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, since August 2005 the Bank seeks to attain price stability by ensuring an inflation rate near the 3 per cent medium term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of the expected development of inflation every three months, in order to establish the monetary conditions 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 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 Report presents the inflation forecasts prepared by the Economic Analysis and Research and Financial, as well as the macroeconomic developments underlying these forecast. The Report is published biannually, with partial updates to the forecasts also prepared twice a year. The forecasts of the Economic Analysis and Research and Financial Analysis Department are based on certain assumptions. Hence, in producing its forecasts, the Department assumes an unchanged monetary and fiscal policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this *Report* were prepared by staff in the MNB's Economic Analysis and Research and Financial Analysis Department under the general direction of Ágnes Csermely, Director. The project was managed by Mihály András Kovács, Deputy Head of Economic Analysis, with the help of Zoltán Gyenes, and Barnabás Virág. The *Report* was approved for publication by Ferenc Karvalits, Deputy Governor.

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The *Report* incorporates valuable input from the Monetary Council's comments and suggestions following its meetings on 11th of August and 25th of August 2008. The projections and policy considerations, however, reflect the views of staff in the Economics Analysis and Research and the Financial Analysis Department and do not necessarily reflect those of the Monetary Council or the MNB.

Contents

Overview

Slow disinflation, deteriorating growth prospects

The August issue of the *Quarterly Report on Inflation* projects slow disinflation, provided that our basic assumptions (the most important of which are an exchange rate of EUR/HUF 232 and oil prices around USD 137) hold true. Consumer prices will most likely grow at a rate around 4 per cent in 2009 and 3 per cent in 2010. At the same time, we project subdued improvement in economic growth, the rate of which is not expected to exceed the economy's capacity until 2010. As a result, the output gap will remain negative over the entire forecast horizon.

Recent growth data point to trends which are unfavourable for the long-term growth prospects

On the whole, the global economic environment changed for the worse in the first half of the year: after dynamic growth in the first quarter, European data indicated a slowdown in economic activity in the second quarter. Although the volatile quarterly figures cause some uncertainty in the exact assessment of the overall trend, a pronounced slowdown in European growth is becoming increasingly clear. In addition to the tighter lending conditions, the sharp rise in crude oil prices has also played a key role in the increasingly subdued growth climate.

In the first half of the year, there was a gradual recovery in Hungarian economic performance, primarily due to the outstanding performance of agriculture, and brisk growth in industrial exports in the first quarter. Nevertheless, GDP growth still fell short of growth in production capacity, and thus the negative output gap continued to widen. Regarding the longer-term prospects, the lack of a material turnaround in domestic absorption, together with the slowdown in the European business cycle results in uncertainty about the pace of upturn in economic activity.

The pass-through of global inflation was limited by poor domestic growth

Global inflationary pressure increased significantly during the second quarter of 2008. Despite the substantial tightening in monetary conditions stemming from central bank interest rate hikes and improved risk appetite toward the region, the appreciation of the forint exchange rate was only partially able to compensate for the deteriorating global inflation environment. As a result, forint-denominated prices of imported goods continued to rise. However, rising prices continued to mostly characterise commodities and energy-related product groups, while the import prices of a wide range of processed goods declined to a certain extent.

Although rising energy prices were reflected in producer prices, due to the negative output gap companies only passed on a part of their increased costs in their sale prices. As a result, the increase in the consumer price index subsided and settled at a level slightly below 7 per cent.

Due to the combined effect of improved productivity and high wage dynamics, inflationary pressure declined slightly on the labour market

Despite the unfavourable growth climate, wage dynamics remained strong in Q2, due to the increase in the minimum wage for skilled workers and high inflation. In addition, as the majority of those who lost their jobs in the previous quarters basically left the labour market, the level of free labour market capacities did not increase very much, also contributing to the high growth rate of wages.

On the whole, however, the improving productivity of the private sector contributed to a slight drop in cost pressure from the labour market. The growth in unit labour costs is still high compared to the inflation target, because temporary factors (such as the excellent performance of agriculture) also contributed to the initial high productivity figures during the year.

Despite the dynamic growth in nominal wages, the real disposable income of households barely improved in the first half of the year, due to the declining employment rate and stagnating real non-wage incomes. This meant that income growth had a disinflationary effect from the demand side, which is well illustrated by the weak growth in household consumption expenditure.

Looking ahead, slow improvement in growth is expected, with downside risks

In our forecast, we anticipate a slow recovery in economic growth. We project that the pick-up in domestic consumption may prove to be somewhat stronger than the deceleration in export growth. Even though the positive performance of agriculture may offset the combined effect of slower-than-expected external demand and restrained domestic consumption in our short-term growth prospects, the long-term prospects appear to be much more pessimistic than anticipated in the May Report, for two reasons. On the one hand, weaker external demand and the stronger forint exchange rate jointly reduce the contribution of net exports to growth. On the other hand, sustained high oil prices and the fall in empoyment inhibit a recovery in domestic consumption.

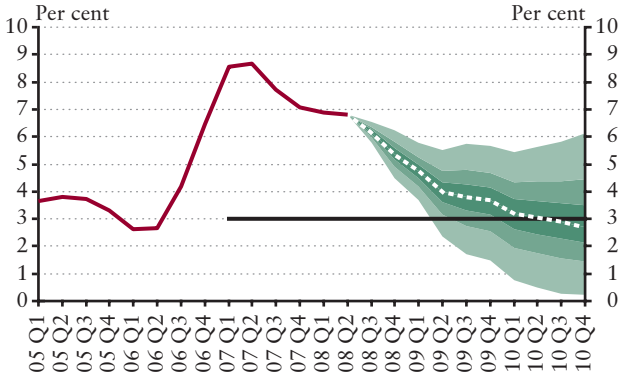
We strongly anticipate that the European slowdown will be more severe than expected, and this represents a tangible downside risk to the domestic growth path as well.

A gradual disinflation process is projected, with almost symmetrical risks

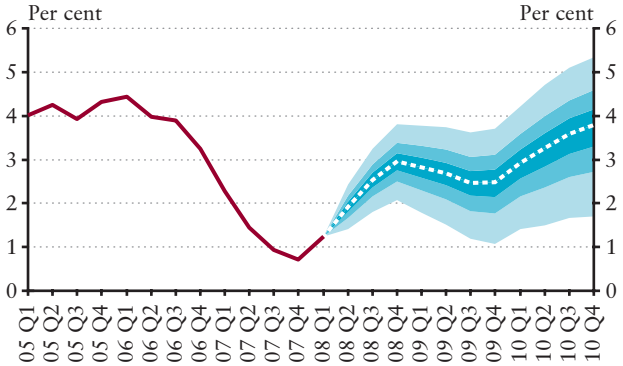
The negative output gap continues to be a key factor in the anticipated disinflation process, forcing companies to arrest wage growth and raise prices more slowly than in the past. Additionally, our projections assume that commodity prices will cease rising across the entire forecast horizon.

As the decline in employment was not accompanied by a similar increase in the available labour pool in the last year, there is a significant risk of a sustained decrease in labour supply in the Hungarian economy. As a consequence, it is possible that a large portion of the recently observed growth deceleration has affected potential output. An additional risk may be found in the increase in nominal wages, if these adjust more than expected to the earlier high inflation level. Both scenarios might cause higher inflation compared to the baseline. On the other hand, disinflation may be facilitated by the stronger-than-expected decline in external demand and international commodity prices. On the basis of these factors, on the whole we perceive symmetric risks around the baseline scenario of our projection.

Inflation forecast fan chart



GDP forecast fan chart



Summary table of the baseline scenario

(The forecasts are conditional: the baseline scenario represents the most probable scenario, which applies only if all of the assumptions presented in Chapter 3 materialise; unless otherwise indicated, it represents percentage changes on the previous year.)

	2006	2007	**2008**	**2009**	**2010**
	Actual		**Projection**		
Inflation (annual average)					
Core inflation[1]	2.4	6.0	**5.1**	**2.8**	**2.7**
Consumer price index	3.9	8.0	**6.3**	**4.1**	**3.0**
Economic growth					
External demand (GDP-based)*	3.9	3.9	**2.5**	**1.9**	**2.1**
Fiscal impact on demand**[,2]	0.4	-3.6	**-1.5 (↔)**	**-0.1 (↔)**	**-0.8 (↔)**
Household consumption	1.9	-1.9	**0.3**	**1.4**	**2.8**
Gross fixed capital formation	-2.5	0.1	**2.1**	**5.4**	**6.3**
Domestic absorption	1.2	-0.4	**1.0**	**2.5**	**3.4**
Exports	19.0	14.2	**10.1**	**7.4**	**8.7**
Imports[3]	14.7	12.0	**8.8**	**7.5**	**8.9**
GDP***	3.9 (4.0)	1.3	**2.2 (2.4)**	**2.6 (2.4)**	**3.4**
Current account deficit[**,3]					
As a percentage of GDP	6.0	5.0	**4.9 (↑)**	**4.8 (↑)**	**4.8 (↑)**
EUR billions	5.4	5.1	**5.3 (↑)**	**5.5 (↑)**	**6.0 (↑)**
External financing requirement[**,3]					
As a percentage of GDP	5.3	4.0	**3.4 (↑)**	**2.8 (↑)**	**2.5 (↑)**
Labour market					
Whole-economy gross average earnings[4]	8.2	8.0	**8.8**	**6.5**	**6.5**
Whole-economy employment[5]	0.7	-0.1	**-1.6**	**-0.6**	**0.1**
Private sector gross average earnings[6]	9.4 (8.1)	9.1 (8.2)	**10.2 (8.5)**	**7.2**	**6.5**
Private sector employment[5]	1.2	0.9	**-1.7**	**-0.7**	**0.2**
Unit labour costs in the private sector[5,7]	4.4	7.3	**3.7**	**4.1**	**3.1**
Household real income*	-0.3	-3.4	**1.3**	**2.0**	**2.7**

[1] *For technical reasons, this indicator may temporarily differ from the index published by the CSO; over the long term, however, it follows a similar trend.*

[2] *Calculated from the so-called augmented (SNA) balance; a negative value represents a narrowing of aggregate demand.*

[3] *As a result of uncertainty in the measurement of foreign trade statistics, from 2004 the actual import figure and current account deficit/external financing requirement may be higher than suggested by official figures, or our projections based on such figures.*

[4] *Calculated on a cash-flow basis.*

[5] *According to the CSO LFS data.*

[6] *According to the original CSO data. The numbers in brackets refer to wages excluding the effect of whitening and the changed seasonality of bonuses.*

[7] *Private sector unit labour cost calculated with a wage index excluding the effect of whitening and the changed seasonality of bonuses.*

** MNB estimate.*

*** Forecast in May 2008.*

↔ means that the expected path of the variable will be similar to that of published in the May 2008 Report.

↑ means that the expected path of the variable might be higher compared to the May 2008 Report.

**** Data not adjusted for calendar-day variations are shown in brackets.*

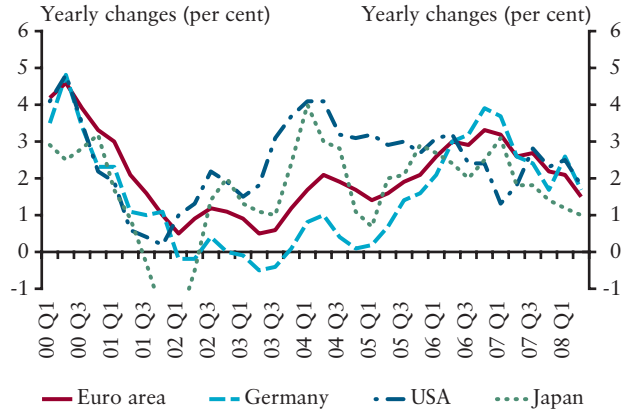
1 Macroeconomic developments

1.1 A CLIMATE OF GRADUALLY DETERIORATING GLOBAL ECONOMIC GROWTH AND INFLATION

In the first half of 2008, the international climate changed for the worse on the whole: after a favourable first quarter, the European data for Q2 suggested downturn in economic activity, which has not occurred in the euro area since the beginning of the 1990s. Although the high volatility of quarterly changes results in some uncertainty in assessing the general trend accurately, a marked slowdown in European growth can be detected more and more clearly, even according to the available business climate indicators. Along with the tighter lending conditions, the radical increase in oil prices has also played a decisive role in the deterioration of economic conditions.

Chart 1-1

International economic growth (GDP)



Source: Eurostat.

Note: preliminary data for 2008 Q2.

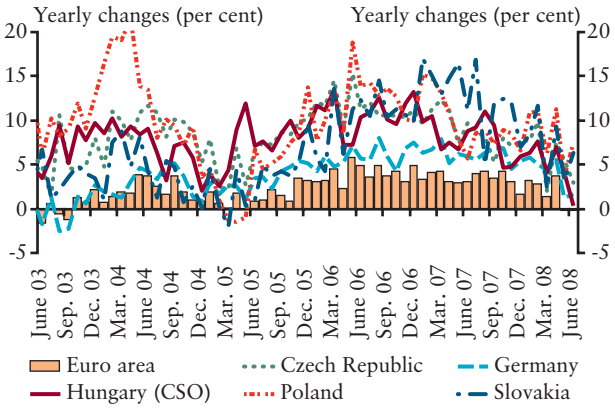
In line with the slowdown in industrial growth in the euro area and the region, domestic processes also continued to decelerate, although atypical working-day effects in the first half of the year render accurate assessment of the industrial trend uncertain. In addition, the gradual change in the composition of Hungary's export partner countries may have slowed the deceleration of domestic exports, as the expansion of Hungarian exports is increasingly shifting to Central and Eastern European countries and Russia, which exhibit higher growth potential than euro area countries.

The slowdown in industrial performance and exports is essentially related to the international slowdown in industrial

Chart 1-2

Industrial production in the region and the euro area

(seasonally adjusted data)



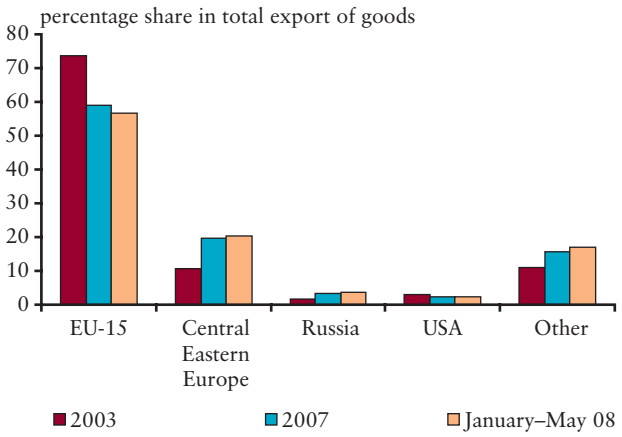
Source of international data: Eurostat.

activity, but in addition to this, the strong exchange rate appreciation since April may also have had a detrimental effect. However, our calculations suggest that this latter effect is not significant yet; since the effect of the exchange rate on exports may mostly be reflected in data with a delay of several quarters.

Chart 1-3

Changes in the structure of the domestic exports of goods

(in percentages)



Source: CSO foreign trade statistics.

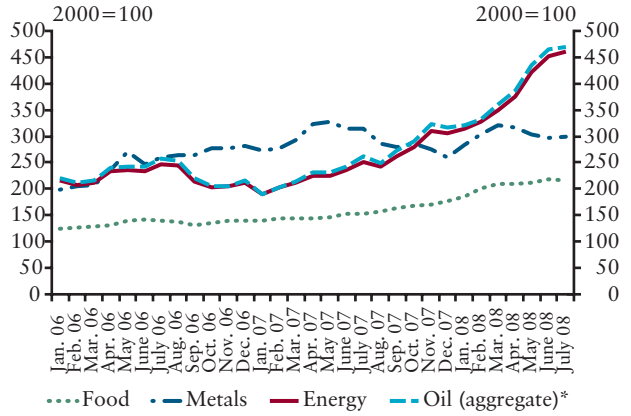
Note: Eastern and Central European countries include Czech Republic, Croatia, Poland, Slovakia, Slovenia and Romania.

Since publication of the previous *Report*, the international inflation environment has been marked by further increases

in inflation, primarily caused by soaring oil prices. Among global commodity prices, oil prices, and consequently, energy prices have been drastically rising for the last few months, while food and metal prices have not changed considerably.[1] Along with intensifying global inflation pressure, commodity prices have become the main contributors to deteriorating growth prospects after the tightening of lending conditions. It is worthy of note, however, that the steady upward trend in oil prices has been followed by a significant correction in the last few weeks.

Chart 1-4

World market price of commodities*



Source: IMF International Financial Statistics.

** Average of U. K. Brent, Dubai, and West Texas Intermediate, equally weighted.*

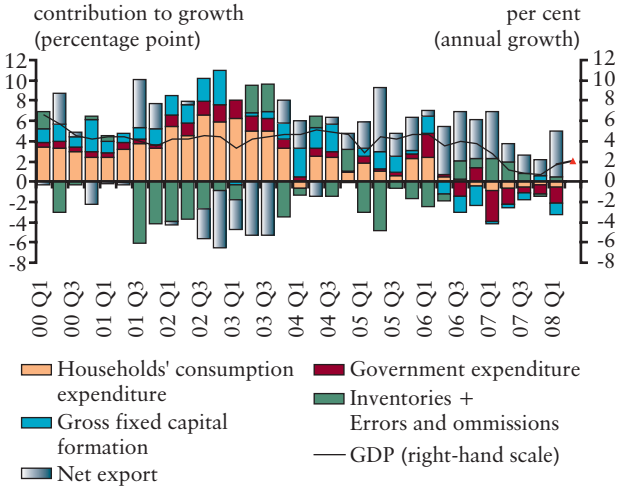
1.2 WEAK TURNAROUND IN GROWTH, WITH NO RECOVERY IN DOMESTIC DEMAND

With regard to the Hungarian economy's performance in H1 2008, a slight recovery in economic growth was observed, caused primarily by the remarkably good performance of agriculture, and industrial production and exports which were still buoyant in the first quarter.[2] Nevertheless, GDP growth still lags behind the expansion of production capacities, i.e. the negative output gap has opened up further. As for the long-term prospects there is some degree of uncertainty, as domestic expenditure has not showed a turnaround, and consequently for the future it is questionable to what extent Hungarian factors may be able to support a recovery in economic activity, particularly in light of the worsening business conditions in Europe.

Chart 1-5

Contribution of items on the expenditure side to GDP growth*

(seasonally adjusted data)



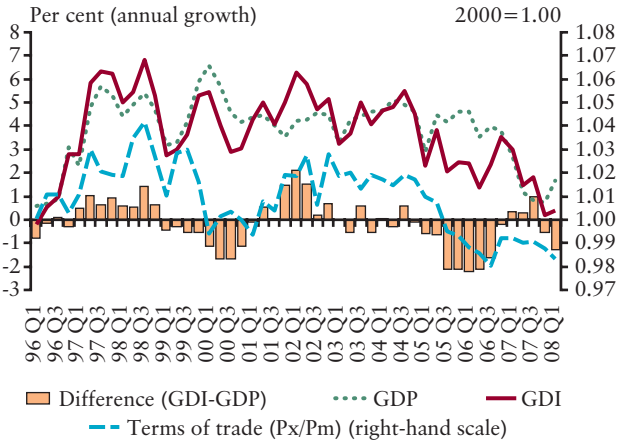
** Considering that time series with chain-type indices are not additive, aggregation errors were distributed between the items according to their weight. Dynamics calculated from the resulting adjusted time series may be less informative from a quantitative perspective (they differ from those calculated from the original data), however, the chart may still reflect prevailing trends accurately.*

Note: Q2 data for 2008 is preliminary, and only adjusted by working days.

With regard to the recovery in domestic consumption, the deteriorating terms of trade resulting from soaring energy prices also represent a risk. As a result, since Hungary is a net energy importer, growth in national disposable income was

Chart 1-6

GDP, GDI and terms of trade



[1] Several analyses (e.g. Samantha Dart: "The fundamental factors behind rising food and fuel prices", Goldman Sachs, 2008) have been published, pointing out that energy and food commodity prices tend to move in closer conjunction as a result of the increasing use of biofuels. This relationship may have been interrupted temporarily in the last quarter, even though the recent adjustments in oil prices repeatedly brought petroleum prices closer to the prices of agricultural commodities.

[2] Presumably, the expansion of the state performance may have contributed to the increasing output in the second quarter. Due to the methodology of statistical measuring, it may have been caused by increase in number of associations between doctors and patients resulting from abolishment of visit fees and hospital per diem fees.

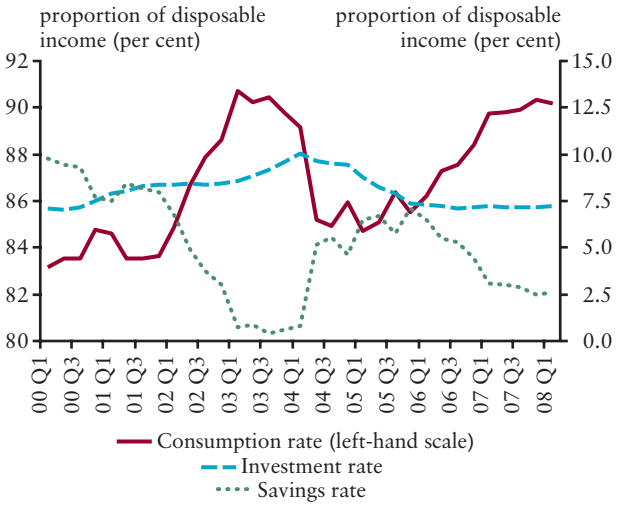
much slower than GDP growth in the most recent period. If energy prices remain high over the longer term, domestic consumption may be stranded at persistently low levels.

Following the unfavourable data seen in recent years, gross fixed capital formation continued to decline in 2008 Q1. It should be noted, however, that the negative data is largely due to poor, presumably deferred, government investments, while corporate sector investments were relatively good.[3] Weak consumer confidence, shrinking employment, stagnating real household income and oversupply in the real estate market may have led to diminishing household accumulation appetite, which also contributed to slow investment dynamics. It should, nevertheless, be noted that the weight of the first quarter is rather small relative to the annual investment data, therefore its relevance in forecasting annual trends is quite limited.

The decline in domestic actual consumption dynamics was largely due to a strong reduction in government consumption and social benefits in kind. As household consumption expenditure growth was very gradual, and fell significantly behind the more dynamic growth in wages at the beginning of the year, the turnaround was slower than expected. The reason for the discrepancy between increased wages and the consumption/saving decision of households is the fact that, due to the decline in other income, household income is improving much less dynamically than wages (for details, refer to Box 1-1 below).

Chart 1-7

Household's consumption, investment and savings rate



Box 1-1: Developments in real household income at the beginning of 2008

As regards the consumption/saving behaviour of Hungarian households, the data indicate quite divergent, at times even contradicting processes in the first half of 2008, marked by dynamic wage growth and a considerable increase in financial benefits on the one side, and barely perceivable consumption growth and subdued financial saving and investment on the other side. On the basis of economic theories and statistical estimates, this box text seeks an explanation for the consumption/saving decisions of households over the past six months.

The literature provides several explanations for household consumption lagging behind sudden wage growth. According to the most popular view, which we also adopt in our forecasting systems, if households perceive the growth in current incomes as being temporary, they will not change their consumption decisions significantly. Some of the income-related conditions of this explanation were in place in the first half of 2008. Due to falling employment, combined with inflation at persistently high levels, the rapid rise in wages at the beginning of the year was presumably not accompanied by improved income expectations, which is consistent with the poor confidence indices measured in that period. If households had perceived significant temporary growth in income, we should have seen evidence of caution, and consequently, a stronger attraction to savings. The available data, however, do not appear to corroborate this. We therefore assume that there are additional important effects behind this phenomenon.

The source of more than one-third of the total income of households is so-called 'other income'. As the relevant statistics may be significantly delayed (by as much as two years), measurement of this income component is more uncertain than the measurement of the other two key components. Therefore, we can only rely on estimates regarding its current status.

As National Account figures are only available for 2006, we will use that data to attempt to understand this year's developments.[4] 70 per cent of

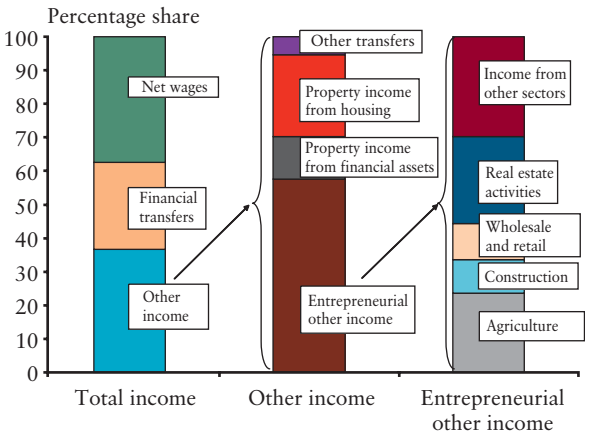
[3] Small scale agricultural investments rose sharply, primarily due to European Union subsidies. Investments of the market service sector experienced a similar upsurge, but the growth was shared by several small businesses. Likewise, investments were relatively strong in the manufacturing industry considering the extremely strong base of last year.

[4] As the share of the key income components appeared to remain relatively stable over time, we believe that using the 2006 data for the purposes of this projection should not cause material errors in our estimates.

households' other income comes from enterprises or financial investments. More detailed information is available on these items. As the remaining 30 per cent includes rental fees of owned homes (mainly settled as statistical items) and other, hard-to-simulate transfers, our analyses here will focus on the previous items.

Chart 1-8

Sources of household income in 2006



Examining the components of entrepreneurial income, it is evident that its sources are highly concentrated, and they come primarily from four sectors (agriculture, construction, trade, real estate).

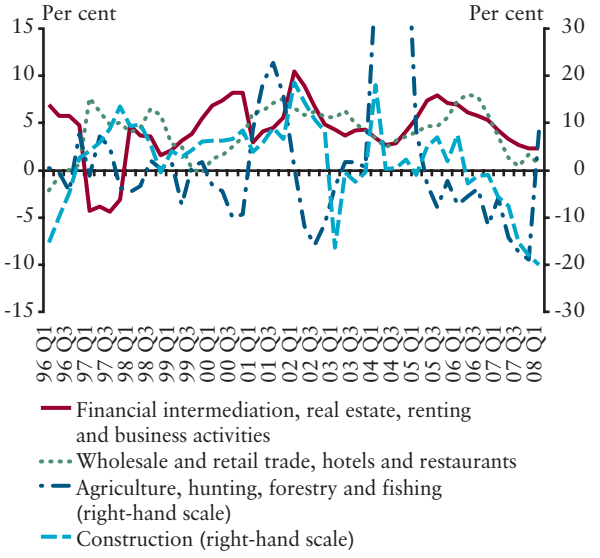
In contrast with the negative performance in 2007, current GDP data on the production side at the beginning of the year showed clear signs of a turnaround for agricultural production. Good weather conditions produced outstanding average yields for several types of produce, which presumably had a positive impact on household income stemming from agricultural production. However, this impact may have been offset to some extent by the low purchasing prices caused by the additional supply. In contrast with the upswing in agriculture, the other three key sectors shaping household income continued their tendency of poor performance this year, a trend which was initially observed in 2006. This holds particularly true for the construction industry, which may be consistent with the extremely poor performance of construction and new home construction in the most recent period.

Another key element in other household income is income from financial assets. The financial portfolio of households has been subject to significant restructuring since 2000. The share of investments with a higher risk/return profile has been gradually increasing at the expense of the previously preferred, more conservative investment instruments (thanks to the widespread use of investment fund units, life insurance and pension funds). As a result of this restructuring, yields realised on the financial instruments of households may now be more closely

Chart 1-9

Value added of national economic sectors with a key impact on the development of household entrepreneurial income

(percentage change, year-on-year)

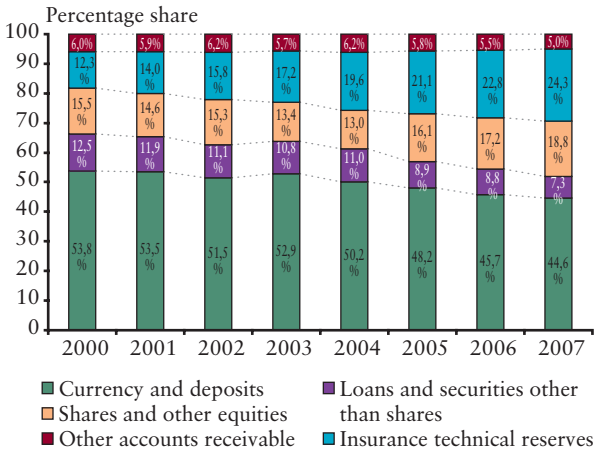


connected to global money market and capital market processes. Since the money markets have recently registered poor yield performance, they may have had a negative impact on the other income of households.

Finally, it should be noted that the whitening caused by the measures implemented by the government over the past year and a half may

Chart 1-10

Structure of households' financial receivables*



** When calculating the share of specific items, we excluded the time series of 'business share', which is listed under financial assets on the basis of its statistical classification.*

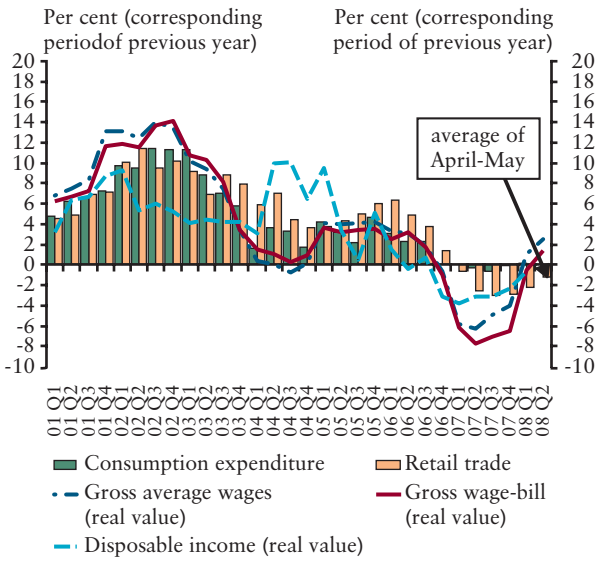
have also reduced the other income of households. This is because the former, forced entrepreneur statuses are increasingly being recorded as employee statuses, due to the tightening of tax audits. Therefore, a practical mechanism would be to record small entrepreneurial income as wages in the statistics. As wage statistics do not show any significant whitening effect,[5] we can assume that the whitening of small entrepreneurs enters the economy at lower-than-average wage levels, and thus does not lead to a material upward bias in wages. It should also be noted that the whitening of the economy as a whole is somewhat questionable. The substantial surge in cash demand last year might even indicate that more economic activities are moving into the informal sphere.

On the whole, the total income position of households at the beginning of 2008 must have been far behind the growth of average wages. This was primarily the result of the continuing poor performance of the sectors producing for domestic consumption (except agriculture), which are key contributing factors to other income, declining employment and falling financial yields realised in the unfavourable global money and capital market climate. This result may account for the weak consumption and saving decisions of households and the low confidence index.

Chart 1-11

Main indicators of household consumption and income

(seasonally adjusted data)



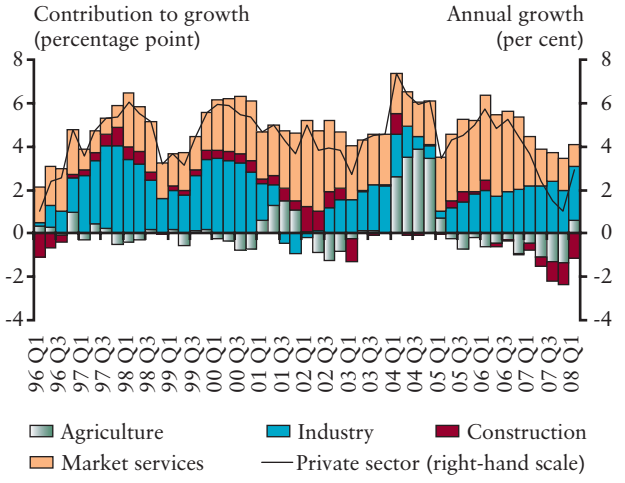
On the production side of GDP, the private sector recorded dynamic growth in 2008 Q1, whilst the value added of the public sector did not change significantly. The growth of private sector value added relative to the end of the previous year may primarily stem from two sectors: first of all, agriculture,[6] and secondly, the temporarily stronger dynamics of industrial production, resulting from the temporary improvement in external demand.[7] In addition to those mentioned earlier, sectors primarily connected to internal growth (market services and construction) continue to perform poorly, which may further increase the uncertainty surrounding the recovery in domestic demand.

With poor domestic and weakening external demand, growth continues to be sluggish, further widening the output gap, which has been continuously negative since 2007. Therefore, the disinflationary effect of slack demand is expected to increase relative to the previous year.

Chart 1-12

Contribution of items on production side to the growth of private sector value added*

(seasonally adjusted data)



* *Considering that time series with chain-type indices are not additive, aggregation errors were distributed between the items according to their weight. Dynamics calculated from the resulting adjusted time series may be less informative from a quantitative perspective (they differ from those calculated from the original data), however, the chart may still reflect prevailing trends accurately.*

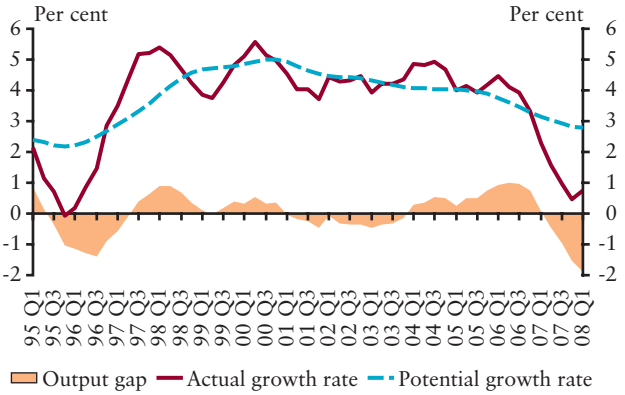
[5] For details, see Box 1-2.

[6] It should be noted that initial data for the year are quite unreliable for this sector, as production-related information received during the year might require significant revision of data.

[7] Although detailed GDP data are not available for Q2, we believe that the contribution of agriculture to growth may have been significant, while in line with the international economy, industry showed considerable adjustment.

Chart 1-13

Developments in the output gap*

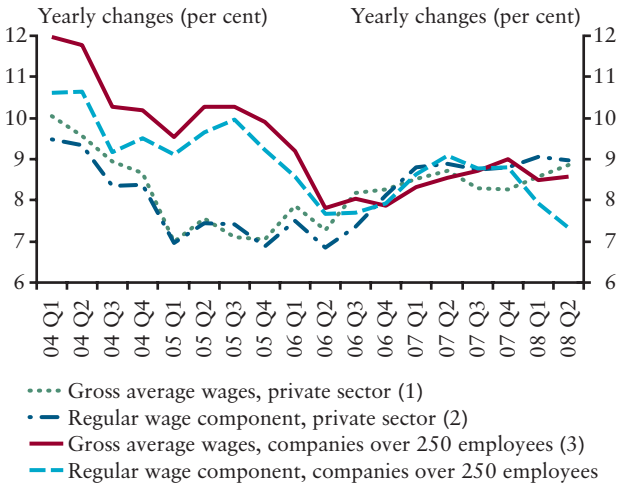


* *MNB estimate.*

Chart 1-14

Annual growth of gross average wages and regular wage components in the private sector and for companies with over 250 employees*

(seasonally adjusted data)



** The 2008 Q2 data estimate is based on data of the two first months of the quarter. (1) Data excluding the effects of whitening and changed bonus payments; (2) Data excluding the effects of whitening; (3) Data excluding the effects of changed bonus payments.*

1.3 HIGH WAGE INCREASES COMBINED WITH DECREASING EMPLOYMENT

The labour market continued to experience steep wage increases in Q2, while companies adjusted to rising costs by larger downsizing than anticipated. Since mid-2006, wages have grown at a rate exceeding 8 percent, and in the first two months of Q2 regular wage figures also reflected stronger-than-expected growth.

Although the rate of wage growth remained high regardless of the size of corporations, projecting its precise trend is difficult because of the marked deceleration in regular wage components for companies with over 250 employees, the figures of which are not distorted by regulatory changes. A closer look at the sector level reveals decelerating wage dynamics in the manufacturing industry, while wage growth in the sector of market service providers continues to remain at the earlier high level.

Box 1-2: Some thoughts on the correlation between wage statistics and whitening

The rates of wage growth officially released by the CSO for the period since mid-2006 are likely to have reflected, in part, the effects of whitening. However, whitening is not assumed to have a material influence on 2008 wage developments. One explanation for this is that the increase in skilled workers' minimum wage has led to a rise in firms' costs, in addition to triggering a sharp reduction in employment and, in part, a pick-up in inflationary pressures in the private sector.

As statistical data on the effects of whitening are not available, the two approaches that can be taken to measure its size are to scrutinise the statistical behaviour of gross average earnings published by the CSO, on the one and, and to look for breaks in the co-movement of wages with other time series, on the other.

In the previous *Reports,* we presented several methods to filter out the whitening effects appearing in the wage statistics.[8] Three of those methods are based on the same core principle: it is presumed that certain parts of the economy – certain sectors or certain corporate categories – are not distorted by whitening, while others are. Accordingly, starting from 2006 Q3 – when the tightening of tax audits began – we have approached the real wage developments of the whitening sectors with projections based on the historic relationship between the whitening and non-whitening parts of the economy. As regards the fourth method, we quantified the level shifts in wages observed at the time the regulatory measures came into effect.

[8] See Győző Eppich and Szabolcs Lőrincz: Three methods to estimate the whitening-related distortion of wage statistics, *MNB Occasional Papers,* 66 and Box 1-1: Methodological issues regarding wage development, in our May Report on Inflation.

At the same time, it should be noted that the first three methods will indicate whitening every time an industry or corporate category – whether it is presumed to be whitening or not – is subject to a group-specific shock. Several such shocks affected the economy in the last one to one and a half years (the increase in the minimum wage for skilled workers and fiscal adjustment may have impacted different sectors of the economy in different ways), which raises the question as to what extent these earlier methods are still suitable for filtering out potential whitening which took place at the beginning of 2008.

In the course of 2006-2007, the three methods described above could be considered plausible: on the basis of the jumping wages approach, we were able to attribute 2.2-2.3 percent of the estimated 2.5 percent in whitening to the contribution liabilities on the double guaranteed minimum wage introduced in September 2006. This effect distorted wage information upwards in 2006 and 2007.

Nevertheless, none of these four methods makes it easy to decide which part of the wage increase related to the increase in minimum wages for skilled worker is due to whitening, and which part can be attributed to real changes. We have no method at our disposal with which we can measure whitening directly, and hence we can only use indirect deductions to estimate the probability of further significant upward distortions materialising in wage statistics as a result of a potential whitening effect.

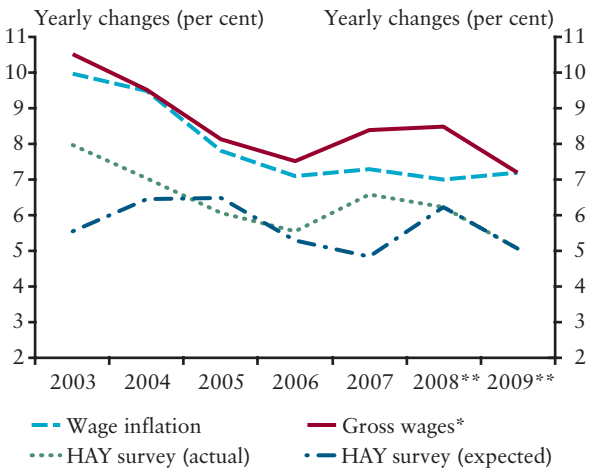
Suspicion of whitening may be supported by the fact that various anecdotal information and wage surveys suggest significantly lower wage increases than evidenced by macro statistics. On the other hand, it is important to emphasise that the wage increase indicated by macro statistics contains, in addition to 'actual' wage increases, a composition effect attributable to changes in the economic structure and changes in the labour demand for specific jobs. A good example is the decline of the typically low-wage textile industry in Hungary, which, by reducing the share of low-wage sectors in employment, drove up the national economic wage level. At the same time, since these composition effects are also reflected in changes in productivity, they should not be excluded from wage indices for unit labour cost calculations. The chart below shows that this year, the composition effect significantly contributed to the observed wage increase, which can be primarily attributed to the dynamic restructuring of economic sectors.[9] When we compare the index filtered for the composition effect (wage inflation) with the information from the HAY survey, the difference is substantially smaller.

It is worth mentioning that in 2007, the actual wage increase data practically coincided with the wage inflation data. On the other hand, it

Chart 1-15

Development of gross average wages*, wage inflation and the HAY survey

(annual change)



** Data excluding the effects of whitening and the changed seasonality of bonuse.*

***Forecast.*

should also be noted that the actual wage increase significantly exceeded the expected increase. This may also happen in 2008. From a different perspective, in the years preceding 2007, there was always a difference between HAY actual/expected wages and wage inflation, and thus the difference in 2008 might be considered normal. Another explanation of the systematic difference may be that the HAY survey, like wage surveys in general, is not fully representative in the case of the private sector. This makes 2008 particularly problematic, as most of the companies participating in different surveys are typically well-paying businesses; many of them are multinational corporations which as unaffected by the nearly 15 percent increase in the guaranteed minimum wage this year.

In conclusion, we may state that in comparison with the figures of the HAY wage survey, we see no obvious evidence of the whitening-related distortion of wage statistics released by the CSO. Moreover, additional arguments also appear to indicate that in 2008, the whitening-related distortion of wage statistics is no longer considerable.[10]

- To our understanding, among the companies with relevance for wage statistics, the increase in the guaranteed minimum wage mainly affected those companies with a small number of employees. However, these companies have faced substantial downsizing since

[9] On the TEÁOR 2 subsectoral levels (Standard Classification of Economic Activities, Code 2) we calculated the so-called wage inflation index under the staff number structure of the previous year, and excluded the composition effect.

[10] Although at the level of the national economy the ratio of employees with minimum wages is around 30 per cent, they are not distributed evenly between different company types. While 70 percent of the employees of companies with 4 or less employees receive the minimum wage, this ratio is only 8 percent for companies with at least 5 employees. Assuming that the source of whitening is the elimination of minimum wage employment, whitening-related distortion is significantly smaller for companies relevant for the purposes of the CSO's wage statistics – those with over 4 employees – than for the private sector as a whole.

Chart 1-16

Changes in the number of employees of companies with 5-249 and over 250 employees

(seasonally adjusted monthly data)

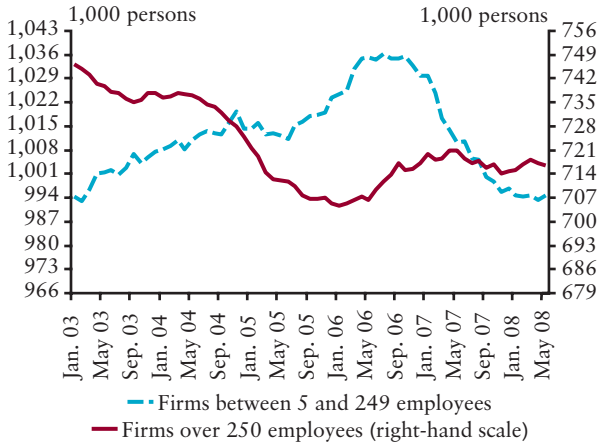
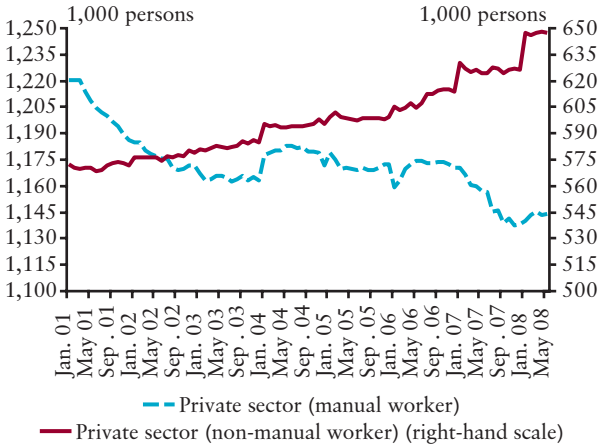


Chart 1-17

Changes in the number of manual workers in the private sector

(seasonally adjusted monthly data)



the beginning of 2007, which indicates that the wage increases triggered an effective cost shock for them.

- Among those affected, manual workers also faced significant layoffs in 2007. This may also be indicative of the effective impact which the increase of guaranteed minimum wages may have made as early as in 2007.

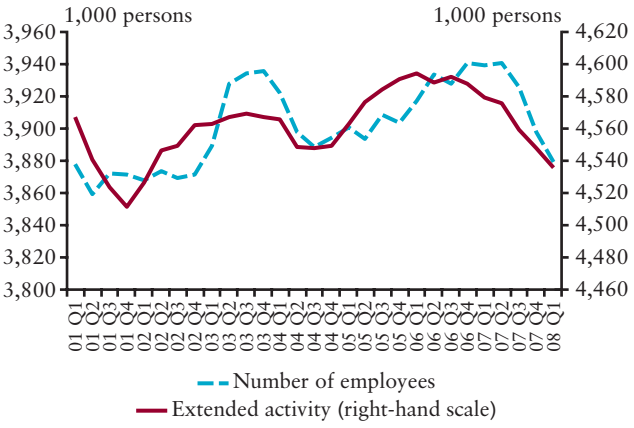
- While the increase in the guaranteed minimum wage in 2006 did not produce a notable wage jump outside of businesses with 5-19 employees, its subsequent increases in 2007 and 2008 resulted in clear-cut changes in the wages of larger companies as well. In view of the fact that larger companies usually pay better wages, this may suggest that the measure must have become more effective.

- Historically, unit labour cost and core inflation have moved in close conjunction. If wage indices were distorted as a result of whitening, we would expect a break in the historical relationship. By contrast, the chart below suggests that our calculations regarding changes in unit labour costs continue to be consistent with the inflation processes (see Chart 1-27).

In Q1, employment continued to decrease at the level of the national economy. However, most of those laid off did not increase the number of unemployed, but rather exited the labour market, mainly as a result of early retirement triggered by poor future retirement prospects. Therefore, free labour market capacities did not increase perceivably, which may have contributed to the sustained intensity of wage dynamics.

Chart 1-18

Changes in the number of active workers and employees*



** In addition to the active population, the time series of extended activity includes individuals among the inactive population who claim that they want to work, even though they are not actively looking for a job at present. In our experience, these individuals are much more connected to the labour market than inactive individuals. Note: Source of data is CSO labour force statistics.*

Box 1-3: To what extent did free labour market capacities grow in the last period?

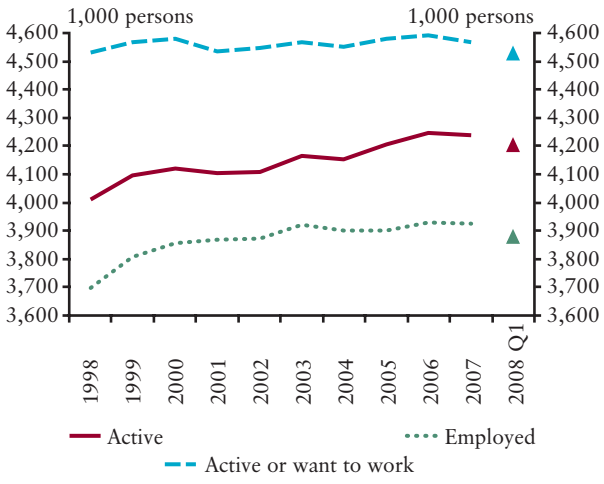
According to the seasonally adjusted data of the Labour Force Survey (LFS), from 2007 Q1 to 2008 Q1, the number of employed dropped by 60,000 individuals. When analysing the forces influencing wage inflation, it is important to know what happened to those laid off and how strongly connected they remain to the labour market. In this box, based on the micro database of the LFS available up to March 2008, we attempt to find an answer to this question.

In parallel with the decrease in employment, the number of unemployed only increased by 15,000, while the number of inactive individuals grew by 40,000 and the working-age population dropped by 5,000. This data alone would not imply that the available workforce has in fact decreased: in recent years, the activity rate in Hungary has moved in very close conjunction with employment, even in international comparison. This is largely due to the fact that there are significant groups who claim that they intend to work even though they are not actively looking for a job – and thus do not meet the criteria of unemployment – nevertheless, employment data reveal that they are relatively closely connected to the labour market.

Chart 1-19

Active population, active population including those intending to work, employment

(annual data, based on the average of seasonally adjusted quarterly data)



In the past, the total number of active individuals supplemented with those intending to work was less related to changes in employment than the number of actives in itself – approximately as related as typical for international data – and was probably a better indicator of the effectively available workforce. The fact that this indicator currently suggests a drop of approximately the same degree as activity is rather pessimistic.

Government or local government jobs account for more than half of the decrease in employment: compared to the previous year, employment dropped by nearly 35,000 in this sector. The downsizing affected age groups over 50 mostly. For all other age groups the share of employees in government-related jobs basically remained unchanged.

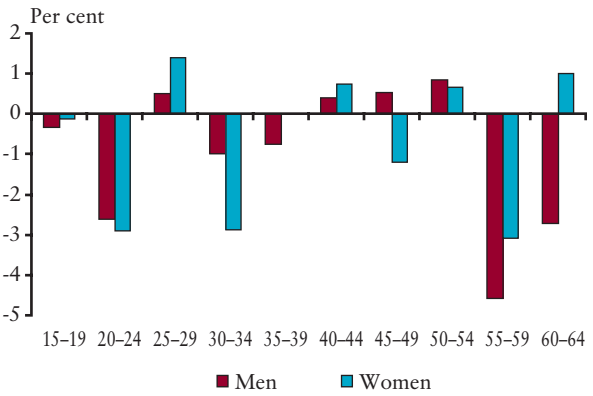
Considering the typically inactive groups, it is noteworthy that parallel to the decline in employment, especially at the end of 2007, the number of those receiving old-age pensions under 75 grew considerably, by a total of nearly 50,000. This growth is partly attributable to the aging of the so-called 'Ratkó generation',[11] and partly to the fact that many people went into early retirement, most likely as a result of dismissals and changes in pension regulations. The latter caused only a temporary hike in the number of pensioners, and it is expected to be followed by a drop in the number of new retirees in the near future. New retirees do not all come from among those previously employed,[12] therefore they constitute only a part of those exiting the labour market.

In addition to early retirees, the number of those receiving various kinds of benefits related to children (child care benefit, child care allowance and child rearing allowance) also grew substantially, rising by 20,000.[13]

Chart 1-20

Changes in the employment rate by gender and age group

(2008 Q1, percentage change, year-on-year)



[11] The change in the age composition of the sample population would have increased the number of retirees by 16,000 in a year, excluding the changes of all other relevant factors.

[12] In the most affected generations, the growth of the number of retirees is still higher than the fall in employment, even despite deaths. The fact that not all retirees retire from jobs may account for this, and in addition, surveyors can reach retired persons more easily. This latter explanation is also supported by the fact that the extraordinary growth in the number of pensioners exceeds the value indicated by the data of the Central Administration of National Pension Insurance.

[13] Similar growth was observed in the number of children under 1, which means that, in contrast with previous experience, this time actually improving demographic processes are behind the growth, instead of only an increase in the number of those receiving benefits. Although we cannot exclude sample-taking errors, birth statistics also appear to indicate a slight improvement in demographic processes, which is presumably related to the Ratkó grandchildren starting families.

Changes in the employment rate according to gender and age group again confirm that the decline in the number of employed is primarily associated with the groups most affected by pension and benefits related to children, i.e. individuals over 55 and women in their early thirties. In addition, a significant decline (by nearly 3 percentage points) can be observed in the age group 20-24.[14] However, no growth could be observed in the rate of unemployed or inactive individuals intending to work in this age group. The change may be attributable to a process that started in the past: the growing number of students in education and delayed entry to the labour market. The ratio of students educated in the school system is 1.5 percentage points higher in this group than it was last year; however, their number is not substantially higher (only by a few thousand individuals), as it is offset by the number of those exiting the educational system.

On the whole, we can conclude that the decline in the number of employed was accompanied by a similar decline in labour supply. Therefore, there is no sign of a significant loosening in the labour market or supply-side pressure triggering wage disinflation. Although the decline in labour supply may be partly attributed to temporary effects, since the increase of the retirement age has ended and certain demographic changes took places (retirement of Ratkó children, growth in the number of children), growth similar in size to that of the last decade is not expected, even over the long run. However, with respect to wage adjustments, the real question is: what are the chances of the groups which became inactive due to the unfavourable business conditions in the economy re-entering the labour market in the next few years in the form of actual labour supply.

Table 1-1

Summary of main changes*

	Change compared to the previous year
Population at the age of 15-74 (1+2)	**-5.6**
Active population (1=1a+1b)	**-45.0**
Employees (1a)	-61.2
of which: government employment	-34.3
Unemployed (1b)	16.2
Inactive population (2)	**39.4**
Pensioners	48.0
Receivers of child-care benefit	20.8
Active population+ inactive with the intention to work	**-48.3**

** 2008 Q1, year-on-year change, thousand persons.*

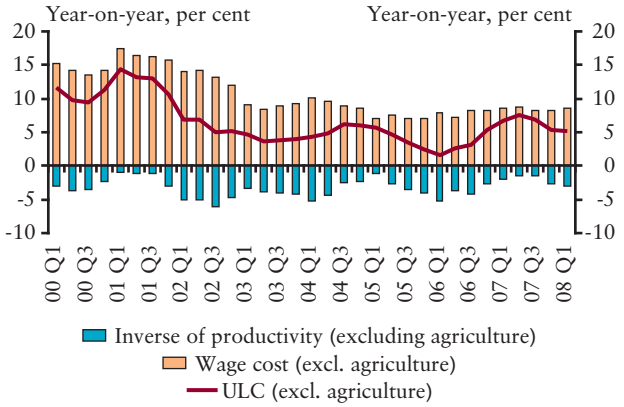
On the whole, the inflationary pressure from the labour market at the beginning of the year has abated in the private sector. This is because, despite the significant growth in wage costs, companies faced slower growth in unit labour costs than in the last quarter, due to improved productivity.[15]

[14] Although the CSO does not release the standard sample-taking error in its employment rate statistics broken down by gender and age group, based on estimates for similar-size groups, we assume that it is around one-one and a half percentage points.

[15] For the purposes of our analysis of the private sector's productivity, agriculture is excluded, due to the volatile nature of the sector's productivity.

Chart 1-21

Changes in the unit labour cost and its components in the private sector, excluding agriculture

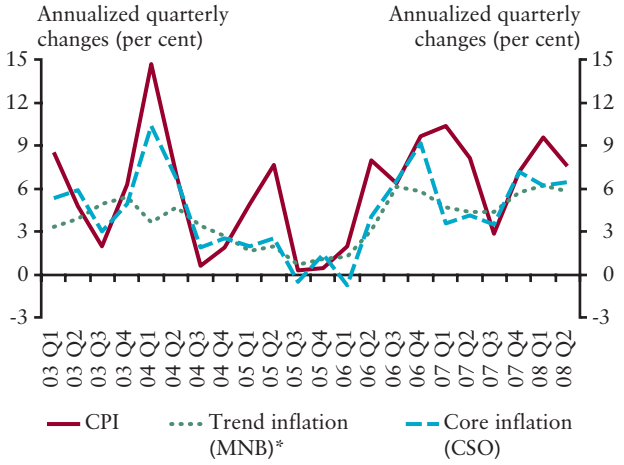


1.4 SLOWLY DECREASING INFLATION

The consumer price index and core inflation remained high in 2008 Q2. These data somewhat exceed the May projection, but a slight decline was observed in trend inflation, which is typically a better indicator of inflationary processes.[16]

Chart 1-22

Inflation, core inflation and trend inflation*

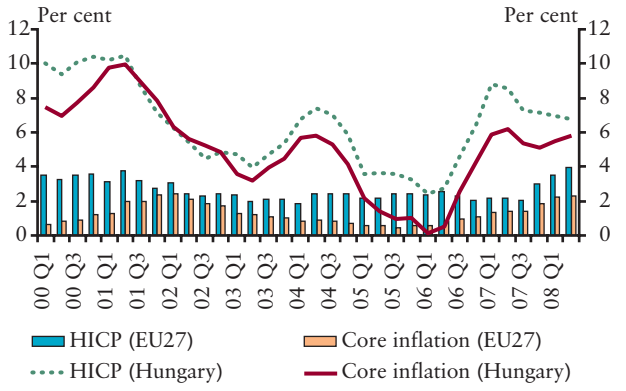


** Trend inflation is the core inflation index excluding the effects of indirect tax changes and medical visit fees.*

In addition, as general inflationary pressure tended to grow in most EU countries for consumer prices, the domestic inflation level moved closer to the European average. However, this slight convergence in inflation was due to the relatively positive price developments in product groups not included in core inflation, while no apparent convergence was observed in the inflation index of the product group making up core inflation.

Chart 1-23

Harmonised index of consumer prices and core inflation in Hungary and in the European Union*



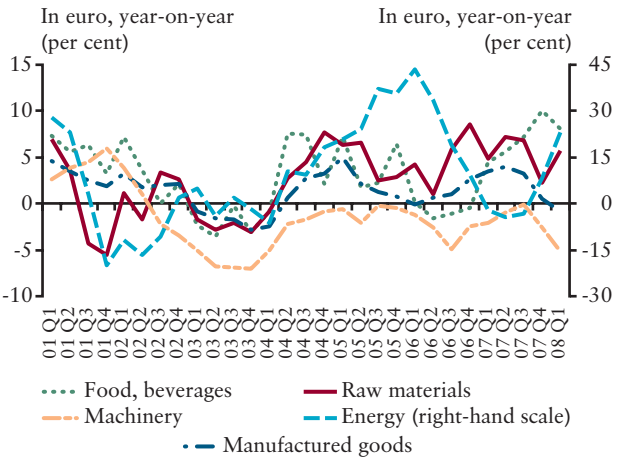
Source: Eurostat.

** The core inflation index excludes the alcohol and tobacco product groups, because frequent excise tax changes render international comparison difficult.*

Increasing international inflation trends are strongly reflected in the continuing rise in imported commodity and energy prices, and the steady double-digit rise in food prices. Price increases could not have been observed thus far in the import prices of product groups of complex products, such as manufactured goods and machinery. Based on the

Chart 1-24

Changes in import prices by product group



Source: CSO foreign trade statistics.

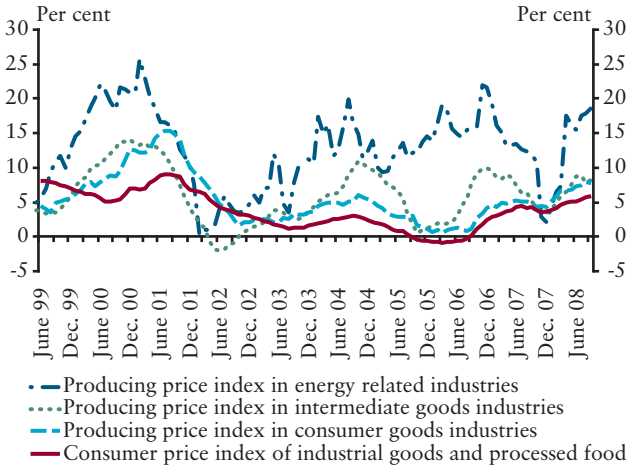
[16] The July inflation data did not reflect significantly decreasing inflation compared to the last few months; nevertheless, substantially lower prices of tradables clearly reflect the impact of a much stronger EUR/HUF exchange rate than in previous months.

information available on Q2, there was a major surge in the prices of energy, food and commodities. At the same time, the appreciation of the EUR/HUF exchange rate which began at the end of Q1 had a disinflationary effect on imported inflation, but this only partially offset climbing import prices.

Nevertheless, strongly rising energy prices may be clearly reflected in the domestic production chain, and imply continuously growing cost-push inflation. As the chart below shows, this process has not yet peaked based on the previous relationship between consumer and producer prices.

Chart 1-25

Ripple effect of energy shocks in the economy

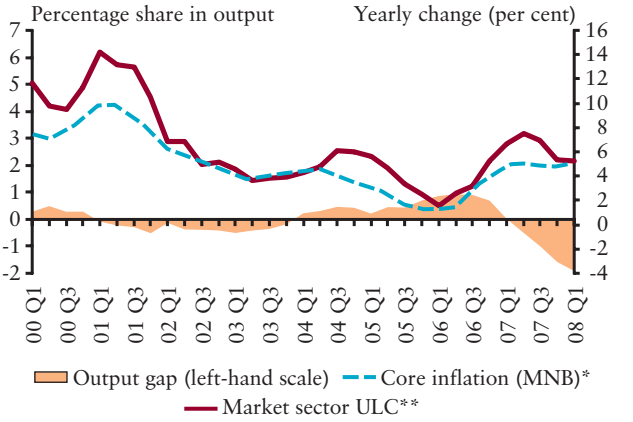


Thanks to improved productivity in the corporate sector, the inflationary pressure from the labour market in the first half of the year has abated somewhat, even though it still exceeds the level consistent with the inflation target. Nevertheless, from the perspective of economic activity, disinflationary effects continue to remain strong, as companies are unable to pass on all of their increased costs in sale prices, due to the negative output gap.

Regarding the details of consumer prices, the higher-than-expected inflation data is attributed mainly to the larger-than-expected price increase for processed food, which is probably a consequence of country-specific effects, considering that the euro area has seen a marked deceleration

Chart 1-26

Trend inflation, unit labour cost and the output gap



** Trend inflation is the core inflation index excluding the effects of indirect tax changes and medical visit fees.*

*** Private sector excluding agriculture.*

in this product group.[17] However, the price increase in unprocessed food is slightly more favourable than our projection, while prices of tradables are largely consistent with our expectations.

In line with the projection in the May *Report*, over the past six months services inflation has risen slightly above 6 per cent, after remaining close to that level for a longer period. This has been the result of opposing macroeconomic forces: higher energy and food prices as well as wage costs, on the one hand, and weak household demand, on the other.

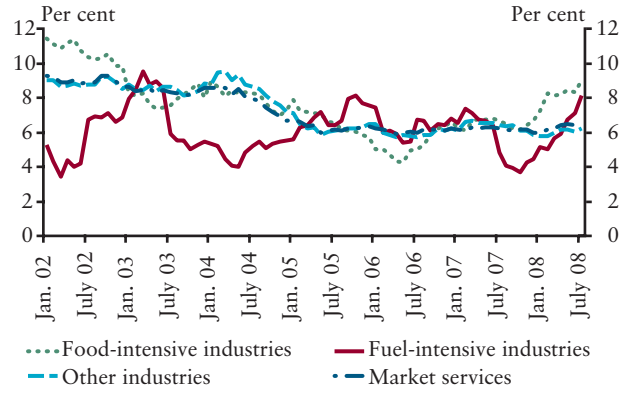
A closer look at the different product groups within market services reveals that this rise in inflation has been related mainly to two services groups: food-intensive and fuel-intensive service industries.[18] Inflation in these two groups has picked up steadily since 2006 and early 2007, respectively, as food and vehicle fuel prices, rising sharply over the recent period, account for a large share of their cost structure. The percentage share of the two product groups within market services is only around 15 per cent. Inflation in the rest of market services, accounting for a 85 per cent share, has remained unchanged over the past six months. Price movements in this product group are generally less volatile: average inflation has been around 6 per cent in the past three years. On balance, weak household demand in

[17] Mainly inflation in milk and dairy product prices contributed to the high index of processed foods. Nevertheless, the analyses point to an adjustment in the case of this product group for the autumn, since the market of milk can be characterised by oversupply in the whole of Europe. The inflation of processed food, which is more unfavourable than the international figures, may be caused on the whole by an increase in energy costs, which was larger than it could be observed in international trends.

[18] Food-intensive services include 'meals at restaurants not by subscription', 'meals at canteens and meals by subscription', 'buffet products' and 'cup of coffee in catering'. Fuel-intensive services include 'taxi' and 'transport of goods'. Inflation in these aggregate service industries has been derived as the weighted average of price changes in the individual industries.

Chart 1-27

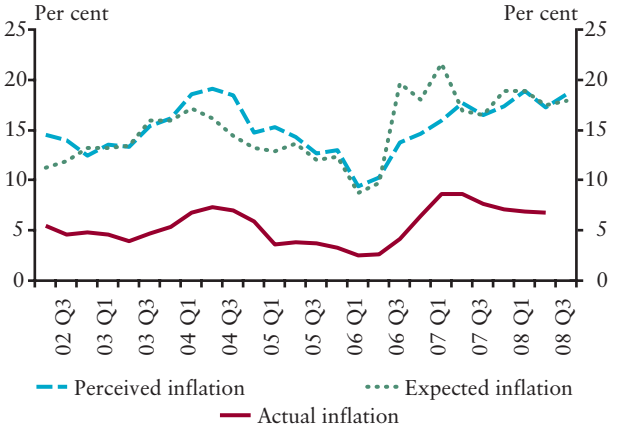
Market services inflation*



** After eliminating the effects of changes in indirect taxes as well as the introduction and abolition of medical visit fees.*

Chart 1-28

Households' inflation perception for the last 12 months, and expectations for the next 12 months



Source: MNB calculation based on the Medián poll.

recent years has not yet broken this inflation inertia in any of the product groups within market services.

In the third quarter, the inflation level perceived and expected by households increased, which may increase the risk of consumption inflation remaining at high levels. On the other hand, all of the conclusions based on the household poll are rendered less reliable by the fact that the rising trend of perceived inflation has diverged from the falling trend of actual inflation since mid-2007.

2 Financial markets

Between March and May 2008, the Monetary Council raised the central bank base rate in three steps by a total of 100 basis points. Monetary tightening was the Council's response to the effect of global oil, food and other commodity prices on the inflation outlook and the risks arising from potentially elevated inflationary expectations. In June and July, the central bank left the base rate unchanged, as it found monetary conditions tight enough for the inflation target to be met over the relevant time horizon.

Tightened monetary conditions were the combined outcome of a higher base rate and a significantly stronger EUR/HUF exchange rate. The July average exchange rate used in the baseline scenario in the inflation forecast is approximately 9 per cent stronger relative to early 2008; and 13 per cent compared to the low in March (Chart 2-1).

Chart 2-1

Changes in the EUR/HUF exchange rate

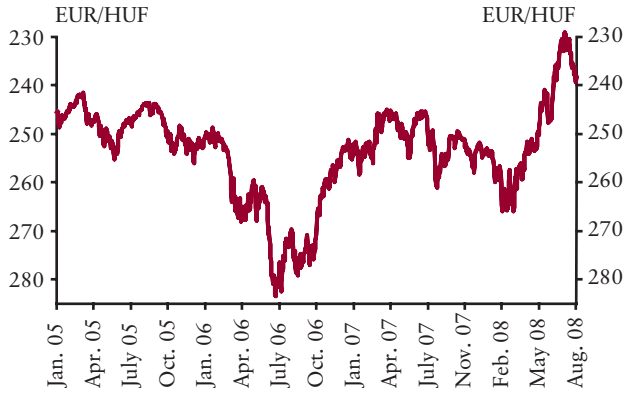
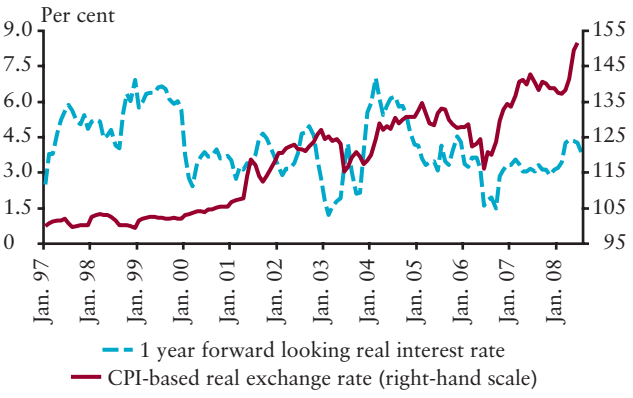


Chart 2-2

Monetary conditions



Monetary tightening was mainly reflected in the appreciation of the CPI-based real exchange rate, which rose nearly 10 per cent between March and June (Chart 2-2). The rate of appreciation of the real exchange rate was faster than the average rate experienced over recent years. Although the forward-looking 1-year real interest rate is higher than in 2007, it is only slightly above its historic average. This is attributable to the fact that a significant rise in nominal interest rates was accompanied by a deteriorating inflation outlook.

2.1 APPRECIATION OF THE FORINT ATTRIBUTABLE TO BOTH DOMESTIC AND GLOBAL FACTORS

The improving international perception of Hungary's economy and positive international sentiment regarding emerging market currencies have contributed to a stronger forint. The equilibrium situation has been improving since 2006. The credibility of monetary policy has also improved since the abandonment of the fluctuation band, partly due to increases in the policy rate, which reflected in changes in the long-term exchange rate expectations as well. Investors previously either treated Hungary similarly to high-risk Baltic States and the Balkans, both ridden with imbalances, or to countries in the region, rapidly converging to the euro area. Although economic growth is still low and inflation is high, the country's relative indicators have improved considerably since 2007 relative to other countries in the region. GDP growth is accelerating in Hungary, while a slowdown is expected in the other new EU member states, and the difference in inflation has also moderated. Based on what has been experienced in the last few months, investors are beginning to acknowledge this relative improvement, which is reflected in a stronger exchange rate and the fact that the CDS premium of Hungary has become lower over the past months than that of the riskiest countries. Furthermore, foreign investors have again been net buyers of government securities over the past few weeks, and there has been a reduction in the difference between long-term yields on government securities in Hungary and those in the euro area.

The appreciation of the forint, along with that of other currencies in the region and the developing markets, unprecedentedly took place against the backdrop of increasingly poor market sentiment and dwindling risk

tolerance. The global investor climate started to improve in March, simultaneously with the bail-out of Bear Stearns. However, this trend ended in May, with the optimistic sentiment gradually turning bleaker. The first negative shock was caused by heightened concerns about higher inflation in response to soaring oil prices. The traded price of WTI crude oil exceeded USD 130 a barrel, which drove yields up. Partly due to central bank communication, investors temporarily included the possibility of a tightening cycle involving both the Fed and the ECB in their expectations. A second wave of shocks resulting in deteriorating investor sentiment was caused by a new crisis in the US sub-prime market. In July, state-subsidised US agencies engaged in the refinancing of mortgage loans turned out to be on the brink of bankruptcy.

While financial instrument prices in developed markets and high interest currencies moved in close conjunction, i.e. weaker risk tolerance led to the liquidation of positions in high interest currencies and the depreciation of exchange rates, the past few weeks have seen a reversal of this correlation, i.e. high interest currencies, with the exception of the Icelandic crown, have appreciated despite the turbulence in the developed markets and falling equity market prices. The currencies of certain emerging countries seem to hold an appeal for a number of investors in an environment characterised by low returns in developed markets and falling share prices. This requires an assumption on the investors' part that the central banks of these countries will not allow their currencies to depreciate, despite deteriorating growth prospects.

The most recent analyst surveys suggest a shift in long-term currency expectations towards the appreciation of the forint. Option market quotations suggest that, although market participants' exchange rate expectations vary, they are mostly symmetric at the current exchange rate. The decline in non-residents' HUF positions reversed in March and since then their HUF exposure has risen by HUF 700 billion. This suggests that non-residents are quite willing to open HUF positions, despite the fact that short-term yields have dropped significantly over the past few weeks. By contrast, there has been an upsurge in households' FX deposits over the past few months, and corporations also seem to prefer HUF loans to FX-denominated ones, which suggests that domestic participants are not convinced that the current exchange rate, stronger than it used to be, will persist.

2.2 DOMESTIC YIELDS INFLUENCED BY FALLING EURO YIELDS AND MODERATING SPREADS

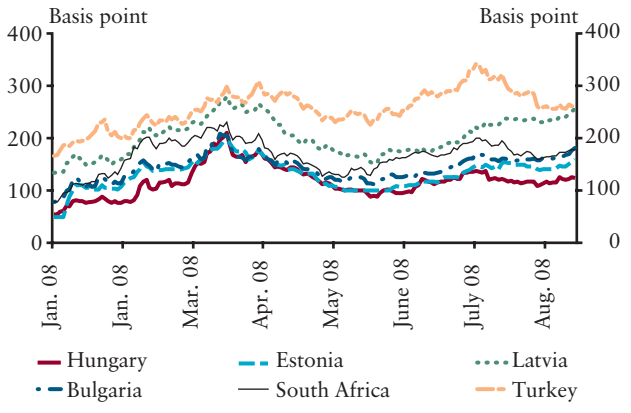
The Fed left the federal funds rate unchanged during the period under review. Against the backdrop of a dismal economic outlook, the CPI rose to 5 per cent in the USA, reaching a 17-year high. Despite the prevailing inflationary pressure, interest rates only partially price in a rate hike by the end of the year, which can be attributed in part to a wide output gap, and in part to risks to financial stability.

Due to the disappointing growth and activity data published in the euro area in the past few weeks, coupled with a more relaxed central bank tone, investors are anticipating an unchanged base rate over the short run and a rate cut within a one-year period. For quite some time, it seemed that the sub-prime crisis would impact euro area countries less severely than the USA; however, the latest indicators point to a significant slowdown in economic activity. Furthermore, the banking sector in Europe has also incurred substantial losses in connection with sub-prime lending. Consequently, tighter lending standards have also hit the European economies hard. To make things worse, rising oil prices have created a negative supply shock. Due to these factors, the European Central Bank (ECB) significantly revised down its forecast for economic growth. In May, the ECB's communication took on a much stricter tone, prompting investors to price in several rate hikes for the coming months. Although the ECB did raise its key policy rate to 4.25 per cent, it did not provide any indications of further tightening, which, in turn, triggered a significant fall in yields despite the fact that inflation in the euro area reached all-time high in June and July (4 per cent).

Despite weaker risk tolerance on the global scale the improved perception of emerging markets reflected in yield premia as well. The previous trend of interest premia on emerging sovereign FX bonds and the CDS premia of investment banks rising in tandem was interrupted last month, and risk premia on a few emerging markets could moderate. We are witnessing a similar trend in the market of HUF-denominated government securities. Although premia,

Chart 2-3

5-year spread on CDS in certain emerging countries

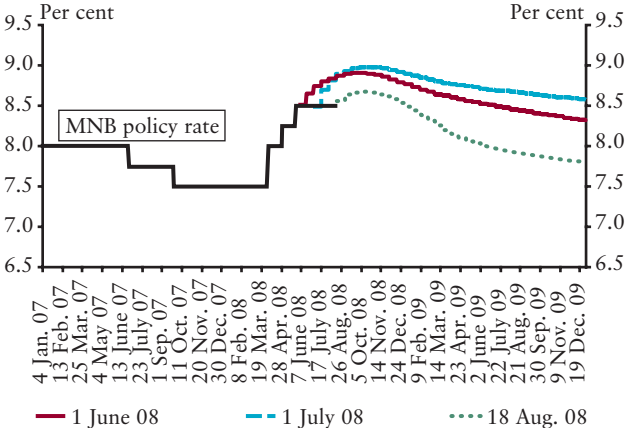


relative to yields on German government securities, have reached an all-time high in the euro area, premia in the region have declined. Given that yields in Germany also diminished in the meantime, this represents a significant drop in yields.

The past three months have witnessed an 80-100 basis point fall in the Hungarian government securities and swap market along the entire length of the yield curve. Rising yields in the euro area, as well as higher-than-expected inflation and wage data were able to trigger a marked rise in June and the market priced in several rate hikes. However, as the Monetary Council left its key policy rate unchanged in June, and the ECB adopted a neutral communication strategy following its rate hike in June, yields in both the euro area and in Hungary dropped. Non-resident buyers emerged in the Hungarian government securities market. The success of the bond auctions held by the Government Debt Management Agency encouraged buyers to stock up. The 5x5 forward yield spread calculated on the basis of interest rate swap yields has also improved over recent weeks. For the time being, however, even a surge in non-residents' purchases of government securities has proven insufficient to generate a lasting improvement in liquidity, which had deteriorated significantly in March.

Chart 2-4

Expectations concerning the MNB's key policy rate



The strengthening of the forint over recent months, inflation data below market consensus and oil prices declining over the past few weeks have combined to smooth out the path of the central bank base rate implied in financial market yields (Chart 2-4). Currently, the market is not anticipating further rate hikes. For the end of the year, financial market yields are consistent with a 8.25 per cent base rate. Recent analyst surveys also agree on end-2008 or early-2009 as the most likely date for the first rate cut.

3 Outlook for inflation and the real economy

The August issue of the *Report* projects slow disinflation, provided that our base assumptions (the most important of which are an exchange rate of EUR/HUF 232 and oil prices of around USD 137) hold true. Consumer prices stand to increase by 4 per cent in 2009 and by 3 per cent in 2010. We anticipate a moderate economic upturn, with the growth rate only likely to catch up with its potential in 2010. As a result, the output gap will remain negative over the entire forecast horizon.[19]

Box 3-1: Changes in the central projection

Compared to May 2008, our current central projections have changed significantly. First of all, USD-denominated oil futures prices have risen by approximately 30 per cent over the entire forecast horizon. Second, the forint has appreciated against the euro by close to 9 per cent. The above two effects will strongly influence expected macro-economic developments. High oil prices push up inflation and restrain growth at the same time . A stronger exchange rate leads to faster disinflation, but comes at the price of temporarily slower economic growth.

Table 3-1

Changes in our main projections relative to the May Report*

	May 2008			August 2008			Change compared with May		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Central bank base rate (per cent)**	8.25	8.25	8.25	8.5	8.5	8.5	0.25	0.25	0.25
HUF/EUR	255.2	253.8	253.8	242.8	231.9	231.9	-4.9	-8.6	-8.6
USD/EUR (cent)	155.7	157.6	157.6	155.4	157.7	157.7	-0.2	0.1	0.1
BRENT oil price (USD/barrel)	106.4	106.3	103.8	122.4	138.2	137.1	15.1	30.0	32.1
BRENT oil price (HUF/barrel)	17,415	17,113	16,722	18,974	20,324	20,168	9.0	18.8	20.6

** Annual averages, based on the average exchange rate and the oil futures price trajectory in July 2008.*

*** End-of-the-year values, based on our average July assumption.*

3.1 SLOW UPTURN IN ECONOMIC GROWTH

Our projection forecasts a sluggish economic upturn over the entire projection horizon. Net exports will play a less important role in this upturn. Internal demand may, by contrast, pick up. As the growth rate is unlikely to catch up with the rate of growth in economic capacities before 2010, the output gap will remain negative over the entire forecast horizon and be wider than projected in May. Although in the short run, slacker-than-expected external business activity and moderate domestic consumption may be offset by robust agricultural performance, our long-term outlook for growth is much bleaker compared to the May *Report*. A less favourable external business cycle and a strong forint jointly reduce the contribution of net exports to growth. Steadily high oil prices and the decrease in employment are also an obstacle to more vigorous domestic consumption.

It is mainly the deteriorating outlook for economic growth in developed economies that affects export growth most strongly. Fundamentally, this is mainly due to the spill-over effect of the sub-prime crisis, high energy prices and the impact of the stronger euro exchange rate in the euro area. Furthermore, exports may also be hit hard by the exchange rate of the forint appreciating vis-à-vis the euro. The fact that converging countries in the region with a higher growth rate than in the euro area have come to represent an increasingly large weight in Hungarian exports and that, similarly to the forint, the national currencies of Hungary's neighbouring countries also strengthened compared to the euro may help to mitigate the above trends. Taking these factors into consideration, we revise our projection for external demand and net exports downward compared to our projection in May.

[19] The projections were prepared on the basis of information available up to the 15th of August.

Box 3-2: How does the Hungarian economy respond to nominal exchange rate appreciation? Simulations with the NEM model

The exchange rate of the forint appreciated significantly in the last quarter, leaving behind the strong edge of the previous intervention band. As an exchange rate stronger than EUR/HUF 240 has never persisted for a longer period of time, it will be highly informative to see the macro-economic effects triggered by a permanently strong forint on the economy.

We used the central bank's model for quarterly projection (Hungarian abbreviation: NEM) for the analysis. NEM is a standard macro-economic tool that can capture economic interconnections simultaneously.[20] Although the finalised baseline scenario of the Reports is an expert projection incorporating the results of a number of models, NEM remains one of the most important inputs for making forecasts.

Through what channels does exchange rate appreciation exert its influence in the NEM model?

A stronger exchange rate changes the relative price of both domestic and foreign goods, which, in turn, triggers adjustment mechanisms in the commodity and labour markets. In the long term, changes in the exchange rate do not have any impact on the real economy in the model, because output depends on the quantity of available labour and capital, and the level of available technology, all of which can be derived from the structural characteristics of the economy.[21]

For Hungary, as a small, open, price-taking economy, exchange rate appreciation renders domestic imports, quantified in forints, cheaper and reduces export prices. This incurs net income losses for the foreign trade sector, i.e. economic growth slows down. Inflation is mitigated indirectly by slower growth and directly by a stronger exchange rate.

Data suggest that wages are rigid, and consequently lower inflation results in a temporary increase in real wages. A drop in economic activity and rising real wages jointly lead to weaker labour demand growth on the corporate side, which in turn results in a lower rate of employment. A lower rate of employment leads to excess supply in the labour market, resulting in wage adjustment in the long run. By the time the adjustment process is over, the decrease in nominal wages will have become identical to that in prices, i.e. no change will have occurred in real wages. However, the increase in real wages temporarily boosts consumption, which mitigates the adverse impact of negative trends in foreign trade.

Changes in investments are an interesting issue. A slower business cycle also affects investment; nevertheless, changes in the cost of capital show a mixed picture. Depending on the cause of the exchange rate appreciation, the cost of capital may either rise or fall. If the cause is monetary tightening, real interest rate and the cost of capital increase, which in turn, discourages investments. If the cause is a drop in the risk premium, the real interest rate falls, which boosts investments.

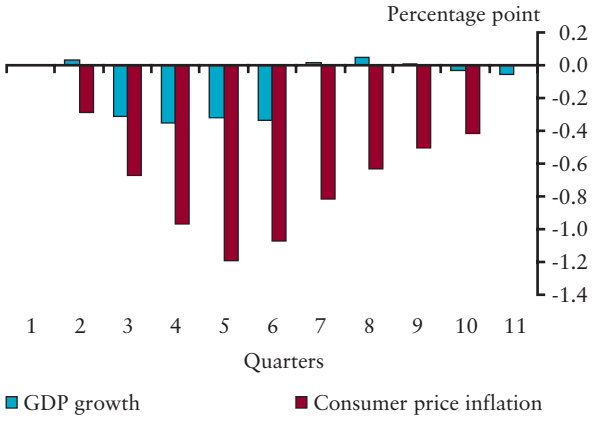
Our simulation assumes a 5 per cent appreciation in the exchange rate; for the sake of simplicity and for the purposes of this model, we assume the shock to be exogenous from the perspective of the model, i.e. the central bank base rate remains unchanged.

Two remarks of technical nature must also be made. As NEM does not model energy producer costs, the impact of such costs is inputed from our cost-based model. The underlying reason for this is that the two major cost components of production are wages and energy. The latter mostly depends on global market trends and, hence, the exchange rate. Cheaper imported energy impacts both administered prices and vehicle fuel prices. The impact of the latter has been quantified on the basis of expert estimates.

The chart and the table below reveal that exchange rate appreciation affects inflation more strongly than growth. The primary reason for this is the high import content of consumption and production. Furthermore, as has been noted, the adverse effect of the exchange rate appreciation is cushioned by a temporary rise in real wages and the resultant increase in household consumption. There is also a temporary

Chart 3-1

Impact of a permanent, 5 per cent nominal exchange rate appreciation on the real economy and inflation



[20] For details, see Benk et al. (2006): "The Quarterly Projection Model (NEM)", *MNB Occasional Papers* 60.

[21] For a detailed discussion of the topic, see Jakab–Kovács (2003): "Determinants of the Exchange Rate Pass -Through: Simulations with the NIGEM Model", *MNB Working Papers* 2003/5.

halt in investments, which is in part due to a general economic downturn, and in part to the fact that as interest rates do not change in the model and as inflation decreases, the real interest rate increases.

Finally, it is worth mentioning that the model simulation cannot handle one major channel of the transmission mechanism of the exchange rate appreciation, namely the one linked to the fact that FX lending has gained ground. In 2007, the aggregate open FX position of non-financial corporations and households run into 30 per cent of GDP. A stronger exchange rate may, through this channel and in the short run, boost growth and interfere with disinflation due to wealth accumulation.[22] We would also like to point out that exchange rate appreciation does not change real wealth in the long run, as a reduction in domestic prices does not affect the real exchange rate.

Table 3-2

Changes in the growth of main macro-economic aggregates triggered by a permanent, 5 per cent nominal exchange rate appreciation

Annual average effect in percentage points	First year	Second year
Consumer prices	-0.5	-0.9
Price index of core inflation	-0.4	-1.0
GDP	-0.2	-0.2
Consumer expenditure	0.3	0.9
Gross fixed capital formation	-0.1	-0.3
Export	-0.1	-0.5
Import	0.2	-0.1
Private sector wage	0.0	-0.3
Private sector employment	0.0	-0.2
Household's real disposable income	0.4	0.7

In contrast to net exports, the internal factors of the economy are expected to pick up. Household consumption demand is likely to grow stronger gradually, but over the entire forecast horizon, it will fall behind the average growth rate seen in the past ten years. The main underlying reason for this is moderate growth in free disposable real income, for which we have revised our projection downward relative to May.[23] A lower rate of employment, slow disinflation and, due to the sub-prime crisis, increasingly tight credit conditions in the long run may reinforce households' willingness to save.

Similarly to consumer spending, investment is expected to pick up. Nonetheless, its rate will remain relatively weak over the entire forecast horizon. Investment, however, varies from one sector to the next. Corporate investment in sectors producing mostly for the domestic markets, due to the more pronounced domestic content of growth, is likely to become more robust, while by contrast, manufacturing investment may slow down. Due to the combined effect of these two conflicting factors, our projection calls for faster growth in 2009 and somewhat slower growth in 2010 compared to the May forecast. On the one hand, we envisage moderate investment growth because of a less positive external business cycle and slower domestic growth. On the other hand, unique, previously unparalleled high value manufacturing investment will flow into Hungary. Therefore, on the whole, they will have a palpable effect on investment dynamics.[24] Government investment is also expected to grow, predominantly due to EU funds.[25] Regarding the willingness of households to invest, slow and increasingly uncertain

[22] Estimates reveal that nearly half of overall consumption is financed from wealth. A 5 per cent exchange rate appreciation increases FX-denominated wealth to an extent that is equal to 1.5 per cent of income. This may be accompanied by a 0.7 per cent change in consumption, according to best-case-scenario estimates. Although reducing disinflation, this can be expressed in decimals at the most.

[23] Our projection is based on the assumption that household consumption expenses will, as a proportion of their disposable income, fall by 1 percentage point from the current 90 per cent. If the impact of a start-of-the-year reduction in money market wealth runs deeper than we expected it to, the rate of consumption discussed above may also be lower. This alone should generate slower economic growth and inflation.

[24] Scheduled to commence in 2009, the Mercedes investment in Kecskemét is by far the most important investment. As no detailed information is available yet, our assumption is that investment will be implemented in two identical portions in 2009 and 2010. It will affect annual indices in a manner that in 2009 their value will grow compared to what was assumed earlier; in 2010, however, given that by that time preceding year's increase will have been incorporated into the base, it will be unchanged.

[25] Temporarily, government investment may well exceed our expectations, as investment planned earlier may, due to delays so far, take shorter to be completed in the years to come.

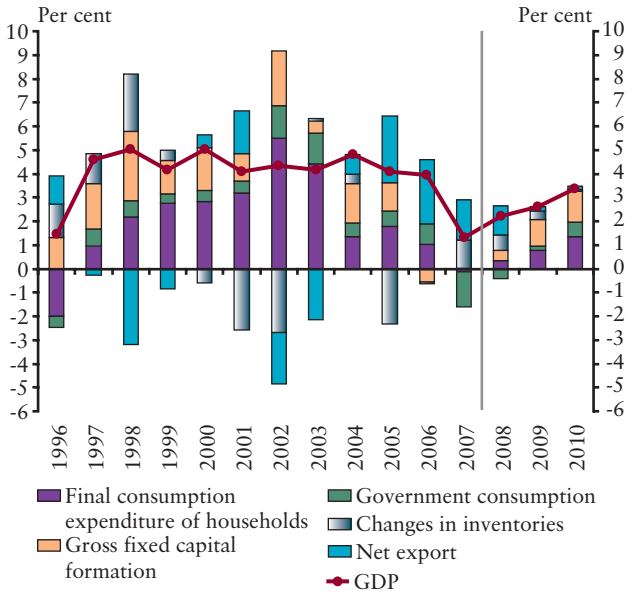
growth in real wages suggest that the current downturn will take long to reverse.

Overall, as a combined effect of both external and internal factors, we have revised our May projection regarding the pace of economic upturn, downward. There is considerable uncertainty about the extent of the slowdown in the external business cycle and the robustness of a possible reversal in internal demand.

Chart 3-2

Contribution of individual factors to GDP growth

(based on annual changes)



3.2 WEAKER LABOUR DEMAND, MODERATELY DECREASING WAGE DYNAMICS

The profitability of the private sector has deteriorated over the past year, due initially to fiscal adjustments and then to rising energy prices and a series of raises in the minimum wage for skilled labour. Our projection continues to be based on the assumption that companies will compensate for the ensuing loss of profit through layoffs, reduced wages and increased prices.

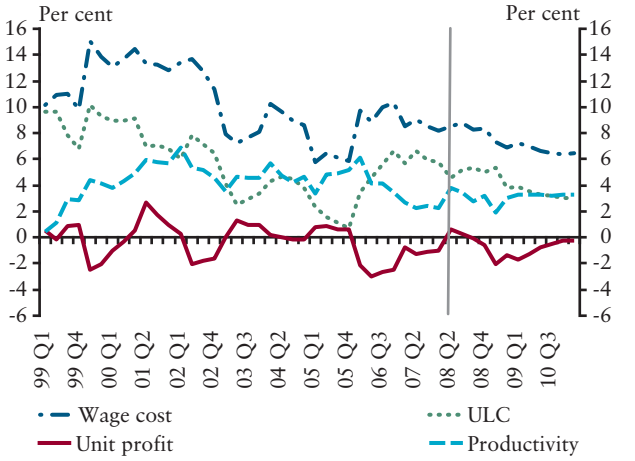
We expect quantitative adjustment to be a dominant strategy for improving profitability over the forecast horizon. The reason for this is that the negative output gap prevents any significant rise in prices. Inflation, which is higher than we expected, also fuels employees' demand for raises in nominal wages, thus hindering a stronger decrease in wage growth.

Compared to May, companies are facing a steady fall in profitability due to weaker external and internal demand, and the stronger forint exchange rate. Corporate adjustment in the labour market takes place through layoffs, even more markedly than in May, while our forecast for development in real wage growth has not changed significantly.

Chart 3-3

Components of unit labour cost in the private sector

(quarterly data, annual changes)



3.3 STEADY DISINFLATION

Our central projection is that inflation will decrease at a steady rate, from the current level of close to 7 per cent to about 3 per cent by the end of 2010. We expect that the current price indices will have decreased in all major groups of goods by the end of the forecast period, i.e. there will be widespread disinflation. The negative output gap, which forces companies to check wage outflows and show more moderation in increasing prices than in the past, will continue playing a prominent role. Commodity prices are unlikely to increase further over the forecast horizon.

Box 3-3: Why has there been no marked disinflation since early 2007, i.e. does a sluggish economy affect inflation trends?

Inflation averaged around 3 per cent in 2006 H1 and started to rise from the second half of the year, essentially due to fiscal adjustments. Our projection at the time was for stronger disinflation once the temporary shock caused by the austerity measures had worn off. Currently available date suggest that inflation is stagnating near 7 per cent. This box discusses the reasons why lower inflation has failed to materialise, contrary to our expectations.

In order to be able to analyse this issue, using the results of a cost-based model of inflation, we broke down the difference between the inflation projection in November 2006, actual inflation in 2007 and the current projection for 2008[26] according to the effects of various explanatory variables (see table below). The explanatory variables are: oil prices and agricultural producer prices (jointly: commodity prices), the HUF/EUR exchange rate, unit labour costs, administrative regulations and profit margins. Chart 3-4. below plots the changes in the path of oil and agricultural prices, and the exchange rate of the forint. The aim of the analysis is to establish the extent to which the above variables can explain the differences between the projected inflation (which was given in 2006), actual inflation in 2007 and the current (2008) projection. The portion that cannot be explained with the above variables represents the impact of inflationary labour market pressures and changes in profit, both depending to a large extent on the prevailing business cycle and the output gap. If the latter factors provide a strong explanation, it suggests that we were mistaken in assessing the impact of the negative output gap on disinflation.

For the purpose of the simulation, 2007 and 2008 should be analysed separately. Compared to our projection in November 2006, actual inflation in 2007 was pushed up significantly by agricultural producer prices. Oil prices reduced inflation slightly and the HUF/EUR exchange rate exerted a marked downward impact. Thus, the combined effect of commodity prices and the exchange rate was neutral. With the impact of changes in oil prices and the exchange rate filtered out, administered prices rose more sharply than expected, accounting for most of the difference between actual and projected inflation. The impact of administrative regulations included the introduction of medical visit fees, which also added to inflation in 2007 in a manner that could not have been foreseen. Our projection for inflationary labour market pressures was accurate in November 2006, as the labour market impact translated into a mere -0.1 percentage point, while the profit margin had a stronger impact at -0.3 percentage points. The above suggests that the majority of the differences in 2007 are not attributable to the erroneous projection for business cycle trends.

Table 3-3

Breakdown of differences between the projection in November 2006 and actual inflation in 2007/ inflation projected for 2008, all figures in percentage points

	2007	2008
Forecast in November 2006	**6.9**	**4.1**
Actual / projection in August 2008	**8.0**	**6.3**
Difference	**1.1**	**2.2**
Effect of explaining variables		
Oil (in euro)	-0.1	2.1
Agricultural producer price	0.7	1.4
Prices of raw materials, total	**0.6**	**3.5**
Exchange rate (HUF/EUR)	**-0.6**	**-1.1**
Regulated prices without household energy	0.6	0.3
Household energy (without the effect of oil and exchange rate)	0.4	-0.4
Producers' energy prices (without the effect of oil and exchange rate)	0.3	0.1
Medical visit fee	0.2	-0.2
Regulatory decisions, total	**1.5**	**-0.2**
Unit labour cost	**-0.1**	**0.3**
Profit margin	**-0.3**	**-0.3**

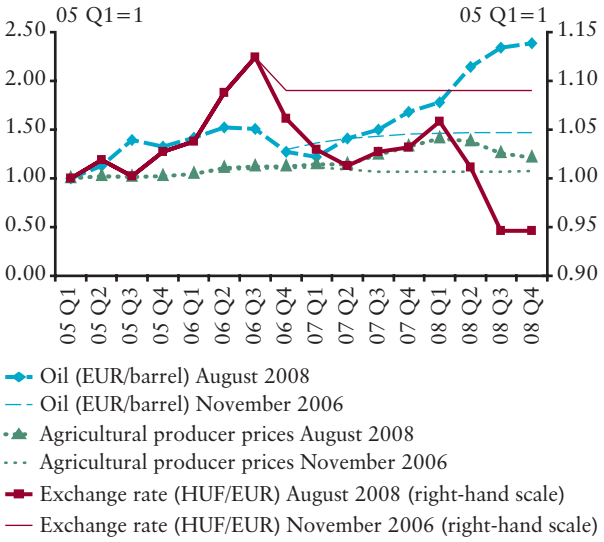
[26] As a CPI index for seven months in 2008 is available, an estimate of the annual average with an error of some tenths of percentage points can already be provided. Therefore, we proceed as if actual data for 2008 were already available.

Commodity prices have played a key role in inflation in 2008. Oil and agricultural producer prices have caused a 3.5 percentage point shift, which the HUF/EUR exchange rate has mitigated somewhat, by 1.1 percentage point. Thus, they jointly account for a 2.4 percentage point difference. The fact that administrative regulations have brought about lower-than-expected inflation seems surprising at first. The reason for this phenomenon is that the medical visit fee was abolished and regulated energy prices have so far been raised to a smaller extent than justified by changes in import prices. In the case of producers' energy prices, the latter has been offset by the transformation of the electricity market. Due to the impact of the labour market on inflation, we have revised our projection upwards for 2008 by 0.3 percentage points; the higher-than-expected impact of the profit margin amounted to -0.3 percentage points. The above suggests that in 2008 as well, higher-than-expected inflation is fundamentally attributable to trends other than those emerging from an unexpected business cycle situation affecting the Hungarian economy.

Overall, on the basis of our cost-based model, it seems that the reason that disinflation expected since 2006 has failed to materialise so far can found in the unexpected rises in commodity and regulated prices. The way in which the impact of slower domestic growth differs from what has been expected offers no explanation. There are two more issues worth mentioning. One is that the impact of the labour market obscures the fact that the wage increase was 1.5–2 percentage points higher than expected in both 2007 and 2008. This is due to a stronger-than-anticipated effect of the raise in the minimum wage for skilled workers and slower disinflation, to which corporations adjusted through layoffs. The responses of the labour market have been rather different from our expectations; however, their impact on inflation is almost negligible. The other issue is that, according to the logic of the cost-based model, any potential error in the operation of the model leads to changes in the profit margin. This means that if the model overestimates the impact of higher costs, such overestimation will result in a tighter profit margin in the decomposition.

Chart 3-4

Changes in our assumptions for oil prices, agricultural producer prices* and the HUF/EUR exchange rate in November 2006 and August 2008



** Aggregate of agricultural producer prices that are used in our model.*

We expect agricultural commodity prices, which started to decrease in 2008 Q2, to continue declining until the end of the year, as favourable regional harvests this year will play crucial role in this regard. Due to slow adjustment in global supply, our assumption for 2009 for agricultural commodity prices is to exceed average inflation.[27] Unlike agricultural prices, energy prices generate inflation at the start of the forecasting horizon, based on our central projection. In the second half of 2010, their influence will be neutral.

Overall, the above factors will lead to lower core inflation over the entire forecast horizon. The rate of disinflation may be more robust, than it was projected in May since the impact of our forint exchange rate assumption will exert the effect ot the record-high energy prices.

Commodities influence not only core inflation, but also the price of goods outside of core inflation. The declining prices of agricultural commodities, a trend that started in 2008 Q2, will generate a similar reduction in the price of unprocessed food before the end of 2008. By contrast, from early 2009, the price of agricultural commodities will rise more sharply than inflation. As a result, from end-2009, unprocessed food will be the product group where prices will rise the sharpest. Energy prices will generate a marked

[27] Poor weather in 2007 only partly accounts for recent food price inflation. The increasing popularity of biofuels - which reduce agricultural land available for food production - and strong demand for food in emerging countries have played an equally important role. At the time our projection was formulated, we assumed that excessive demand in the food market will continue in the coming years, albeit at a more moderate pace than in 2007.

Table 3-4

Detailed baseline scenario of inflation

	Weight	2008				2009				2010			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unprocessed food	5.8	13.8	11.3	3.5	-3.5	-3.6	-2.8	0.7	4.0	5.5	5.9	5.7	5.2
Vehicle fuel and market energy	7.1	14.8	13.3	12.2	9.4	7.9	4.1	3.3	2.5	-0.3	-0.5	-0.5	-0.5
Regulated prices	21.1	6.9	7.1	8.6	10.3	10.1	9.7	8.8	7.6	5.7	4.7	3.8	3.0
Core inflation*	66.0	5.6	5.6	5.0	4.1	3.4	2.7	2.5	2.5	2.6	2.6	2.7	2.7
Consumer price index	100.0	6.9	6.8	6.2	5.4	4.7	4.0	3.8	3.7	3.2	3.0	2.9	2.7

** For technical reasons, this indicator may temporarily differ from the index published by the CSO; over the long term, however, it follows a similar trend.*

increase in the price of vehicle fuels and market energy and, in all likelihood, the regulated price of household energy in the next one and a half year. In 2010, however, they will not add to inflation.[28]

Relative to the projection in May, our inflation projection does not change significantly, which is the outcome of two contradictory effects. The rise in commodity prices increases inflation, but this is offset by a stronger forint and slower economic growth.

3.4 ALTERNATIVE MACRO-ECONOMIC SCENARIOS

As a negative output gap and the related slowdown in wages are key components of the inflation projection in the baseline scenario, two of our risk scenarios address the interconnections in detail.

As discussed in detail in Box 1-3, in recent quarters, the majority of those who lost their jobs left the labour market permanently. Therefore, we analysed the outcome of a scenario where labour supply, i.e. the rate of activity is consistently lower than is projected in the baseline scenario. In such a scenario, the potential growth rate of the economy is also lower, which in turn reduces the actual rate of growth in the long run. In addition, a tight labour market represents an upside risk to inflation, and thus, inflation would be 0.5 percentage point higher than in the baseline scenario.

In the other scenario, economic participants adjust to recent high inflation in their wage decisions to a larger extent than in the baseline scenario. Among the risk scenarios, this would mean the greatest departure from the baseline scenario, as in this scenario, inflation would be over 1 per cent higher, i.e. it would also leave the ±1 tolerance band around the inflation target. Simultaneously, due to the fact that higher inflation reduces real wages, economic growth would also fall behind what is projected in the baseline scenario.

Developments in commodity prices are the source of much uncertainty in terms of inflation. As there has been significant adjustment in the high oil prices in recent weeks, we wish to reiterate the resultant disinflation impact that is stronger than under the baseline scenario.[29] If oil prices were to remain at USD 115 per barrel, then together with the validity of other baseline assumptions, inflation would be close to 3 per cent in mid-2009.

The main underlying reason for the adjustment in oil prices was the deterioration in outlook for growth. Alternative scenario 4 tackles the latter possibility. This scenario is the most important one concerning the impact on GDP growth. It assumes a more significant slowdown in Europe, which is identical to what was experienced in 2001 and 2002, compared to the baseline scenario. If this scenario materialises, domestic economic growth will be consistently lower than in the baseline scenario until mid-2010. Inflation would also be weaker, nearly 0.5 percentage point lower at end-2010.

[28] The length of time during which the price of imported energy passes through into the regulated price of household energy is partly an economic policy issue. At the time of preparing our projection, we relied on the assumption that the higher price of imported energy will have passed through into those of household energy gradually, but completely by mid-2009.

[29] At the cut-off date for the data used in the Report the spot price of crude oil was approx. USD 114 a barrel as opposed to the USD 137 a barrel on which our baseline projection was based.

Chart 3-5

Inflation impact of alternative scenarios

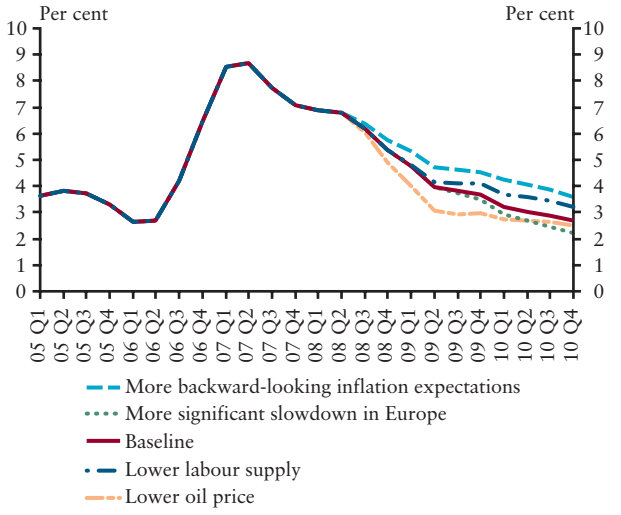


Chart 3-6

Growth impact of alternative scenarios

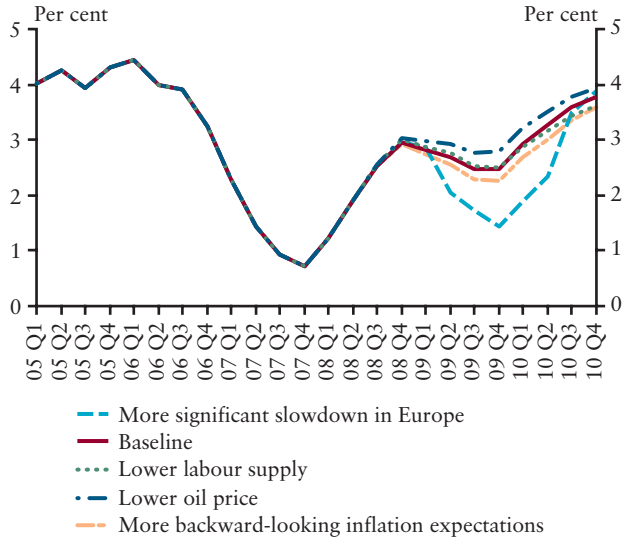
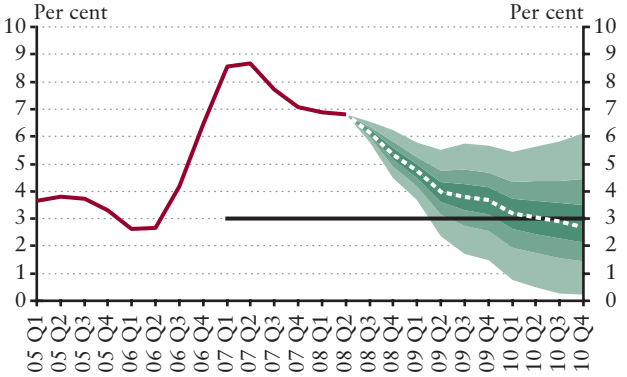


Chart 3-7

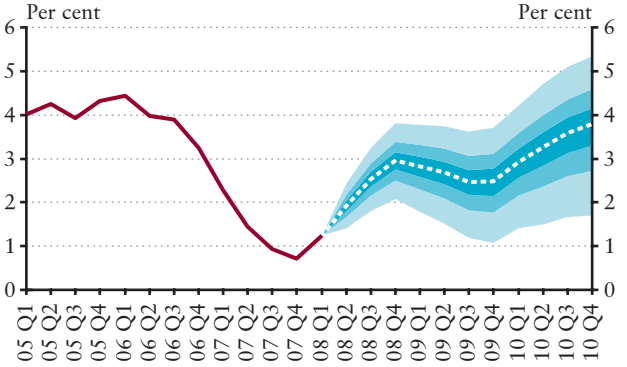
Inflation projection fan chart*



** The fan chart represents the uncertainty surrounding the central projection. The shaded areas portray the central 90 per cent probability distribution in total. The central, darkest area containing the central projection for the consumer price index (as the mode of distribution) indicated by the white dashed line portrays 30 per cent of the probability distribution.*

Chart 3-8

GDP fan chart*



** The fan chart represents the uncertainty surrounding the central projection. The shaded areas portray the central 90 per cent of probability distribution in total. The central, darkest area containing the central projection for the GDP (as the mode of distribution) indicated by the white dashed line portray 30 per cent of the probability distribution.*

3.5 NEAR SYMMETRIC RISKS TO INFLATION, DOWNSIDE RISKS TO GROWTH OUTLOOK

Overall, based on the above scenarios, risks to the baseline scenario of inflation are nearly symmetrical, which arises from the contrasting impacts of the different scenarios. While the risks of a potential steady decline in labour supply and the backward-looking nature of inflation expectations are on the upside, risks associated with steadily lower commodity prices and weaker European growth are on the downside.

By contrast, regarding economic growth, risk scenarios point to adverse trends, i.e. growth will be slower over the entire forecast horizon than in the baseline scenario. The most important contributing factor is that external demand is projected to be weaker than assumed in the baseline scenario.

3.6 IMPROVING EXTERNAL BALANCE, BUT RISKS OF A HIGHER DEFICIT

In line with our earlier projection, external imbalances continued to decline in 2008 H1. The consolidated general government deficit has been decreasing along the projected path, and has remained the most important domestic component of declining external financing requirement. However, no turning point has so far been seen in

household savings. The sector's GDP-proportionate financing capacity declined further in the first part of the year. This suggests that household savings may, even with the emergence of an anticipated turning point, fall short of the figure indicated in the *Quarterly Report on Inflation* in May. The deteriorating external demand projection and the stronger assumption of the HUF/EUR rate compared to May also point toward a higher external deficit forecast. However these effects are supressed by a declining repatriated income of the foreign-owned export sector. Overall, we maintain our earlier projection for the external financing requirement, but due due to the factors mentioned above, we have detected upside risks compared to our latest projection.

Table 3-5

Changes in our projections compared to May 2008

	2007	2008		2009		2010	
	Actual	Projection					
		May	**Current**	May	**Current**	May	**Current**
Inflation (annual average)							
Core inflation[1]	6.0	5.1	**5.1**	3.7	**2.8**	3.0	**2.7**
Consumer price index	8.0	6.3	**6.3**	4.2	**4.1**	3.0	**3.0**
Economic growth							
External demand (GDP-based)*	3.9	2.5	**2.5**	2.3	**1.9**	2.3	**2.1**
Impact of fiscal demand[2]	-3.6	-1.5	↔	-0.1	↔	-0.8	↔
Household consumption	-1.9	0.3	**0.3**	1.6	**1.4**	3.1	**2.8**
Memo: Household consumption expenditure	*-0.3*	*0.6*	***0.6***	*1.8*	***1.5***	*3.1*	***2.7***
Fixed capital formation	0.1	3.2	**2.1**	5.1	**5.4**	6.8	**6.3**
Domestic absorption	*-0.4*	*1.3*	***1.0***	*2.9*	***2.5***	*3.8*	***3.4***
Export	14.2	10.8	**10.1**	9.4	**7.4**	10.6	**8.7**
Import[3]	12.0	9.8	**8.8**	9.3	**7.5**	11.0	**8.9**
GDP**	1.3	2.2 (2.4)	**2.2 (2.4)**	3.2 (3.0)	**2.6 (2.4)**	3.7	**3.4**
Current account deficit[3]							
As a percentage of GDP	5.0	4.9	↑	4.8	↑	4.8	↑
EUR billions	5.1	5.3	↑	5.5	↑	6.0	↑
External financing requirement[3]							
As a percentage of GDP	4.0	3.4	↑	2.8	↑	2.5	↑
Labour market							
Whole-economy gross average earnings[4]	8.0	8.8	**8.8**	6.5	**6.5**	6.7	**6.5**
Whole-economy employment[5]	-0.1	-1.4	**-1.6**	0.1	**-0.6**	0.4	**0.1**
Private sector gross average earnings[6]	9.1 (8.2)	9.0 (8.2)	**10.2 (8.5)**	7.2	**7.2**	6.8	**6.5**
Private sector employment[5]	0.9	-1.1	**-1.7**	0.0	**-0.7**	0.5	**0.2**
Private sector unit labour cost[5,7]	7.3	4.2	**3.7**	3.9	**4.1**	3.5	**3.1**
Household real income*	-3.4	1.5	**1.3**	2.4	**2.0**	2.7	**2.7**

[1] For technical reasons, this indicator 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] As a result of uncertainty in the measurement of foreign trade statistics, from 2004 the actual import figure and current account deficit/external financing requirement may be higher than suggested by official figures or our projections based on such figures.

[4] Calculated on a cash-flow basis.

[5] According to the CSO LFS data.

[6] According to the original CSO data. The numbers in brackets refer to wages excluding the effect of whitening and the changed seasonality of bonuses.

[7] Private sector unit labour cost calculated with a wage index excluding the effect of whitening and the changed seasonality of bonuses.

** MNB estimate.*

*** Data not adjusted for calendar-day variations are shown in brackets.*

↔ means that the expected path of the variable will be similar to that of published in the May 2008 Report.

↑ means that the expected path of the variable might be higher compared to the May 2008 Report.

Table 3-6

MNB basic forecast compared to other forecasts

	2007	2008	2009	2010
Consumer Price Index (annual average growth rate, %)				
MNB (August 2008)	8.0	6.3	4.1	3.0
Consensus Economics (July 2008)[1]	-	5.0 – 6.3 – 6.8	3.7 – 4.2 – 4.8	-
OECD (June 2008)	8.0	6.3	3.7	-
European Commission (Spring 2008)	7.9	6.3	3.7	-
IMF (April 2008)	7.9	5.9	3.5	-
Reuters-survey (July 2008)[1]	-	6.3 – 6.5 – 6.8	3.8 – 4.3 – 4.9	3.0 – 3.2 – 3.6
GDP (annual growth rate, %)				
MNB (August 2008)	1.3	2.2	2.6	3.4
Consensus Economics (July 2008)[1]	-	1.8 – 2.2 – 3.0	2.5 – 3.2 – 4.1	-
OECD (June 2008)	1.3	2.0	3.1	-
European Commission (Spring 2008)	1.3	1.9	3.2	-
IMF (April 2008)	1.3	1.8	2.5	-
Reuters-survey (July 2008)[1]	-	1.7 – 2.3 – 3.5	2.5 – 3.1 – 3.5	-
Current account deficit (per cent of GDP)				
MNB (May 2008)	5.0	4.9	4.8	4.8
OECD (June 2008)	5.0	4.4	4.1	-
European Commission (Spring 2008)	5.0	4.4	3.9	-
IMF (April 2008)	5.6	5.5	5.1	-
Budget deficit (ESA-95 method, per cent of GDP)				
MNB (May 2008)	5.5	3.6	3.2	2.7
Consensus Economics (July 2008)[1]	-	3.1 – 3.7 – 4.3	2.7 – 3.6 – 4.4	-
OECD (June 2008)	5.5	4.1	3.5	-
European Commission (Spring 2008)	5.5	4.0	3.6	-
Reuters-survey (July 2008)[1]	-	3.4 – 3.7 – 4.0	3.0 – 3.5 – 4.4	-
Forecasts on the size of Hungary's export markets (annual growth rate, per cent)				
MNB (August 2008)	8.1	6.4	4.3	5.1
OECD (June 2008)[2,3]	5.8	6.1	5.9	-
European Commission (Spring 2008)[2]	6.8	6.2	5.6	-
IMF (April 2008)[2]	5.9	4.9	4.8	-
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, per cent)				
MNB (August 2008)	3.9	2.5	1.9	2.1
OECD (June 2008)[2,3]	3.6	2.5	2.0	-
European Commission (Spring 2008)[2]	3.7	2.7	2.3	-
IMF (April 2008)[2]	3.7	2.3	2.0	-
Forecasts on the GDP growth rate of euro area (annual growth rate, per cent)				
MNB (August 2008)	2.7	1.6	1.4	1.7
OECD (June 2008)	2.6	1.7	1.4	-
European Commission (Spring 2008)	2.7	1.8	1.6	-
IMF (April 2008)	2.6	1.4	1.2	-

The MNB projections are so-called 'conditional forecasts'. 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 distribution.*

[2] *Values calculated by 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.*

[3] *OECD did not publish any information on Romania, therefore Romania is not included in our OECD forecast.*

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. (London), July 2008); European Commission Economic Forecasts, Spring 2008; IMF World Economic Outlook (April 2008); Reuters survey (July 2008); OECD Economic Outlook (June 2008).

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