MAGYAR NEMZETI BANK

QUARTERLY REPORT ON INFLATION

Update

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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.*

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, Principal Economist. The Report was approved for publication by István Hamecz, Director.

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The Report incorporates valuable input from the Monetary Council's comments and suggestions following its meetings on 7th of August and 28th of August 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.

Contents

Overview

Substantial modifications in the macroeconomic scenario compared to May

This Report is an update of the macroeconomic forecast published in May. Some major modifications had to be applied to our macroeconomic findings put forth in the May Report. The primary reason for this being that numerous measures have been adopted and announced, which have led to substantial changes in the paths for the economy, inflation and the government budget outlined in May. The updated forecast is based on a full macroeconomic and fiscal assessment, due to the significance of measures taken.

Inflation exceeds targets on the forecast horizon, paired with a deceleration of economic growth

Given our assumptions on fixed central bank base rate and nominal exchange rate of 278 EUR/HUF, our forecast is for annual average inflation to rise substantially to 7 per cent in 2007. Although inflation is likely to ease back gradually somewhat below 4 per cent by the end of 2008, it is expected to remain well above the inflation target. At the same time, we expect a marked deceleration of economic growth. GDP growth in the coming years will slow to 2.5 per cent, falling below the potential growth rate of the economy.

The macro path may become sustainable, but there are substantial feasibility risks

The measures, if implemented in full, will contribute significantly to the creation of a sustainable macroeconomic path – less susceptible to equilibrium risks. The government's financing requirement is expected to decrease significantly, by around 6 per cent of GDP, due to the fiscal measures. Hungary's overall external financing requirement will improve at a somewhat slower rate than this, because the net financing capacity of households and the corporate sector will deteriorate slightly.

However, it must be noted that the baseline projection involves serious implementation risks. This applies in particular to some of the measures aimed at reducing expenditures (e.g. freezing wages for two years and lay-offs in the public sector, freezing the expenditures of agencies), the realisation of which involves great uncertainty. We must also point out the role of administered prices (especially natural gas), which may have a significant inflationary impact over the entire horizon.

According to our estimations, the direct inflationary impact of fiscal measures is 3 per cent in 2007 and around 1 percent in 2008.

…while shorter and longer term inflation risks have become much stronger.

Uncertainty around the baseline scenario has two major sources. Firstly, second-round effects of fiscal measures might point to higher inflation. Secondly, lower aggregate demand might reduce inflation. With household consumption falling more sharply in the short run than in the baseline scenario, inflation and growth may be lower. In our opinion, the uncertainty pointing towards higher inflation would manifest itself if inflation expectations stabilise at a higher level due to the inflation shock. This may lead to a higher wage path, and lower employment and growth. As a whole, the distribution of uncertainty of our projections on both inflation and growth is considered to be symmetric relative to the baseline scenario. However, substantial and unambiguous upside risks to inflation appear on the entire forecast horizon in comparison with the inflation targets.

Latest data point to a turning point in trend inflation

Other conditions in the forecast's main scenario also point towards higher inflation: a weaker forint exchange rate and higher oil prices in the world market compared with May. It is important to mention the impact of data received since May, because these indicate a higher inflationary environment than earlier, particularly as concerns processed foods and market services. In our assessment, one of the major reasons for this is the weakening of the previously strong impact of increased market competition on consumer prices.

Decreases in real income and household consumption

Real disposable income of households is expected to be reduced substantially by the tax measures. Most probably households will try to adapt to this situation by cutting net savings. The magnitude of this depends on how permanent these measures are perceived and on the extent to which households will be able to smooth consumption. The substantial real income shock will lead to a decline in consumption in 2007-2008.

Loosening labour market conditions, decelerating investments

Falling demand and increasing labour costs may have an adverse effect on investment and labour demand in the corporate sector, which may result in easing labour market conditions, magnified by lay-offs of civil servants. As a consequence, the increase in wages hardly exceeds the rate of inflation in 2007 in our baseline forecast. Nevertheless, over the longer term one has to take into consideration that some participants in the labour market set nominal wages in a backward-looking manner. This leads to a wage growth in excess of inflation in 2008, but as productivity growth may exceed real wage growth, some modest profitability gains in the corporate sector is expected.

Growth is slowing is spite of continuous expansions in net exports…

As a whole, domestic absorption will decelerate significantly and will have a dampening impact on imports. At the same time, there is no major change in the outlook for buoyant external demand. The slowdown in growth is mitigated by the continuing positive role of net exports. GDP will grow at around 2.5 per cent in 2007-2008, and it will fail to reach the potential growth rate.

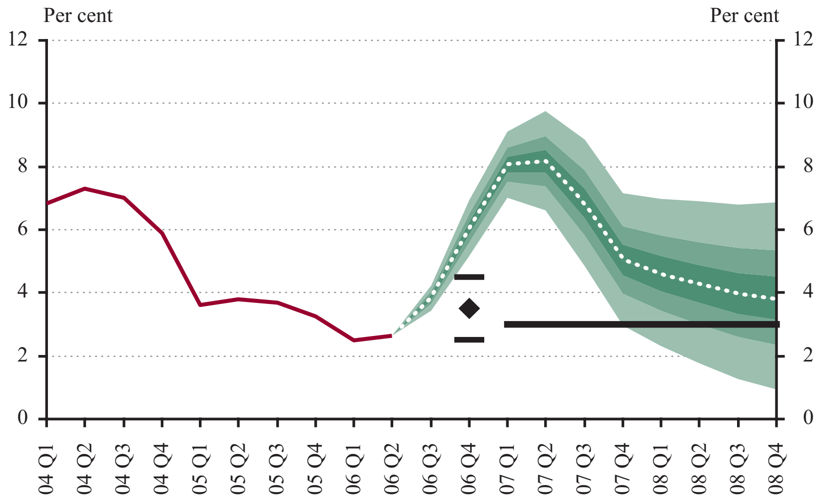
At the start the measures announced boost cost inflationary pressure…

In our baseline forecast the economy experiences cost shocks from inflationary, demand, regulated price and indirect tax effects simultaneously, as a result of the fiscal measures. Initially, the scene is dominated by the direct inflationary impacts of the rises in indirect taxes and regulated prices. Over the short term, these are complemented by measures that increase costs, and which may force the corporate sector to raise prices.

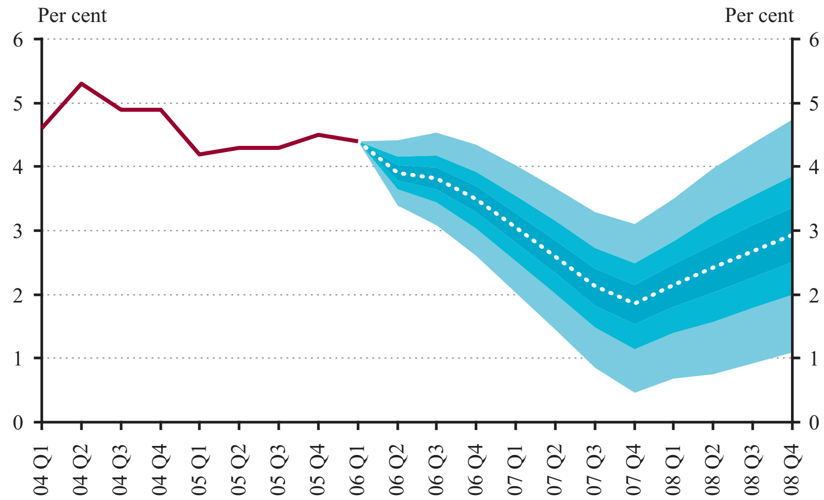
which is decelerated in the longer term by demand factors.

In addition to the influences mentioned above, the measures affecting incomes act as a drag on household and aggregate demand. The initial and immediate pick-up in the inflation rate can only be partly compensated by demand factors towards the end of the forecast period.

Inflation fan chart



GDP growth fan chart



Summary table of the main scenario

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

	2004	2005	2006	2007	2008
	Actual		Projection		
Inflation (annual average)					
Core inflation[1]	6.0	2.2	2.0	5.6	4.4
Consumer price index	6.8	3.6	3.8	7.0	4.2
Economic growth					
External demand (GDP-based)	2.4	2.0	2.2	2.1	2.3
Impact of fiscal demand[2]	-0.5	0.8	1.8	-4.1	-1.7
Household consumption[3]	3.6	1.4	2.5	-1.0	-0.3
Gross fixed capital formation[3]	8.0	6.6	6.3	2.0	4.3
Domestic absorption[3]	*4.1*	*0.8*	*1.5****	*-0.2****	*1.1*
Export[3]	15.8	10.8	13.7	9.5	9.4
Import[3,4]	13.5	6.5	10.8***	6.9***	8.3
GDP[3]	5.2 (5.0)**	4.1 (4.3)**	3.9	2.4	2.5
Current account deficit[4]					
As a percentage of GDP	8.6	7.4	8.1***	5.9***	4.7
EUR billions	7.0	6.5	7.0***	5.3***	4.5
External financing requirement[4]					
As a percentage of GDP	8.3	6.6	6.9***	4.5***	3.0
Labour market					
Whole-economy gross average earnings[5]	5.9	8.9	6.8	4.4	4.5
Whole-economy employment[6]	-0.4	0.0	0.4	-0.4	0.5
Private sector gross average earnings	9.3	6.9	7.9	6.7	6.7
Private sector employment[6]	-0.2	0.3	1.0	0.1	0.6
Private sector unit labour cost	2.3	2.2	4.3	4.3	3.9
Household real income	3.9	3.7****	4.3	-4.3	2.0

[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] Calculated from the so-called augmented (SNA) type indicator; a negative value means a narrowing of aggregate demand.

[3] Actual data contain the impact of the CSO national balance revision received on 16 May.

[4] 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.

[5] Calculated on a cash-flow basis.

[6] According to the CSO labour force survey.

** Assumption for a fiscal impulse implicitly consistent with the macroeconomic path; no detailed fiscal projection can be prepared for lack of a Budget Act for 2007-2008.*

*** In 2004, the leap-year effect caused an upward distortion in GDP growth of some 0.2 percentage points, and a downward one in the same amount in 2005. In order for trends in growth to be assessed, these effects must be applied to adjust the original data; corrected values are shown in brackets.*

**** Our projection includes the impact of the Hungarian Army's Gripen purchase, which raises the current account deficit and increases community consumption and imports.*

***** An MNB estimate.*

1. Latest macroeconomic developments

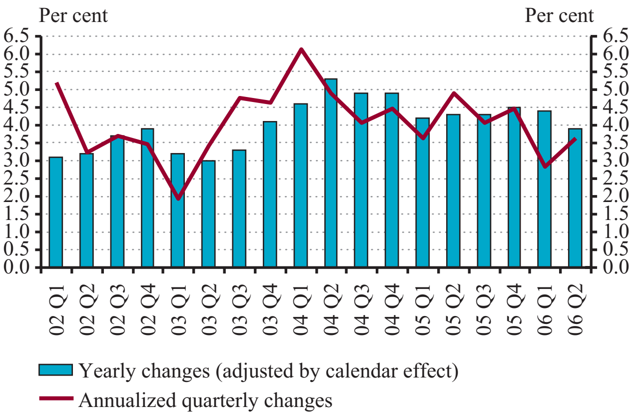
Slight slowdown in growth with vivid investments and foreign demand

In the first quarter of 2006 the economy grew faster than the previous year's average (4.6 per cent annual index). The flash estimate for the second quarter shows 3.9 per cent annual growth taking into account calendar effects. Hungarian economic growth continues to fluctuate around its potential level.

The short-base index, however, indicates a deceleration in growth in the first half of this year, mainly caused by the outturn for the first quarter. Based on the flash estimate, there is some acceleration in the second quarter, though this might be partly temporary in nature.

Chart 1-1

Annual and annualised quarterly growth rate of GDP
(annualised quarterly growth adjusted seasonally and for calendar effects)



In terms of macroeconomic equilibrium, it is quite favourable that on the *expenditure side* growth was dominated by net exports and gross fixed capital formation, while household consumption played a lesser role, similar to the case in 2005. The upswing in gross fixed capital formation was observed in all three sectors: this growth was attributable to corporate investment, the expansion of the state infrastructure and growing housing investment by households as well. On the other hand, the latest flash estimate for GDP shows that the role of investment (and most notably residential investment) has diminished. A key source of growth on the production side was the dynamic expansion seen in manufacturing, primarily in the machine industry. Both production and expenditure side data indicate that the performance of the domestic economy was led mainly by increasingly robust external economic activity.

In the first two quarters, *foreign trade developments* continued to show rather dynamic growth in exports and somewhat lower import dynamics, which resulted in a substantial decrease in the deficit on goods trade – by around EUR 100 million compared to a year earlier – and reached EUR 1.1 billion. The decrease in the trade deficit was also attributable to buoyant international economic activity and moderate domestic demand, with a corresponding impact on exports and imports. Business confidence indicators for Hungary's key foreign trade partners – the euro area and, within that, Germany in particular – continue to show vivid economic activity, but the latest figures suggest that the turning point in this cycle may be near. With respect to the uncertainties surrounding imports, it must be pointed out that the especially low April value was corrected in May, and in June exports and imports showed practically identical yearly dynamics.

The asymmetry in domestic and foreign demand also characterises *industrial output*, and hence judging aggregate trend processes involves some uncertainty. A substantial slowdown can be observed in the sector producing for domestic markets:[1] a clear turnaround in trends occurred in recent months, reversing the upswing that started in the autumn of 2004. By contrast, companies producing for export continue to show strong growth, in line with the brisk pace of international economic activity. At present, there is no sign of a turnaround in this trend, with an annual increase in volumes close to 15 per cent.

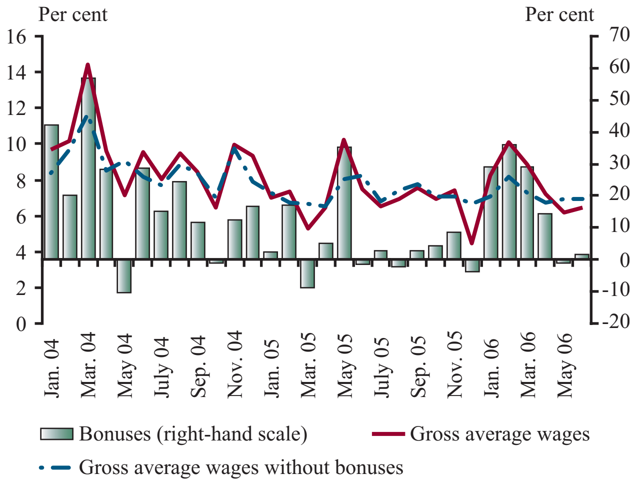
Greater-than-expected slowdown in wage dynamics in the second quarter

According to data for recent months, there has also been a definite slowdown in wage dynamics: the adjustment of wages in the private sector from the start of the year was higher than earlier expectations. However, it must be mentioned that, according to the latest information, the exceptional rate of wage growth at the beginning of the year was not so much caused by the increase of the minimum wage, but rather by bonus payments (see Chart 1-2). As the outstanding wage dynamics in the first quarter of this year is more a positive earnings shock than a cost (minimum wage) shock, this may have an impact on the future macroeconomic scenario as well.

[1] It is worth mentioning, however, that latest (June) data show some acceleration of domestic sales. In our view, this is only of temporary nature.

Chart 1-2

Regular and non-regular payments in the private sector
(annual growth rates, percentage)



On the whole, gross average earnings in the private sector grew by 7.8 per cent in January-June 2006 compared with the same period of 2005. In recent months, the strongest decrease in wage inflation was seen in market services, while wage indices in manufacturing declined only modestly.

According to labour force statistics, *unemployment* continued to fall moderately in recent months. According to labour surveys the expansion of activity in the labour market and the increase in employment rates had an opposite impact on unemployment. As a result of these impacts – and reflecting the dominance of employment – the seasonally adjusted unemployment rate decreased slightly in the first half of the year, reaching 7.2 per cent in the second quarter.

Still moderate expansion in consumption demand

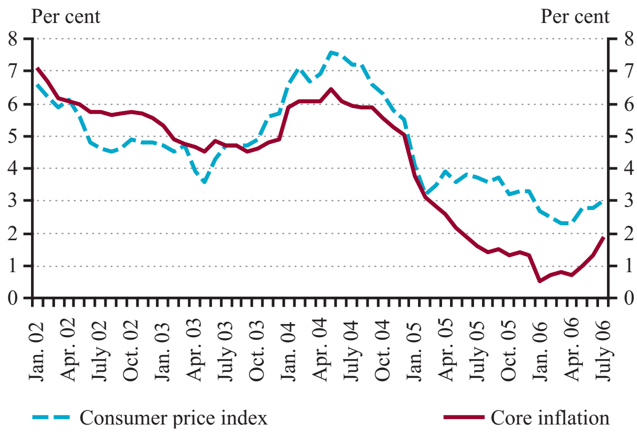
According to GDP figures for the first quarter, the expansion of *household consumption* remains moderate in spite of a slight acceleration (2.6 per cent annual growth rate). One-off impacts such as the VAT cut at the beginning of the year, the minimum wage increase and the aforementioned bonus payments may have also played a role in the upswing registered in consumption. The latest retail sales data for May indicate a gradual slowdown in consumption dynamics. A sharp fall in household confidence during May and July could also point to further a slowdown in consumption.

All components of trend inflation are accelerating

Inflation accelerated in the second quarter of 2006. The *consumer price index* and core inflation stood at 2.6 per cent and 1.0 per cent, respectively. The increase in inflation continued in July: in comparison with the preceding month, headline inflation rose by 0.2 per cent to 3 per cent, and core inflation stood at 1.9 per cent, 0.6 per cent higher than in the preceding month. Although the actual figures are themselves not yet high, inflation developments in recent months were mostly unfavourable.

Chart 1-3

The consumer price index and core inflation
(annual growth rates)



The first step in the evaluation of inflation developments is the removal of the impacts of the VAT cut at the start of the year, which – taking into account the technical impact (1.9 per cent) as well pricing behaviour[2] – is around 1.0 percentage points according to our calculations. The VAT rate cut temporarily distorts the economic interpretability of year-on-year inflation indices, so the short-base indicators – which are better at capturing inflation trends – are appreciated in the analysis. However, methodological uncertainty may be caused by seasonal adjustment in case of the latter method.

Trend inflation data for recent months are evidence of a definite acceleration in inflation and in core inflation, but this is not yet fully reflected by longer-base indices. The rising inflation trend is also supported by the analysis of individual components of the price index.

As regards trend developments, the change in *market services prices* is important. The VAT rate cut at the start of the year affected around two-thirds of market services, so the one-off impact must be filtered out from the lasting fundamental developments in this field as well. In the first

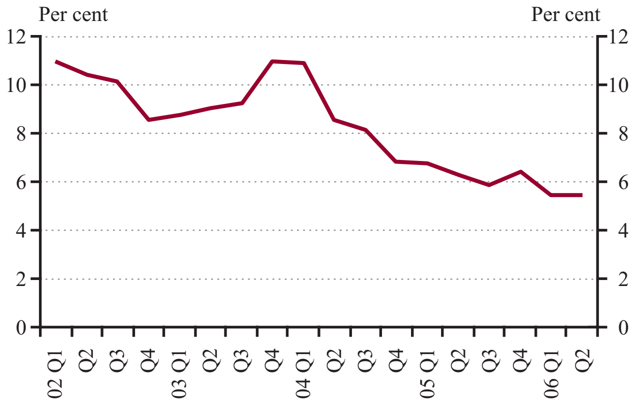
[2] In the markets of various products pricing is determined primarily by the intensity of competition, the price elasticity of demand and price transparency.

months of the year, seasonally adjusted data indicate that strong disinflation commenced among market services – regardless of the impact of VAT. However, based on data from the spring and summer months greater caution is needed: the price dynamics of market services started to return to a modest downward trend in inflation, observed in previous years.

Chart 1-4

Inflation of market services not affected by the VAT rate cut in early 2006

(seasonally adjusted, annualised quarterly index, percentage)

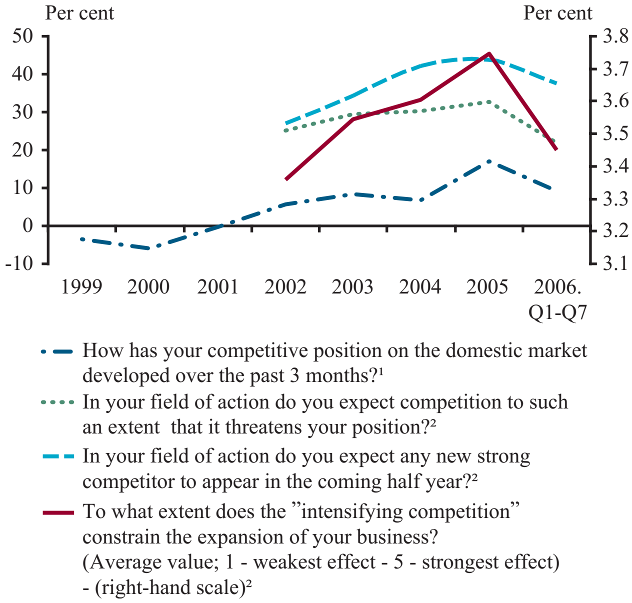


In the case of the other main components of core inflation, i.e. industrial products and processed food prices, the key factor in respect of inflation at present is the development of market competition. Retail competition has intensified in recent years in these two markets, and thus in many cases consumer prices deviated from the path indicated by costs. In our previous *Reports* we indicated on several occasions that price adjustment is inevitable sooner or later, but we were uncertain when this will occur. According to our evaluation, inflation figures from the latest months show that this adjustment has commenced for these items. The easing of competition can also be observed on the surveys of Ecostat and GKI.

The quarterly price index of industrial products stagnated in the second quarter, and then increased sharply in June and July, ending a continuous decline in prices seen since the start of 2005. The decrease in prices in the first quarter was, of course, in large part due to the impact of the VAT rate cut and the EUR/HUF exchange rate still being stable at that point in time. In more recent months – as the exchange rate started to weaken – the prices of less volatile nondurable goods started to increase, while durable goods prices continued to decrease. These developments may also show that, in

Chart 1-5

Developments in competition in the opinion of SMEs



[1] *Ecostat survey.*
[2] *GKI survey.*

line with our earlier forecasts, the impact of the upswing in retail trade competition related to the EU accession is manifested less and less in the inflation of industrial products. According to our calculations, the weaker forint exchange rate in the recent period only had a minor impact in this field, but it is expected to play a greater role in the future.

In recent months the acceleration of core inflation was caused in great part by a sharp increase in the price of processed food. As noted, the increase in prices may have been substantially influenced by the price adjustment following the intensification of competition in the market, and it is also worth mentioning the impact of the weaker exchange rate, rising energy and transport costs and the impact of unprocessed foods.

We have to point out the increase in the price of unprocessed foods and vehicle fuel among *items outside core inflation.* Unprocessed food prices – particularly for various vegetables and fruits – rose sharply in the spring months, with yearly indices exceeding 50 per cent for some items (e.g. potatoes, fresh vegetables). The change in the price of vehicle fuel reflects the impact of the increase in oil prices and the weaker exchange rate, with yearly price indices exceeding 10 per cent in this field as well.

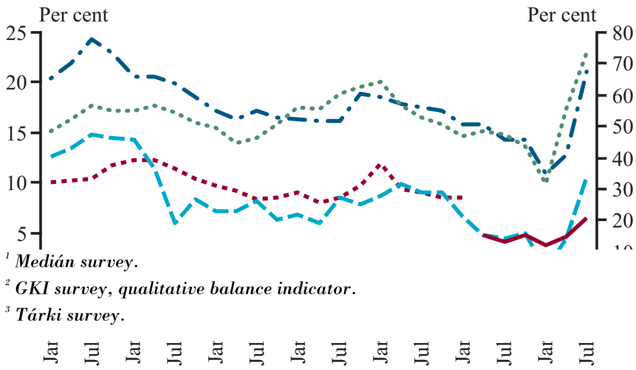
Turnaround in inflationary and wage expectations

From the aspect of longer-term inflation developments it is of key importance how economic agents' expectations change. In accordance with our projections, over the last six months, and especially in the last quarter, both corporate executives' and households' inflation expectations increased. At the same time, however, the magnitude of increase in households' inflation expectations from around 10 per cent to above 20 per cent is surprising. In addition, it also deserves attention that corporate executives' wage inflation expectation also started to rise, and expected wage inflation even exceeds perceived wage inflation, which is unprecedented since the first survey conducted in 1999. In terms of inflation developments, it may be a decisive factor whether the increase in inflation expectations will be sustained or only temporary.

Chart 1-6

Inflation expectations by corporate executives and households

(for the next 12 months)



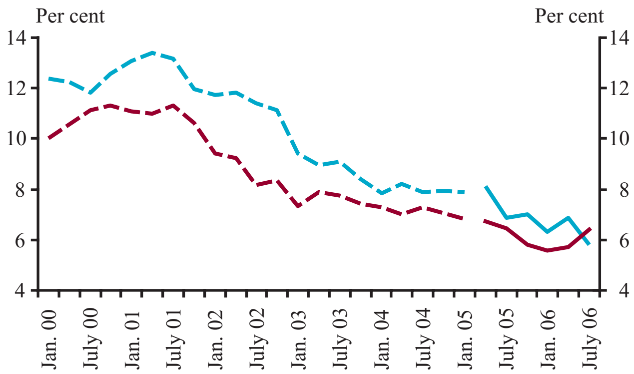
[1] *Medián survey.*
[2] *GKI survey, qualitative balance indicator.*
[3] *Tárki survey.*

Corporate executives[1]
Households[1]
Households[2] (right-hand scale)
Corporate executives[3]
Corporate executives[2] (right-hand scale)

Chart 1-7

Wage expectations and perceptions of corporate executives

(Tárki and Medián corporate survey)



Wage inflation, perceived last 12 months (Tárki survey)
Wage inflation, expected next 12 months (Tárki survey)
Wage inflation, perceived last 12 months (Medián survey)
Wage inflation, expected next 12 months (Medián survey)

2. Outlook for inflation and the real economy

Fiscal measures: regulated price, indirect tax and cost shocks, and narrowing of demand

Under the current circumstances, the projection of macroeconomic developments is highly influenced by the future impacts of the budgetary adjustment measures.[3] The fiscal steps taken to improve the external and internal balance – including increases in taxes, contributions and regulated prices, freezing public sector wages – have an impact on both the real economy and on inflation developments over both the short and longer term. As opposed to the overall macroeconomic forecast presented in the May *Report*, the fiscal measures will mainly be felt via four channels. First, the vast majority of the indirect tax and regulated price increases cause a short-lived inflation shock. Second, due to the increase in income taxes and employee social security contributions, the fiscal tightening measures substantially lower household and aggregate demand, which may lower inflation pressure indirectly over the long term. Third, the measures also increase costs in the corporate sector. Finally, the fiscal measures may have a significant influence on the expectations of market participants.

The path of inflation is determined by the speed and strength of the development of the various impacts offsetting one another. According to our main scenario, over the short term inflation will increase directly due to the indirect tax and regulated price increases. The rises in labour costs manifest themselves mainly in nominal wages.[4] Since wages adapt much more slowly than prices, the latter effect contributes to a more protracted increase in inflation over time, mainly in the long run. At the same time, growing inflation and the tax changes affecting incomes reduce aggregate and household demand. The reduction in demand is first seen in changes in the consumption of households, investments and GDP. In an environment of lower demand the profit margins of companies are also under pressure, which points towards lower inflation. In addition, this also extends to the labour market, reduces labour demand and, in the end, labour costs as well. This, in turn, forces the corporate sector to reduce prices. Demand factors reduce inflation only gradually, over the longer term.

The three effects – namely the direct impact of regulated prices and indirect taxes, rising costs and the change in demand – result in an inflation path which first increases sharply and then decreases gradually. As was noted, inflation and wage expectations have shown sharp rises in recent months, underlining that the outcome of expectations – looking forward – may point towards higher inflation. However, uncertainties caused by expectations are reflected in the fan chart instead of the baseline path.[5]

Box 2-1: Assumptions

In accordance with the practice of the past, we prepared a conditional macroeconomic forecast, using a fixed path for the following variables: the EUR/HUF exchange rate (EUR/HUF 277.6, and the EUR/USD exchange rate (EUR/USD 1.269), the base rate (6.75%) and long-term interest rates (5-year yield: 7.95%), and the forward price of Brent crude oil. As regards the measures taken by the government, we took into account the decisions of the Parliament adopted by the end of July and the official announcement of the local authorities. Our assumptions for regulated prices are based on the announcements of the government. Among our assumptions regarding regulated prices, it is worth to highlight household gas prices, for which measures for 2006 has already been revealed (a 28 per cent increase in August). Furthermore, calculations were based on the assumption that household gas prices will reach the level of world market prices by the end of our forecast horizon. This results in a yearly increase of 22 per cent in household gas prices in 2007 and 2008.

[3] Each measure taken by the government and their macroeconomic impact will be discussed in detail under the Background information section.
[4] The increase in corporate taxes may have similar, indirect effects in the labour markets.
[5] It is important to emphasize that the outcome of inflation expectations is dependent on the reactions of the economic policy and monetary policy as well. However, to comply with our forecasting principles the latter will not be contained in the projection.

Table 2-1

Changes in major assumptions relative to the May *Report**

	May 2006			Actual		
	2006	2007	2008	2006	2007	2008
Central bank base rate (per cent)**	6	6	6	6.75	6.75	6.75
EUR/HUF exchange rate	262.6	265.3	265.3	269	277.6	277.6
EUR/USD exchange rate (US cents)	122.1	122.7	122.7	124.9	126.9	126.9
Brent oil price (USD/barrel)	68.9	71.4	69.7	70.3	76.3	74.6
Brent oil prices (HUF/barrel)	*14,827*	*15,434*	*15,070*	*15,144*	*16,696*	*16,329*

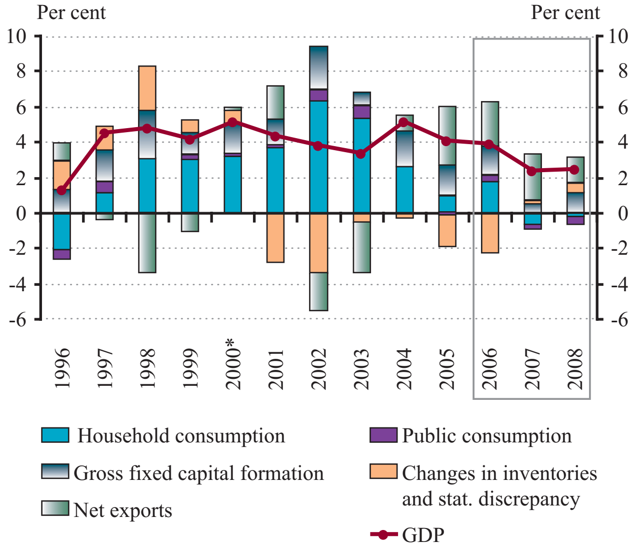
** Annual averages, on the basis of the average exchange rate of July 2006 and the forward oil price path.*
*** Year-end figures.*

Significantly slowing growth

A significant slowdown in growth is expected: as opposed to this year's rate of 3.9 per cent, in 2007-2008 growth of only 2.4-2.5 per cent can be expected, which is significantly lower than the potential rate. Thus, the output gap will be highly negative in the next two years. Looking at the structure of GDP it can be said that, due to the buoyant economic activity in Europe and a major deceleration in imports caused by the slowdown of domestic demand, the engine of growth is the steadily dynamic expansion in net exports, whilst domestic absorption will contribute to the growth at a modest rate only in 2008.

Chart 2-1

Annual growth rate of gross domestic product and contributions



Our view on external demand has not changed considerably

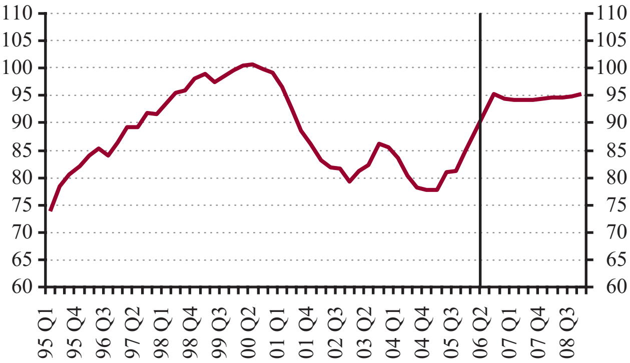
On the basis of the upswing in the euro area, growth in exports may approach 10 per cent in the two years to follow as well, following an outstanding rate of 14 per cent this year. An inprovement of the real exchange rate, based on unit labour costs observed in past years, may support an expansion in the market share of exporters. However, it must be emphasised that the recent weakening of the nominal exchange rate does not imply a further improvement in competitiveness, as it is offset by growth in wage contributions.[6] According to our domestic demand projection, import growth may fall significantly below export growth, and hence further improvement can be expected in the trade balance.

[6] The forecast of labour costs changed for two reasons relative to May; the five-year tax reduction programme was postponed, and what is more the impact of some of the fiscal measures announced will increase labour costs.

Chart 2-2

Real exchange rate based on unit labour cost (nominal ULC in manufacturing)*

(2000=100)



** Higher values indicate real depreciation.*

Measures relating to taxes and contributions significantly decrease the real income of households

From an economic point of view the greatest challenge at present is to forecast future developments in *consumption* among the domestic components of GDP. Disposable real income of households will decrease substantially (by around 4%) in 2007. As analysed in Box 2, the consumption path depends mostly on three factors: the extent to which the real income shock will prove permanent, the presence of liquidity constraints and the volatility of income shocks (precautionary motives).

There are arguments in favour of an increasing consumption ratio (i.e. consumption smoothing): it is likely that households only partially perceive the shock as permanent and liquidity constraints have eased significantly in recent years.

On the other hand, it also has to be taken into account that the consumption/income ratio is currently rather high in Hungary by international standards. Due to the high consumption ratio, it may even occur that households no longer want to substantially reduce their net savings. This impact may even be intensified, if households' precautionary savings rise, because they consider their real income and employment prospects to be less certain.

On the basis of the above considerations, our consumption forecast is for a lower intensity of consumption smoothing than what would be justifiable directly from the trends of recent years. On aggregate, consumption may decrease by 1 per cent next year and stagnate in 2008.

Box 2-2: 2007-2008: Households' consumption behaviour

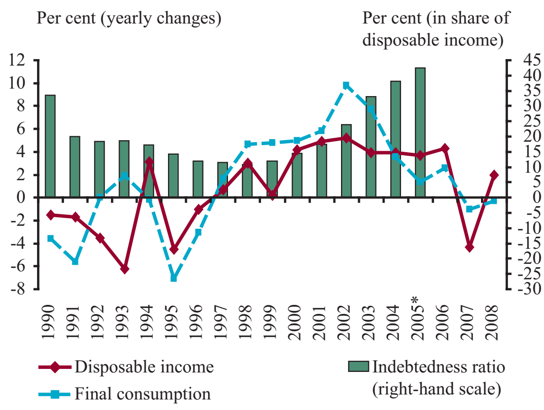
The recently announced fiscal adjustment measures will significantly influence households income in the coming years. The real value of disposable income may decline by approximately 4 per cent in 2007, followed by a modest increase of 2 per cent in 2008. In order to forecast how an income shock of this magnitude may affect households' consumption expenditure and savings decisions, we intend to take account of the developments in the aforementioned factors in the past and their possible evolution in the near future.

Most theories dealing with households' consumption and savings decisions agree that consumers who behave in a rational manner make their consumption decisions to optimise the 'utility' – which is mainly influenced by the goods consumed and the amount of time spent working – they achieve during their whole lifetime. They attain this by using their disposable income (human wealth) and their already existing other means (real and financial wealth). Accordingly, consumption decisions by a typical household at a given moment may be determined by three basic factors: the kind of perception it has of the income path expected to be attained during its life cycle *(permanent incomes)*; to what extent it is able to use financial markets and its existing financial savings to temporarily make its consumption independent of the slowdown in its current incomes *(existence of liquidity constraints)* and how uncertain it is in the assessment of its expected income path *(precautionary motives)*. Of course, these factors apply to each household in different compositions and to various extents.

Over the past five years, and as expected in 2006 as well, household income increased steadily, by an average of nearly 4.5 per cent. In this period, rapidly growing indebtedness and a decline in the number of households with liquidity constraints were typical. Considering that in the past period, in the longer term, the real value of incomes developed in a relatively stable manner, this reduces the chance that households will immediately assess their short-term deterioration in income position as long-lasting. This process may be supported by the fact that the announced fiscal measures are expected to affect the number of employed to a smaller extent, and they will reduce incomes mainly through increasing the tax burden (international experience suggests that under the same conditions, stabilisation taking place through a decline in employment may have a stronger consumption effect than measures reducing net incomes). Overall, one can conclude that the currently planned fiscal measures are expected to modify households' judgement of their long-term incomes to a lesser extent, especially if they direct the economy to a growth path which is sustainable over the longer term.

Chart 2-3

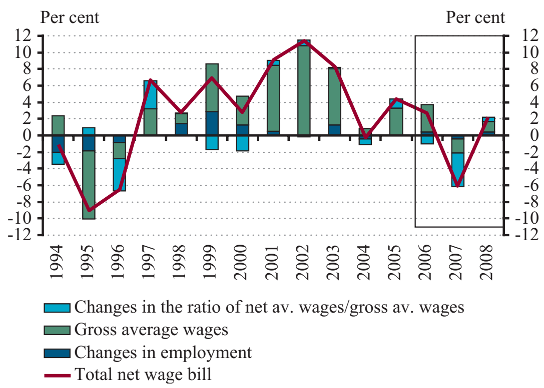
Households' real income, consumption and indebtedness



** For 2005 the available income data are MNB estimates.*

Chart 2-4

Households' net wage bill



Households' indebtedness increased from around 10 per cent at the turn of the millennium to above 40 per cent by end-2005. In parallel with the rapid increase in borrowing, the ratio of incomes spent on repayments of credits also grew significantly, and the currently typical value of more than 9 per cent is considered to be a higher value even in international comparison. In the event of a slowdown in income, this kind of environment may theoretically prevent households from adjusting to be able to sustain their consumption path to which they have become accustomed in previous years. At the same time, recent product developments on the credit supply side must be taken into account, especially in the field of consumer loans. As a result, in the past one year the majority of consumer loans granted were mortgage-backed (however, one cannot rule out that a part of these loans served investment purposes). The spread of these loan products, partly through the longer maturities and partly through the lower credit costs, may ease the borrowing constraint caused by the already high loan repayments.

The third factor is the so-called precautionary motive, which may be important for two basic reasons: on the one hand, when the risks of the expected income path increase (e.g. there is a higher probability of unemployment), and on the other hand, when in an economy institutional changes take place which require savings for certain purposes on a private basis (e.g. pension, healthcare, tuition fees, etc.). On our projection horizon, the unemployment rate is expected to stabilise at the current level. Therefore, aggregate labour market developments by themselves would not justify an increase in savings and a drastic decline in consumption in parallel with this. However, the planned reform of the healthcare and educational systems may result in an increase in financial savings in the longer term, although its short-term effect is not yet considered to be significant. From a precautionary aspect, developments in inflation may also add to the willingness to save. Higher inflation increases the uncertainty of future real income as well.

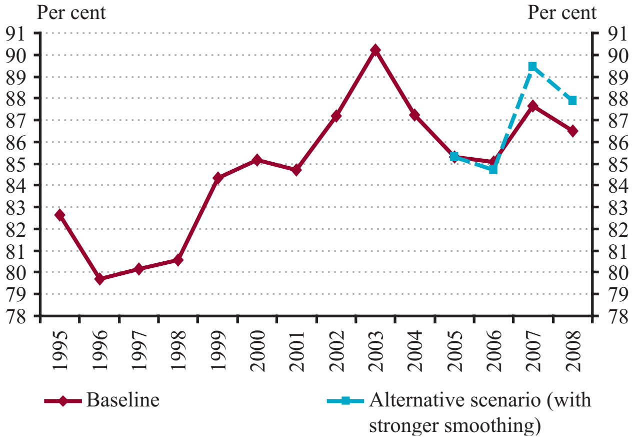
Based on international experience, in the case of a fiscal adjustment a number of factors can reduce the probability of a massive fall in consumption. These factors include the permanence of the adjustment, the level of the initial public indebtedness, the presence of substantial expenditure reforms, a favourable external environment and a coordinated reaction of monetary policy.

All things considered, we can establish that in the current situation there may be a higher probability that the fall in (real) income next year will not be followed by a similar decline in households' consumption expenditure, as last seen in 1995. Instead, households will temporarily finance their consumption expenditure by reducing their (net) financial assets and housing investment, but expectedly to a lesser extent than in 1999. Of course, should the labour market, the external environment or the banking sector adjust differently than expected, this may substantially change the household sector's decisions related to consumption and savings.

Chart 2-5

Consumption ratio

(as a percentage of personal disposable income)



Deterioration in the corporate profit outlook results in a deceleration of investment

A significant drop is expected in *gross fixed capital formation* in 2007, and according to our forecast the slowdown will affect all three sectors. Corporate investment will be affected by less favourable profit prospects due to flagging domestic economic activity and the fiscal measures. At the same time, the rate of growth of corporate investments will be higher than the growth rate of GDP in the coming years. In our opinion, this can be explained by the continued substitution of labour with capital, due to the increase in relative labour costs. The drop in investment by households will be greater. In line with income prospects, housing investment is expected to decrease until 2008; the drop forecast for next year is already justified by the falling number of building permits. This year government investment – as previously observed in election years – will grow at a dynamic rate, but it is expected to stagnate in 2007. From 2008, the start of the EU's new budget period, public investment financed from a growing amount of EU funds is expected to rise again.

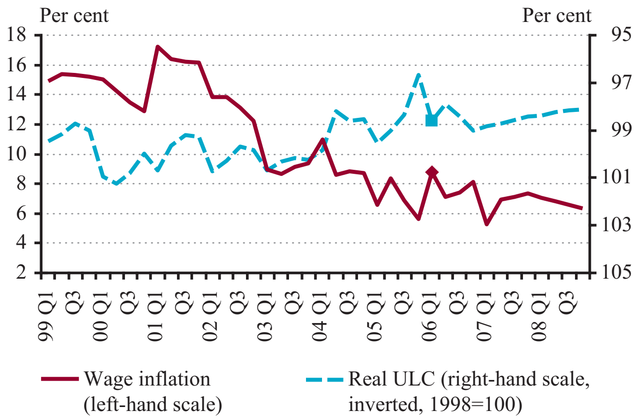
A significant increase in nominal wages can not be expected initially due to loose labour market conditions…

The expectations of employers and employees – relating primarily to inflation – can have the greatest impact on *labour market* developments, and thus this market can be of key significance for inflation developments as well. Looking forward, major differences may be seen between the private and government sectors. According to announcements made by the government, we project a freezing of wages and layoffs in the government sector for 2007-2008. Hence, a reduction of around 10%-12% in public real wages is envisaged. The wage dynamics of the private sector are dependent jointly on the loose labour market conditions, changes in corporate profitability and accelerating inflation. The deteriorating profit outlook of the corporate sector, coupled with a decrease in productivity and a loose labour market, do not render any major wage increase in the private sector probable. Notwithstanding the modest real wages projection, great uncertainty is caused by adjustment to a higher inflationary environment until the middle of next year.

Chart 2-6

Wage inflation and profit on labour in private sector*

(annual growth rates)



** Real unit labour costs: real unit labour costs/core inflation less VAT. Its inverse indicates profit on labour input. Decreasing wage costs mean higher corporate profits, which widens the leeway of companies in the field of wage increases as well.*

The dynamics of wage inflation will not decelerate in 2008

According to experiences in recent years, labour market actors have generally overlooked the temporary inflationary effect of changes in indirect taxes, when they determine wages. Our forecast is also based on this key assumption. Following the VAT rate cut in January of this year, the VAT rate increase in September may have an opposite effect of a similar magnitude. However, there is a risk that wages would be set higher than what forward-looking inflation would indicate for 2008, due to backward-looking wage setting. Therefore, in our forecast wage dynamics in the private sector do not undergo any major change from 2007 to 2008 due to the weight of backward-looking wage setting, and accord-

Table 2-2

Wage projection

(annual average growth in per cent)

	2005	2006	2007	2008
Private sector				
Average wage	6,9	7,9	6,7	6,7
Unit labour costs	2,2	4,3	4,3	3,9
General government*				
Average wage	12,8	5,0	0,3	0
National economy*				
Average wage	8,9	6,8	4,4	4,5

** Cash-based approach.*

Table 2-3

Inflation forecast

(annual average growth rates, in per cent)

	2006	2007	2008
Core inflation	2,0	5,6	4,4
Consumer price index	3,8	7,0	4,2

ingly real wages increase in 2008.[7] The uncertainty about wage developments is closely related to inflationary expectations. Hence, wage demand may have a significant impact on the macroeconomic path through nominal rigidities.

Inflation grows significantly in the short term as well, due to cost and indirect tax shocks

On the basis of the macroeconomic forecast presented and the measures taken by the government in the interests of fiscal consolidation, a substantial increase can be expected in inflation in coming months, and then from the middle of 2007 major disinflation is expected in the Hungarian economy from around 8 per cent.

Over the short term, the sharp increase in inflation is determined primarily by increases in indirect taxes (VAT rates, excise tax) and regulated prices (in particular natural gas, electricity, and heating). The fixed assumptions used in the forecast – including the exchange rate 4% lower than in the preceding quarter – play only a minor role in the increase in the inflation rate.

As the direct impacts of most fiscal measures disappear, the rate of inflation is expected to decline significantly from

Box 2-3: Primary inflationary effects of fiscal measures

In terms of its effect mechanism, the 5 percentage point increase in the medium VAT rate is highly similar to the VAT increase in 2004, and the VAT rate cut in January this year: from an economics point of view it is necessary to distinguish between the technical impact (1.4 per cent), which is captured by the constant tax rate index, and the overall impact, which is also influenced by pricing behaviour. With regard to VAT rate increases, it is often a correct assumption that retailers are not able to fully apply the VAT increase in their market prices, so the overall impact on inflation is lower than the technical impact. We estimate that the overall inflationary impact of the VAT rate increase will not exceed 1-1.1 per cent. It should also be mentioned that the annual indices of inflation developments contain base effects originating from two – counteracting – VAT modifications until January 2007, and consequently the constant tax rate index will be quite close to the overall consumer price index.

In addition to the VAT impact – taking into account the weight of household gas prices, electricity and purchased heating in the price index (in total approx. 7 per cent) – the increase in regulated prices has the strongest direct inflationary effect from among the measures taken by the government. Following the 28 per cent increase in the natural gas price in August 2006 which has already been announced, further price increases would be required to reach the level of world market prices, because presently natural gas prices are just above one-half of those of the world market price. On this basis, we expect that increases in the price of natural gas may have a major impact on inflation in coming years. The uncertainty relating to the rate of increase of the price of gas and its timing substantially influences the shape of the inflation path on our forecast horizon. In the main scenario, calculations are based on an even increase in natural gas prices with repeating 22 per cent increases in the first quarter of 2007 and in the first quarter of 2008. As far as our assumption for purchased heating prices is concerned, we assume (gross) average 30 and 13 per cent price rises, respectively. On the whole, the measures taken by the government will cause inflation to rise from 2.6 per cent in the second quarter of 2006 to around 8 per cent in the first two quarters of the next year, and core inflation may accelerate to around 5.5-6 per cent.

[7] As regards wage burden it should be mentioned that our previous forecasts contained the government's 5-year programme on the reduction of taxes and contributions – which has been withdrawn in the meantime – which would have resulted in higher real wages due to the reduction of unit wage costs.

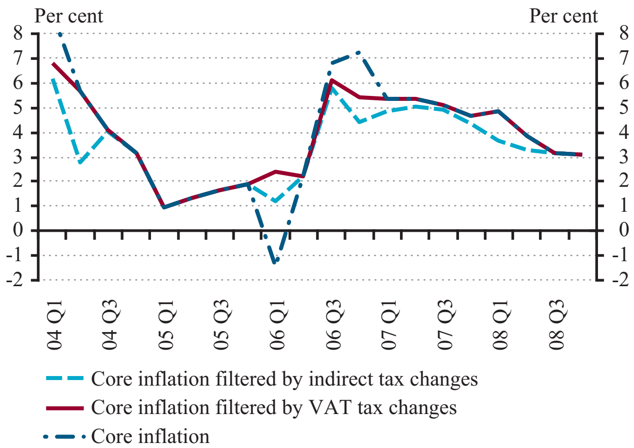
the second half of 2007. In the subsequent period, two effects will dominate. The impact of lower demand will increase, contributing to a gradual fall in inflation. At the same time, the increase in labour costs[8] will gradually exert inflationary pressure. Besides the base affects the overall effect will lead only to gradual disinflation.

The relation between output and prices will certainly be a disinflationary factor in coming years, due to the drop in real income and household demand. One must basically take into account two factors in evaluating the disinflationary effect. On the one hand, the adjustment of the economy requires a longer period of time: the decrease in prices will be reflected only several quarters after the decrease in demand, and accommodation in quantities will dominate until then. According to our calculations, the real disinflationary impact of lower demand will appear in 2008, when the impact may compensate for one-half to one-third of the inflation shock.[9] In spite of the disinflationary impact of narrowing demand it is important to point out that inflation remains above the 3 per cent level of price stability on our forecast horizon, and in 2008 average annual inflation may be around 4.2 per cent.

Chart 2-7

Trend inflation developments*

(Annualised quarterly indices, in per cent)



** MNB estimate.*

Looking at the main components of the price index, inflation is expected to increase among both market services and industrial products. Some market services are affected directly by the VAT rate increase, and in addition to this impact the increase in unit labour costs also points towards higher inflation, but narrowing demand has an opposite effect over the long term. The prices of industrial products are affected directly by the weaker exchange rate, and this sector is also influenced by the increase of unit labour costs. The impacts – which are somewhat asymmetrical – affecting the two sectors can be expected to cause a slight decrease in the inflation differential between market services and industrial products, which is projected as falling from 7 per cent at the present to 5 per cent in 2008. According to our forecast, the significant increase in unprocessed food prices observed in recent months will stop and – after adjusting for the impact of the VAT increase – unprocessed food is expected to show a moderate price increase from early 2008, following a minor negative adjustment. On the basis of forward quotations, oil prices calculated in US dollars are expected to decrease slightly, and taking into account the base effect as well, energy prices will have a disinflationary effect as opposed to the past quarters.

Balanced inflation and growth risks

In total, on the basis of the macroeconomic analysis five main risk factors can be identified which may have a substantial effect on inflation and economic growth, diverting the economy from the baseline scenario. The most significant risks pointing towards higher inflation and lower growth are the stickiness of inflation expectations and, in relation to that, further increases in nominal wages. These risks are supported by the nearly 7 per cent differential for two years between the wage dynamics of the public and private sectors, an unprecedented situation during the past years.

Anticipated developments in consumption represent the second main risk factor. If households smooth their consumption at a rate lower than expected, demand may decrease to an even greater degree, which may result in lower inflation and growth. However, it cannot be ruled out that the strong loan dynamics of recent years will continue, and that households will smooth their consumption at a higher rate than projected.

The third main risk – which may affect the inflation path directly – is the change in regulated prices (natural gas prices). According to our main scenario, natural gas prices will reach world market levels by 2008. The inflation path may be significantly lower, if the government decides on

[8] User cost of capital also increases, though its effect is significantly lower than that of labour costs.

[9] The calculations conducted with the Quarterly Projections Model (NEM) are shown in chapter 3.1. Similar results were obtained using simulations made with the model based on so-called disaggregated output gaps (See: Várpalotai, V. [2003]: 'Disinflation Simulations with a Disaggregated Output Gap Based Model', MNB Working Papers, 2003/3.)

smaller increases or if the timing of increases differs from our assumptions. If the final 22 per cent increase in the household gas price were realised in mid-2007 instead of at the start of 2008, 2007 inflation would rise by around 0.3 per cent, while this change would lead to somewhat lower inflation in 2008.

Oil prices may also generate inflationary risks. In our view, some downside risks apply to the inflationary effect of oil prices. In addition, there is some uncertainty also pointing to slightly downside inflation, in relation to the factor indicating how the deceleration of household and aggregate demand may offset the immediate effect of the increase in cost inflation, regulated prices and indirect taxes. In our calculations, we assumed these effects to be close to the average for small, open economies that are similar to the Hungarian economy. However, uncertainty remains as there as has not been a similar drop in demand in the Hungarian economy in recent years.

On the basis of the risk factors which have been taken into account, we regard inflation and growth risks to be more or less symmetrical around our forecast. The symmetrical risks around the 4.2 per cent average inflation forecast for 2008 also mean that upside risks are quite serious relative to the long-term inflation target (at the end of 2008 the probability of inflation higher than the 3 per cent target is more than two-thirds).

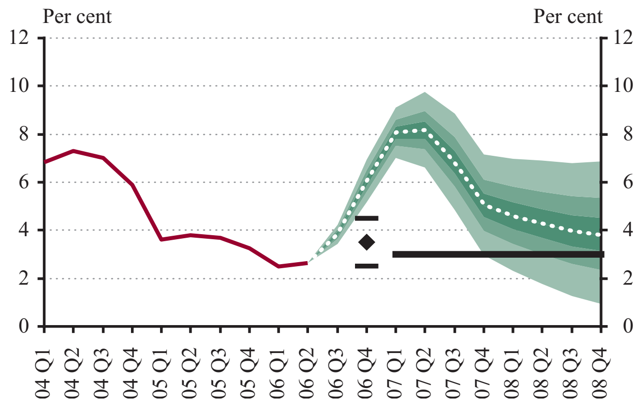
Decreasing external financing requirement – the sustainability risks of the macro-path have moderated

Following a slight expected increase in the deficit of the external balance in 2006, we project it to decrease substantially in 2007-2008 due to the effect of the fiscal measures announced. According to our forecast, the external financing requirement may drop to around 3 per cent of GDP and the current account deficit may decline to less than 5 per cent of GDP by 2008. Similar to our May forecast, we expect a slight increase in the GDP-proportionate external financing requirement in 2006, which is related primarily to the rise in the consolidated general government's financing requirement to over 11 per cent,[10] despite the steps taken to reduce the deficit. Following the increases observed in recent years, the financial savings of the household sector may moderate in 2006: following the decrease in the first quarter and the significant slowdown in the disposable income, due to tax hikes, may also facilitate lower savings.

Chart 2-8

Inflation forecast fan chart*

(year-on-year indices)

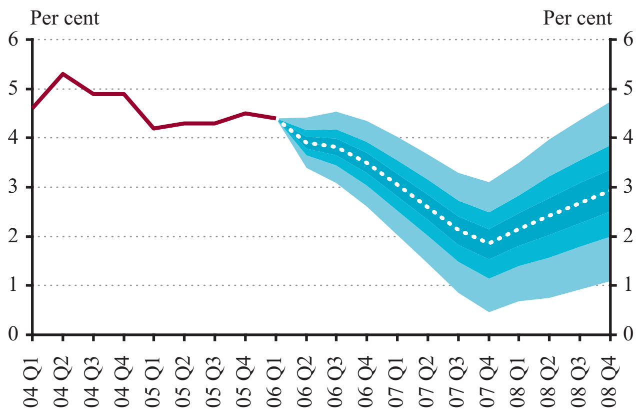


** The fan chart represents the uncertainty around the central projection. Overall, the coloured area represents a 90 per cent probability. The central, darkest area containing the central projection for the consumer price index illustrated by the white dotted line (as the mode of distribution) refers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

Chart 2-9

GDP growth fan chart*

(year-on-year indices, corrected for calendar effects)



** 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.*

Hungary's GDP-proportionate external financing requirement will decrease substantially in 2007 due to the reduction in the budget deficit, but its magnitude will probably be lower than the 4.5 per cent decrease in the deficit of the general government, because of the declining financing capacity of the private sector. As a result of the announced

[10] In addition to the fiscal budget, the consolidated general government includes local governments, ÁPV Rt., institutions attending to quasi-fiscal duties (Hungarian State Railways [MÁV], Budapest Transport Limited [BKV]), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes.

measures the real income of the population may decrease by as much as 3-4 per cent, which may cause further reductions in financial savings because of consumption smoothing. As noted above, the profitability of the corporate sector deteriorates, and thus – with moderately increasing investments – the financing requirement of the corporate sector is expected to grow. On the whole, the country's external financing requirement may decrease in 2007 at a slower pace than that of fiscal tightening, and end up around 4-5 per cent of GDP. The financing requirement of the general government is expected to continue to decrease in 2008, and the savings of the private sector may stabilize, and consequently Hungary's external financing requirement may drop to around 3 per cent.

Table 2-4

GDP-proportionate net financing capacity of individual sectors

	2001	2002	2003	2004	2005	2006	2007	2008
I. General government*	-5.2	-8.8	-8.4	-8.5	-9.4	-11.3	-6.8	-5.2
II. Household sector	5.3	2.7	0.2	2.5	4.2	3.4	2.5	3.0
Corporate sector and „errors and omissions" (= A - I.- II.)	-5.8	-0.7	-0.5	-2.3	-1.4	1.0	-0.2	-0.8
A. External financing capacity (=B+C)	-5.6	-6.8	-8.7	-8.3	-6.6	-6.9	-4.5	-3.0
B. Capital account balance	0.6	0.3	0.0	0.3	0.8	1.2	1.4	1.7
C. Current Account Balance	-6.2	-7.1	-8.7	-8.6	-7.4	-8.1	-5.9	-4.7
Current Account Balance (€ billion)	*-3.6*	*-5.0*	*-6.4*	*-7.0*	*-6.5*	*-7.0*	*-5.3*	*-4.5*

** In addition to the fiscal budget, the consolidated general government includes local governments, the ÁPV Rt., institutions attending to quasi-fiscal duties (Hungarian State Railways [MÁV], Budapest Transport Limited [BKV]), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes.*

3. Background information

3.1. THE IMPACT OF THE ANNOUNCED BUDGETARY MEASURES ON THE MACROECONOMIC PATH

According to our standard rules, we have taken into account the impact of all future fiscal measures which have been or probably will be adopted by the Parliament. With due regard to its magnitude, the macroeconomic effects of the package of measures announced since the middle of June will be assessed separately as well.[11]

The effects of the measures were estimated using the MNB's Quarterly Projection Model (NEM), and thus the numerical results are based on relationships generally typical to a longer (estimation) sample.[12] Moreover, in our models economic agents are backward-looking and thus the model and the results do not contain the role of expectations and potential additional (e.g. *non-Keynesian*) effects.

Consumer prices are directly increased by the rise in the medium rate of the value-added tax and the reduction of natural gas price subsidies, while wage inflation accelerates due to increasing tax burdens on the employers' and partly on the employees' side. Over the long run, this is counterbalanced by the fact that the vast majority of the measures decrease the disposable income of households and, indirectly, aggregate demand. This decline will be manifested in a fall in final consumption expenditures in real terms, public consumption and demand for imports. This in turn might lead to an improvement in the trade balance. Due to the significant slowdown in output, trend inflation is expected to slow following the initial shock mainly from 2008.

The measures

In our analysis we examined the planned measures, grouping them according to their direct influence on prices, or income and aggregate demand, or mainly production costs and wages.[13] On the basis of the above, indirect tax increases and increases in regulated prices were listed in the first group, in reflection of their direct inflationary impact.

The majority of the measures directly affect disposable income and aggregate demand, and from these we treated measures affecting employees and those influencing public employment separately. Finally, we classified the increase in the employer's social security contributions and the increase in corporate taxes as cost shocks. The latter was accounted for as an increase in user costs of capital.

The overall impact depends on the magnitude of the individual groups of measures and on how quickly their impact spreads around the economy. The impact of measures directly affecting prices manifests itself relatively quickly in prices. Their secondary disinflationary effects on consumption and on GDP coincide with those of the income shocks and only appear with some delay, 12-18 months later. Measures with a direct impact on income appear in GDP and consumption relatively quickly, and are reflected in prices gradually. The spreading of measures affecting labour costs also requires time, but finally the inflationary impact of these shocks will also be felt.

[11] The *Report on Financial Stability* published in April also deals with the potential impact of the fiscal steps, and deals separately with other non-traditional channels. We presented several potential scenarios. However, the current analysis was prepared on the basis of more or less detailed knowledge of the package of measures.

[12] It should generally be pointed out that simulations based on model estimated on past data might not necessarily be fully applicable if economic policy changes significantly.

[13] Of course, we relied on our forecasting rules when expressing impact mechanisms in figures; we assumed an unchanged central bank base rate and exchange rate.

Table 3-1

Grouping of measures

	Direct effect	Measures	Other assumptions
Value-added tax and excises duties	on prices	Increase in the medium VAT-rate from 15% to 20%, excise duty on tobacco will increase by 6% this year, and by a further 6 and 10% in coming years, excise duty on alchoholic beverages will be raised by 7% this year and in later years by 5-5%	Inflation expectations do not change
Regulated prices		Increase in gas prices (2006. August: 28%, 2007. January 24%, 2008. january 24%), increase in purchased heat prices, raise in transportation fees (2007. January)	
Personal income tax and employee's healthcare contribution	on income or aggregate demand	Increasing employee's healthcare contribution raises tax burden by 4.1%, increase in the upper PIT-rate	Employees are able to "devolve" the 10% of the shock upon the employers
Other taxes, government's purchased goods and services and transfers in kind		Modification of the rate of simplified entrepreneur tax (EVA) to 25%, vehicle and municipal duties, interest-income tax, tightening of the housing subsidies, employee's solidarity tax, purchase of goods and services, decrease of transfers in kind	
Government employment and wages		Freeze on the government wage bill, lay off of 14 000 within 2 years	
Minimum employer's healthcare contribution	on costs	Approx. 1.2% increase in wage costs due to the doubling of the minimum employer's healthcare contribution	Affects 200 000 employee, this measure predominantly shrinks profits
Corporate taxes		4% increase in corporate taxes, tax on the cash balance, expected corporate taxes	

The impact of the measures on GDP

Of course, the measures directly affecting prices (the increase in indirect tax and the increase in household gas price) strongly reduce disposable income as well, so these steps have a major impact on consumption expenditure and accordingly on GDP.

The measures affecting personal income tax and employees' social security contribution lower the disposable income of households at a rate similar to that of regulated prices. The group of measures most severely decreasing aggregate demand contains all changes which modify public and household consumption.[14] The overall impact of the above lower GDP growth by 0.5-1 per cent.

Lay-offs and freezing of nominal wages in the public sector substantially moderate labour incomes, which contributes to the drop in household consumption.

As opposed to this, the decline in imports due to decreasing household and government consumption appears as an impact moderating GDP sacrifice.[15]

Finally, investments may also decline markedly as a result of the increasing cost of capital, due to less favourable economic activity and other taxes on companies,[16] and this also decreases GDP.

The impact of measures on the labour market

Under our assumption on stable inflation expectations, the majority of the measures have a decreasing impact on gross nominal wages, because the nominal path and thus wages also decline due to the secondary impact of falling output. Furthermore, recessionary effects spur unemployment, which also results in lower wages.

The measures increasing labour costs, namely rises in employers' social security contribution, are an exception to

[14] See under 'Other tax items...' in Table 3-1.
[15] The table contains the overall GDP-impact of the given measure, so the decrease in imports has been accounted for.
[16] As these effects had only numerically significant impact on investments, we do not report them separately.

Table 3-2

The impact of the measures on GDP and consumption

(deviation of annual growth rates from the main scenario)

		VAT + excise duties	Regulated prices	PIT + employee's healthcare contr.	Other taxes…	Civil servants and wages	Minimum employer's healthcare contr.	Full effect
Direct effect		on prices		on income or aggregate demand			on costs	
GDP	2006	0.0	0.0	0.0	0.1	0.0	0.0	0.0
	2007	-0.2	-0.5	-0.5	-0.7	-0.2	0.0	-2.0
	2008	-0.2	-0.4	-0.4	-0.9	-0.3	-0.2	-2.4
Households' purchased consumption	2006	-0.1	-0.1	0.0	0.0	-0.1	0.0	-0.3
	2007	-0.6	-1.5	-1.6	-0.4	-0.6	-0.1	-4.8
	2008	-0.6	-1.2	-1.3	-0.7	-1.2	-0.4	-5.1

the above, which causes a rise in wages. In addition, we presume that the increase in the burdens of employees may cause a slight increase in the costs of companies. In particular, this may occur if company-specific labour is difficult or costly to replace. However, this impact of the measures may compensate for declining wages due to lower production and deteriorating profitability only in 2007 at the macroeconomic level.

As regards the impact of slower GDP growth on the labour market, it is important to point out that there is some difference in the path of wages in the simulation and the path in the baseline scenario. In the simulation, nominal wages follow price changes with a long lag. At the same time, the full projection, incorporating various methods, wage adjustment is somewhat faster. Therefore, in our baseline forecast, the decrease appears in wage inflation as early as 2007, but no significant further slowdown is observable in 2008.

The impact of the measures on prices

The consumer price index, a variable of key importance for monetary policy, is directly increased by the planned measures: in 2007 the increase amounts to a substantial 3 percentage points and in 2008 the increase is up to 1 percentage point. Most of this impact is related to the tightening of natural gas price subsidies and higher indirect taxes.

Moreover, higher inflation over the longer run is generated by the increase in wage costs originating from employers' minimum social security contribution being calculated based on twice the amount of the minimum wage.[17]

Table 3-3

The impact of the individual measures on the labour market

(deviation of annual growth rates from the main scenario)

		VAT + excise duties	Regulated prices	PIT + employee's healthcare contr.	Other taxes…	Civil servants and wages	Minimum employer's healthcare contr.	Full effect
Direct effect		on prices		on income or aggregate demand			on costs	
Gross nominal private wages	2006	0.0	0.0	0.0	0.0	0.0	0.1	0.1
	2007	-0.1	0.0	0.4	-0.1	-0.4	0.1	-0.1
	2008	-0.2	-0.2	-0.6	-1.0	-0.9	0.4	-2.5
Private employment	2006	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2007	0.0	-0.1	-0.1	-0.1	0.0	-0.1	-0.3
	2008	0.0	-0.2	-0.4	-0.5	-0.1	-0.1	-1 .4

[17] In this case, we assumed that the companies are only slightly capable of conveying to consumers or employees the greater burdens in the form of higher prices or lower wages and thus in most cases they will have to cut their profits.

Table 3-4

The impact of individual measures on prices

(deviation of annual growth rates from the main scenario)

		VAT + excise duties	Regulated prices	PIT + employee's healthcare contr.	Other taxes…	Civil servants and wages	Minimum employer's healthcare contr.	Full effect
Direct effect		on prices		on income or aggregate demand			on costs	
Consumer price inflation	2006	0.3	0.5	0.0	0.0	0.0	0.0	0.7
	2007	0.5	2.4	0.0	0.0	0.0	0.2	3.0
	2008	0.3	0.5	0.1	-0.2	-0.2	0.5	0.9
Core inflation	2006	0.4	0.0	0.0	0.0	0.0	0.0	0.4
	2007	0.7	0.0	0.0	0.0	0.0	0.2	0.9
	2008	0.4	-0.2	0.1	-0.2	-0.3	0.7	0.4

The larger tax burden may lower GDP in total by 2-2.5 per cent[18], and its disinflationary effect will be reflected in core inflation from 2008.

3.2. DEVELOPMENTS IN GENERAL GOVERNMENT DEFICIT INDICATORS

Compared with the provisional forecast on the deficit of general government outlined in our May *Report*, our projection for the deficit levels has undergone major changes. While our projection for this year's deficit increased substantially, we are presently forecasting a major decrease in the ESA deficit for 2007 and 2008. In May, we forecasted further increases in deficit levels for the next two years – on the basis of the budget determinants known at that time and assuming no additional fiscal measures. In early summer, the government announced a package of measures, the vast majority of which will be introduced this year. The impact of the measures will fully unfold in 2007-2008. On the whole, according to our rule-based main scenario, the announced measures will significantly reduce the fiscal and macroeconomic sustainability risks which have typically been observed in recent years.

Government measures aimed at the improvement of the budget balance

Under the 'New Equilibrium Programme', the government announced measures aimed at reducing the imbalance of the general government and achieving a deficit path that is significantly lower than previously. The major part of the

Table 3-5

Fiscal deficit indicators in our baseline scenario*

(as a percentage of GDP)

	Projection		
	2006	2007	2008
1) GFS-balance baseline projection**	-8.2	n.a.	n.a.
2) ESA-balance baseline projection	-10.1	-6.2	-4.1
3) ESA-balance with risks ***	(-9.8)-(-10.6)	(-5.5)-(-7.0)	(-2.9)-(-5.7)
4) Fiscal impact on demand	+1.8	-4.1	-1.7

** As we have no budget bills for 2007 and 2008 for these years we estimated the level of deficit levels for the next two years on the basis of the overall impact of the measures publicised under the 'New Equilibrium' programme. The ESA-deficit figures do not contain the effect of pension reform. According to our estimations, this account for 1.5, 1.7 and 1.6 per cent of GDP in 2006, 2007 and 2008, respectively. ** As there are no budget bills for these years we are not able to prepare point assumptions on the expected level of the cash-based balance. *** Risks related to the ESA deficit, which contains our risk assessment relating to the measures announced under the New Equilibrium programme.*

[18] The models used during the analysis, like most models describing the economy, are not able to capture impacts manifesting themselves through the expectations of economic actors. Therefore some (e.g. *non-Keynesian*) impacts, which can mitigate the negative consequences of a package of restraints, are not included in the above calculations. For a more detailed analysis see Horváth et al. MNB Occasional Papers 2006/52.

measures first announced is aimed at boosting revenue from taxes and contributions, with measures aimed at a reduction in expenditure, which have a more stable effect over the long term, accounting only for a smaller part of the impacts that can be quantified.

The measures aimed at increasing revenue – by way of increasing tax burdens (VAT rate, employees' health care contribution, personal income tax, etc.) – reduce household disposable income. Due to the revision of the system of price subsidies and the reduction in these subsidies, transfers to households will decrease in the future, and accordingly the weight of communal and energy costs will grow in their consumption expenditure. The introduction of new tax items results in an increase in the tax burdens of the corporate sector, and the rise in effective tax burdens caused by some taxes (introduction of solidarity and expected tax; increase in the rate of the simplified entrepreneur tax, etc.). Some of the measures intended to increase budget revenue are aimed at reducing the level of tax avoidance in the future, and ensure that a larger part of incomes is included in the tax base.

From a budgetary point of view, the measures aimed at boosting revenues will have a dual effect. First, they will reverse the downward trend of tax and contribution receipts as a proportion of GDP. In our estimate, general government tax revenues, excluding the effects of the five-year tax reduction programme, would have fallen by some 1 per cent of GDP between 2006-2010, i.e. the erosion of tax and contribution receipts would by itself lead to an unsustainable fiscal path. Second, tax and contribution receipts, rising faster than the rate of GDP growth, will contribute significantly to the rapid reduction in the budget deficit, particularly in 2006 and 2007 and, through a higher tax burden, to a sustainable budget balance over the medium term.

The measures and plans aimed at the reduction in expenditures were announced not as a single package, but such measures were and continue to be broadened. Thus the assumptions and calculations on the overall impact of expenditure side measures to improve the budget balance are subject to continuous modification.

The measures announced initially concentrated mainly on the reduction of the operating costs of the state administration and public sector and partly on reducing transfers (price subsidies) to the public (public sector lay-offs, transformation of the gas price subsidy system, etc.). The overall impact of such measures was much smaller relative to the impact of the measures improving the revenue side. At the same time, due to the new measures to cut spending, announced at the end of July (freezing of public wages, keeping various central expenditure levels at a nominal rate), and because of the macroeconomic impacts of the budget adjustment, the improvement in the budget balance in 2007 and 2008 is caused in larger part by the GDP-proportionate restraint of the level of expenditures (see Table 3-6).

During the preparation of the *Report*, we were only able to quantify the impact of measures announced through the end of July. We prepared our own calculations and assumptions for all revenue and expenditure measures which were announced by the government in a concrete form; for those not elaborated in a concrete form or where we lacked the information required to make assumptions regarding the impacts, we either accepted the effect using the figures put forth by the government, or we regarded the measure as ineffective on the basis of experience from the past.

Budgetary developments in 2006

According to our calculations, this year's ESA deficit level would be around 11.5 per cent of GDP, excluding the effects of the package. As expenditures have been overshot to a great degree despite the measures entering into force during the year, the ESA deficit calculated excluding the pension correction might be around 10.1 per cent of GDP, as opposed to the 6.1 per cent planned originally. On the one hand, this slippage is due to the higher central expenditures, while on the other hand the accounting of several individual items significantly increased the size of statistical adjustments between the cash-based and the ESA deficit. For example, this includes the accounting of motorway construction and Gripen fighter purchases in the ESA balance. As a result, the methodological risk factor, which had been addressed several times in previous *Reports* and which was already quantified in the fiscal demand impact indicator, also finally appeared in the ESA deficit.

The significant increase in the 2006 deficit level is caused by the fact that for some expenditure items the structural tensions which have accumulated in the budget in recent years finally reached a level, where the government allowed the expenditure limits to be exceeded, in other words fiscal loosening took place.[19] The striking rise in the

[19] The significant exceeding of various open expenditure appropriations were compensated only in part by the measure taken by the government at the start of the summer, when disbrusement of HUF 112 billion were ultimately frozen in two steps.

imbalance was caused by the gradual deterioration in exogenous factors in respect of the fiscal path (change in gas prices, investment cycles of local governments, change in yields), the higher-than-planned growth in certain expenditure projections (pensions, pharmaceutical subsidies, etc.) and the appearance of extraordinary expenditure items (cancellation of Iraq's debt, etc.). According to our calculations, the measures during the year to reduce the deficit can reduce the GDP-proportionate ESA-deficit by around 1.4 percentage points, made up in large part by measures aimed at increasing revenue (0.8 percentage points) and in smaller part by the freezing of expenditures (0.5 percentage points). (The freezing of part of appropriations only reduced the size of additional expenditures, but the total of central government expenditures will be much higher than contained the Budget Act.)

The 10.1 per cent ESA deficit expected in the baseline scenario for 2006 is associated with slightly asymmetrical distribution of risks pointing towards a higher deficit. According to our risk analysis, the risks of a lower deficit can be associated mainly with the revenues side, while the risks of a higher deficit are related mainly to the expenditures side (e.g. local government investments). There is a relatively broad uncertainty concerning the VAT revenue forecast as well.

On the basis of available information the deficit level will decrease substantially in 2007 and 2008

Although we have no budget bills for 2007 and 2008, we regarded the planned measures of the government which were prepared in concrete form and/or announced as those which will actually be realised in the future. Therefore, we quantified those determinations and risks which are the expected consequences of already announced government measures (decisions) and trend-like macroeconomic and market developments. On the basis of this, our results show that the ESA-deficit may decrease by around 6 percentage points in total during the next two years, but risks to the baseline scenario grow substantially by 2008.

Our calculations were based on the assumptions listed below:

- The MNB's overall forecast was used for the macroeconomic conditions in 2007-2008, and our forecast of the main revenues and open-ended expenditures of the general government were prepared accordingly.

- On the expenditure side, we supposed that the government is capable of fully implementing the steps announced for the reduction of expenditures; moreover, the freezing of wages and transition to the management of the overall wage bill will be realised in accordance with the plans of the government.

- As regards revenue and expenditure projections which were not affected by the measures of the government, we assumed that these items will hold steady at their GDP-proportionate level in the future, except for projections where experience from the past shows major deviation from compliance with their GDP-proportionate levels.

- The projection for the developments in the accrual-based interest balance and the MNB's profit/loss was based on the forward yield curve.

- Past experience was used for estimating the investment cycle of local governments.

- We supposed that highway construction to be realised under so-called PPP construction schemes, particularly from 2008, will affect the ESA deficit only through the payment of the availability fee.

Table 3-6

Impact of measures known to date on the annual change of ESA-balance
(as a percentage of GDP)

	2006	2007	2008
Income	0.8	1.3	0.0
VAT	0.3	0.1	-0.2
Corporate income tax (incl. solidarity tax)	0.1	0.7	0.0
Personal income tax (incl. solidarity tax)	0.1	0.2	0.3
Simplified entrepreneur tax	0.1	0.2	0.0
Excise taxes	0.0	-0.2	-0.1
Social security contributions	0.3	0.4	-0.1
Expenditure	0.5	2.5	2.1
Permanent measures	*0.0*	*0.6*	*0.2*
Social security expenditures	0.0	0.5	0.1
Impact of reduction of public employment	0.0	0.1	0.1
One-off savings in expenditures	*0.5*	*1.4*	*1.9*
Freezing of salaries in the public sector	0.0	0.7	0.8
Freezing. maintaining the level of specific expenditure items	0.5	0.2	0.2
Developments of one-off items (highway, subway, Hungarian State Railway, etc.)	0.0	0.5	0.9
Macroeconomic effects on the budget	*0.0*	*0.4*	*0.0*
Impact of election cycle of local governments	0.0	0.4	0.0
*Overall impact on the ESA balance**	*1.4*	*3.8*	*2.1*

** 0.1 per cent rounding error at the balance change of the year 2007 baseline scenario.*
One-off items: Gripen fighter purchase, highway construction projects, underground construction etc.

In the Table below we summarised the key factors, which can contribute to the reduction of the ESA deficit according to our calculations.

In accordance with the overall estimated impact of the measures known to date, the 2007 ESA deficit would be lower by 3.9 per cent of GDP than the ESA deficit for the 2006 baseline projection. On the basis of the known measures and the estimated change in one-off items, the 2008 ESA deficit may decrease by around an additional 2.1 per cent of GDP, but the baseline projection is subject to a growing asymmetrical risk distribution pointing towards a higher deficit level.

Table 3 6 indicates that the fiscal adjustment will be determined primarily by measures realised from 2007 on the expenditures side – if the government is capable of realising in full all the measures aimed at reducing expenditures. At the same time, it must be noted that the actual impact of *measures affecting the revenues side* are under-represented by the fact that the secondary impact of the adjustment erodes tax revenues (declines in consumption and real growth, etc.). This can be seen in the projection that the general government's surplus revenues increase by only 1.3 per cent of GDP in 2007, whilst the full-year impacts of 2006 would result in a higher surplus in revenues. According to our estimate, the measures aimed at increasing revenues no longer generate further improvements in the fiscal balance in 2008.

The overall impact of the measures to increase government revenues is higher than can be shown in Table 3 6 because in general the increase in user-fees relating to price subsidies and use of public services does not appear in public accounts in a transparent manner. Examples include the transformation of gas price subsidies, increases in the fees of health care services (introduction of a doctor's consultation fee, contributions to hospital catering, etc.). In fact, these measures are also steps to increase central revenues, but in public accounts they appear partly as a reduction of future expenditure. (According to our estimate, the transformation of the system of gas price subsidies will decrease government expenditure by around 0.2-0.3 per cent of GDP in 2007, but the extra spending of households does not appear among government revenues, since households pay this surplus directly to service companies.

Similarly, changes in transport subsidies, extra costs relating to the purchase of health care service packages by households also do not appear, in part or whole, among the revenues of the general government.)

The impact of measures aimed at the reduction of expenditures seems to be robust. However, the majority of this impact can be attributed to measures having temporary effects or the expected reduction in 'one-off' expenditures. Another group of the measures will result in a part of one-off expenditures being recorded outside general government; and some of the capital expenditure by the state will be implemented under a scheme which will allow for a delayed recording of investment costs in the general government statistics (e.g. motorway construction under the PPP scheme). The measures having lasting impact, which determine the nominal expenditure level of the future fiscal path, contribute to the improvement in the balance only to a minor degree. The scope for improvement in the balance related to the investment cycles of local government may disappear by the end of 2008 as well. The impact of one-off items (Gripen fighter purchase; outsourcing of motorway construction projects; frozen wages) on the improvement in the balance accounts for around 2.0 per cent of GDP in the reduction of the deficit in 2008, which is almost identical to the overall (estimated) rate of change in the deficit.

The rules-based baseline forecast has a *wide range of risks*, which are asymmetrical towards a higher deficit for the entire period (2006-2008). There is significant uncertainty surrounding the freezing of wages in general government, raising the question as to whether the government will achieve its objectives, particularly at local governments and their budget units, and partly with regard to maintaining the strict wage policy for two years. In the case of some expenditures at the institutional and chapter level, the measures aimed at freezing expenditures at a nominal level are not specified in concrete terms, and in the past such measures were generally not fulfilled or led to an accumulation of liabilities. (We estimated savings in expenditure originating from the execution of this latter measure at 0.2-0.3 per cent of GDP per year, which is half of the size of the spending measures announced.)

In summary, it can be stated that our expected fiscal path will be realised, and our baseline forecast relating to this will show a substantial decrease in the budget deficit in the next two years, if the government is capable of realising its measures aimed at cutting expenditures.

Expected developments in public debt and the cost of servicing the debt

Parallel to the robust growth in the deficit in 2006, the debt-to-GDP ratio will also grow substantially. According to our calculations, this ratio, which is consistent with the Maastricht criterion, will be around 69 per cent by the end of 2006. The increase in the debt-to-GDP ratio by 7 percentage points relative to the 2005 levels is attributable to the high level of deficit, as well as the devaluation of the exchange rate through the revaluation of foreign exchange debt. In the course of 2007-2008, growth in debt will slow in parallel with the gradual decrease in the deficit level, and according to our baseline forecast the debt ratio may peak at around 70.5 per cent at the end of 2008.

In 2006, the interest balance of general government is expected to be around 3.8 per cent of GDP, which basically represents stagnation with a view to the accrual interest in comparison to the previous year. Over the next two years the GDP-proportionate interest balance is expected to grow slightly, by 0.1-0.2 percentage points, due in part to the sharp increase in debt stock and in part to the level of yields increasing in the recent period. Financing costs may also increase as the interest on debt assumed in relation to the construction of highways is higher than the ordinary costs of financing.

3.3. THE EFFECT OF THE VAT INCREASE ON THE SEPTEMBER 2006 MARKET PRICE INDEX – What can we learn from the shop-level examination of the January 2004 VAT increase?

According to our estimation, the total inflationary effect of the increase in the medium VAT rate from 15 per cent to 20

Table 3-7

Expected developments in the public debt and the interest balance
(as a percentage of GDP)

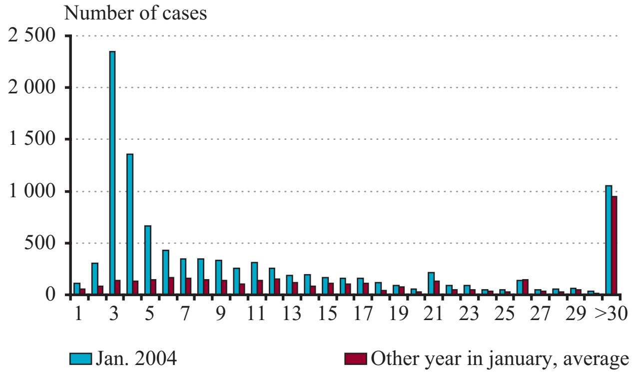
	2006	2007	2008
Gross consolidated government debt complying with Maastricht criteria	68.8-69,3	69.5-71.8	68.5-73.4
Accrual interest balance	3.8	4.0	4.0

per cent as of 1 September 2006 will not exceed 1-1.1 percentage points (see Box 2). In this analysis, we examine the very short-term effect of the VAT increase, i.e. the effect on the September 2006 price index. We point out that, as a result of the VAT increase, retailers may bring forward price increases that were planned for a later date, therefore the short-term, within-month effect may even exceed the aforementioned final effect of the VAT increase. For the analysis we use the data base used for the CSO price index calculation, which covers the shop-level prices of products included in the consumer price index basket and recorded with monthly frequency. The range of products affected by the forthcoming VAT increase is almost completely identical to the range of products affected by the 3 percentage point VAT increase in January 2004. Consequently, below we review how the VAT increase affected the prices of these products in January 2004. Only the price changes of market products are examined in the analysis; changes in regulated prices are not dealt with here.

Our data suggest that the repricing of products normally takes a longer time. In the months between January 2002 and May 2006 the prices of products affected by the January 2004 VAT increase were higher in an average 14.5 per cent of shops, remained unchanged in 74.1 per cent of shops, and declined in 11.4 per cent of shops, compared to the previous month. The average magnitude of the observed price increases and price reductions was 21.7 per cent and 18.6 per cent, respectively (both values include the effects of seasonal sales as well). Based on this, we can come to the conclusion that shops rarely modify their prices, but when they do, the magnitude of the change is significant.

Chart 3-1

Magnitudes of price increases in January 2004 and in Januaries of other years



However, the VAT increase in January 2004 constituted a transparent shock spreading to a wide range of products, which accelerated the price-reviewing of products. According to our data, 56.1 per cent of the products affected by the VAT increase was repriced in January 2004, and another 12.1 per cent in February. Based on this, we can state that the effect of the VAT increase appeared in the prices of the majority of products within a quarter, i.e. earlier than usual.

The VAT increase also resulted in a change of the typical size of price increases. While the price changes in Januaries of other years showed a relatively even spread in a wide range, in January 2004, in the product range affected by the VAT increase the number of approximately 3 per cent price increases, equal to the magnitude of the VAT increase, grew significantly. It is also conspicuous that

Table 3-8

The immediate price-increasing effect of the January 2004 VAT increase by categories

CPI-categories	VAT-effect	Weight	CPI-effect
Meat, fish and preparations	1.68	3.91	0.07
Milk, diary products, eggs	2.07	3.45	0.07
Oils and fats	1.95	1.10	0.02
Cereals, sweets	3.67	3.93	0.14
Vegetables, fruit, potatoes	5.51	2.97	0.16
Spices and other food	2.71	0.56	0.02
Meals at restaurants, canteens	1.67	2.61	0.04
Children's and infant's clothing and footwear	-0.09	0.03	0.00
Electricity, gas and other fuels	2.58	1.61	0.04
Other goods	0.81	2.05	0.02
Services	0.89	3.27	0.03
Total (average in the case of the VAT-effect)	2.40	25.48	0.61

price changes slightly exceeding 3 per cent (4-10 per cent) became more frequent than usual. This indicates that shops brought forward a part of smaller price increases planned for a later date, and these price increases coincided with the VAT increase. All this resulted in an increase in the share of minor price increases. The average magnitude of price increases in January 2004 was only 14.6 per cent, as opposed to the average 26.0 per cent observed in Januaries of other years.

The product and shop-level database also allowed the examination of the effect of the VAT increase on prices by sectors. Values shown in Table 3-8 indicate the immediate, January 2004 effect of the VAT increase, including that part of the VAT increase which appears within a month and adds to the price level in a lasting manner and the effect of brought-forward price increases as well. Based on our estimate, the immediate effect of the VAT increase was the most significant in case of food prices, while on average it added 2.4 per cent to the price level of the products concerned. Taking account of the fact that the VAT increase did not apply to the complete range of products, this average 2.4 per cent effect raised the consumer price index by approximately 0.6 percentage points in January 2004.

In September 2006, the VAT increase will apply almost to the same range of products as in January 2004. The most important difference is in the magnitude of the VAT increase; while the VAT increase in 2004 amounted to 3 percentage points, the medium rate will rise by 5 percentage points this year. Therefore, based on our estimate for the immediate effect of the VAT increase in 2004, we expect that the upcoming VAT increase will add approximately 1.0 percentage point to the September 2006 market price index. If the effect of the VAT increase on regulated goods with an effect of 0.4 per cent on headline CPI (the effect on regulated prices is around 2 per cent) is added to this, it becomes evident that the September 2006 effect may exceed the 1-1.1 percentage point magnitude estimated for a longer period of time. Consequently, in later months (due to the price increases brought forward to September) the price increasing effect of the VAT increase will be smaller.

Appendix 1

Table A-1

Changes in central projections relative to May

(average percentage changes on a year earlier, unless otherwise indicated)

	2005	2006		2007		2008	
	Actual	Projection					
		May	Current	May	Current	May	Current
Inflation (annual average)							
Core inflation[1]	2.2	1.0	**2.0**	3.4	**5.6**	3.3	**4.4**
Consumer price index	3.6	2.1	**3.8**	3.3	**7.0**	3.2	**4.2**
Economic growth							
External demand (GDP-based)	2.0	2.2	**2.2**	2.2	**2.1**	2.3	**2.3**
Impact of fiscal demand[2]	0.8	0.8	**1.8**	-0.6*	**-4.1**	-0.6*	**-1.7**
Household consumption[3]	1.4	3.7	**2.5**	3.4	**-1.0**	3.0	**-0.3**
Memo: Household consumption expenditure[3]	*1.7*	*4.0*	***2.6***	*3.4*	***-0.9***	*2.9*	***0.0***
Fixed capital formation[3]	6.6	6.3	**6.3**	2.8	**2.0**	4.4	**4.3**
Domestic absorption[3]	*0.8*	*3.8****	***1.5*****	*3.6****	***-0.2*****	*3.6*	***1.1***
Export[3]	10.8	13.3	**13.7**	9.6	**9.5**	9.4	**9.4**
Import[3.4]	6.5	12.4***	**10.8*****	9.0***	**6.9*****	9.2	**8.3**
GDP[3]	4.1 (4.3)**	4.5	**3.9**	4.2	**2.4**	3.8	**2.5**
Current account deficit[4]							
As a percentage of GDP	7.4	8.3***	**8.1*****	8.2***	**5.9*****	8.0	**4.7**
EUR billions	6.5	7.4***	**7.0*****	7.7***	**5.3*****	8.0	**4.5**
External financing requirement[4]							
As a percentage of GDP	6.6	7.1***	**6.9*****	6.8***	**4.5*****	6.2	**3.0**
Labour market							
Whole-economy gross average earnings[5]	8.9	6.8	**6.8**	6.2	**4.4**	5.7	**4.5**
Whole-economy employment[6]	0.0	0.2	**0.4**	1.0	**-0.4**	0.6	**0.5**
Private sector gross average earnings	6.9	7.9	**7.9**	6.8	**6.7**	6.1	**6.7**
Private sector employment[6]	0.3	0.6	**1.0**	1.5	**0.1**	0.9	**0.6**
Private sector unit labour cost	2.2	4.3	**4.3**	0.2	**4.3**	2.6	**3.9**
Household real income	3.7****	4.7	**4.3**	2.6	**-4.3**	2.3	**2.0**

[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] Calculated from the so-called augmented (SNA) type indicator; a negative value means a narrowing of aggregate demand.
[3] Actual data contain the impact of the CSO national balance revision received on 16 May.
[4] As a result of uncertainty over the measurement of foreign trade statistics, as 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.
[5] Calculated on a cash-flow basis.
[6] According to the CSO labour force survey.
** Assumption for the fiscal impulse inherently consistent with the macroeconomic path; due to the lack of a Budget Act for 2007 and 2008, we cannot provide a detailed fiscal projection.*
*** Adjusted for leap-year effect.*
**** Our projection includes the impact of the Hungarian Army's Gripen purchase, which raises the current account deficit and increases community consumption and imports.*
***** An MNB estimate.*

Appendix 2

Table A-2

The MNB's main scenario versus other projections

	2006	2007
Consumer price index (annual average growth rate, per cent)		
MNB (August 2006)	3.8	7.0
Consensus Economics (July 2006)[1]	2,4 - 3,4 - 4,1	2.7 - 5.7 - 7.0
OECD (May 2006)	2.1	2.9
European Commission (Spring 2006)	2.7	3.8
IMF (April 2006)	2.0	2.7
Reuters-survey (August 2006)[1]	3.3 - 3.6 - 4.0	4.3 - 5.8 -6.8
World Bank (May 2006)	2.0	3.0
GDP (Annual growth rate per centage)		
MNB (August 2006)	3.9	2.4
Consensus Economics (July 2006)[1]	3.9 - 4.2 - 4.5	1.5 - 2.7 - 3.8
OECD (May 2006)	4.6	4.4
European Commission (Spring 2006)	4.6	4.2
IMF (April 2006)	4.4	4.2
Reuters-survey (August 2006)[1]	3.5 - 3.8 - 4.1	1.5 - 2.5 - 3.6
World Bank (May 2006)	4.4	4.0
Current account deficit (billion EUR)		
MNB (August 2006)	7.0*	5.3*
Consensus Economics (July 2006)[1,2]	4.7 - 6.6 - 7.4	5.1 - 5.4 – 8.1
Reuters-survey (August 2006)[1]	6.0 - 6.5 - 7.1	5.0 - 5.8 - 6.7
Current account deficit (as a Percentage of GDP)		
MNB (August 2006)	8.1*	5.9*
OECD (May 2006)	7.7	7.3
European Commission (Spring 2006)	8.3	8.5
IMF (April 2006)	8.2	7.5
World Bank (May 2006)	8.4	8.0
Budget Deficit (ESA-95 method, as a Percentage of GDP)		
MNB (August 2006)	9.9-10.7**	5.9-7.0**
Consensus Economics (July 2006)[1]	7.5 - 8.7 - 9.8	3.3 - 5.6 - 8.0
European Commission (Spring 2006)[4]	6.7	7.0
Reuters-survey (August 2006)[1]	8.7 - 9.9 - 10.5	5.7 - 6.8 - 8.0
World Bank (May 2006)[5]	6.7	7.0
Forecasts about the size of Hungary's export markets		
MNB (August 2006)	7.4	4.3
OECD (May 2006)[3]	7.9	6.9
European Commission (Spring 2006)[3]	6.9	5.1
IMF (April 2006)[3]	5.8	5.1
Forecasts about the GDP growth rate of Hungary's trade partners		
MNB (August 2006)	2.2	2.1
OECD (May 2006)[3]	2.6	2.5
European Commission (Spring 2006)[3]	2.5	2.2
IMF (April 2006)[3]	2.5	2.3

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

[1] *In addition to the averages of polled analysts' responses (the values in the middle), the smallest and largest values are also indicated for the Reuters and Consensus Economics surveys in order to illustrate dispersion.*

[2] *The survey specifies current account projections in US dollars, therefore they are converted at the EUR/USD exchange rate assumed in the current Report.*

[3] *Values calculated by the MNB; the projections of the named institutions regarding individual countries are considered with the weights used for calculating the MNB's own external demand indicators. This way, the forecast may differ from the numbers published by the aforesaid institutions.*

[4] *For the sake of comparability the projection of the European Commission was corrected taking into account payments to the private pension fund system.*

[5] *No policy change scenario.*

* *Our projection takes account of the negative effect on the current account resulting from the Gripen fighter procurement.*

** *Risk domain related to the ESA deficit, which contains risks relating to the measures announced under the New Equilibrium program.*

Subject: Consensus Economics Inc. (London) Eastern Europe Consensus Forecasts (July 2006); European Commission Economic Forecasts, spring 2006; IMF World Economic Outlook (April 2006); Reuters survey April 2006, World Bank EU-8 Quarterly Economic Report (May 2006); OECD Economic Outlook (May 2006).

Appendix 3: The impacts of an alternative interest and exchange rate path

Table A-3

Comparing our main assumptions with the Reuters analyst survey in July*

	2006	2007	2008
HUF/EUR exchange rate (our assumption)	277.6	277.6	277.6
HUF/EUR exchange rate (Reuters survey)	269.9	264.2	264.2**
Central bank base rate (our assumption)	6.75	6.75	6.75
Central bank base rate (Reuters survey)	7.48	6.91	6.91**

** Values expected at the end of the year.*
*** Reuters survey does not contain questions on 2008, we assumed unchanged values compared to 2007.*

As previously we again demonstrate how our forecast would change, if the interest and exchange rate assumptions used were replaced by the path outlined in the Reuters survey analysts.

Analysts expect an interest path that is close to our main scenario (around 75 base points higher by the end of 2006, and almost similar by the end of 2007), while they forecast an exchange rate around 3 per cent stronger than our base scenario by the end of 2006 and 5 per cent stronger at the end of 2007.

If we used these expectations as our main scenario our inflation forecast would be 0.5 percentage points lower for both 2007 and 2008. In addition, our forecast economic growth would have been 0.2 lower for 2007 and 2008, respectively.

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