the next few months, the rate of inflation is expected to stay around 9 per cent, which is higher than what we forecasted in November. Starting from the end of the year, however, we expect an even stronger fall in inflation than in our earlier forecast. The inflation path indicates that the annual average rate of inflation in 2008 may be close to the medium-term objective.

Major macroeconomic correlations remained unchanged

This *Quarterly Report on Inflation* is an update based on the main scenario of the overall forecast published in November 2006. The changes reflect the effects of our rule-based assumptions as well as the latest data and information received in recent moths. Despite the different inflation path, in which significant numeric changes have taken place, our view of medium-term macroeconomic developments has not changed in terms of the main directions and economic relationships.

As the inflationary impact of the fiscal measures begin to fade, declining domestic demand and a loose labour market point towards lower inflation. In line with our November projections, we assumed in our baseline scenario that expectations are well-anchored over the medium term, and the uncertainty related to the price and wage coordination mechanism is incorporated in the distribution of risks around the baseline.

Increases in regulated prices are significant over the short run

As for the inflation outlook, changes in regulated prices are the dominant factor in the near future. Due to decisions by the government and local governments on regulated prices and restructuring of the subsidy systems, inflation is projected to be higher for the first half of 2007 than we had previously forecasted.

Strong decline in inflation is expected from H2

Compared to our earlier forecast, a sharper decline in inflation may occur from the second half of the year, mainly as a result of a favourable shift in our basic assumptions (e.g., a stronger EUR/HUF exchange rate and a significant drop in world market oil prices). Over the longer horizon, this favourable effect is complemented by the dwindling impact of the price shock stemming from the rise in regulated prices. Therefore, our current calculations suggest that, starting from the summer of 2007 until the end of 2008, inflation may decline quarter by quarter, and parallel to this, the wide gap which has existed for a longer time between core inflation and the overall consumer price index may gradually diminish. All in all, both core inflation and the overall consumer price index can decrease to the level consistent with the medium term inflation target by the second half of 2008.

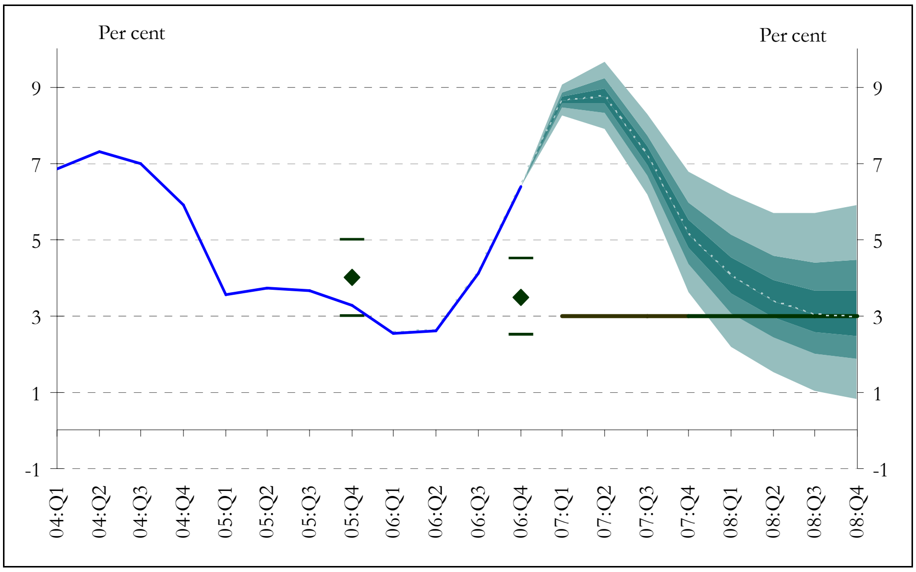
Growth below potential

All in all, our view remains unchanged, in the sense that, due to a decline in domestic demand, the GDP path is expected to lag behind the level of potential output in 2007–2008 in Hungary. Sustained favourable external business conditions as well as more optimistic European forecasts will continue to strengthen the dynamics of Hungarian exports. However, in assessing the long-term prospects, it should be taken into account that investment in manufacturing has declined in recent quarters, departing from the regional trend, which is characterised by strong growth in investment. It is also important to note that a methodological change in calculating the national accounts, namely the introduction of chain-linked indices, renders it more difficult to compare recent data and forecasts to earlier GDP statistics.

Asymmetrical upside inflation risks next year

The sources of uncertainty surrounding the baseline scenario have remained broadly unchanged. Inflation expectations and their impact on wage agreements appear to be the most significant of these risk factors. Looking two years ahead we see a major upside risk from this particular source, and this will be further aggravated in 2008 by the feasibility risks inherent in the government's proposed wage freeze. Risks around the baseline GDP forecast are considered to be balanced for both years.

Inflation forecast fan chart*



** 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 for 2006 and the continuous, horizontal line from 2007 show the value of the announced inflation targets.*

Summary table of updated main scenario

(The forecasts are conditional: the main scenario reflecting the most probable scenario that applies only if all the assumptions presented materialise. Percentage changes on a year earlier unless otherwise specified.)

	2005		2006		2007		2008	
	Actual		Actual/Estimate		Projection			
	Nov.	**Current**	Nov.	**Current**	Nov.	**Current**	Nov.	**Current**
Inflation (annual average)								
Core inflation[1]	2.1		2.3		6.1	**5.6**	4.0	**3.3**
Consumer price index	3.6		3.9		6.9	**7.4**	4.1	**3.4**
Economic growth*								
External demand (GDP-based)	2.0		2.9	**3.6**	2.2	**2.5**	2.3	**2.2**
Household consumption*	2.1	3.8	2.4	**1.5**	-0.9	**-0.9**	0.0	**0.5**
Fixed capital formation*	6.7	5.6	4.2	**1.1**	2.1	**2.3**	4.3	**4.3**
*Domestic absorption**	*0.8*	*1.4*	*0.9****	***1.7*****	*0.0****	***0.5*****	*1.4*	***1.6***
Exports*	10.7	11.6	15.7	**15.9**	9.8	**12.1**	9.1	**10.2**
Imports*	6.5	6.8	12.1***	**12.3*****	7.4***	**9.4*****	8.4	**9.0**
GDP*	4.1(4.3)**	4.2 (4.4)**	3.9	**3.9(4.0)****	2.5	**2.5**	2.4	**2.6**
Current account deficit[2]								
As a percentage of GDP	6.8		7.1***	↓	5.5***	↓	4.3	↓
EUR billion	6.0		6.2***	↓	5.2***	↓	4.3	↓
External borrowing requirement[2]								
As a percentage of GDP	6.0		6.0***	↓	4.1***	↓	2.6	↓
Labour market								
Private sector gross average earnings	6.9		8.3	↑	7.3	↔	7.0	↔
Private sector employment[3]	0.3		1.6	↔	0.3	↔	0.5	↔
Household real income	3.6****		2.5	↓	-3.8	↓	1.7	↑

[1] *For technical reasons, the indicator that we project may temporarily differ from the index published by the CSO; over the longer term, however, it follows a similar trend.* [2] *As a result of uncertainty in the measurement of foreign trade statistics, from 2004 actual current account deficit and external financing requirement may be higher than suggested by official figures or our projections based on such figures.* [3]*According to the CSO labour force survey.*

* *Due to the changes in the calculation methodology followed in the National Accounts and to data revisions carried out simultaneously at the end of last year, our forecasts for the whole of GDP or for its various components presented in November 2006 and in the current update cannot be directly compared (for more details see the article entitled 'The impacts of changes in the applied methodology and of data revisions in the national accounts').*

** *Adjusted for the leap-year effect.*

*** *Our projection for 2006–2007 includes the impact of the Hungarian Army's Gripen fighter procurement, which raises the current account deficit and increases government consumption and imports.*

**** *MNB estimate.*

↑ *We are of the opinion that this particular forecast is expected to be higher than what is contained in the November 2006 issue of the* Report.
↓ *We are of the opinion that this particular forecast is expected to be lower than what is contained in the November 2006 issue of the* Report.
↔ *We are of the opinion that this particular forecast is expected to be about the same as what is contained in the November 2006 issue of the* Report.

1 Latest macroeconomic developments[1]

1. 1 Slight setback in GDP growth

In the middle of 2006, the rate of economic growth in Hungary showed little fluctuation, although it was slightly lower than the average of the last two years. In the third quarter, GDP grew by 3.8 per cent compared to the same period of 2005, approximating the estimated potential growth rate. Looking further back, the GDP growth rate for 2006 Q3 was consistent with a gradual decline in the growth rate we had forecasted previously.[2] This period continued to show signs of an earlier trend, notably that the deceleration of economic growth was accompanied by a shift in the structure of growth. Amidst stagnating domestic absorption, the contribution of net exports was the only driving force behind economic growth. This has also brought about changes in the structure of production, with the manufacturing industry gaining weight while the construction industry has lost ground.

Box 1–1 Impacts of changes in the applied methodology and of data revisions in the national accounts

Prior to releasing its GDP figures for 2006 Q3, the CSO made numerous revisions in its methods of calculating the National Accounts, mainly for the purpose of harmonising Hungarian statistical procedures with the EU standard, and thereby enhancing international comparison. Some of the revisions[3] were limited to routine data corrections, while others involved the methodology used and also had a significant impact on the growth rate. In respect of these methodological changes, the most important aspect from a statistical standpoint was the introduction of the so-called chain-linking method. The following analysis presents a brief illustration of this method.

Relying on previous experience, GDP growth and its components are measured using so-called *base year* indices. In essence, this means that the volume of any particular aggregate (e.g. consumption, investment projects, GDP, etc.), and the relevant growth rate are calculated from the constituents of the aggregates, from the weights of a base year (this being the year 2000 for the purposes of recent data disclosures) at current prices. This type of assessment of economic output can serve as an unbiased measure of growth as long as there are no shifts in the structure of the economy nor any notable movements in the relative prices of the various products or sectors. In view of the rapid development of technologies and the transformation of economic structures, this criteria is satisfied less and less even over the short run. As the base year recedes farther and farther into the past, the weights (updated every fifth year under the previous method) gradually represent the current structure of the economy less and less accurately; in other words, they are more likely to distort growth indicators.

A new method, known as *chain-linking*, is able to significantly reduce the impact of this problem. The essence of this method is that aggregation is carried out based on the weights of the previous year, rather than on the weights of the base year, eliminating any distortion that may result from changes in economic

[1] Our analysis was conducted based on the information received up to 19 February.

[2] This is supported by the latest GDP growth figure, according to which dynamics declined further in the fourth quarter, as the gross domestic product grew only by 3.2 per cent relative to the same period last year.

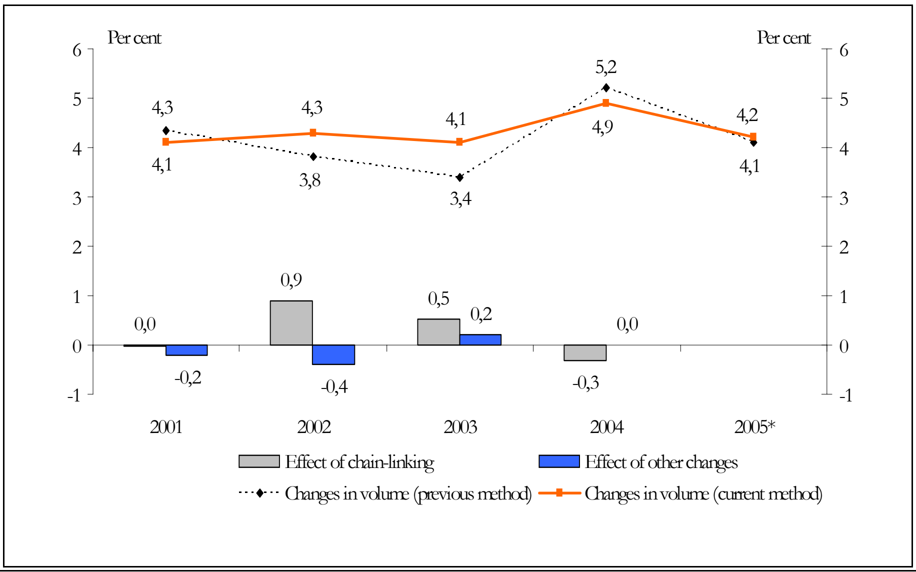
[3] Some of the revisions involved only the figures in real terms (application of chain-linking, direct measurement of the volume of government sector activities), while the larger segment is concerned with both types of figures, showing current prices and figures in real terms alike (updating the FISIM accounting system, accounting of illegal activities, changes in methodology affecting international trade, adjustments in methodology of amortisation, routine data corrections). For more information on the latter group of changes, please see the CSO publication entitled 'Gross Domestic Product 2005 (preliminary data II.)'. The impact of changes involving current prices on GDP was +1.6 per cent on average between 2001 and 2005.

structure. On the other hand, one disadvantage of this method is that the resulting time series (weighted average price deflators from the previous year) tend to lose their comparability over time, because the changes in the data of consecutive years reflect both changes in prices and volumes. A constant price representation of a real variable time series could be obtained by multiplying values of a reference year by chain-linked volumen indices. However, these time series – which does not include the reference year and the year following it – will lose its property that the sum of the components exactly matches the main component under review (in this case, GDP). The reason for this is exactly that the weights used for the calculation of volume growth (at prices of the previous year) differ from the weights of the reference year.

All things considered, the greatest advantage the new method offers is that it is capable of providing a more accurate picture of the current status of the economy. On the other hand, it fails – primarily for analytical purposes – in that the data calculated by the average prices of the previous year are not comparable over time, and that the adjusted volume (real) time series lose their additivity.

Adoption of the chain-linking procedure – in light of the rapid structural changes in the Hungarian economy in recent years – did result in a significant increase in economic growth. The changes in the applied methodology mentioned in the introduction boosted the rate of economic growth by 0.15 percentage points on average in the period from 2001 to 2004, where a 0.3 percentage points increase is attributed to the switch to the chain-linking method, which was compensated to some extent by impacts generated by other changes.

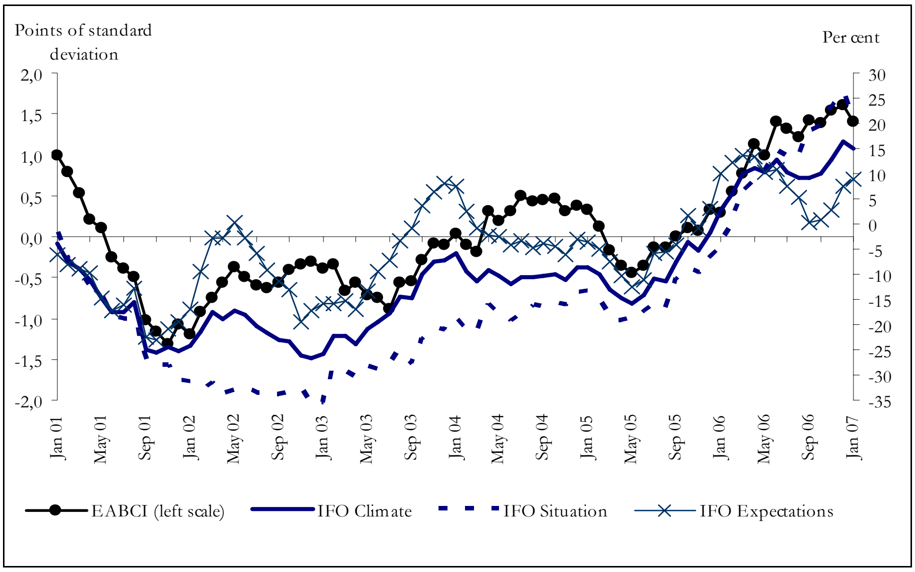
Chart 1–1 Economic growth in Hungary between 2001–2005



1. 2 Stronger-than-expected external demand

The outlook for external demand has improved significantly since our November *Report*. In reflection of this positive turn of events, several economic analysts from Germany and the European Commission have revised up their forecasts for economic growth in Germany. Indicators of international economic activity suggest that the momentum of external demand may be more sustainable than previously expected. The robust external demand is reflected in the increase in the volume of industrial production in November, and the favourable outlook for international economic activity (instead of the previously expected slowdown) may imply a more dynamic path for industrial production than previously forecast. Nevertheless, the data on industrial production and export orders suggest that the effect of external economic activity on Hungarian manufacturing is weaker than observed during similar external cyclical developments in previous years.

Chart 1–2 Business climate index of the euro area (EABCI) and Germany (IFO)



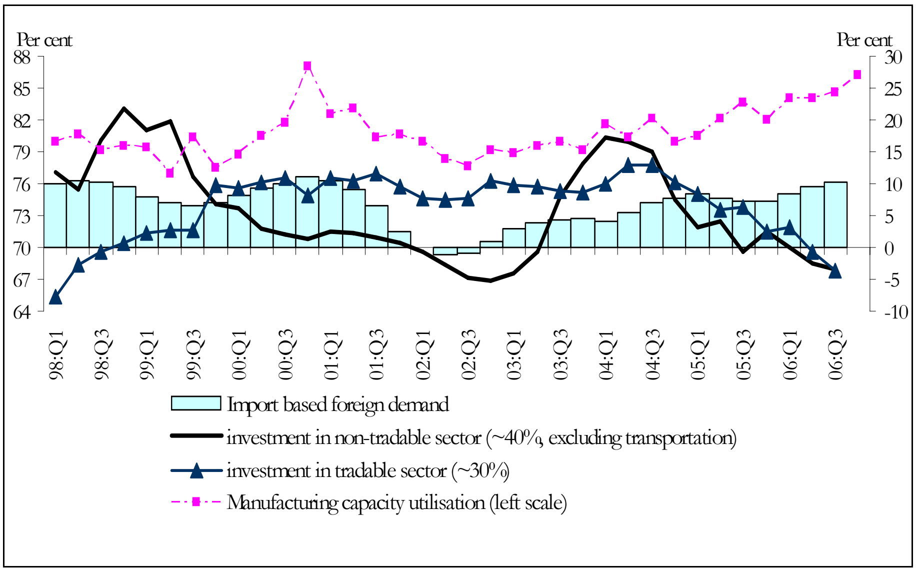
The surprisingly durable international cyclical upturn further boosted the momentum of exports in the third quarter, while slower growth in imports remains linked to the more general drop in domestic absorption, as was the case throughout the whole of last year. The widening gap between the growth rates of exports and imports brought the level of exports and imports considerably closer to one another, thus bringing the balance of trade in goods and services to a practically neutral level in 2006. Data for international trade for the fourth quarter indicate that the momentum of goods exports was solid for the whole of 2006, and that it was more dynamic than imports.

1. 3 Declining investment activity

For the first time in over ten years, the annual investment indices showed a decline in two consecutive quarters. While the volume of investment in sectors linked to domestic demand more or less met our expectations, it came as a surprise that investment in the export sector declined in the second quarter, despite strong external demand and high capacity utilisation, and that there was no correction in this regard in the third quarter. There is a great deal of uncertainty concerning the reasons for this drop-off in investment. Potential explanations include concerns relating to the sustainability of external economic activity, and the unfavourable changes in Hungary in terms of the macroeconomic environment, legislation and taxation. Last but not least, the uncertainty stemming from the all-too-frequent tax changes likely also contribute to the dismal outlook for investment decisions.[4] The relevance of domestic factors appears more probable in light of the fact that other economies in the Central and Eastern European region did not experience a similar decline in investment.

[4] It may be argued that the dynamic inflow of foreign direct investment could disprove the hypothesis of additional country-specific risk factors. It should be kept in mind, however, that foreign direct investment is only one source of corporate investment, and the relationship between these two factors has been rather loose in past years.

Chart 1–3 Investment, foreign demand and capacity utilisation
Annual average volume indices



1. 4 Declining consumption demand

Recent information supports our view of a widening gap between external and internal demand. In 2006 Q3, household consumption continued to grow very moderately relative to the strong rates seen in the 2004–2005 period. From the middle of the year, household expectations worsened considerably, with a dampening effect on consumption demand, which may have been offset in the third quarter by a new wave of borrowing and by the substantial wage outflows, even though the latter is attributed to temporary factors to a certain extent, such as payments brought forward in light of labour-related taxes and contribution rate increases.

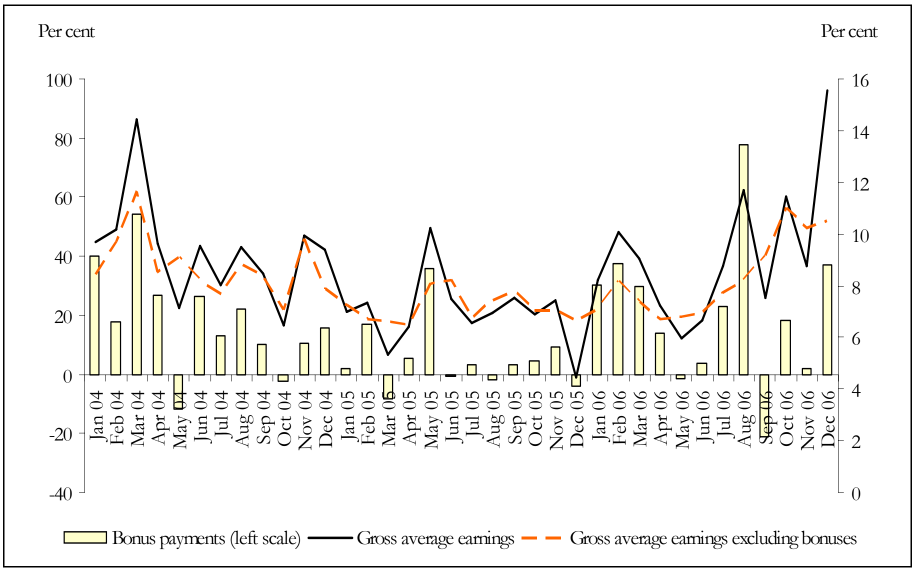
The volume of retail sales in October and November strongly support our projection of a considerable slowdown in the growth of retail sales in the fourth quarter relative to the first half of 2006. One plausible explanation behind the decline in sales observed across a wide range of products could be the negative impact of the austerity measures on households' purchasing power. The growing demand for foreign exchange based mortgage loans may offset the negative impact of the government measures on overall consumption, to the extent that it reflects efforts to smooth consumption over time.

1. 5 Loosening labour market conditions, sustained wage pressures

In November 2006, gross average earnings increased by 8.6 per cent in the private sector in comparison to the year before. The information received since then falls within the range contained in the November *Report*: more specifically, wage dynamics continue to remain on the strong side. Looking ahead, however, we do not expect any further strengthening, nor any setback as far as wage pressures are concerned. The OÉT (National Council for the Reconciliation of Interests) agreement concluded in early February (fixing an increase in gross earnings in the private sector between 5.5 to 8 per cent as agreed by the employers and the trade unions) is also in line with our prognosis, taking into consideration that the rate of actual wage increases in recent years was often higher than what the OÉT had recommended.

Based on the figures for August and September, it appeared that the increasing wage outflow during the summer is not an indication of overall wage pressures, rather was linked to the payments of bonuses made in advance reacting to changes in the regulatory environment. In light of the further increases of employment-related taxes in January it is entirely possible that we will witness similar trends at the end of the year.[5] At the same time, the constant rise in regular payments might indicate some improvements in expectations, although the distorting impact of the increasing termination of bogus contracts ('whitening') may also have some influence.

Chart 1–4 Wage inflation in the private sector
Annual growth indices



According to previous years' experience, sectoral wage dynamics exhibit extremely high volatility, and thus should be assessed with a great deal of caution. That said, in recent months two sub-sectors of the private sector have been relatively sharply separated as far as wage dynamics are concerned. While in the manufacturing industry (with the exception of the machine industry) the growth rate of wages generally declined, in the service sector there is evidence for high or increasing wage dynamics, with the one possible exception of financial services.[6] This phenomenon definitely deserves special attention in that the slowdown in the growth rate of domestic absorption generates unfavourable conditions in terms of demand for services, whereas manufacturing is still faced with strong (external) demand, and is characterised by rapid growth in productivity.

As far as the workforce employed in the private sector is concerned, the aggregate labour force participation rate grew according to our projection in the fourth quarter of 2006, but this was accompanied by an increase of the level of employment as well as an increase in the number of unemployed persons. The fact that strong wage dynamics are developing in a gradually loosening labour market environment may indicate that inflation expectations have also increased to a certain extent, due to the inflation generating effect of the austerity measures.

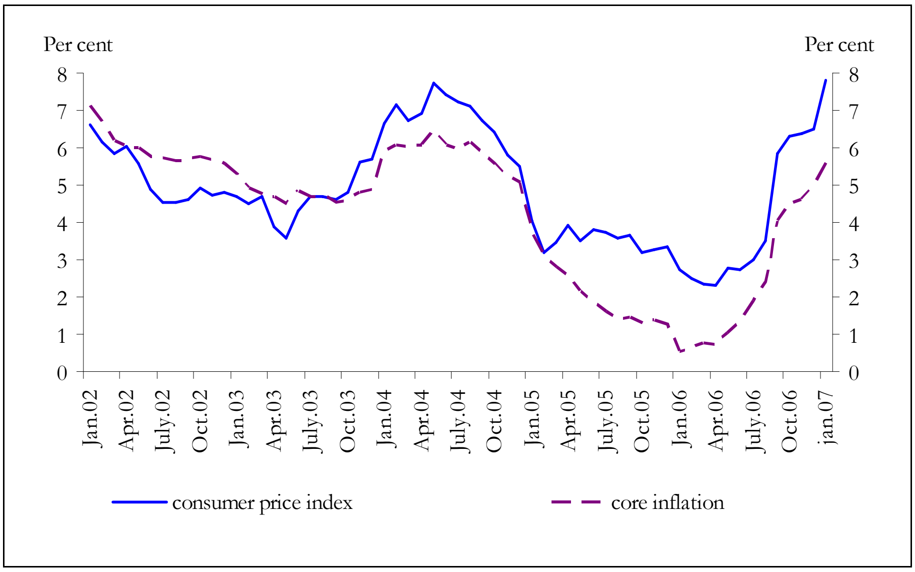
[5] Following the closing date for data in this projection (19 February 2007), additional information arrived concerning private sector wages in December and wage negotiations between the government and public sector trade unions. Both point to upside risks to our baseline wage path.

[6] The accelerating growth of registered wages in the non-financial service sector may be linked to the 'whitening' of bogus contracts, among others, for these types of contracts are believed to have been especially widespread in these sectors. In all likelihood the 'whitening' process will result in higher costs for employers and less money for the workers, it appears certain that – depending on the real extent of whitening – wage figures will somewhat exaggerate the demand and cost pressure stemming from wages.

1. 6 Inflation developments in line with our expectations

In the fourth quarter the growth rate of consumer prices accelerated in line with our November forecast: the one-year consumer price index stood at 6.5 per cent, while core inflation was 5 per cent. The seasonally adjusted short-base core inflation index exclusive of indirect tax changes – a good gauge of underlying inflation developments – did not accelerate any further during the last quarter, which also fit in with our expectations.

Chart 1–5 Consumer price index and core inflation
Year-on-year indices

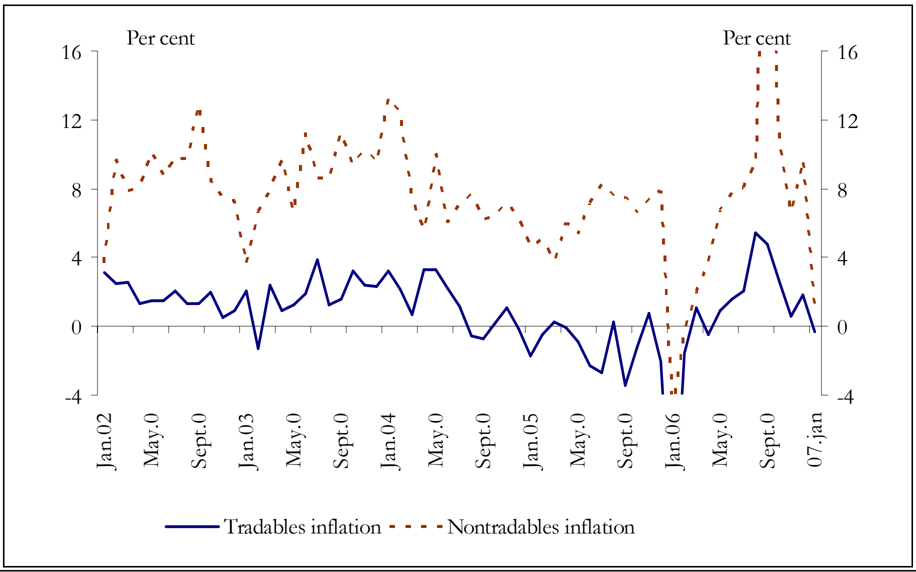


The last quarter of 2006 was marked by a broad-based rise in the inflation rate. Concerning certain components of core inflation, the price level of manufactured goods, after its previous fall, rose in the second half of last year. The delayed effect of the EUR/HUF exchange rate is also the reason why the continuous appreciation of the forint since August was not translated into lower inflation in manufactured goods until the past couple of months. In market services, after the shocks caused by the changes in indirect taxes, the rate of inflation returned to above its previous level, to around 8 per cent (month-on-month annualised) in the fourth quarter. The reason for the particularly sharp increase in the prices of processed foods, apart from the above, may lie in the cost pressure from unprocessed foods and the unwinding of the downward effect of the intensified competition since Hungary's accession to the EU and other global factors.

Box 1–2 Assessment of the January inflation figures

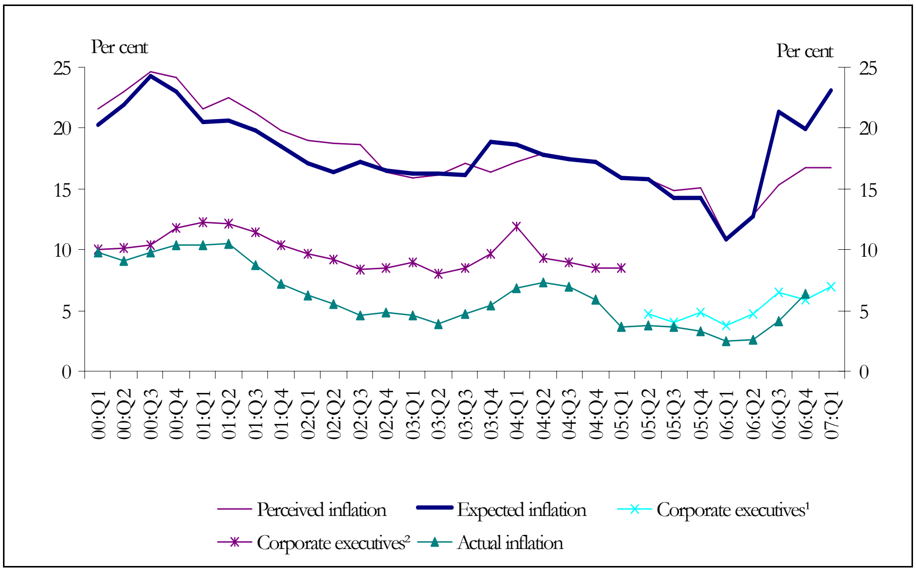
One of the most important questions in connection with the surge in inflation in the second half of 2006 was to determine whether the rise is temporary or permanent. While one observation does not allow for a definitive assessment, the consumer price index for January, and in particular the core inflation index suggests a scenario in which the strong inflation pressure in the middle of 2006 was, for the most part, temporary. On the one hand, according to the January data, inflation slowed considerably, primarily for goods in international trade (manufactured goods and processed foods), which may indicate that, apart from the depreciated EUR/HUF exchange rate, other factors contributed to higher inflation only temporarily. On the other hand, disinflation was observable in market services, as seen in particular in the short-base dynamics, which is an adequate measure of underlying developments. This data, however, should be assessed in light of the relatively volatile time profile of market services inflation, and thus its seasonal adjustment is subject to considerable uncertainty.

Chart 1–6 Inflation of industrial products and services
Seasonally adjusted, annualised monthly growth



The inflation expectations of the general publicare at their highest levels in the past six years, following a steep rise in the middle of 2006. This may be attributable to the currently high inflation rates, as the inflation expectations of the public show a particularly strong statistical relationship to the current rate of inflation, pointing towards the dominant effect of backward-looking expectations. At the same time, the gap between perceived and predicted inflation has widened significantly since the middle of 2006, and was still evident in the beginning of this year, which is an indication of an actual increase in expectations. The corporate survey shows a trend in expectations that is well below that of households, but that is rising as well.

Chart 1–7 Inflation expectations[7]



Source: Tárki.[1]Medián, [2] Tárki

[7] The survey posted the following questions: Please indicate the percentage of increase/reduction in prices experienced in the last 12 months, expect for the next 12 months.

2 Outlook for inflation and the real economy

2. 1 GDP growth expected to decline further

In our main scenario, which fixes the exchange and interest rates at their January average and the fiscal path as projected in our November *Report* (see Table 2–1), we forecast a pronounced slowdown in economic activity and expect the gross domestic product to drop below its potential level over the next two years.

Table 2–2 Changes in major assumptions relative to the November *Report**

	November 2006		Current		Change	
	2007	**2008**	**2007**	**2008**	**2007**	**2008**
Central bank base rate	8,00	8,00	8,00	8,00	0,0***	0,0***
Forint/euro árfolyam	267,3	267,3	253,1	253,1	-5,3	-5,3
Dollár/euro árfolyam (cent)	126,2	126,2	130,2	130,2	3,2	3,2
Brent olajár (dollár/hordó)	64,8	67,2	56,9	60,6	-12,1	-9,8
Brent olajár (forint/hordó)	*13722*	*14228*	*11064*	*11772*	*-19,4*	*-17,3*

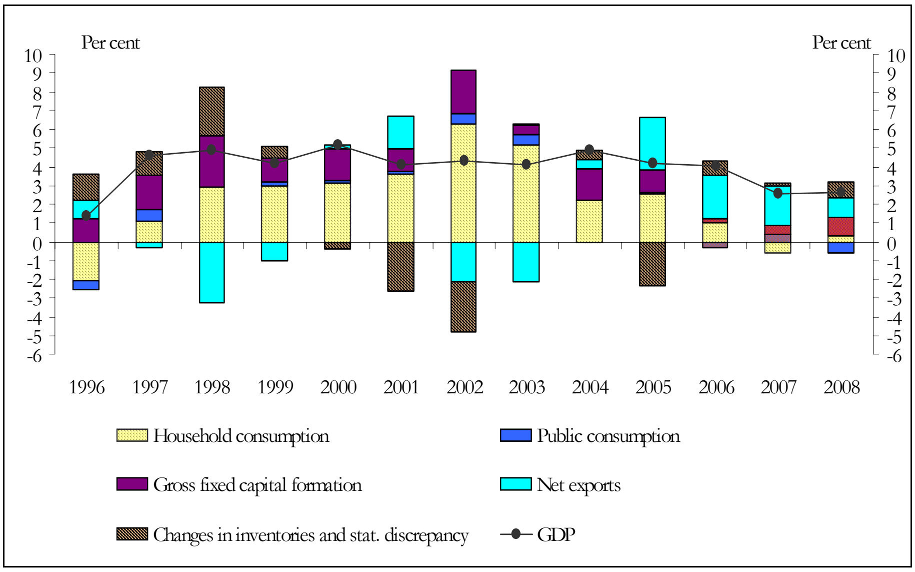
* *Annual averages on the basis of the average exchange rate in effect in January 2007 and the forward oil price path.*
** *Year-end figures.*
*** *Difference in percentage points.*

Looking at the individual components of GDP relative to our November path, given the stronger-than-expected economic activity on the export markets, we have raised our forecast for net exports, even though the effect of the more favourable external demand is to some extent offset by the appreciation of the real exchange rate. Our consumption forecast for 2008 moved upwards, given higher real incomes as inflation moderates while nominal wages remain more persistent. Finally, in our view, in this particular situation investment is likely to influence the outlook to a larger degree than its weight in GDP would imply. In line with the slowing of domestic absorption, we do not expect any change in the investment activity of the sectors primarily serving the domestic market, while in the sectors producing for foreign markets a slight increase in investment is forecast. This moderation in overall investment may also imply that the strong economic activity in foreign markets will have only a limited impact on the Hungarian economy.

As a consequence of these factors, the update shows a slight shift relative to November toward a more dynamic growth path; however, no real upswing is expected up to the end of 2008, as the annual growth indices are expected to remain below 3 per cent at the end of next year. With the methodological revisions implemented by the CSO, it is impossible to express the changes in our view of the real economy in numerical terms, as the previous growth rates cannot be directly compared to the forecasts prepared in accordance with the new methods (for details on changes in GDP methodology see Box 1-1).

For the next two years we foresee further changes in the growth structure. While in 2007 the contribution of net exports is offset by weak investment and lower household and government consumption, we project a more balanced growth structure for 2008. Although according to our forecast, the demand impact from the central budget will remain negative, a slight increase in consumption and in investment – with the involvement of EU funds – will increase the contribution of domestic absorption to GDP growth in 2008.

Chart 2–1 GDP growth and contributions by the various factors
Based on annual changes



2. 2 Slight improvement in our external balance prognosis

In contrast with previous expectations, the external deficit narrowed somewhat in 2006. The reduction in the external financing requirement is attributed mainly to the fact that the financing requirement for the consolidated general government was significantly lower than expected, and also to favourable developments in external demand. Nevertheless, our forecast for the current account deficit is not altered significantly, mainly because the lower financing requirement for the general government has no effect on our prognosis for the deficit path for 2007–2008. Consistent with our earlier forecast, we expect that close to two-thirds of the impact of the fiscal adjustment measures for narrowing demand will materialise in a lower external borrowing requirement in 2007–2008. The drop in corporate investment in 2006, on the other hand, indicates that the financing capacity of the private sector may decline by less than previously expected, which also means that our external borrowing requirement forecast contains some downside risks over the forecast horizon.

2. 3 Inflation: opposing tendencies in 2007–2008

Due to changes in the path of the real economy, in the information base and in our main assumptions, we have modified our inflation forecast upward for 2007, and significantly downward for 2008, which brings the forecast for 2008 in the proximity of the inflation target. The largest impact on the inflation path came from the considerably stronger exchange rate assumption relative to the November forecast and from the new information on the timing and extent of increases in regulated prices. Based on the outlook for the real economy and nominal developments, the economy is on the path which we outlined in November. Over the past few months we have not received any new information, aside from the changes in our main assumptions, that would render it necessary to alter our view of future inflation developments.

According to our calculations, the appreciation of the EUR/HUF exchange rate since the November *Report* will have the largest impact during 2008.[8] The disinflationary effect resulting

[8] A similar change in our exchange rate and oil price assumption occurred between our August 2006 and November 2006 forecasts. An important difference between the two cases is that the disinflationary impact of the change in

from the new (5 per cent stronger) exchange rate and the (approximately 20 per cent lower) oil price assumption will be compensated by the rise in regulated prices at a rate markedly higher than we forecast in the November *Report*, which implies raising our inflation forecast for 2007. The hike in regulated prices will result in higher inflation by close to 1 percentage point this year relative to our November forecast, and this in turn will lift the consumer price index to around 9 per cent for several months during the spring[9] (for details on our forecast of regulated prices see Box 2-1). Some moderation in price pressures may be expected thereafter, and inflation should start to decline in the autumn, bringing the rate of consumer inflation close to the medium-term inflation target by the second half of 2008. It is important to note that the inflationary impact of the increase of regulated prices will no longer be felt in 2008, which also means that the gap between headline and core inflation will gradually narrow.

Table 2–3 Inflation forecast main scenario

	07 Q1	07 Q2	07 Q3	07 Q4	08 Q1	08 Q2	08 Q3	08 Q4
Core inflation	6,3	6,6	5,6	4,1	4,0	3,5	3,1	2,7
Consumer price index	8,6	8,8	7,2	5,1	4,0	3,4	3,0	3,0
Annual averages								
Core inflation	5,6				3,3			
Consumer price index	7,4				3,4			

Our forecast would not be altered considerably if we were to use the exchange rate and interest rate expectations contained in the January Reuters survey for the inflation forecast. Assuming an exchange rate of EUR/HUF 256 at end-2007 as expected by market analysts would imply inflation less than 0.1 percentage point lower for 2007, while the appreciation expected for 2008 would yield a marginally lower inflation rate for 2008 than in our baseline scenario.

Box 2–1 Expected developments in regulated prices

In our current forecast the rise in regulated prices is predicted to be 4.9 per cent higher for 2007 and 1.9 lower for 2008 compared to the November *Report*. The impact this has on consumer price index is 1 and -0.4 per cent, respectively. Additionally, for 2007 we also expect the introduction of the visitation fee to further increase the consumer price index, with an estimated impact of around 0.2 per cent.[10]

The higher figure forecasted for 2007 for regulated price inflation is primarily due to the increase in the prices of pharmaceutical products, public transportation and district heating at a rate higher than previously expected.

With regard to pharmaceutical products, we forecast a substantial increase mainly among subsidised medicines. According to our calculations, the reduction in subsidies will result in about 30 per cent higher prices for the products affected from mid-January, in other words the price increase for the pharmaceutical market overall is around 20 per cent.

In respect of public transportation, we take into account the higher prices already introduced in the local transport systems, plus the rising rates in long distance travel to be introduced in two phases (in February

assumptions was offset by unfavourable developments on the labour market, while our present view of the labour market is not materially different from that in November 2006.

[9] In addition, we take into account the introduction of visitation fees, which appears in core inflation for methodological reasons.

[10] The procedure or the accounting of visitation fees is still unclear. The potential solutions point toward an impact of 0.2–0.6 per cent on the consumer price index. In our current forecast we based our figures on the method we deem the most appropriate, which in fact results in the lowest impact on the consumer price index of all the potential candidates. On the other hand, it carries the risk of a higher consumer price index, for we do not know which method the CSO will eventually follow.

and May). Furthermore, we also included the proposed changes in the system of travel allowances set to take effect in May.

Previously, the greatest uncertainty we saw in the field of regulated prices was related to prospective developments in gas prices. In light of the natural gas price compensation scheme which is now available for review we stand by our forecast of a 23 per cent price increase for 2007.

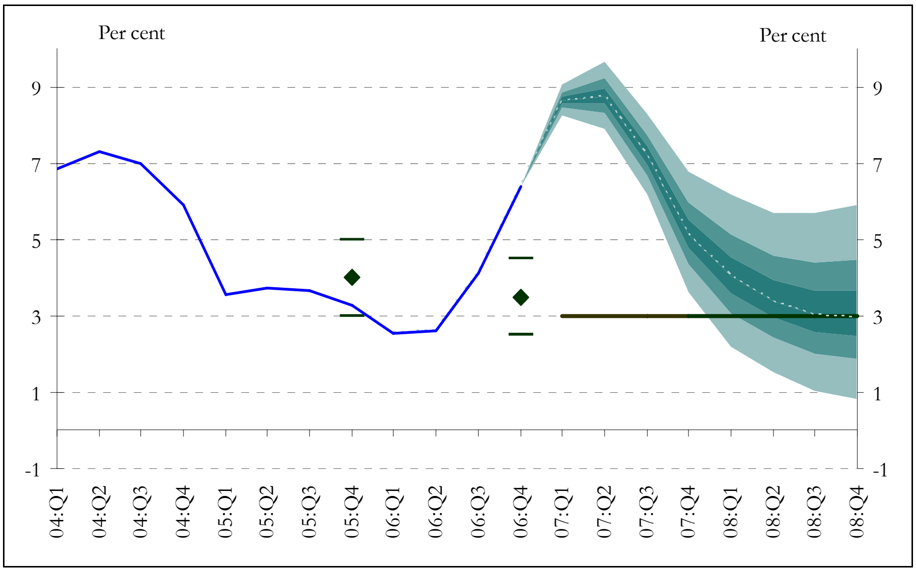
At the same time, for 2008 our current forecast indicates a smaller increase in gas prices than postulated in the November *Report*: this is the most important reason for the reduction in our expectations concerning the changes in regulated prices for 2008. As we previously did not know the details of the natural gas price compensation scheme (e.g. the method of accounting for it in the price index), we based our forecast on the assumption that all consumers would pay the import prices, which would have resulted in an additional 23 per cent hike from the beginning of 2008. In light of the current compensation scheme we expect to see a 10 per cent price increase for 2008.

2. 4 Slightly upward inflation and symmetrical growth risks

We have identified six major risk factors that – if they materialised – could lead to different results relative to the baseline forecast. The five risk factors mentioned in the November *Report*, namely 1) inflation expectations, 2) the extent of consumption smoothing, 3) the disinflationary effect of aggregate demand, 4) the implementation of the announced government measures, including the wage freeze planned in the public sector for 2008, and 5) the uncertainty surrounding gas prices, are still to be taken into consideration. Uncertainty in relation to external demand, which is proving to be more robust than previously expected, has now also been added to this list.

As in November, in connection with the inflation outlook, inflation expectations and their impact on wage agreements appear to be the most significant of these risk factors. Looking two years ahead we see a major upside risk from this particular source, and this will be further aggravated in 2008 by the feasibility risks inherent in the government's proposed wage freeze. One sign that the latter risks are growing stronger is that budgetary institutions are allowed to use their own income to pay out wages. As far as downside risks are concerned, in 2008 we place a larger emphasis on prospects that the gas price increase will turn out to be lower, rather than higher, relative to the basic forecast. In light of the fact that in the past decade the rate of decline in internal demand was never as sharp as the path outlined in our main scenario, in our view the extent of consumption smoothing constitutes a substantial uncertainty factor, as well as the disinflationary effect of the slowdown in aggregate demand. At this time we have no information indicating that these risks would point to the same direction relative to the main scenario.

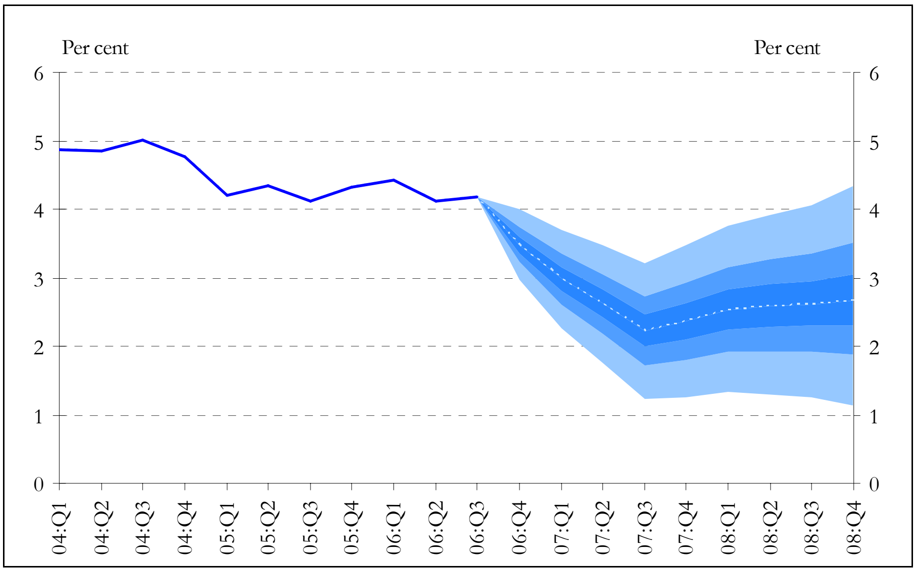
Chart 2–2 Inflation forecast fan chart*



** 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 for 2006 and the continuous, horizontal line from 2007 show the value of the announced inflation targets.*

In our opinion, the risks surrounding the GDP forecast appear symmetrical for both years. In the background there are downside risks for 2007 if households are not able to smooth their consumption to the extent predicted in the main scenario; this may possibly be compensated by favourable foreign economic activity, if this were to last longer than predicted in the main scenario, and by the higher-than-anticipated payments of wages in the public sector. In 2008, external demand no longer generates any additional upside risks, however, the other two effects will come close to neutralising one another.

Chart 2–3 GDP fan chart*



** 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 GDP illustrated by the white dotted line (as the mode of distribution) refers to 30 per cent of the probability.*

3 Assessment of our inflation forecasts for 2006

Traditionally, at the end of each year we examine the accuracy of our forecasts prepared for the year in question. These inquiries are undertaken so that we can learn from our mistakes, better understand economic trends and developments, and ultimately improve our forecasting capabilities.

We published forecasts for 2006 inflation on nine occasions since November 2004.[11] This period was characteristically overshadowed by the numerous shocks to the economy, first and foremost on the cost side. As time went by, the estimations we made in response to individual shocks gradually took over from demand and supply and became the dominating force in our forecasts. At the same time, the aforementioned time period can be divided to three distinct periods: the first period ends at the middle of 2005, the second period at the middle of 2006, and the third covers the period since then.

In the first period, our view concerning inflation was dominated by two factors. One was the flood of price increases in 2004, attributed mainly to the rise in indirect taxes, with the other being the surprisingly fast disinflation thereafter. In this period, the inflation figures were more favourable month after month than what we had expected, which we ascribe to stronger competition after Hungary's accession to the EU, the reduction of imported inflation and a decline in inflation expectations. At the same time, it was not clear, and it caused a great degree of uncertainty as to which of these factors would fade and which would remain, and to what extent and over what horizon they would support disinflation.

However, from the middle of 2005 developments took an opposite turn. First of all, the proposed programme of tax cuts increased the probability that inflation would drop even further over the short and medium term. Secondly, it was obvious that the proposed path for the macroeconomy was not sustainable, even though we were unable to take this aspect into consideration in our forecasts. In the meantime, the rate of inflation for items outside core inflation and imported products began to rise, foreshadowing an increase in core inflation through secondary effects.

Around the middle of 2006 there was a sharp turn in inflation trends: specifically, the government took the decision to embark on a stabilisation programme, which directly resulted in a sharp increase in inflation. Moreover, and partly due to the proposed government measures, several other events occurred that also led to higher inflation. On the one hand, the rise in indirect taxes may have brought forward price increases which had originally been planned for a later date, and on the other hand, it presented an opportunity to increase prices in sectors which were not directly affected. This may have been supported by the fading disinflationary impact of more intense competition since Hungary's accession to the EU, as well as by rising inflation expectations. Additionally, pressure on the cost side was further exacerbated by a weaker exchange rate and rising oil prices. The government measures triggered a process of adjustment in the labour market as well. Nominal wages started to rise, although it is not yet clear whether this was due to tax reasons or inflation expectations. All in all, higher inflation became a common phenomenon by the end of the year.

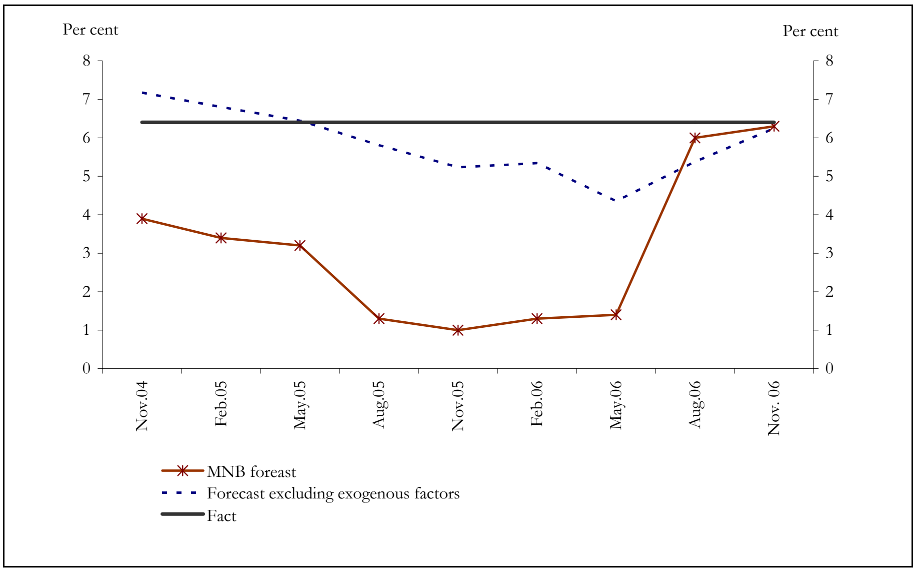
As demonstrated by the above analysis, our view on the economy and on how it operates changed frequently during the past two and half years, and this is reflected in the assessment of

[11] More precisely, this analysis is for inflation for the fourth quarter of 2006 since the year before. This index was selected for the reason that it is limited to the price increases that took place during 2006 (unlike the annual average), plus the relevant MNB forecasts were continuously available in our *Reports*, unlike the December index looking back to a whole year.

our forecasts. In the first period, we gradually reduced our forecast for the end of this year from 4 to 3 per cent. In the second period, from the middle of 2005 we lowered our prognosis even further, to between 1 and 2 per cent, due mainly to the cut in VAT rates. We should point out that our forecasts are conditional, which means that in our forecasts we can only take into consideration the government measures that have either been implemented or officially announced. This rule is followed even when we are of the opinion that the proposed path for the macroeconomy can not be sustained, as we indicated on every single occasion up to the middle of 2006. Finally, during the third period, in the wake of the announcement of the stabilisation programme we increased our forecast to above 6 per cent from the second half of 2006, due in large part to the increases in indirect taxes and higher regulated energy prices.

Chart 3–1 Inflation forecast for the fourth quarter of 2006

Yearly changes

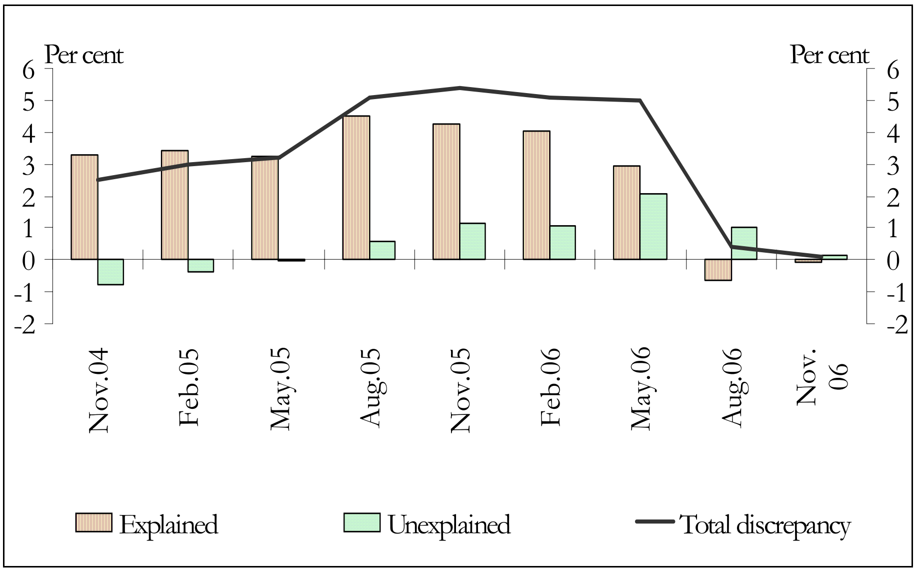


The actual data (6.4 per cent) was ultimately higher than what we had ever predicted. The average difference stood at 3.3 percentage points, with a relatively large (2 percentage point) standard deviation.[12] This number, however, says little about the reliability of our forecast models, as we prepare our forecasts on the basis of fixed assumptions and on the information available at the moment. Conclusions may be drawn relying on a time series that shows the type of forecast we would have given had we known the path of variables that were treated as exogenous factors in our forecast.[13] The difference between the resulting time series (minus any exogenous factors) and the actual data gives the modelling error. The average of this modelling error is 0.5 percentage point, or 15 per cent of the error in the original forecast.

[12] This error is about three times greater than the errors seen in recent years.

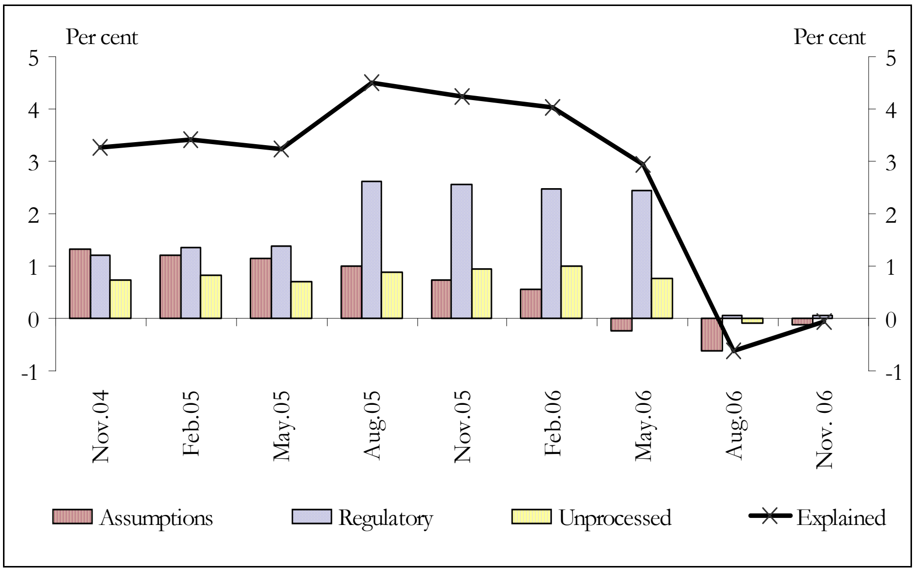
[13] This way we were able to apply in our models the following variables as they materialised later on: EUR/HUF exchange rate, EUR/USD exchange rate, oil prices in the world market, previous estimates for the direct impact of indirect tax increases, regulated prices and prices of unprocessed foods.

Chart 3–2 Difference between forecasted and actual figures, and its factors
Percentage points



The fact that exogenous factors indicate a close to 3 per cent error margin on the average also shows that the economy suffered an extremely high number of – often contradictory – shocks over the past two years. The most important of these were related to changes in the regulatory environment, such as changes in indirect taxes and increases in regulated energy prices.

Chart 3–3 Breakdown of errors attributable to exogenous factors
Percentage points

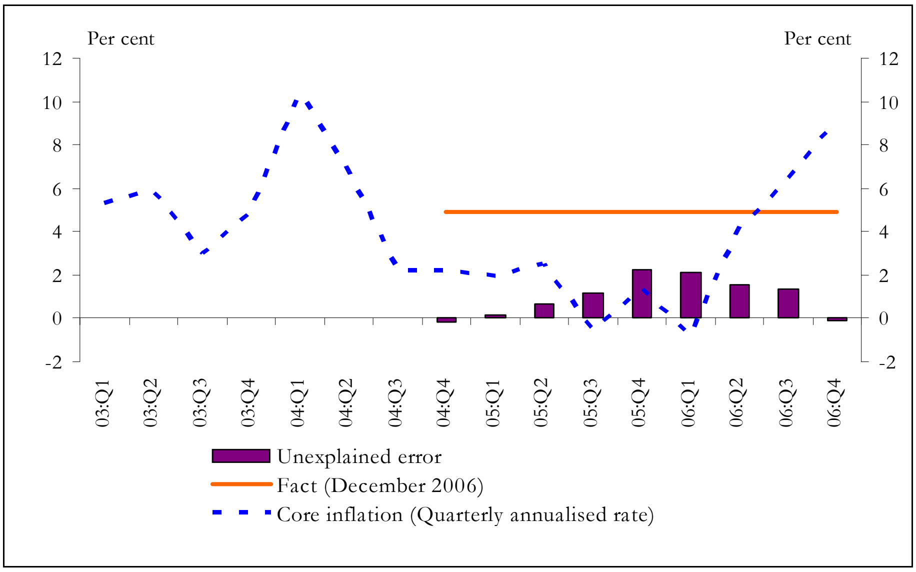


Lessons must be drawn from the errors that cannot be attributed to exogenous factors. This forecasting error is negative up to the middle of 2005, then it turns positive, in other words in the beginning we overestimated, and then we underestimated inflation in our models. We are of the opinion that this is primarily due to the fact that the series of shocks in recent years caused substantial fluctuations around the long-term inflation trend that is relatively well captured by cost factors. From the second half of 2004, presumably due to some extent to Hungary's EU accession, import prices went down and competition turned more intense in certain sectors, which is likely to have eroded firms' profitability. It was already obvious at that time that access to lower import prices can only temporarily reduce the consumer price index. Furthermore, when companies have the opportunity to restore profitability, we will see consumer prices go up to a larger extent than cost increases would imply. However, the timing of these developments was uncertain. It now seems that in the second half of 2006 the government's stabilisation package accelerated this process. Moreover, it also seems feasible that the secondary impacts of fiscal measures – first and foremost through higher inflation expectations – induced additional price increases, but this is surrounded by considerable uncertainty.

Another difficulty that frequently arises in the forecast process is how quickly new information on developments differing from previous trends is to be incorporated. In other words, one key issue is deciding whether new information implies a turning point, or if it merely generates effects which are unique and temporary. As previously, we have utilised the new information in the forecast little by little. As we have used this procedure in connection with the short-base development of core inflation as well, we have displayed the break that took place on two occasions (in the middle of 2004 and 2006) gradually in the prognosis.

Chart 3–4 Core inflation forecast for the fourth quarter of 2006 and short-base core inflation index

Yearly changes, unless otherwise indicated



In addition to the aforementioned assessment, it may be interesting to see a comparison of the MNB forecast with the average of the Reuters survey.[14] The error margin in the forecasts of market analysts and research institutions was 0.6 percentage point below that of the MNB. We are unable to determine the reason for this difference, as the assumptions and models that these analysts work with are unknown to us. The MNB's forecasts were lower than the analysts' forecasts in the quarters preceding announcement of the government's decision to introduce a fiscal stabilisation programme that had an inflationary effect and the difference disappeared just after the announcement of the government's measures.[15] In our opinion, on the other hand, there is no difference between the two forecasts that may be relevant for the purposes of monetary policy: during the first period both came close to the target, in the second period they were both well below, and in the third period well above the target.

[14] We used the MNB forecast for the fourth quarter and the December forecast of analysts. The resulting distortion is unlikely to exceed 0.1 percentage point.

[15] However, it is very likely that a number of analysts have applied some type of fiscal adjustment (at least from the second half of 2005) in their forecast, that may partly explain their higher average inflation forecasts.

Chart 3–5 MNB and Reuters average inflation forecast
Yearly changes