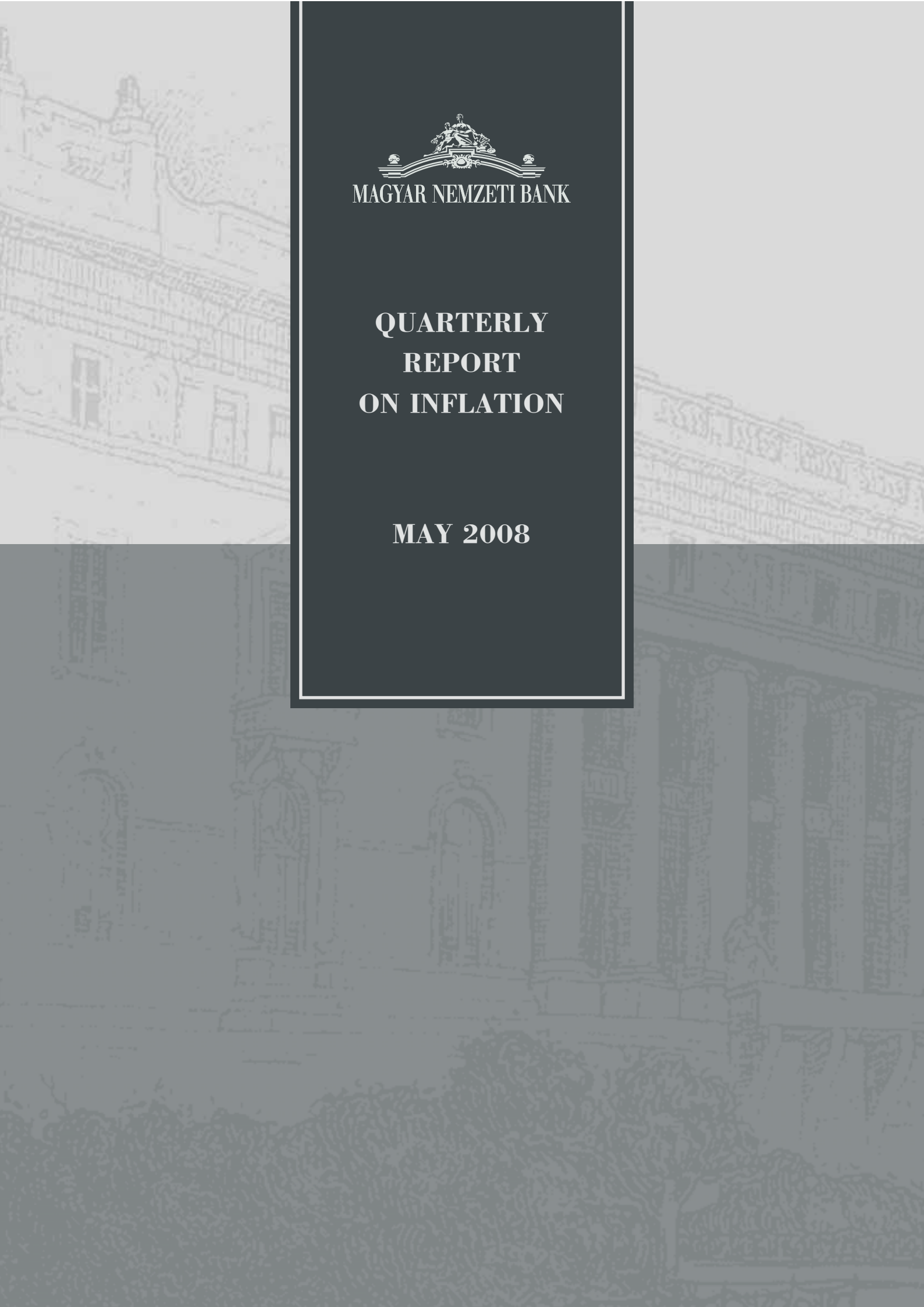

MAGYAR NEMZETI BANK

QUARTERLY REPORT ON INFLATION

MAY 2008

Quarterly Report on Inflation

May 2008

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

In the inflation targeting system, from August 2005 the Bank seeks to attain price stability by ensuring an inflation 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 Monetary Strategy and Economic Analysis and Financial Analysis, 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 Monetary Strategy and Economic Analysis and Financial Analysis are based on certain assumptions. Hence, in producing its forecasts, the Directorate 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 Monetary Strategy and Economic Analysis and Financial Analysis under the general direction of Ágnes Csermely, Director. The project was managed by Mihály András Kovács, Deputy Head of Monetary Strategy and 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 13 May and 26 May 2008. The projections and policy considerations, however, reflect the views of staff in the Monetary Strategy and Economic Analysis and the Financial Analysis and do not necessarily reflect those of the Monetary Council or the MNB.

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Overview

Inflation may remain above target at the horizon relevant for monetary policy

Recently, inflation has been affected by a series of negative supply and cost shocks. Slow economic growth was only able to counter the rise caused by these shocks to a limited extent. Stubbornly high inflation has increased the risk that inflation expectations may become permanently anchored at high levels and necessitated the tightening of monetary conditions. The MNB raised its policy rate from 7.5% to 8.25% in two steps, and the exchange rate of the forint also appreciated significantly.

The May issue of the Report projects steady disinflation, provided that the average monetary conditions for April (EUR/HUF 253.8 and a base rate of 8.25%) and our other basic assumptions hold true. Nevertheless, the rate of inflation will exceed the inflation target over the horizon of 5–8 quarters which is relevant for monetary policy. Upside inflation risks may increase if the recent deterioration in the global inflation environment continues. In respect of domestic factors, upside risks to inflation could stem from economic agents passing on cost shocks to their clients to an increasingly large extent or relying on past inflation in their decisions on prices and wages more strongly than assumed in the baseline scenario. We project a gradual pick-up in growth, but the output gap will remain negative over the entire forecast horizon. At the same time, there are downside risks to growth, as the turbulence caused by the sub-prime crisis may lead to a more persistent global slowdown than assumed.

Imported inflationary pressure has continued to build up recently

The international inflation environment continued to deteriorate over the past quarter for two reasons. First international commodity prices continued to rise, even though there was a downward adjustment in some unprocessed food prices. Second, as an effect of the earlier increases consumer price inflation in developed economies surged to multi-annual highs. However, the pick-up in consumer price inflation in these countries may be linked primarily to the direct effects of rises in energy and food prices; and there is little evidence of a sharp acceleration in inflation across other product groups.

Domestic determinants of inflation still characterised by the two trends of a negative output gap and mounting cost pressures

In respect of the domestic economy, the negative output gap continued to widen in 2008 Q1, i.e. economic activity resulted in disinflationary effects. However, this trend did not affect the economic sectors in an uniform manner, as Hungarian economic growth continued to be characterised by two main aspects: exporting firms were producing at a high level of capacity utilisation amidst historically benign external business conditions, while domestic demand remained very subdued compared with earlier years.

Inflation declined slowly in the first quarter of 2008. The disinflationary effects of the growth environment were limited, with the rise in imported inflationary pressures and domestic cost shocks playing a role in this regard. One of these influences was the increase in producers' electricity prices, which was discussed in the February Report, but turned out to be somewhat stronger than anticipated; another was the unfavourable development in the labour market in relation to future inflation.

[1] For details, see Box 3-2.

The increase in skilled workers' minimum wage had a stronger-than-expected effect. Looking forward, it may cause a slowdown in the wage adjustment process

Employment continued to fall in both the private and public sectors. Additionally, wage growth in the private sector in the first couple months of the year was stronger than we originally projected, but there is a high degree of uncertainty about the interpretation of the latest data due to changes in regulations. This phenomenon may have been related to the stronger-than-expected increase in the minimum wage for skilled workers. The minimum wage for skilled workers has been gradually increasing over the past three years and the latest, and presumably effective, significant increase represents yet another negative cost shock. After the series of shocks observed since the summer of 2006 (initially the increases in tax and contribution rates as well as in administered prices, related to fiscal adjustments, and then the sharp rises in unprocessed food prices and increases in energy prices from the summer of 2007), the corporate sector must now adjust to further upward pressures on costs.

Although the deteriorating earnings position of firms continues to exert a strong pressure to adjust, the May projection forecasts wage growth decelerating more slowly than expected and employment falling more markedly than earlier. Meanwhile, the pressure on firms to increase prices is stronger than previously expected.

Slow recovery in real economic activity

In the current projection, economic growth picks up slowly, in line with the forecast presented in the February Report, with the rate of GDP growth in Hungary only expected to rise above its longer-term potential rate in 2010. Consequently, the output gap will remain negative over the entire forecast period.

A gradual rebalancing of growth towards domestic demand is expected, while the contribution of net exports to growth is likely to fall. The latter is expected to be driven by slowing Hungarian exports, due to the slackening in international economic activity on the one hand, and by rising import needs related to the gradual pick-up in domestic demand on the other hand.

As far as the components of domestic demand are concerned, consumption and investment are expected to expand slowly in the period ahead. Meanwhile, public sector services are likely to fall at a diminishing pace, and then to increase slightly, simultaneously with the decrease in the speed of fiscal adjustment.

Hungary's export sector is unlikely to slow significantly over the short term, due to the pick-up in German industrial activity at the beginning of the year. The longer-term outlook, however, has grown less benign recently, due to the deterioration in world economic prospects.

Stronger-than-expected wage growth may lead to a faster increase in consumption than forecast in February, but the short-term prospects for investment have worsened, closely related to the slump in construction activity.

Two key factors for disinflation to continue are the development of commodity prices and the negative output gap

In the central projection, the main determinants of the disinflation process are the same as in February. Inflationary pressures are expected to subside, based on two factors: firstly, our assumptions about international commodity prices, i.e. that prices will stop rising and food prices will see some downward correction later in the year. Secondly, the output gap is expected to remain

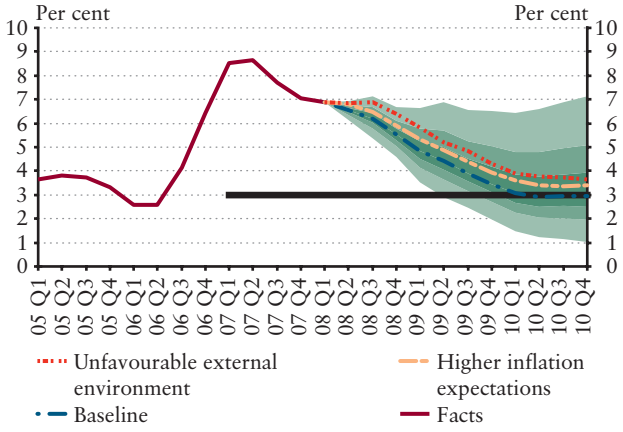
negative over the entire forecast period, forcing wage adjustment and modest price increases relative to costs.

The budget deficit targets set in the Convergence Programme may be met with a strict controls on expenditures

The central projection envisages a lower general government deficit on an accrual basis (ESA) in 2008 than the target in the Convergence Programme. In 2009–2010, the deficit targets in the Convergence Programme can be met if fiscal policy remains tight and fiscal reserves are blocked in part or in full. However, over the next two years the strong growth in tax and contribution receipts, which facilitated the previous rapid reduction in deficit, is likely to be reversed, and the expenditure-side measures outlined in the Convergence Programme will have to ensure the further reduction in deficit. At the same time, this latter aspect is also the most important source of uncertainty surrounding the forecast for the budget deficit. Exceeding the spending estimates may result in a higher deficit compared with what is targeted in the Convergence Programme.

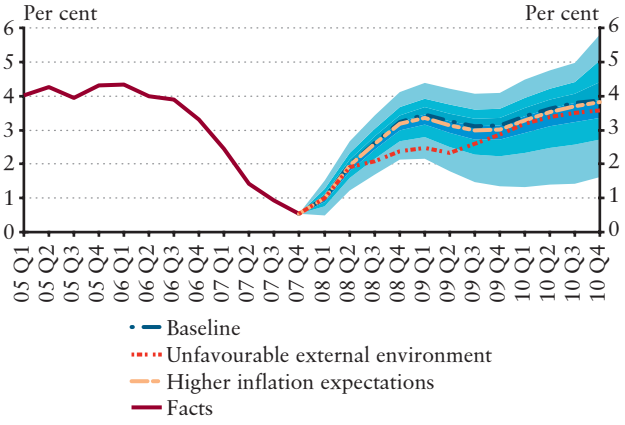
In the May projection, external balance improves, simultaneously with fiscal adjustment. However, the pace of deficit reduction may be slower than observed last year, as the speed of fiscal adjustment slows.

Inflation fan chart*



** Details of the risk scenario are presented in Chapter 3.2.*

GDP fan chart*



** Details of the risk scenario are presented in Chapter 3.2.*

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	**5.0**	**3.7**	**3.0**
Consumer price index	3.9	8.0	**6.3**	**4.2**	**3.0**
Economic growth					
External demand (GDP-based)	3.9	3.5	**2.5**	**2.3**	**2.3**
Fiscal impact on demand[2]	0.4	-3.6	**-1.5**	**-0.1**	**-0.8**
Household consumption	2.1	-2.1	**0.3**	**1.6**	**3.1**
Gross fixed capital formation	-2.8	1.0	**3.2**	**5.1**	**6.8**
Domestic absorption	1.1	-0.3	**1.1**	**2.9**	**3.8**
Exports	18.9	14.2	**10.8**	**9.4**	**10.6**
Imports[3]	14.5	12.2	**9.8**	**9.3**	**11.0**
GDP*	3.9 (4.0)	1.3	**2.2 (2.4)**	**3.2 (3.0)**	**3.7**
Current account deficit					
As a percentage of GDP	6.1	5.0	**4.9**	**4.8**	**4.8**
In EUR billions	5.4	5.1	**5.3**	**5.5**	**6.0**
External financing requirement					
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**	**6.7**
Whole-economy employment[5]	0.7	-0.1	**-1.4**	**0.1**	**0.4**
Private sector gross average earnings[6]	9.4 (8.1)	9.1 (8.2)	**9.0 (8.2)**	**7.2**	**6.8**
Private sector employment[5]	1.2	0.9	**-1.1**	**0.0**	**0.5**
Unit labour costs in the private sector[5,7]	4.4	8.1	**4.2**	**3.9**	**3.5**
Household real income	-0.1**	-3.3	**1.5**	**2.4**	**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 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.

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

*** MNB estimate.*

1 Inflation and its determining factors

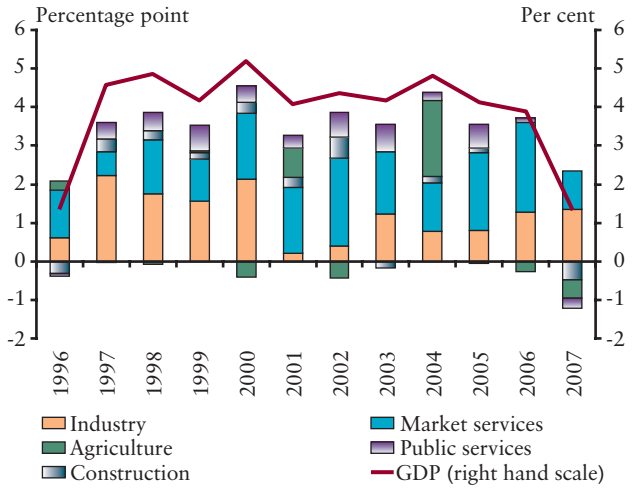
1.1 Real economic activity

A slow turnaround in economic growth

The rate of economic growth in 2007 decelerated significantly compared to previous years, reaching just 1.3 per cent. Throughout 2007, deceleration was accompanied by two aspects, namely weak domestic demand resulting from the implementation of the fiscal austerity package, and favourable foreign economic activity. As a result of the favourable foreign activity, companies in the export-oriented manufacturing industry registered dynamic growth. By contrast, the fiscal adjustments resulted in deceleration directly through the decline in government services on the one hand (on the expenditure side: social transfers in kind, government investment and consumption; on the production side: public services and construction), and indirectly through their impact on domestic demand on the other hand (on the expenditure side: household consumption, corporate investment; on the production side: construction, market services).[2]

Chart 1-1

Contribution of the main production items of GDP to annual GDP growth



Note: In the figure, the value added of each sector is at basis prices. The discrepancy between the GDP growth rate and the sum of the contributions of each sector to it is due to the missing 'taxes and subsidies on production' item.

The public services were approximated with the services related mainly to the public sector (public administration, education, health and social work and other community, social and personal service activities).

Along with the one-off impacts of the fiscal adjustments, Hungarian agriculture also suffered a sector-specific shock due to poor weather conditions. This presumably one-off phenomenon had a considerable impact on the agricultural sector's contribution to GDP growth, as a result of which agriculture made a historically low, negative contribution to the economic growth in 2007 (-0.5 percentage points).

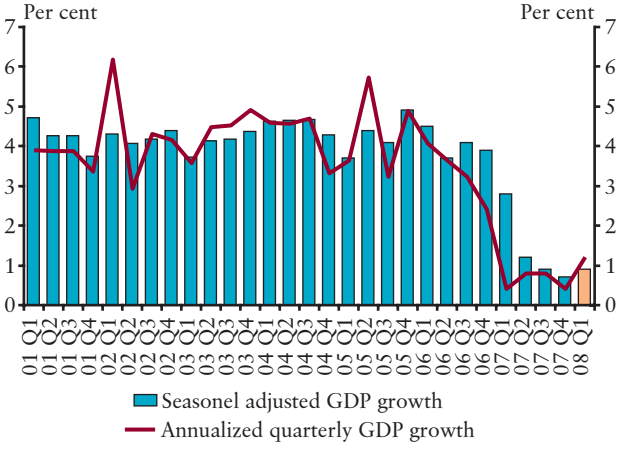
On the whole, without the impact of the presumably temporary factors (fiscally-induced decline in demand, deterioration in agriculture performance), economic growth would have been around 2.5 per cent last year, representing a significant drop compared to the trend seen in previous years. This was basically due to weaker output by the domestic market service sector.

At the beginning of this year, we projected a slow turnaround in economic growth, which seems to be confirmed by the preliminary data on growth for the first quarter. In the first three months of this year, the 0.9 per cent annual increase – adjusted for the calendar effect – is hardly more favourable than the average expansion registered in the second half of last year. The quarterly trends in GDP confirm that the slowdown in the domestic economy following the fiscal

Chart 1-2

Economic growth in Hungary

(seasonally adjusted data)



** For the period before 2005, we used the publication of the detailed 2007 Q4 CSO GDP data.*

[2] It is curious that quantification of the impact of the general government's adjustments arrives at a completely different range of figures for the production and expenditure sides of GDP. While the decline of the sectors related mostly to public services reduced GDP by 0.3 percentage points on the production side, the negative impact of the decline in government items on the demand side reached nearly 1.5 percentage points. Consequently, the value of the statistical errors and ommissions, which shows the discrepancy between the production and expenditure sides, was markedly positive. The effect of the decline in government output on economic growth supposedly could be between the two values. Since to our knowledge, for annual GDP figures the measurement of production side processes is the determining factor, we believe the direct impact of the government may be observed realistically in the lower half of this range.

adjustments has passed its low point, but that the recovery is very modest.

The preliminary GDP figure for the first quarter presumably includes numerous one-off impacts which were more favourable than in 2007. Hence, it can be assumed that in the slowly accelerating economy, a rebound in sources of sustained growth (primarily investment, and partly private consumption) has not yet occurred, whilst the prospects of the export sector, which contributed to GDP growth to a large extent, are expected to gradually deteriorate.

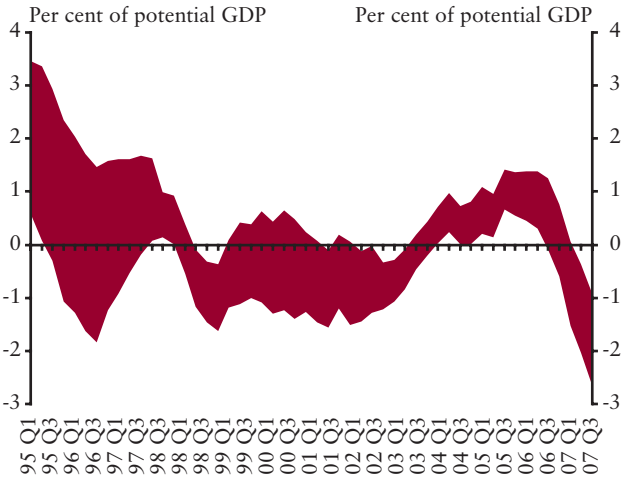
In terms of one-off effects, with regard to the first quarter it worth emphasising developments in agriculture and the public sector. Following the unfavourable weather conditions last year, circumstances this year are likely to be more benign for agricultural production and hence this sector may become a significant positive growth factor. After the diminishing primary effects of the fiscal adjustment, we do not expect further negative impacts from the public sector this year.[3]

Considering the behaviour of the majority of domestic economic agents, the improving income position of households at the beginning of the year and the turnaround in retail sales in January and February suggest a slow recovery in household consumption.

In the field of investment, however, no turnaround has been observed yet. Following the unfavourable development in construction-type investment last year, the subdued performance of construction suggests further decline. At the same time, we expect equipment-type investment to decrease as well, as the external environment becomes more unfavourable. The latter effect negatively impacts the prospects of export companies which were working in a favourable international environment in the first quarter.In the light of the most recent actual data, we re-examined our estimates on potential GDP (for details, see Box 3-1). Our potential GDP estimates between 2004 and 2006 indicate a positive output gap, which resulted from an expansive fiscal policy, and favourable external demand. By 2007, however, the measures taken to improve fiscal balance generated a negative output gap. Through its impact on demand, this process may have moderated the pricing decisions made by the economy, hence, on the whole, it may have put a brake on inflation driven by cost shocks.

Chart 1-3

Output gap*



** There are four different methods to estimate the size of the output gap. This chart indicates the range between the minimum and maximum values of those estimates.*

Moderate deceleration in the European economic activity

A strong slowdown in economic growth started in the United States as early as 2007 Q4, and the macroeconomic indicators published since suggest a further decline. On the other hand, in contrast with earlier analyses, it seems that the economy has not slipped into recession.

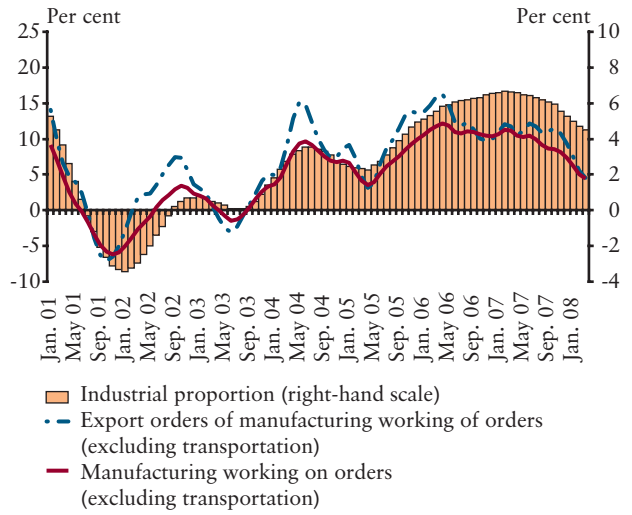
Considering the close commercial and financial relations between the USA and the European Union, the forecasts published by international institutions predict that a spill-over effect of the American slowdown will affect Europe; up to now, however, no signs of this have been observed. Euro-area GDP growth in 2008 Q1 was 2.2 per cent in year-on-year terms and thus came in higher than the market's expectations. Despite these positive signs, German industrial production showed signs of deceleration in March, and there was also a decrease in new orders, suggesting further gradual weakening in economic activity in the euro area from 2008 Q2. Key economic indicators are also pointing in this direction and fell sharply in April. The forecasts of important international institutions are also pointing to further deterioration in international economic conditions.

[3] At the same time, we should note that the measurement of the performance of the agricultural sector in the first quarter GDP data is quite uncertain, as there is still no data available on the annual harvest results at this early point in time.

Chart 1-4

Industrial production and new orders in Germany*

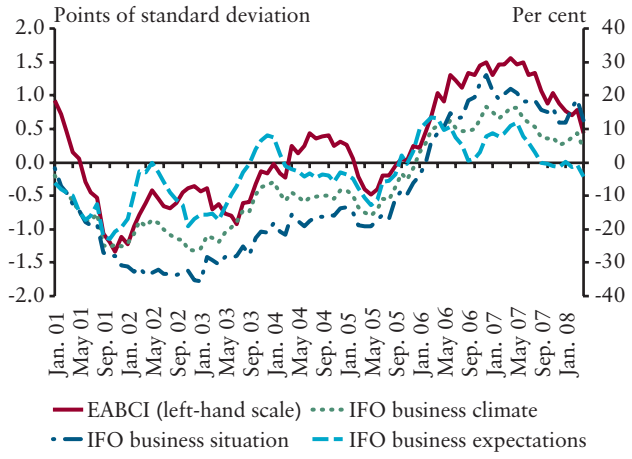
(yearly changes calculated from trend data)



* *Source: EUROSTAT.*

Chart 1-5

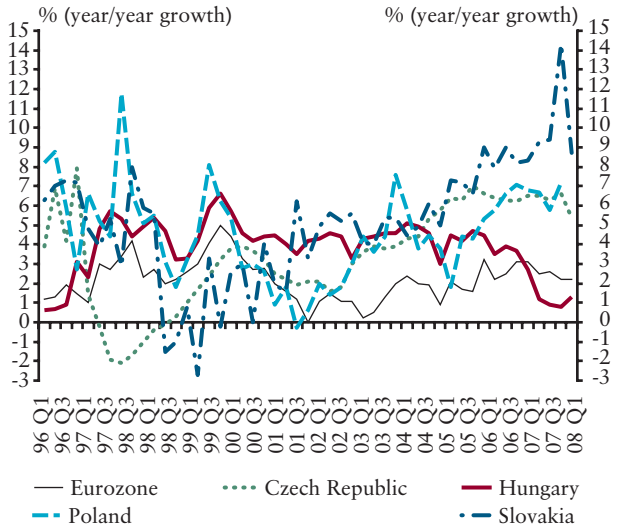
Changes in the IFO and EABCI confidence indicators*



* *Business Climate Indicator for Euro Area countries published by the European Commission.*

Chart 1-6

GDP growth in the region

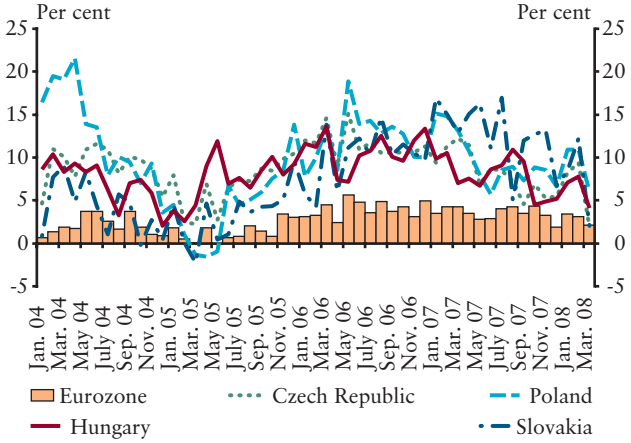


Note: source of international data: Eurostat.

Chart 1-7

Industrial production in the region and the euro area

(yearly changes, calculated from seasonally adjusted data)



Note: source of international data: Eurostat.

While the data from the EU-15 countries indicated a downturn in economic activities as early as the second half of last year, economic growth in the region continued to accelerate in 2007, largely due to the dynamic increase of domestic demand. Nevertheless, on the basis of the preliminary data for 2008 Q1 signs of sagging growth were also seen in these countries. Since this CEE region constitutes roughly 20 per cent of Hungary's export market, the pace at which the region adjusts to the slowdown in the developed countries is a key factor in terms of Hungary's prospects.

With respect to domestic economic conditions, our earlier assumption projected gradual deceleration in exports, but data on the first two months of the year did not confirm this, because, in line with the developments in Germany and in the region, the dynamics of industrial exports recovered somewhat. Otherwise in March, there was a significant correction in the data, so we believe that this rebound early in the year was only a temporary phenomenon, which was observed both in the domestic and the regional data. Slowing economic activity in the euro area will be a dominant factor in the prospects of the export-oriented industry in the region.

While the trend in exports of goods developed similarly to the path of industrial production, the increase in imports of goods was due to the modest rise in domestic demand, mainly caused by household consumption and corporate investment in machinery. The growth rate of goods exports has continued to exceed the dynamics of goods imports, and thus in early 2008, we expect net exports to still make a positive contribution to GDP growth. However this positive contribution is expected to decline as the year progresses, as domestic demand is expected to increase and the international economic activity is decelerating.

Signs of a turning point in domestic demand

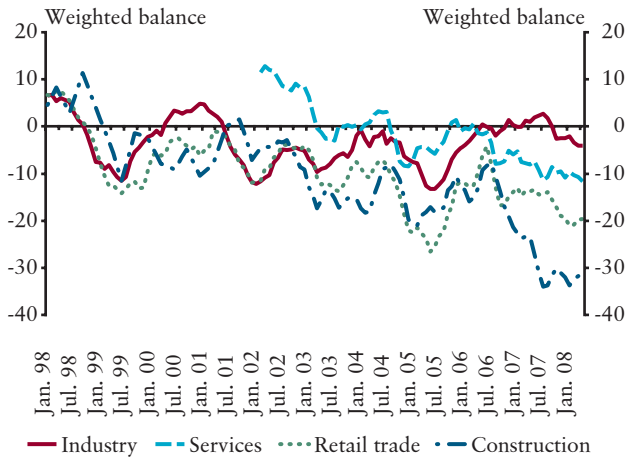
Due to shrinking domestic demand resulting from the fiscal austerity package, the declining consumption of households and dwindling government orders, the position of companies producing products and services for the domestic market has deteriorated significantly. In addition, this is combined with a dynamic hike in the prices of raw materials on the one hand, and the growth of expenditures generated by the austerity package (higher tax and contribution liabilities, substantial increase in energy costs) on the other hand. On the whole, we assume that the majority of domestic companies were faced with a significant deterioration in profits. As the primary effects of the fiscal adjustments wear off and domestic demand starts to recover, the prospects of the corporate sector may gradually improve.

On the other hand, for most sectors no significant positive turnaround can be observed yet; so we assume that the recovery of domestic demand will be a slow process. Based on business confidence indicators, the prospects of the sectors have still not yet improved, which may be a reason for uncertainty.

Chart 1-8

Economic sentiment indicators

(3-month simple moving averages)



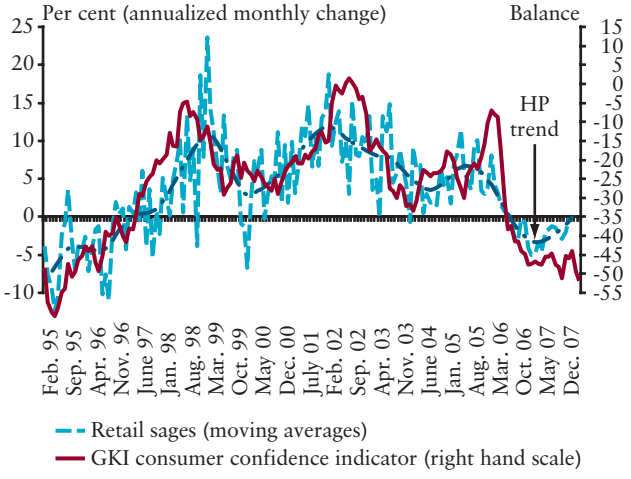
Source: GKI (EC).

With respect to the domestic components of growth, only the household sector shows some signs of improvement. As the primary effects of the fiscal adjustment package wore off, after a substantial contraction in 2007, the income position of households experienced a slight boost in the first months of the year: the net real wage-bill stagnated or slightly increased. Retail data of the first two months of the year indicate a reversal of the former downward trend, apparently confirming the signs of improving prospects. In fact, this may signal moderate growth in the consumption of households in 2008 Q1.

In 2007, households attempted to counterbalance the effects of the income shock by taking out loans, and using financial assets. Even though in our February Report we forecast growth in household savings in conjunction with the decrease in employment, the net financing ability of households proportionate to GDP stagnated throughout 2007, and this tendency appears to be continuing in the first months of this year. At the same time, growth in consumer loans slowed slightly, which is in line with the moderate growth of consumption, and the significantly improving income position of households.

Chart 1-9

Development of retail sales and the GKI consumer confidence indicator



Despite a temporary recovery in the middle of 2007, there are still no signs of a tangible improvement on the housing market. Based on 2008 Q1 data there was a slight increase in the sale of new homes, but the number of building permits issued for new houses decreased, particularly in Budapest, which is considered to be the biggest market, where the decline compared to the first quarter of last year reached approximately 30 per cent.

In terms of the prospects for the household sector, one downside risk is the potential increase in credit margins

triggered by the sub-prime crisis, and the impact that the decrease in employment may have on households' propensity for consumption and investment. These tendencies might already be reflected in the confidence indicators for the household sector, as these indicators still do not show any sign of improvement.

Construction industry output declined steadily during 2007, with this tendency continuing in the first months of 2008. One major reason for the decline was the lack of large government investments, which had a severe impact on the sector.[4] The fact that the time series of the construction contract portfolio, which is used to forecast the dynamics of the construction industry output, does not indicate a solid turning point, casts a negative shadow over future prospects. Additionally, it portends continuing weak growth in national investment, considering that building structures constitute more than half of national investment.

On the other hand, the volume of investments for last year slightly exceeded our expectations. This is due to the manufacturing industry,[5] which was able to generate a relatively strong expansion in investment despite worsening external demand prospects, while the corporate sector, which relies mostly on domestic demand and reflects domestic business expectations, was unable to improve its investment activity. In addition, the items of quasi-fiscal investments settled in a lump sum at the end of the year may have also contributed to the better-than-expected investment figures (road construction and developments related to energy providers).

Chart 1-10

Investments and capacity utilisation in manufacturing

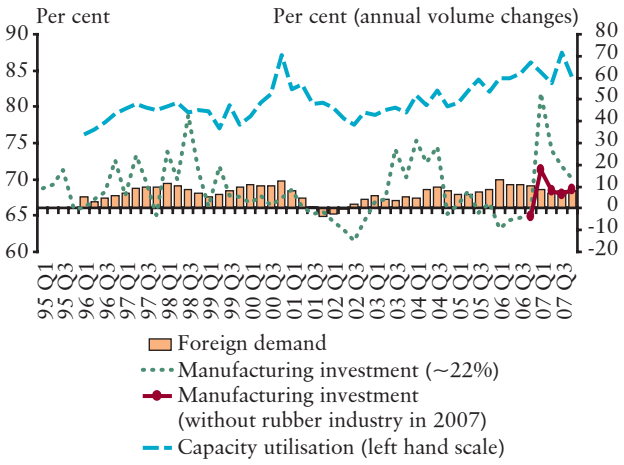
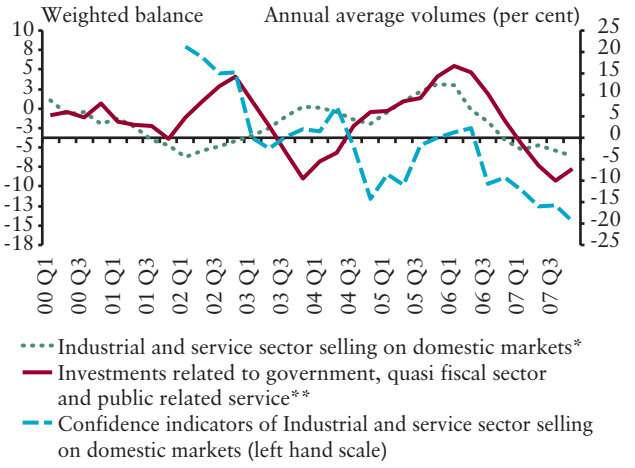


Chart 1-11

Investments in various sectors of the national economy



** Excluding energy, transport, telecommunication, and other community and personal services.*

*** Including energy, transport, telecommunication and other community and personal services.*

With respect to central government investments, negative tendencies continued for the central government in general, and local governments in particular. As mentioned above, the construction industry's contract portfolio continued to weaken at the beginning of 2008, and thus no significant turnaround is expected in the short run for construction-type investments. Looking forward, this may indicate that the use of EU funds, which are considered to be the most powerful driving force behind the demand for central government investment, will continue to be deferred. The sectors with ties to the government are expected to receive 70–80 per cent of the EU funds, but they do not appear to have caused a significant investment boost thus far. The question arises as to what extent these funds will increase the volume of investments compared to earlier projections.

At the beginning of 2007, the stock of inventories[6] in the commercial sectors increased parallel with the decline of the aggregate demand, and its level remained rather high

[4] Approximately 45 per cent of construction output is related to other construction work (such as roads and bridges), which largely depend on government orders.

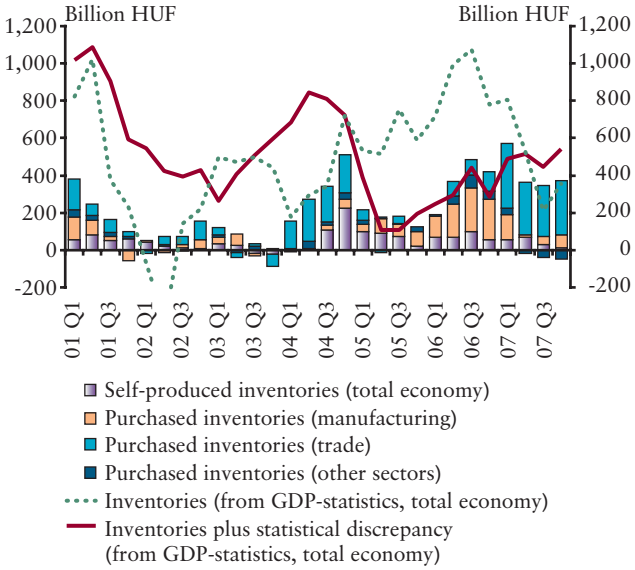
[5] However, the concentrated nature of the upturn, namely, that this growth is largely related to the rubber industry, implies that these developments are somewhat vulnerable.

[6] Inventory changes combined with the statistical error contributed significantly to the GDP growth seen last year. The current price figures of the inventory changes now published for the first time in the GDP statistics may suggest that this growth was primarily due to the growth of the statistical error.

throughout the year. Considering that the expectations of commercial companies continue to be unfavourable, inventory accumulation in this sector may indicate a drastic drop in demand that exceeds even the expectations of the merchants. The lower inventory demand caused by slowing industrial production may account for the decelerating dynamics of inventory growth.

Chart 1-12

Inventory changes in the main economic sectors*



* *The detailed data of stocks of inventory only appertain to companys with at least 50 employees. The sum of these Iinventory changes is different from the inventory changes from the GDP statistics (including all companies).*

1.2 Labour market

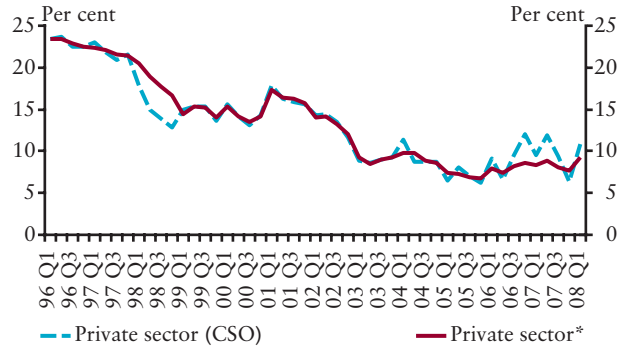
Deceleration of wage dynamics may be slower than expected

The February *Report* assumed, that over the short run companies would attempt to restore profitability by limiting their bonus payments, then, starting from 2008, by reducing regular wage payments and employment. Actual data received since the last *Report* indicate that staff reduction may be even stronger than anticipated, or could occur in a different structure; while wage adjustments may require a longer period of time due to the increased minimum wages of skilled workers.

Chart 1-13

Wage development in the private sector

(seasonally adjusted, quarterly data; annual rate of change)



** Data excluding the changed seasonality of bonuses and the distorting effects of whitening.*

Based on quarterly data on private sector wages in 2008 Q1, we saw an acceleration in wage dynamics compared to the same period of the previous year. Considering the monthly developments, the examined period could be divided in two parts. In January-February, we saw a strong acceleration in wage dynamics i.e. the annual wage index increased by 3 percentage points, according to the underlying wage index (filtering the effects of the changed seasonality of bonuses and whitening), and then a correction occurred in March. However, the data should be interpreted fairly conservatively, taking into account the regulatory changes, and the stronger wage growth may have been caused, for the most part, by the statutory minimum wage increase.[7]

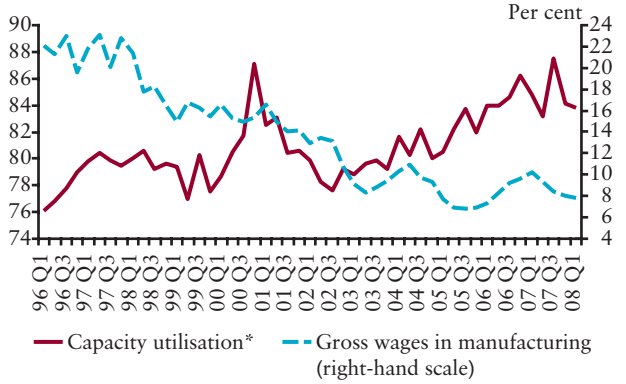
According to our estimates, the impact of the regulation on the annual January wage index amounts to about 2 percentage points, and may have had prolonged, indirect effects also in February. Thus, the entire impact may have exceeded our expectation. In line with the regulatory change, the jump in wage dynamics may have been influenced by timing considerations as well. The relevant time series suggest that regular wages are normally adjusted between March and May. It is not inconceivable however, that, in view of the regulations affecting the statutory minimum wage, companies scheduled their regular wage increase at a date earlier than usual this year. This concept was underpinned by the March data, because there was a strong correction in case of regular wages.

At the sector level, the strong but slowing wage growth in the manufacturing industry correlates with the strong export activities and the high capacity utilisation of the sector. Considering the impact of the factors described above, we assume that the labour market for manufacturing jobs is considerably tighter than in the other segments of the private sector.

Chart 1-14

Wage development in the manufacturing industry

(seasonally adjusted, quarterly data; annual rate of change)



** Data of the GKI survey.*

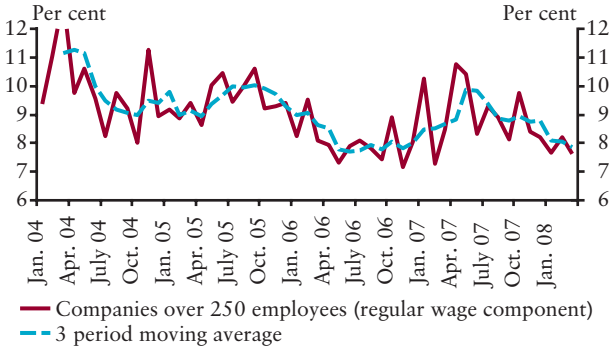
[7] On the one hand, wage dynamics experienced a boost primarily in the service sectors, which are in a less favourable situation in terms of economic conditions and facing a considerably looser labour market; on the other hand, data analysed according to company size indicate that the growth took place among the small and medium-sized companies which are most likely to be affected by the increased minimum wage. In addition to these factors it is conceivable, too, that the acceleration of wages might also be related to the high level of inflation observed in the last period. Albeit, it is possible that (in contrast with our previous assumptions) the increased minimum wage did not mean a fully 'true' acceleration in wage dynamics, but partly reflects the further whitening of the economy. Although there is a great uncertainty regarding this question, according to the data available it seems that a considerable decrease occurred in the number of manual workers in the mostly affected market services sector, moreover the jump in gross wages affects companies having even more employees. All of these indicate that the minimum wage hike in 2008 was essentially effective. For more details, see Box 1-1.

At the same time, the sharp upturn of wage growth observed in market services cannot be justified by the economic conditions, and is assumed to be related to the regulatory changes. It should be noted, that the statutory minimum wage increase is presumed to have had a more significant impact on this sector in general.[8] Regarding the companies presumably most unaffected by the minimum wage changes, those with over 250 employees, regular wages continued to decrease.[9]

Chart 1-15

Development of wages at companies with over 250 employees

(annual growth rate based on the regular wage component)



Box 1-1: Methodological issues regarding wage developments

Earlier issues of the *Report* have already addressed the distortion effects of data on wages caused by turning informal economy into a formal one.[10] Because the labour market was hit by various shocks due to a variety of government measures in 2006 H2 (in addition to measures aimed at transforming the informal economy into a lawful one i.e. 'whitening of black and grey economies', a minimum wage in skilled jobs was introduced), it is difficult to tell the extent to which the various types of measures may have contributed to a rapid increase in wage growth.

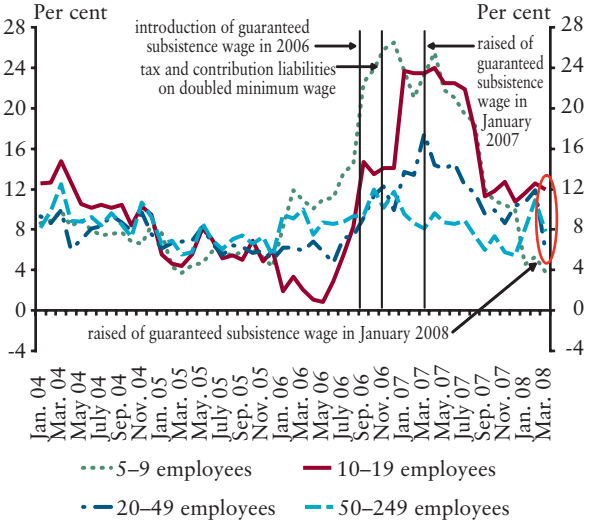
A look at private sector wages in a breakdown by company size reveals that a rapid increase in wages from mid-2006 was triggered by several hikes in wages at the effective dates of the government measures. Data clearly reveal the impact of introduction of guaranteed minimum wage in July 2006, raised in early 2007 and tax and contribution liabilities on twice the minimum wage in September 2007.

Our estimates show that the 2006 introduction of the guaranteed minimum wage led to higher wages only in the case of businesses with 5 to 19 employees. With regard to the private sector as a whole, its extent is likely to have been 0.3 per cent. The impact of tax and contribution liabilities on twice the minimum wage was around 1.8 per cent; thus, wage acceleration in the whole of 2006 due to authority measures matches up with our earlier estimates.[11] The increase in the guaranteed minimum wage in early 2007 resulted in an approximately

Chart 1-16

Changes in regular wage by headcount categories

(annual change)



1.1 to 1.3 per cent rise in wages, of which, based on our earlier results, approximately 0.5 per cent was attributable to the further whitening of black/grey economies. Thus, approximately two-thirds of the whitening reflected in wage statistics is likely to have been caused by measures

[8] According to the regulations of the Hungarian Tax and Financial Control Administration (APEH), raising the minimum wages of skilled workers became mandatory from February. However, the Ministry of Social Affairs and Labour reported that the majority of the companies had complied with the relevant regulations as early as January.

[9] However, it should be noted that gross wages among companies with more than 250 employees jumped considerably in March, which should be linked to the huge bonus payment in the 'Transport, storage and communication' industry.

[10] See the May and August 2007 issues of the Report.

[11] See Győző Eppich and Szabolcs Lőrincz: Three methods to estimate the whitening-related distortion of the wage statistics, MNB Occasional Papers, 66.

aimed at it, while the remaining part by a raise in the guaranteed minimum wage. The early 2008 raise in the guaranteed minimum wage already affected larger corporations as well. This confirms the fact that – taking into account employment developments at small companies in 2007 – a raise in the minimum wage of skilled workers in 2008 can be regarded as effective increase in the wage-bill.

In early 2007 and 2008 a further bias was detected in wage statistics, which can be linked to hikes in employment customary in the early months of each year. This bias stems from the fact that, regarding the structure of the economy as a whole, unexpected rises in staffing levels were experienced only in certain groups, rather than homogeneously. In respect of the composition of jobs, it was the number of non-manual employees that rose in January in both 2007 and 2008; their average wage being higher than that of manual labourers. As a consequence, a shift in the composition of the numbers employed led to an upward bias in the wage index.

In our opinion, this bias arises from the methodology of wage statistics, as the Central Statistical Office collects comprehensive data only on companies with over 50 employees. For companies with 5 to 49 employees it applies the method of representative sampling to collect data. Classification in headcount categories occurs once a year, at the beginning of each year. Thus, we hypothesise that sudden rises in the headcount at the beginning of each year are a consequence of re-classifications during data recording. What makes the calculation of the extent of the bias difficult is that we have no information on whether rises in the headcount at the beginning of each year are the consequences of interim processes or merely represent a statistical bias. Our calculations reveal that the maximum degree of bias is likely to have been around 0.5 per cent in 2008 (provided that there is no actual economic trend underlying the rise in the headcount). In preparing our wage projection we decided not to exclude this bias because of the aforementioned uncertainty.

Chart 1-17

Numbers of manual and non-manual workers in private services

(seasonally adjusted, quarterly data)

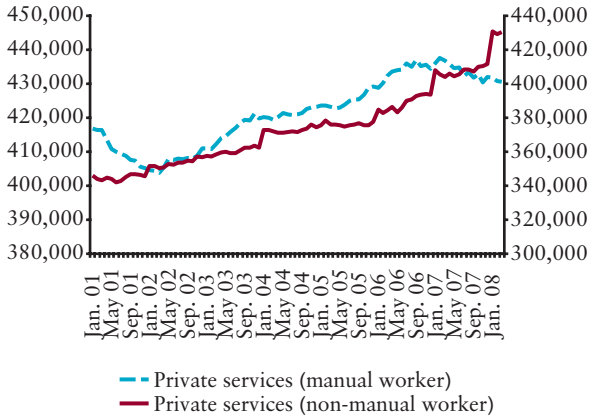
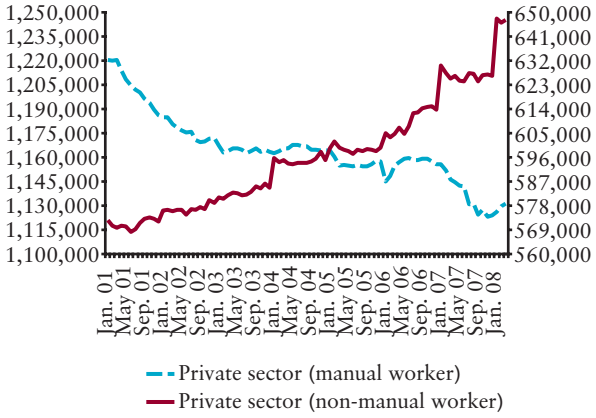


Chart 1-18

Numbers of manual and non-manual workers in private sector

(seasonally adjusted, quarterly data)



Further decreases in employment

The adjustment path of our February *Report* projected a modest drop in employment, in particular over the long run. The data received since then, however, indicate a stronger adjustment through employment reduction than we had expected, although its impact on the tightness of the labour market may be ambiguous.

In 2007 Q4, employment seemed to decrease both at the level of national economy and in the private sector.[12] In contrast with our assumptions set out in the February *Report*, it appears that the drop in employment was reflected in the reduced number of active workers, rather than in increased unemployment. The time series of employment, activity and unemployment suggest that this is not a unique phenomenon. Employment has had a greater impact on activity than unemployment even in the past. Data continue to suggest that the majority of those losing their jobs become inactive, rather than joining the group of the unemployed. This may be partly due to timing considerations associated with retirement regulations, and another part of it could be explained by the fact that a group of inactive workers may have stronger ties to the labour market than the rest.

[12] According to institutional statistics covering companies employing more than 5 individuals, January 2008 saw a sharp increase. See the Box 1-1. for possible explanations.

Chart 1-19

Changes in employment

(seasonally adjusted, quarterly data)

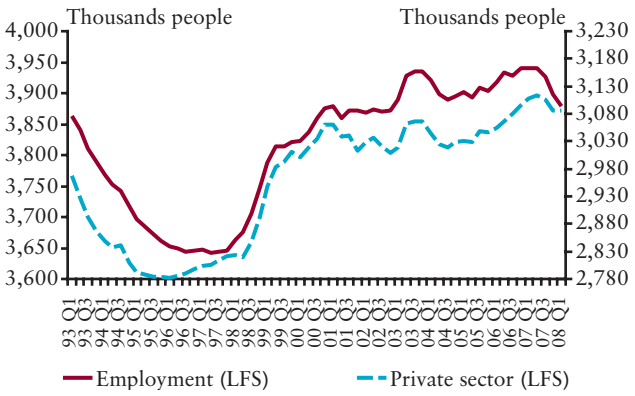
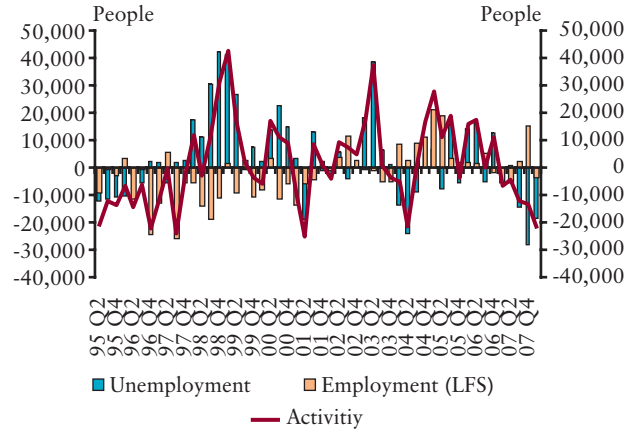


Chart 1-20

Changes in activity, employment and unemployment

(seasonally adjusted quarterly changes, LFS)



The ratio of the permanently jobless appears be increasing within the group of the unemployed. In light of the increasing level of inactivity and the number of the permanently unemployed the question arises: to what extent did the downturn contribute to loosening in the labour market? In other words: to what extent are the observations described above a consequence of cyclical or long-term developments? Based on our current understanding there is no obvious answer to this question; in the past we have seen activity and employment moving in tandem according to business cycles. In any case, the fact that the number of the permanently unemployed has been on the rise steadily since 2006 may be a warning sign of existing structural problems in the labour market.

In a sectoral breakdown, 2007 Q4 saw a downturn in labour demand and correspondingly in hours worked, in

Chart 1-21

Composition of unemployment

(quarterly data, Public Unemployment Service)

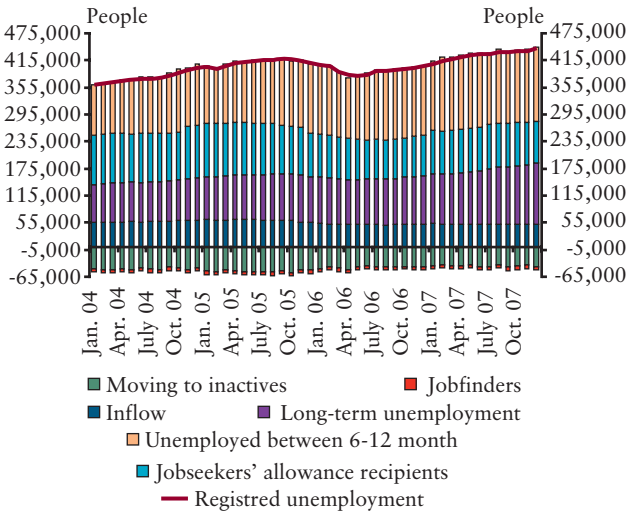
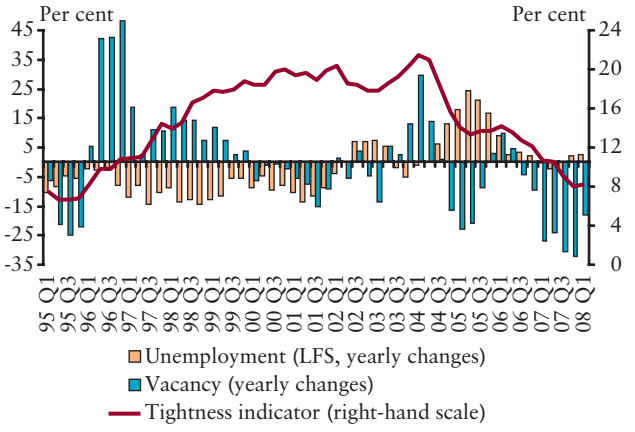


Chart 1-22

Development of tightness indicator and their components

(seasonaly adjusted quarterly data)



the manufacturing industry, while less prominent segments of the private sector (including construction, agriculture, electricity and mining) continued to report decreasing headcount figures. At the same time, we have not seen signs of further adjustment in market services thus far. In 2007 Q4, employment figures continued to drop in the public sector.

Overall, we can conclude that declining employment is largely due to insufficient labour demand as the rising tightness indicator of the previous period is primarily attributable to the shrinking number of reported vacancies.

1.3 Inflation developments

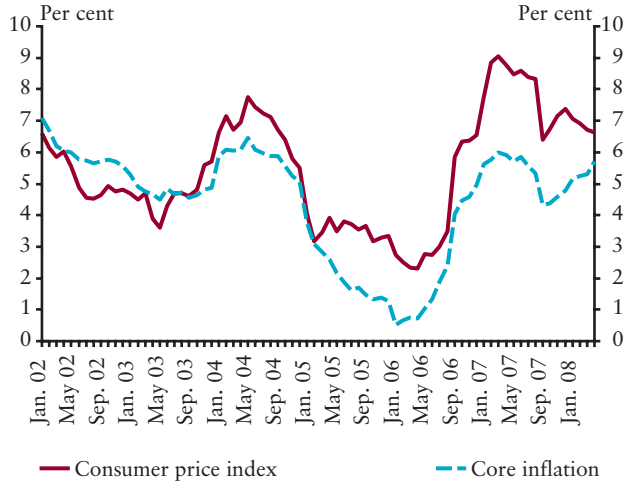
In 2008 Q1, consumer price inflation was 6.9 per cent, while core inflation reached 5.2 per cent.[13] Compared to the previous quarter, the two indices decreased and increased by 0.2 and 0.6 percentage points, respectively.[14]

Monthly changes indicate that the disinflation process has begun, but is materialising rather slowly. The disinflation process may be attributed to decelerating inflation in processed food, while inflation in manufactured goods and services, in relation to the increasing energy prices, accelerated.

Chart 1-23

Consumer price index and core inflation

(seasonally adjusted, annualised data)



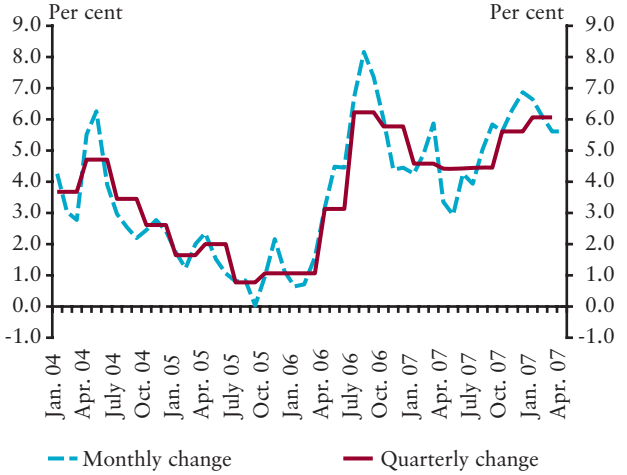
Slow disinflation

The international inflation environment continued to deteriorate last quarter. While the price level of certain unprocessed foods has corrected somewhat, international energy prices continued to rise. Because of this, consumer inflation even in developed countries has reached a peak unsurpassed in the last several years, which can be largely attributed to energy and food price increases in the previous periods. Nevertheless, the acceleration of the consumer price index in developed countries is basically associated with the direct impact of energy and food products; for the other product groups acceleration so far has been negligible.[15]

Chart 1-24

Inflation trend*

(seasonally adjusted, annualised data)



* *Core inflation calculated by the MNB, excluding the effect of changing indirect taxes and medical visit fee.*

Trend inflation in Hungary in 2008 Q1 increased somewhat compared to the previous quarter, and reached 6 per cent. Monthly data suggest, however, that a decline has finally started to materialise.

The reason behind the drop in core inflation is slower inflation in prices of processed foods. This reduction, however, seems to be rather slow. In fact, it halted in March and April. The reduction in inflation for the same product group is also occurring slowly in the euro area, though it is somewhat faster than in Hungary.[16]

[13] The core inflation prognosis regularly published in the *Report* can be compared to the core inflation calculated by the MNB, which was 5.6 per cent in 2008 Q1.

[14] In April, the consumer price index was 6.6 per cent, the core inflation was 5.6 per cent.

[15] For details, see to Box 1-2.

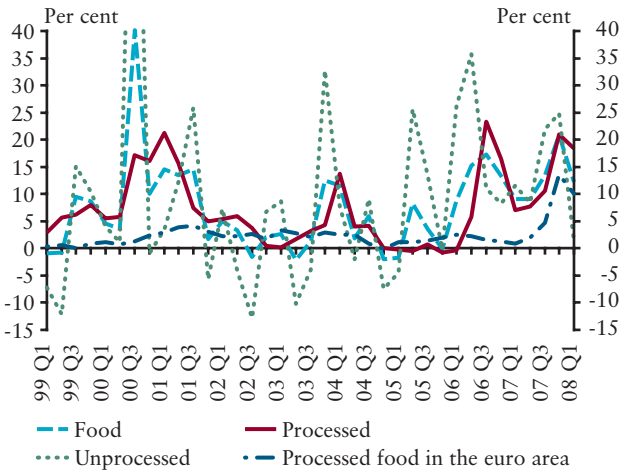
[16] The question that may arise as to the degree that inflation in the price of processed foods in Hungary moves in tandem with that in the euro area. In the pre-accession era, the co-movement of the two time series was weak. From mid-2004 we expected them to move in closer conjunction, because accession accelerated the EU integration of the Hungarian food market. Inflation in the price of processed food was lower in Hungary than in the euro area till the beginning 2006, however, from then on, it was well above it. The former was attributable to EU accession, which reduced import prices over the short term. The latter was due to fiscal adjustments in 2006 and a sharper rise in energy prices in Hungary during 2007.

Obviously, there is a correlation between the inflation in processed food prices and the change of commodity prices; therefore it is worth looking at the consumer price changes in unprocessed foods and agricultural producer price changes. The price level of the unprocessed foods product group was highly stable in 2008 Q1, while agricultural producer prices, as a whole, were on the rise even though a decline was experienced as early as February in respect of some of these products.

Chart 1-25

Inflation of foods in Hungary and in the euro area

(seasonally adjusted, annualised quarterly change)



Box 1-2: What is behind the increase in international commodity prices?

World market prices of crude oil and metals have been on the rise for years, but from the middle and end of 2007 this process accelerated, and was accompanied by a significant increase in the prices of food commodities.

There are several factors which, even in combination, could have led to soaring prices; but it is quite uncertain which of these factors contributed the most. On the demand side, growing demand in Eastern Asia may be an explanation. This factor should account for a long-term, trend-like rise even in the future; on the other hand, it is uncertain as to what extent it is responsible for the recent skyrocketing of prices. Growing demand for food commodities could be justified by their increased use for bio-fuel production. Bio-fuel production is supported by state subsidies on the one hand, and production has become more profitable due to the high crude oil prices. Nevertheless, this factor may be temporary only as it could be terminated through economic policy measures (revoking of subsidies). On the supply side, bad weather may also have caused an increase in food commodity prices, which is assumed to be temporary; on the other hand, global climate changes render the development of extreme weather conditions more probable.

As the prices of other commodities are also on the rise in addition to food prices, it is likely that other factors may also have an impact and their effect extends beyond just foods. Thus, as an alternative explanation, an overly loose American monetary policy may also be partly responsible for the recent increase in commodity prices.[17] According to this argument, low interest rates stimulate reduced commodity production and increased inventories on the supply side, and investments in commodity products on the demand side, which may have been exacerbated by the uncertainty on the securities market. The impact on the supply side is due to the fact, that for low interest rates a higher return can be expected if the production of commodities is suspended in order to be sold later, at higher prices.

As commodity markets are priced in US dollar, several analysts pointed out the weakening of the dollar as an underlying reason behind the rise in prices. It is important to note however, that the rise in commodity prices might have been observed also in euro terms, although the magnitude was somewhat smaller.

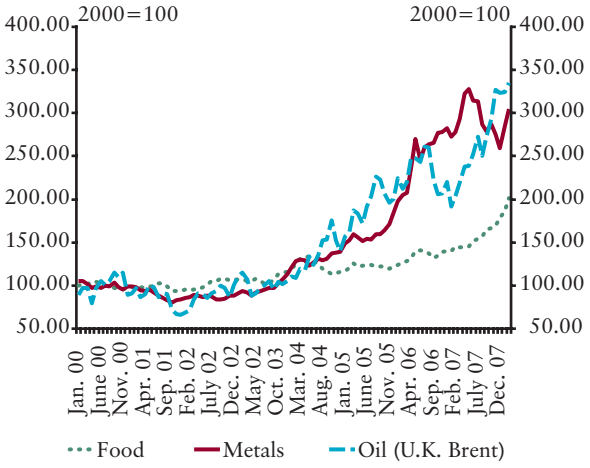
Recent movements in consumer prices have reflected the increases in commodity and food prices: global inflation has surged to a multi-year high in the past few months. However, a broader range of product groups have so far been unaffected by rising commodity prices. As a consequence, core inflation, as measured by the consumer price index excluding food and energy prices, has remained stable and has not followed the sharp upward movements in headline inflation.

[17] Jeffrey Frankel: 'The Effect of Monetary Policy on Real Commodity Prices' in John Campbell, ed., *Asset Prices and Monetary Policy*, U. Chicago Press, 2007.

Chart 1-26

World market price of commodities

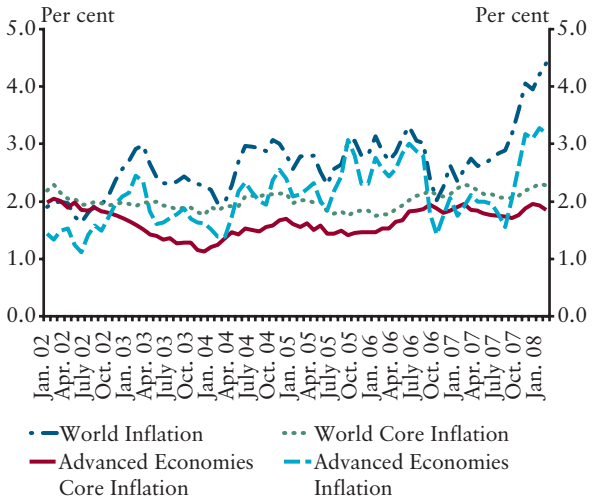
(in USD, average of year 2000 = 100)



Source: International Monetary Fund, International Financial Statistics.

Chart 1-27

Global and developed country inflation and core inflation



Source: International Monetary Fund (2008) World Economic Outlook database, April 2008.

Given, however, that monetary policy works with a lag, decision-makers base their actions on inflation projections. In order to produce a forecast, they need an indicator which is a good predictor of risks to price stability. To this end, a number of central banks, including the Fed, the ECB, the Bank of England, the Bank of Canada, Sveriges Riksbank, etc., use core inflation indicators. These are different from the headline measure in that they permanently exclude from the CPI index one or more components which exhibit significant variation but no clear trend over the near term, and so they better reflect longer-term changes in inflation. One of the most popular indicators is the core inflation measure excluding food and energy prices, as already noted.

Removing some items from trend inflation may be justified by the fact that shocks occur frequently in various product markets and the correction of imbalances lasts longer than under average market conditions. If, for example, a weak harvest lowers output in certain agricultural products, prices will increase sharply, as supply shortages cannot be compensated in short term. Presumably, such temporary inflationary pressures will be offset by a counter shock at a later time – perhaps the following year. Consequently, over a longer horizon, where supply and demand return to balance on average, prices will be determined by the dominant inflation rate. However, such events are rare in the markets for manufactured goods, as goods typically are produced at excess capacity, and so stockpiling may mitigate mismatches between supply and demand. In such cases, core inflation measures can be helpful in eliminating statistical 'noise' from data. It is not optimal for a central bank to respond to every transient shock affecting partial markets, which it will probably have to reverse shortly afterwards.

As noted earlier, movements in the prices of items, which are not in the core measure have followed a different pattern over recently: unlike in earlier periods of high volatility, there has been a trend rise in the prices of a number of commodities and foods. If these prices are determined by persistent changes in relative prices or a generally overheated world economy, rather than by temporary shocks, then the indexes excluding them do not give a better prediction of future inflation developments. On the contrary, food and commodity prices may be a leading indicator of price rises spreading to a wider range of products.

Inflation in manufactured goods prices has been on the rise since October 2007, which has slowed down the decline in inflation. Price changes for durables, whose monthly inflation rate in the first three months of 2008 was significantly positive, were major contributors. It has happened only once since the introduction of the inflation targeting system, between August and October 2006, as a result of significant weakening in the forint exchange rate. The unusually large rise in used car prices has a significant impact on the product group, but if we exclude this impact, we can still easily prove that, within durables, inflation was widespread in Q1. A further detail that slightly modifies the above is that, after a 3-month increase, the prices of these products fell in April again.

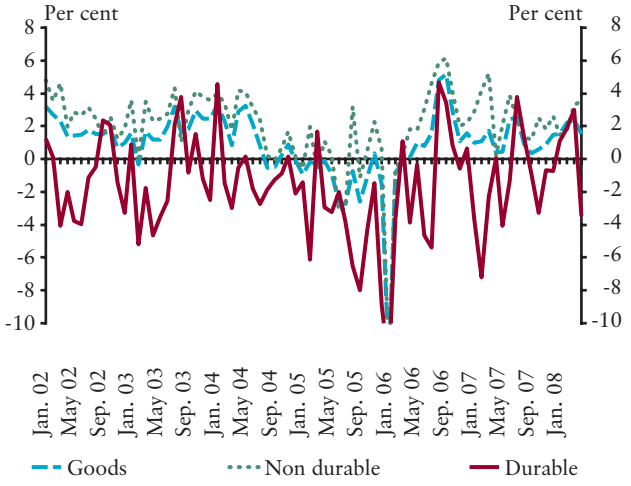
Presumably, the stronger inflation in manufactured goods reflects cost shocks in general, and especially the cost increasing effect of higher electricity producer prices early this year, and the weakening of the exchange rate in the second half of last year. As our analysis concludes, so far the

weaker forint exchange rate in February and March had a negligible effect on the rising index of the first quarter, and the consumer inflation of manufactured goods did not increase in the euro area in the period under review.

Chart 1-28

Inflation of manufactured goods

(seasonally adjusted, annualised monthly change)



In terms of quarter-to-quarter changes, market services inflation has practically remained unchanged in 2008 Q1 compared to the previous quarter. This scenario will be similar if the analysis is based on data of monthly frequency, in which case it becomes apparent that in March the annualised monthly price increase of market services reached the upper extreme of the 5–7 per cent range typical of previous years. In April, however, it returned to the middle of this range.

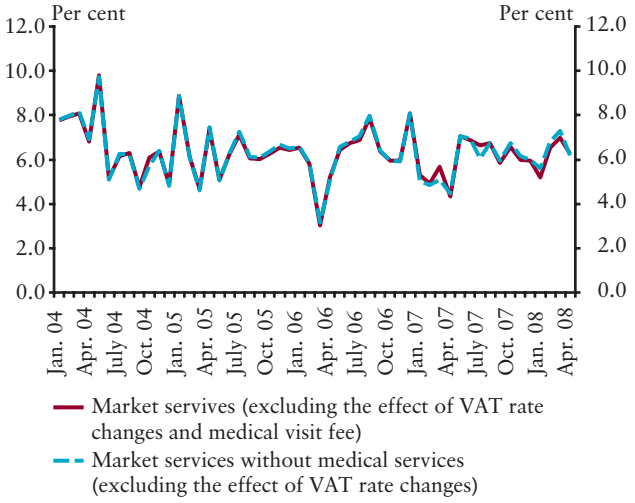
In our November and February *Reports* we projected an inflation path, in which at the beginning of 2008 and particularly starting from the second quarter, inflation of tradable goods and market services would rise temporarily as a result of price shocks on the cost side.[18] The data of the first quarter are largely in line with our expectations, whilst the data of April slightly undermine our opinion about the size and timing of the effect of the cost shocks and the effect of lower consumption which counteracts such shocks.

Reviewing the correlation between some partial indices of producer prices and consumer prices, we find, that based on

Chart 1-29

Inflation of market services

(seasonally adjusted, annualised monthly change)

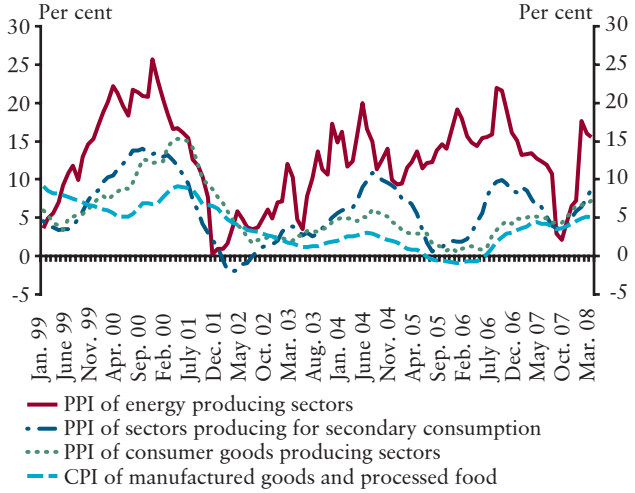


the experience of previous years, the increased prices of the energy producing sectors have been passed through to consumer prices of tradable goods and processed foods through producer prices of the sectors producing for secondary consumption, followed by those of the sectors producing consumer goods.[19] Based on the producer price indices available up to March 2008, the January increase in

Chart 1-30

Producer and consumer price indices

(seasonally adjusted, yearly change)



[18] The increase in electricity prices at the beginning of the year represented a significant cost shock. Based on data received, our previous estimate of a 20-per cent corporate electricity price increase was conservative, and it must have been somewhat higher. The precise value is not known; the producer prices of electricity published by the CSO do not separate the energy prices provided to households and public institutions, where prices increased less steeply than for corporate energy prices. In addition, the fact that a part of companies use household energy (small consumers under 3*50A) poses a further difficulty in the estimation of the exact size of relevant corporate cost increase.

[19] The use of the consumer price index of tradable goods and processed foods is justified by the fact that market services do not have a corresponding producer price, and therefore we do not include them in the group of core inflation products.

energy prices was followed by an increase in the producer price index of sectors producing for secondary consumption, which thus far has been reflected only moderately in the consumer prices of tradable goods and processed foods. Consequently, we believe that the increase of producer electricity prices may have a more pronounced impact on consumer prices in the next few months.

Other items with an inflation increasing effect

In 2008 Q1, vehicle fuel prices compared to the previous quarter and to the same period of last year increased by 4.6 and 18.1 per cent, respectively. The higher prices resulted from the increase in world market prices for crude oil.

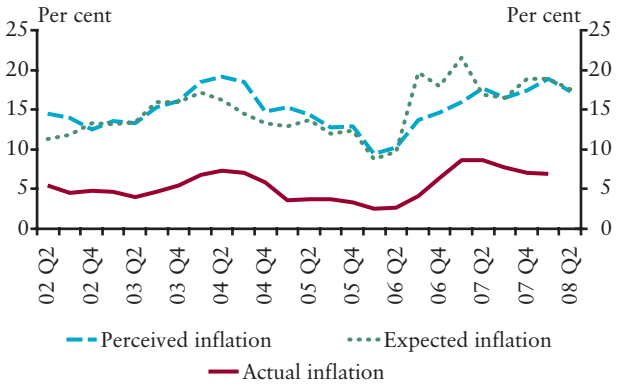
While budgetary adjustments indirectly promoted disinflation on the demand side, the government sector continued to contribute to price growth above the long-term inflation target through the pricing within its scope of authority. In 2008 Q1, regulated prices increased by 6.9 per cent compared to the same period of last year. Inflation in this product group was influenced by contradictory effects: during 4 quarters, household energy prices and the prices of goods regulated by local governments increased by at least 10 per cent or more, while the overall price increase of the product group was mitigated by the less than 1 per cent and the 2.3 per cent annual increase of the prices of telecommunication services and pharmaceuticals, respectively.

Moderation in inflation expectations

The 12-month forward-looking inflation expectations of households decreased somewhat with respect to the previous quarter, similarly to the development of perceived inflation in the last 12 months. One positive development is that households' expected inflation decreased significantly for the first time since 2007 Q2, but the fact remains that expectations are at historically high levels.

Chart 1-31

Houshold inflation expectations*



** Source: MNB calculations based on a survey conducted by Medián.*

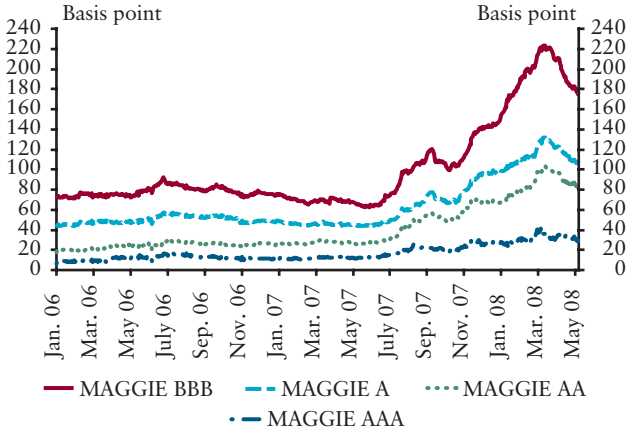
2 Financial markets

Over the past few months, sentiment on the global financial markets has continued to be influenced by the impact of the US sub-prime crisis on financial institutions and its potential consequences for the real economy. Tightening credit conditions suggest that the adverse impact of the crisis will take longer to wear off. This is reflected in the fact that both investment banks and supranational institutions have revised down their projections for economic growth. Nonetheless, an increasing number of analyses and public statements claim that uncertainty about further losses and impacts has decreased, and the worst of the crisis is over in the largest economies.

From the perspective of the prevailing sentiment in the global markets, the time since our last Report can be divided into two sub-periods based on changes in indicators measuring investors' risk tolerance. Before end-March, investors' risk appetite decreased and credit spreads widened; whereas in April and May optimism seemed to return to the markets. This is reflected in a decrease in risk indices and credit spreads, and also in the appreciation of the currencies of developing countries.

Chart 2-1

Changes in risk indicators*



** Indicators reflecting spreads on EUR-denominated debt in a breakdown by credit rating.*

Source: JPMorgan.

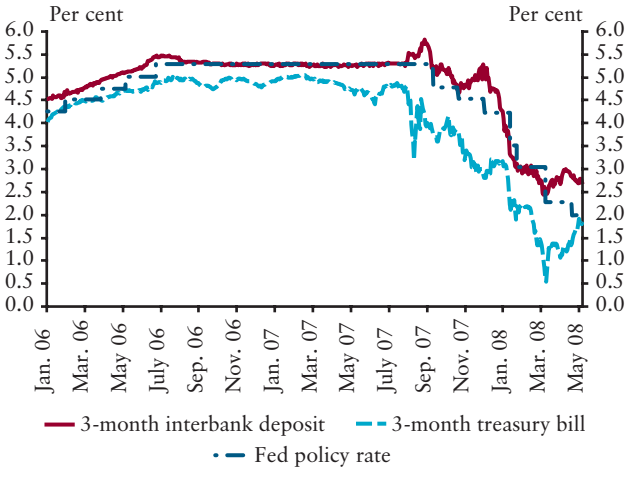
Although losses suffered by investment banks continued to be disclosed, in many cases this did not lead to falling share prices. This, in turn, suggests that investors are putting more emphasis on the declining uncertainty in future profitablity than on the unfavourable impacts of the specific announced losses. The major central banks launched further instruments of liquidity provision to ease the tension that had been mounting in the inter-bank money market since the summer of 2007. Furthermore, a second instance of institution-specific intervention occurred: following the precedent of the Bank of England with Northern Rock, the Federal Reserve took an active role in the rescue of Bear Stearns, one of the largest investment banks in the US. This is a clear indication that the central banks in advanced economies are willing to heavily commit themselves to maintaining financial system stability.

Low liquidity and lack of confidence persisted in the inter-bank market. As a result, the difference between inter-bank interest rates and government yields of equal maturities rose close to historical peaks in both EUR and USD. However, while the rise last summer and last December was unequivocally due to banks' growing demand for liquidity and their lack of confidence in each other, according to many analysts, this year's increase is largely attributable to concerns about solvency. Low risk appetite is reflected in the fact that in early March, demand for government securities of euro area countries fell, with the exception of Germany. This decline in demand manifested itself in unusually wide spreads compared to the benchmark German securities, and the drying up in the markets in a number of the cases.

The US Federal Reserve lowered its target rate by 75 basis points in mid-March, then by another 25 in late April; the last time the Fed funds target stood at the current level of 2 per cent was in the final months of 2004. Although markets have, over the past two months, priced in further rate cuts before the end of 2008, currently they expect no further monetary easing. The statement after the last rate-setting decision also seems to corroborate this: downside risks to growth were not mentioned, and the references to further potential rate cuts, typical to previous statements, were replaced with neutral wording. In response, the US dollar, following a historical low on 22 April, had appreciated by approximately 3 per cent against the euro by mid-May.

Chart 2-2

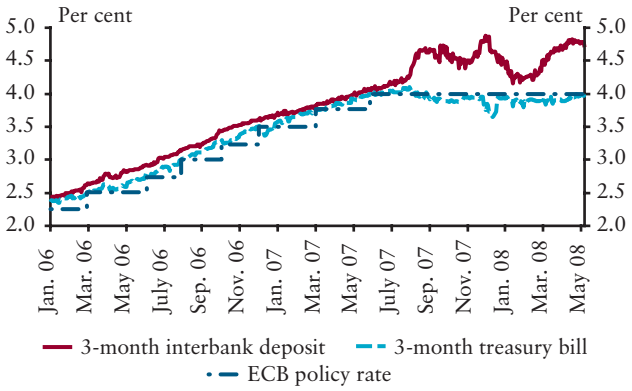
The Fed funds target rate, the 3-month USD inter-bank and government bond yields



The outlook for growth in Europe remains much more favourable than growth prospects overseas; but the slowdown due to tightening credit conditions and the euro appreciating close to historical highs has been more conspicuous over the past few months. Although the European Central Bank has also revised its growth projection downwards, the central bank's communication, which consistently stresses inflation risks, put an end to expectations of further rate cuts. The market now expects tightening to be a more likely scenario before the end of the year. It was the first time that, in their joint communication, the G7 countries warned of extreme foreign exchange rate volatility. In response, certain market participants anticipated a joint foreign exchange market intervention by the Fed and the ECB, which did not occur.

Chart 2-3

The ECB's base rate, the 3-month EUR inter-bank and government bond yields



While the central banks of advanced economies ponder the relative risks of the economic downturn in the wake of the credit crisis, and inflation fuelled by high food and oil prices, their counterparts in the emerging countries are also facing the problem of a rise in expected risk premium. As a consequence, the majority of the central banks in emerging economies tightened their monetary policies along with the simultaneous rise in commodity and food prices, and risk premia.

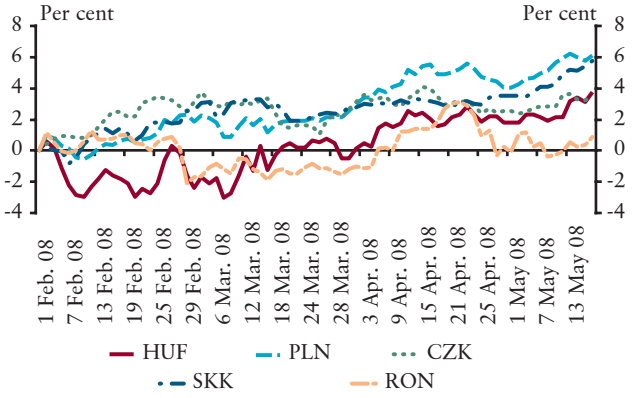
This process was also observed in the CEE region. The policy rate was increased by 25 basis points in Poland in February and March, and markets have priced in further monetary tightening. A 25 basis point tightening occurred in the Czech Republic in February, with the base rate now at 3.75 per cent. Although this is a peak for many years, the Czech Republic is the only country in the EU where the key policy rate is below that of the ECB. In Slovakia, the central bank left the base rate unchanged. According to expectations, the country will be approved for Eurozone membership by ECOFIN, after the positive assessment of the European Commission.

In February and early March, when global sentiment was subdued, most high yield currencies showed weakening. The Icelandic króna suffered the heaviest blow, depreciating by 25 per cent since the beginning of the year. Despite this, the national currencies of most countries in the CEE region appreciated, with the exception of the forint, which, before mid-March, moved in closer conjunction with the Turkish lira and, to a lesser extent, with the South African rand and the Brazilian real. The forint's detachment from the regional currencies is likely to have been due, in part, to the fact that S&P changed the rating outlook for Slovakia and Poland to positive, Fitch upgraded the Czech Republic, whereas S&P changed its outlook for Hungary's sovereign debt to negative. One promising development is that the Hungarian currency has been moving more closely together with the currencies in the region, in particular with the zloty, since the end of March.

Chart 2-4

Exchange rates of currencies in the region

*(1 February 2008= 0)**



** Positive values denote appreciation against the euro.*

Deterioration in the risk assessment of emerging markets and the decline in investors' risk appetite were reflected in a sharp increase in credit default swap (CDS) prices before mid-March. The prices of these derivatives, which provide coverage against default on sovereign bonds of a given country, rose more sharply in Hungary than in any other country in the region, and exceeding the CDS spreads of Mexico and Russia, reached those of Bulgaria, Brazil and Estonia. Since mid-March, simultaneously with improvement in global sentiment, CDS prices have fallen significantly, the Hungarian spread continues to move in tandem with those of Brazil and Estonia.

Chart 2-5

Developments in CDS premia in some emerging countries

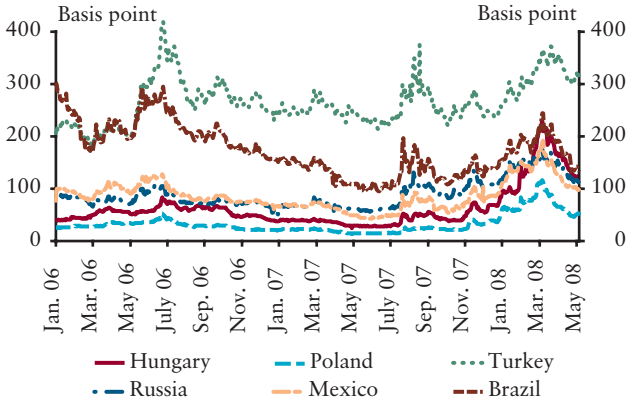
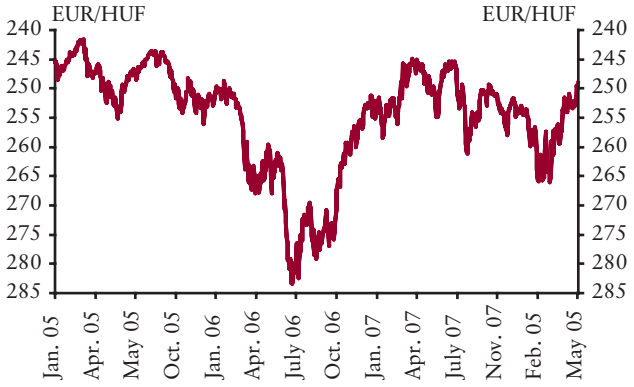


Chart 2-6

Changes in the EUR/HUF exchange rate



The MNB and the Hungarian government decided to abolish the EUR/HUF exchange rate fluctuation band effective as of 26 February 2008. Markets responded favourably to the announcement, the forint appreciated. As the exchange rate was well within the band at the time of the decision, analysts' expectations have remained fundamentally unchanged. For the time being, surveys on analysts' expectations do not point to exchange rates that are outside the former band, and, after the turbulence in early March, options-implied volatility has also returned to levels prior to the abandonment of the fluctuation band.

A few days after the announcement about the exchange rate band, together with a marked rise in government bond yields, the forint suffered a substantial weakening. However, relative to the rise in interest rates along the yield curve, the depreciation of the forint was only moderate. Since mid-March, the forint has strengthened again by a robust 5 per cent. This trend was only temporarily halted by news of the crisis of the government coalition.

There are several underlying reasons for the stability of the exchange rate of the forint, labelled as surprising by many, over the past two months. In all likelihood, a recent marked rise in yields of forint-denominated assets has not only made holding HUF instruments attractive, but also increased the costs of taking up speculative positions against the forint. As a result, investors who had previously opened such speculative short HUF positions, may have decided to close their positions, given the stability of the exchange rate. This view is supported by the observed increase in non-residents' open positions in HUF, and a decrease in their FX swap holdings over the past two months.

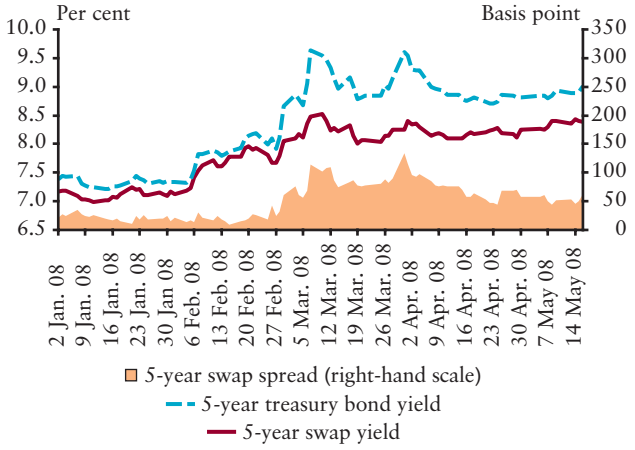
As for events on domestic financial markets over the past few months, the most important developments have been the increase in government securities yields, and the subsequent decline in the liquidity of the government securities market. Government bond yields had been increasing at a steady pace for some months when, in late February, unusual turbulence emerged in the bond market, resulting in a fast rise in yields and a temporary drying up of market liquidity. The increase in interest rate swap (IRS) yields was more modest, which led to an unusual widening of swap spreads. As a result, an increasingly high amount of (unrealised) losses were incurred on bonds accumulated by primary dealers over the previous months, which were hedged by swap deals. Having reached a certain level of losses, some participants had to close their positions, which, in turn, led to further increases in bond yields across the curve, further widening in swap spreads and even scarcer liquidity.

There were several reasons underlying this disorderly market situation, which mutually reinforced one another. Non-residents could not encumber their balance sheets with Hungarian government securities despite the high yields, whereas the lack of demand by domestic pension funds was mostly due to their legal obligation to rearrange their portfolios towards equity holdings. The pressure eased with a new issuance scheme of ÁKK (the Government Debt Management Agency), which replaced a part of long maturity issuances with shorter-term debt, thereby decreasing the supply of longer maturity bonds. From mid-March yields started to fall significantly, except for one transient instance of increase in response to news of the possible break-up of the coalition government in late March; even so, they were well above pre-February levels. Although there has been a marked reduction in swap spreads as well, yields on government securities continue to exceed inter-bank market yields (BUBOR, FRA, IRS), thus we believe that even shorter-term government securities contain some liquidity premium and, therefore, are likely to give an upwardly biased estimate of the expectations for the key policy rate. According to our market information, liquidity in the bond market is still below pre-turbulence levels.

Chart 2-7

Trends in swap spreads since early 2008

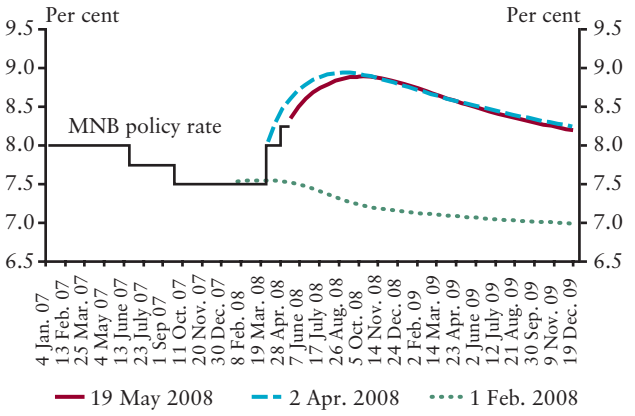
(government bond yields – swap yields)



The MNB left its key policy rate unchanged in February; while in March and April, it was raised by 50 and 25 basis points, respectively. The central bank measures, the increase in the risk premium and the deterioration in the perception of inflation process resulted in a marked shift in the expected future trajectory of the policy rate.

Chart 2-8

MNB base rate expectations



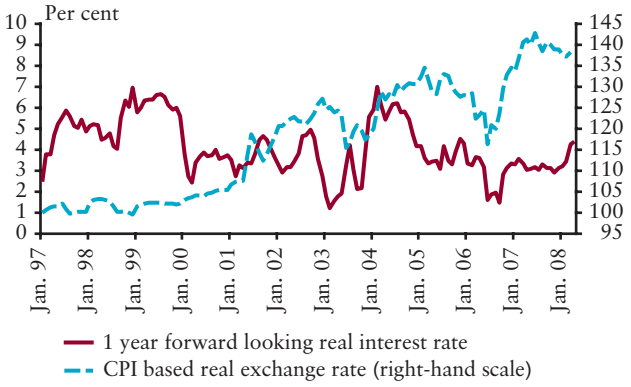
Note: Estimated by the MNB from interbank money market interest rates, using the spline technique.

Short-term inter-bank yields have risen sharply since February. While in early February the market expected a fundamentally declining interest rate path, the current yield curve suggests further monetary tightening for 2008. This is also corroborated by surveys of market analysts. The surveys also reveal that, although there is a general consensus that the tightening cycle will continue over the short term, expectations on the policy rate by the end of the year are rather diverse, and some analysts are already convinced that the central bank will cut the policy rate in the second half of the year already.

In regard to monetary conditions, the real exchange rate has changed only slightly since our last Report, there was a slight real appreciation, as the nominal exchange rate of the forint strengthened and inflation was also higher in Hungary than in the euro area, although the latter was exceptionally high in March. The real interest rate rose to close to 4 per cent, the historical average, as the rise in the forward-looking 1-year interest rate exceeded the increase in the inflation expected for the next 1-year period.

Chart 2-9

Changes in monetary conditions



3 Inflation and real economic prospects

3.1 Baseline scenario

We adjusted our inflation forecast described in the February *Report* upward, and thus inflation is expected to remain above the mid-term target within the time horizon relevant for the monetary policy (5–8 quarters). At the same time, if our basic assumptions hold, over the longer run inflation may sink to 3 per cent. With respect to consumer prices, we can see upward risks because of a world economic environment which may be potentially more unfavourable than assumed in the baseline scenario, and more retrospective inflation expectations.[20]

Our basic view regarding real economic prospects has remained largely the same: we still forecast a slow improvement in growth, which is characterised by a shift in the growth structure towards domestic components. Certain factors, however, point to a slightly higher baseline scenario than before. Over the short term, stronger-than-expected agricultural production activity and a modest adjustment of government services, which is anticipated on the basis of the initial indicators of the year, should cause somewhat more robust growth than in the February *Report*.[21] In the longer run, we anticipate higher real wages and household consumption growth, partly because of slower corporate wage adjustments, and partly because of the 2009 higher rise in public real wages compared to February. While the rate of economic growth is predicted to accelerate, on the whole, the output gap over the entire time horizon will be negative. Despite the quantitatively slightly more favourable baseline scenario, downward risks have strengthened due to the world economic environment, which may be more unfavourable than previously expected.

As the wage minimum for skilled workers increased at the beginning of the year, we expect a slower wage-adjustment compared to the second half of last year. Higher wages will deteriorate the companies' profits, and would force them to more drastic price increases and employment cuts than anticipated. Combined with higher wage dynamics, rising oil prices and agricultural commodity prices as well as growing imported inflation have contributed to a slower-than-expected disinflation process, while the negative output gap works against the spreading of cost shocks.

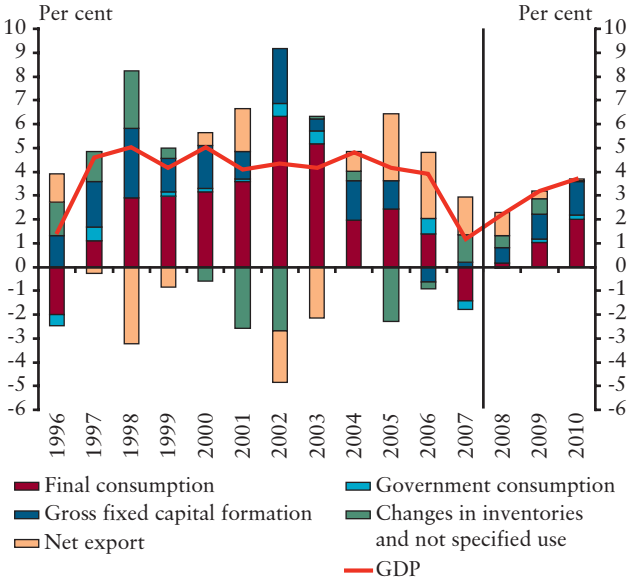
Slowly recovering economy

The driving force behind economic growth in 2007 was net export, which represented a major part of GDP growth. Over the forecast horizon, however, a gradual shift is anticipated towards domestic demand components, while net export contribution to growth will continuously shrink. Sagging international economic activity will lead to a decline in Hungarian export dynamics which, in turn, will result in weaker net export. In addition, the gradually improving domestic demand will result in growing import.

In terms of domestic demand components, we anticipate a slow recovery in consumption and investment during the periods ahead, and, with the deceleration of the rate of fiscal adjustment, government sector services are expected to decline less and to grow moderately after that. Higher wage dynamics than expected in February increase the real income of households even despite the more drastic employment cuts and price increases of companies, which is reflected by more intense consumption growth. Nevertheless, on the whole we

Chart 3-1

GDP growth and contributions



[20] The projections were pepared on the basis of infromation available up to 17:00, the 16th of May.

[21] In this conclusion, we took into account the fact that the volume indicators calculated by the OEP (National Health Insurance Fund) for health care services showed some adjustment in the first quarter. In addition, considering the expenditure side of government services the abolition of the medical visit fee and the tuition fee will increase the output of the government sector.

still believe that households will spend only a part of their increased real income on excess consumption, and thus their willingness to save will increase. Due to decreasing employment, the uncertainty of anticipated earnings will rise and household loan margins are expected to increase gradually.

Box 3-1: Output gap and potential growth in Hungary – our current results

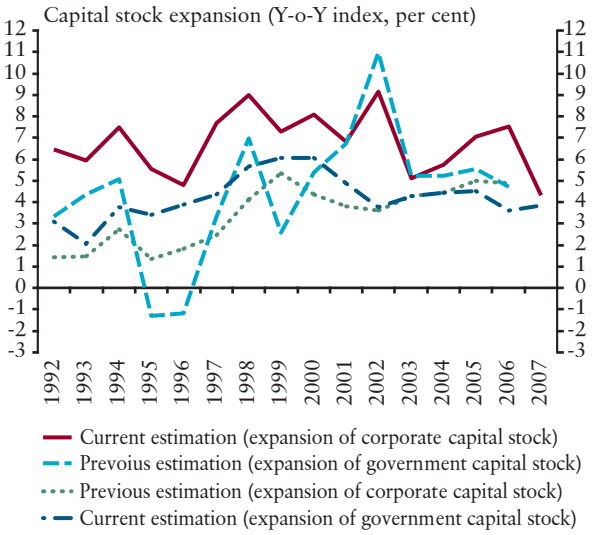
Between 2001 and 2006, the Hungarian economy experienced a growth in excess of 4 per cent on an average basis, but by the end of this period, the government had accumulated an unsustainable amount of fiscal deficit. In view of the relative stability of past economic growth, our previous estimation did not indicate a significant positive output gap for this period. Thus, the question arises as to what extent our previous estimations have been accurate, as the unsustainable budgetary and external balance should indicate, from an economic point of view, that the capacity utilisation of the economy is too high, and the output gap is positive.[22] This suspicion has been confirmed by other factors. On the one hand, adverse structural changes (constant labour market interventions, increasing marginal tax burdens) in the past few years in the Hungarian economy may, theoretically, have decelerated the sustainable, potential growth rate of the economy. On the other hand, last year we observed a significantly stronger deceleration of the economic growth than we expected, which, again, may be an indication that in the adjustment position the magnitude of factors retracting to the trend of growth (such as excess demand in the labour and goods markets), thus the output gap, was smaller than we had earlier thought.

The purpose of our current analysis is to quantify this, for which reason we have updated all of our methods we use for potential output estimations.[23] This primarily resulted in the re-estimation of parameters for time series methods. Moreover, for the production function-based assessment approach, we reviewed all previous and current information available on the level of production variables. As a result, we have arrived at a somewhat different conclusion regarding our view of the capital stock.

According to our previous practice, the level of capital stock was calculated on the basis of the further deduction of a capital estimation described in a previous MNB Background Study,[24] however, the time series used for that calculation were only available up to 2002. During the re-estimation process of potential GDP, we re-estimated the capital stock for the corporate and government sectors on the basis of the gross fixed capital formation data obtained from the CSO in more details and covering a longer period of time. The re-estimation of capital stock resulted in a more accurate sectoral (corporate or government) and asset type breakdown (investments in machinery or building). Our results are summarised on the chart below.

Chart 3-2

Comparison of the capital expansion figures of our new and previous capital stock estimation



Our new estimation shows several differences compared to our previous results: on the one hand, our current result indicates that before 2000, capital stock expansion was faster than we assumed earlier, both for the government and the corporate sectors. On the other hand, from 2003 onward, capital accumulation was more intensive in the government sector; and from 2005 the accumulation of corporate capital stocks decelerated even more drastically than observed earlier. As a result of these impacts, several significant conclusions can be drawn from our new capital stock estimation with regard to potential GDP growth: on the one hand, up to 2001, capital expansion contributed to economic growth to a greater extent than assumed earlier; on the other hand, from 2001 onward government investment had a significantly stronger impact on capital expansion than the growth of production investments in the corporate sector.

[22] The GDP effect of fiscal expansion is analysed in Hornok-Kiss-Jakab (2008) "Fiscal Expansion and Macroeconomic Processes", MNB Bulletin, April.

[23] For further details see Szilárd Benk–Zoltán M. Jakab–Gábor Vadas: Potential Output Estimations for Hungary: a Survey of Different Approaches (MNB Background Studies, 2005).

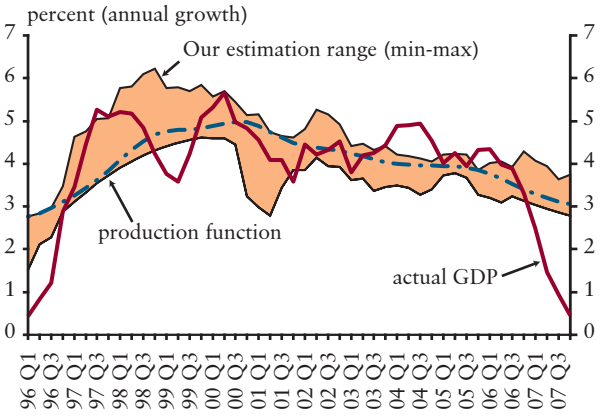
[24] For further details on capital stock estimation, see Gábor Pula: Capital Stock Estimation in Hungary with the PIM Method: A Brief Description of Methodology and Results (MNB Working Papers, 2003).

In view of our new results and based on our additional methods, the potential growth rate of the economy significantly has decelerated in the last few years.[25] As opposed to the 4 per cent potential growth that was observed, and had been estimated by us also, for the first few years following the year 2000, all of our current methods indicated, that in 2007 the potential growth was definitely below 4 per cent, and in fact, based on the consensus it should have been around 3 per cent. It is important to note, that economic growth from 2004 onward has gradually exceeded its potential growth rate, i.e. the output gap turned positive, and the expansive fiscal policy prevailing at the time probably had a decisive impact on this process. The balance improving measures of the previous year combined with additional, one-off effects, considerably slowed down the growth of GDP during 2007, thus the previously positive output gap turned negative, which, on the demand side, limited the possibility of reflecting the increased costs of the previous year in the prices (the size of the output gap is shown on Chart 3–3).

In view of our current projection, Hungarian economic growth will be smaller than its potential rate this year, and an initial narrowing of the output gap cannot be anticipated until 2009, which is expected to still remain negative over our entire forecast horizon. At the same time, our analysis draws attention to the fact that the stalling of Hungarian economic growth in the past few years was influenced not only by demand side factors (balance improving fiscal arrangements), but also by issues related to the deceleration of the longer-term growth trend.

Chart 3-3

Growth of actual and potential GDP in Hungary



As a consequence of the more unfavourable international economic outlook, increasing corporate loan margins, and the more unfavourable corporate profitability than in February, our view of corporate investment has grown more pessimistic. This view is reinforced by the stagnating level of sectoral confidence indicators (industry, services, trade, construction) too.

On the whole, however, we still expect a gradual recovery in corporate investment over the entire forecast horizon, resulting from the combined effect of acceleration in sectors producing for the domestic market and in the real estate sector, and of deceleration in export sector activities. Growing EU funds may also contribute to the recovery in investment, but the extent to which they generate unplanned, extra investment remains to be seen.

In 2008, a slow recovery is expected in investment related to the government, primarily due to infrastructure-type investment financed by European Union funds. However, with regard to sectors considered strictly government-related (administration, education, health care) we project stagnation for 2008. Overall, investments related to the government, primarily construction-type investments have a more negative outlook for 2008 than expected earlier. This is confirmed by poor confidence indicators and by the still declining stock of orders in the construction. At the same time, however, government-related gross fixed capital formation may be more extensive in 2009, due to more efficient utilisation of European Union funds.

In 2007, social benefits dropped considerably. The drop was caused by a change in statistical methodology on the one hand (input side accounting replaced by output side accounting), and by the fiscal adjustment on the other hand. In 2008, the decline in social benefits is expected to be much less steep. The change of methodology will not affect the data, and the abolition of medical visit fees and hospital per diem fees may result in a growing volume of public health care services.

Companies may counterbalance the slower deceleration of wage increases by lower employment and higher price increases

In view of the anticipated macro-economic processes, the adjustment process on the labour market has a major impact on both inflation and growth prospects. In all of our

[25] With regard to our results it is important to note that nearly all the methods we use include, in some form, trend filtering procedures. The uncertainty of these procedures have a particularly significant effect on the end points of the time series. In order to mitigate this risk we extended the time series (e.g. by using projections); however, the evaluation of 2007 data might still be subject to a potential revision.

projections published since the announcement of the fiscal austerity measures, we have consistently anticipated that the companies would attempt to compensate their deteriorating profits by stricter behaviour regarding wages. We could in fact see the first signs of this last year, through decelerating bonus payments. However, data for the first few months of this year appear to support a somewhat different adjustment mechanism than previously expected, in which employment cuts play a more significant role, while the increase in wages can be still considered strong and presumably even accelerating, due to the minimum wage increases.

The wage behaviour and labour market activity of the private sector continue to be influenced by pressure to improve the significantly deteriorated profit levels of last year, slowly recovering domestic economic activity, drastically increasing commodity and energy costs, and administrative measures related to tax increases and the increase in the minimum wage for skilled workers. Obviously, the priority of these factors is different for each sector.

Despite the international financial turbulences, productivity growth in the manufacturing industry remained dynamic in the first few months of the year. Even though the initial data of the year appear favourable, in view of the slackening European economy, since mid-2008, we expect decelerating performance for the sector, which may result in more drastic labour market adjustments from 2009. Decelerating disinflation is anticipated to result in a slow decline in wage inflation over the entire forecast horizon, but for manufacturing companies this will be in line with the productivity developments throughout the period, thus significant inflation pressure will probably not be generated by this sector.

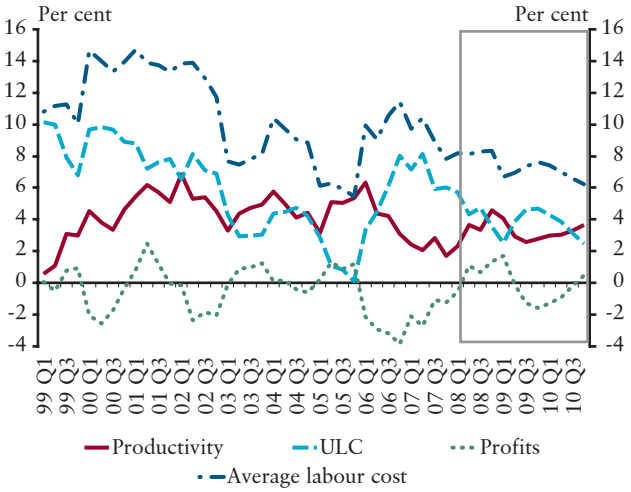
The beginning of the year witnessed a dynamic outflow of wages in the service sector. The changes to the minimum wage had a stronger-than-expected wage-increasing impact which, combined with the slower disinflation process, resulted in slower wage adjustments at the companies in the sector throughout the entire year, to be counterbalanced with higher prices and employment cuts. From 2009 on, we forecast more dynamic growth in domestic demand, leading to improved profitability of service providers. In addition to improving profitability prospects employment figures may increase, while the decline of wages may continue at a slower rate than previously expected.

Based on the magnitude of changes, labour market developments taking place last year in a few less prominent sectors (e.g. agriculture, construction) had a significant impact on our view regarding the entire private sector. After

Chart 3-4

Components of unit labour costs and profits realised on labour in the private sector

(annual index)



construction and agricultural production bottomed out in 2007, looking ahead over our forecast horizon we anticipate a gradual recovery for both these sectors, which will be characterised by a reversal in the decline in workforce numbers, and by more dynamic wage increases.

On the whole, we anticipate larger wage increases for the private sector than we had forecasted earlier. This is largely due to the minimum wage increases at the beginnig of the year, but the more adverse inflation environment also contributes. The declining of employment in the sectors producing for the domestic market can continue this year, although we expect significant employment cut in the manufacturing industry only in the next years.

This year the government sector may see an end in the employment reduction which has rised since 2006, and we do not anticipate further employee cuts from 2009 onward. However one new aspect compared with our projection in February is that we expect a 3 percentage point higher wage dynamic in 2009 regarding the average wage in the government sector.

Slower disinflation

If our basic assumptions prove to be correct, over the time horizon of the 5-8 quarters relevant for monetary policy, inflation may remain above 3 per cent, the mid-term target of the central bank. On the longer run, however, the consumer price index may sink to the target level, and reach 6.3 per cent, 4.2 per cent and 3.0 per cent in 2008, 2009 and 2010, respectively, according to our basic projection.

Table 3-1

Baseline scenario of the inflation forecast

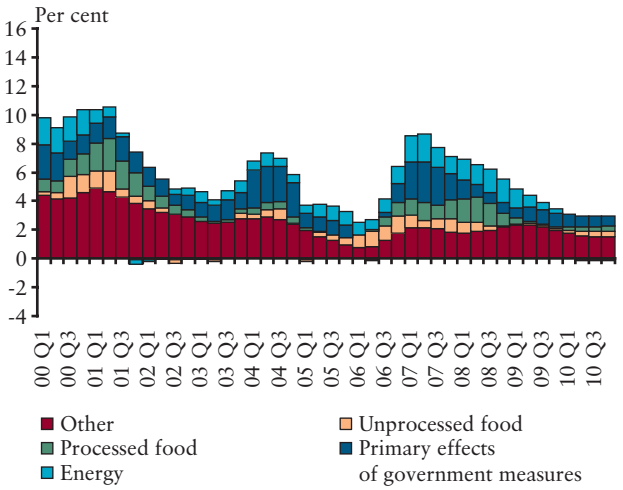
	Weight	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
Unprocessed food	5.8	13.8	11.2	6.0	0.8	0.9	1.4	2.1	2.9	4.2	5.6	6.3	6.3
Vehicle fuel	7.1	14.8	12.7	11.3	6.3	2.3	-1.1	-1.9	–0.6	-1.0	-1.0	-0.8	-0.7
Regulated prices	21.1	6.9	7.0	8.1	9.6	9.2	8.6	7.3	5.5	4.0	3.3	3.2	3.1
Core inflation	66.0	5.6	5.3	5.1	4.5	4.1	4.0	3.6	3.3	3.1	3.0	3.0	3.0
Consumer price index	100	6.9	6.6	6.2	5.5	4.8	4.4	3.9	3.4	3.1	2.9	2.9	2.9

In the baseline scenario, the main determining factors of the disinflation process have remained the same. On the one hand, inflation pressure will decline if our assumption regarding international commodity prices proves to be correct, i.e. increases in oil prices come to a halt and a slight adjustment takes place for foods during the second half of 2008 as well. On the other hand, the output gap is negative for the entire forecast horizon, which may force more moderate wage dynamics and more subdued price increases compared to costs.

Since forward commodity prices have proved to be very inaccurate forecast indicators in the last period, we attribute greater significance to the relevance of the risk paths than we did in our projections in the past few years, which reflect the vulnerability of the disinflation process.

Chart 3-5

Contribution of certain product groups to the rise in the consumer price index



Box 3-2: Our assumptions

In keeping with our long-established forecasting practice, we have prepared a conditional prognosis. For our basic assumptions we applied a fixed monthly average EUR/HUF and EUR/USD exchange rate, central bank base rate and long-term yields for April, and considered the average oil forward price path for April.

The base rate exceeds by 75 basis points, the EUR/HUF exchange rate is slightly stronger than the one used in the last quarter. The current oil price path in US dollars is around 20 per cent higher than indicated by our February assumption. The higher oil price path increases fuel prices, producer and market energy prices, and may result in increased regulated energy prices.

Based on the current data, futures prices and the projections of international institutions, we expect that agricultural commodity prices will increase faster than earlier. In line with this, however, we continue to assume a sharp adjustment in the baseline scenario in the second half of 2008. We considered the potential continuation of the commodity price increases observed in the last period as a risk scenario.

Chart 3-6

Changes in our agricultural producer price forecast

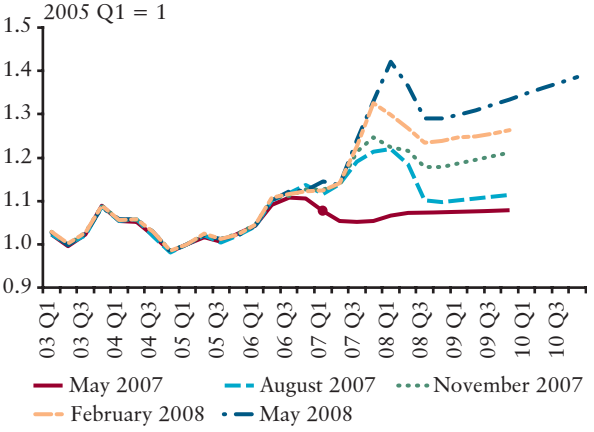


Table 3-2

Changes in our basic assumptions compared to February*

	February 2008			Current		
	2008	2009	2010	2008	2009	2010
Central bank base rate (per cent)**	7.5	7.5	-	8.25	8.25	8.25
HUF/EUR	256.0	256.0	-	255.2	253.8	253.8
USD/EUR (cent)	147.0	147.0	-	155.7	157.6	157.6
Brent oil price (USD/barrel)	90.9	88.3	-	106.4	106.3	103.8
Brent oil price (HUF/barrel)	15,819.0	15,368.0	-	17,414.5	17,112.8	16,721.6

** Annual averages, based on the monthly average exchange rate in April 2008 and the crude oil futures price.*

*** End-of-year values.*

On the one hand the slower disinflation shown in the baseline scenario is due to a higher projection of imported inflation compared to the last Report. Here the increase of oil price path has the highest impact, which rises the producer costs, fuel prices and regulated prices as well. In addition the slower deceleration in wage dynamics compared to February increased our inflation forecast too.

Table 3-3

Changes in the inflation forecast

	Changes since February	
	2008	2009
Labour market (unit laour cost)	0.2	0.4
Imported inflation*	0.5	0.3
Regulated prices	0.0	0.4
Other**	-0.3	-0.5
Total	0.4	0.6

** Energy related factors (fuel, producer and market energy), agricultural producer prices, other import prices.*

*** Methodological factors (abolition of medical visit fee and tuition fee, revision of cost factors data).*

Table 3-4

Changes in our projections compared to February 2008

	2007	2008		2009		2010	
	Actual	Projection					
		February	**Current**	February	**Current**	February	**Current**
Inflation (annual average)							
Core inflation[1]	6.0	5.2	**5.1**	3.6	**3.7**	x	**3.0**
Consumer price index	8.0	5.9	**6.3**	3.6	**4.2**	x	**3.0**
Economic growth							
External demand (GDP-based)**	3.8	2.5	**2.5**	2.5	**2.3**	x	**2.3**
Impact of fiscal demand[2]	-3.6	x	**-1.5**	x	**-0.1**	x	**-0.8**
Household consumption	-2.1	0.0	**0.3**	1.3	**1.6**	x	**3.1**
Memo: Household consumption expenditure	*-0.3*	*x*	***0.6***	*x*	***1.8***	*x*	***3.1***
Fixed capital formation	1.0	3.5	**3.2**	5.1	**5.1**	x	**6.8**
Domestic absorption	*-0.2*	*0.8*	***1.3***	*2.7*	***2.9***	*x*	***3.8***
Export	14.1	10.5	**10.8**	9.6	**9.4**	x	**10.6**
Import[3,*]	12.2	9.4	**9.8**	9.5	**9.3**	x	**11.0**
GDP***	1.3	2.0 (2.2)	**2.2 (2.4)**	3.0 (2.8)	**3.2 (3.0)**	x	**3.7**
Current account deficit[3,*]							
As a percentage of GDP	5.0	x	**4.9**	x	**4.8**	x	**4.8**
EUR billions	5.1	x	**5.3**	x	**5.5**	x	**6.0**
External financing requirement[3,*]							
As a percentage of GDP	4.0	x	**3.4**	x	**2.8**	x	**2.5**
Labour market							
Whole-economy gross average earnings[4]	8.0	6.8	**8.8**	5.2	**6.5**	x	**6.7**
Whole-economy employment[5]	-0.1	-0.6	**-1.4**	-0.4	**0.1**	x	**0.4**
Private sector gross average earnings[6]	9.1 (8.2)	7.8 (7.1)	**9.0 (8.2)**	6.8	**7.2**	x	**6.8**
Private sector employment[5]	1.2	-0.6	**-1.1**	-0.6	**0.0**	x	**0.5**
Private sector unit labour cost[5,7]	8.1	3.4	**4.2**	2.7	**3.9**	x	**3.5**
Household real income	-3.3	1.3	**1.5**	1.7	**2.4**	x	**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 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, including the whitening effect. The numbers in brackets refer to wages excluding the effects of whitening and the changed seasonality of bonuses.*

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

* *Actual data for 2007 includes the impact of the Gripen purchase, which deteriorates the current account deficit and increases public consumption and imports.*

** *MNB estimate.*

*** *The numbers in brackets refer to GDP growth not adjusted with calendar-day effect.*

3.2 Uncertainty of our forecast and risks surrounding the baseline scenario

Our baseline projections describe the most probable outcome on the basis of our basic assumptions and the current information available to us. Obviously, various unforeseen events may affect the economy, and we are also uncertain about the macro-economic impacts of potential shocks. Of the several alternative scenarios, in our analysis we pay special attention to those which pose the highest risk to the successful outcome of monetary policy. We highlighted three risks in our current forecast. First, we believe it is possible that world economic developments, and commodity and food prices will prove to be even more unfavourable than we can foresee. This would certainly have an adverse impact on the Hungarian economy which is particularly vulnerable to changes in the external environment. Second, even if the adverse effects from the world economy do not deteriorate any further, the temporarily unfavourable period may not pass without consequences. Therefore, we are still highly concerned that the inflation expectations in the baseline scenario are more dependent on the high inflation levels observed in the past than we had thought. Third, we should note our uncertainty pertaining to the impact of the output gap. The inflation-moderating effect of slowly growing domestic demand will play an important role in the expected decline of the currently high inflation. As we have no experiences of the strength and size of this impact, we are fairly uncertain about the outcome.

Box 3-3: Use of risk paths in international practice

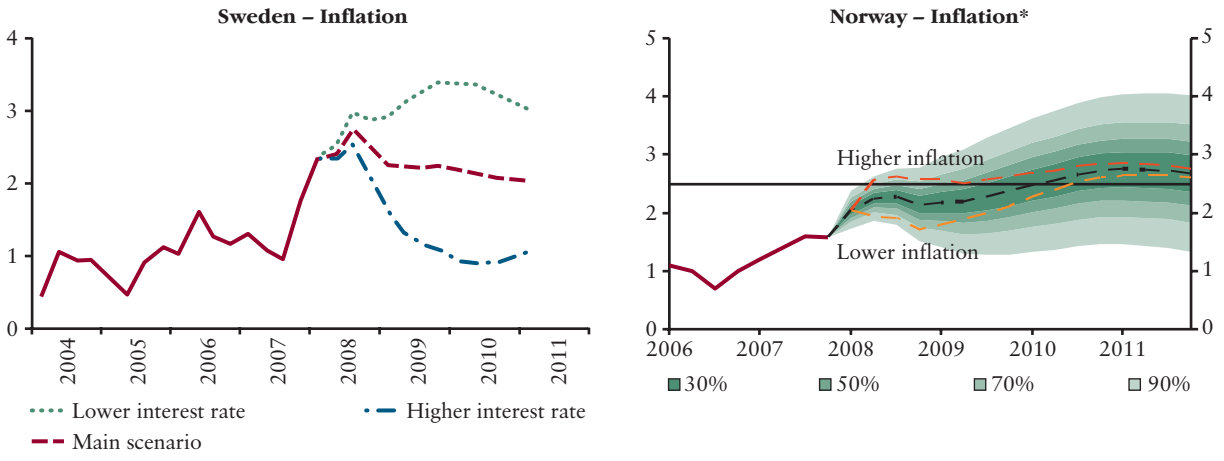
While fan charts are primarily used to illustrate the general uncertainty surrounding the projection, the charting of alternative paths is one of the most frequently used methods to display risks with a direct impact on decision making. This is a very useful tool for examining the way the projected baseline scenario will change for the specific period if the most probable assumptions do not prevail.

Besides paying special attention to the indication of risks, some central banks tracking inflation targets even prepare alternative risk scenarios for their risk evaluation. In international practice, one group prepares different risk scenarios in addition to their baseline scenario, while other countries publish data only.

An example to the latter is the central bank of Slovenia, whose report quantifies alternative paths, but does not illustrate them. It describes 7 scenarios altogether (e.g. increased oil prices, increased wages, increased regulated prices), each of which analyses the upside risks. The Czech central bank and Scandinavian central banks are among the

Chart 3-7

Sample alternative paths



** CPI-ATE in the baseline scenario and in the alternatives with higher and lower inflation. 4-quarter change. Per cent. Quarterly figures. (CPI-ATE: CPI adjusted for tax changes and excluding energy products.)*

Source: Swedish and Norwegian inflation reports, from February and March, respectively.

group of banks whose report contains a separate chart displaying alternative scenarios in addition to the baseline. The Norwegian central bank displays two alternative paths within the interest rate, output gap and filtered CPI fan charts. Iceland also indicates two alternative scenarios, which are further detailed in a 3-page box.

The most complex analysis of this kind is prepared by the Swedish central bank, which indicates two different kinds of risks paths. The first analyses the impact of potentially different monetary policies through the modelling of a higher and a lower interest path, while the second is based on different economic conditions (e.g. higher external inflation, higher oil prices, higher wage increases). In a separate section, they emphasise that the alternative risk paths which are based on higher inflation do not necessarily mean that higher inflation has higher risks; their entire inflation image is harmonious. They also stress that their results are illustrations only, and several other alternative paths are conceivable.

Uncertainty and risks surrounding the inflation baseline scenario

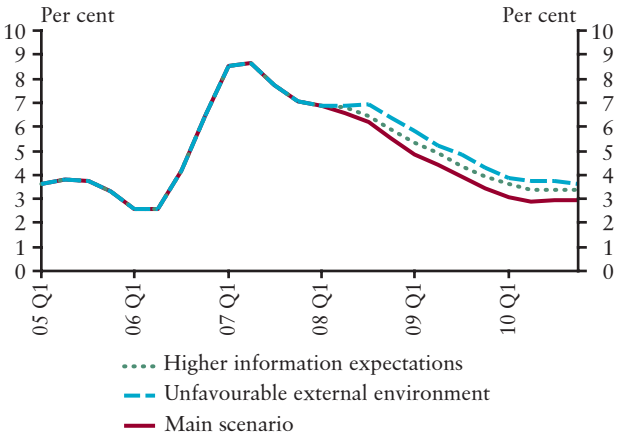
The world economic environment has a substantial impact on the inflation processes in Hungary. If oil prices increase at the pace observed in the last few years, and there is no adjustment to the food prices in the second half of the year, these increases will pass through into domestic prices. To illustrate the extent of the uncertainty surrounding this issue we note that even the experts of international institutions have yet to come to a uniform consensus regarding as much as the expected direction of future price changes. We believe, and our projections indicate, that the most likely scenario is deceleration in price increases, but in our risk scenario we have illustrated the potential outcome of such a scenario where this adverse tendency does not come to a halt but continues.[26]

With respect to inflation developments we are strongly concerned that recent price increases may lead to persistently higher inflation expectations. If employees are not confident that the inflation will decline to a level in line with price stability, their wage demands will be based on the higher inflation level observed. In this case, the nominal wage path may deviate from the productivity growth, which may pressure companies into accelerated price increases.

In previous Reports, we have emphasised our doubts regarding the output gap, indicating that the potential outcome of the demand-reducing fiscal measures was still shrouded by a considerable amount of uncertainty. It is hard to estimate the extent to which corporate price formation will be influenced by shrinking demand. Some signs also indicate that the lower GDP path may be partly explained by long-term factors on the supply side. In turn, the more subdued dynamics of potential output mitigate the disinflation effect. In this round we have reviewed our measurements and projections for potential GDP (see the relevant box), and we now believe that the inflation consequences of lower growth are surrounded by symmetrical risks which, however, renders our projection more uncertain.

Chart 3-8

Inflation baseline scenario and risk paths



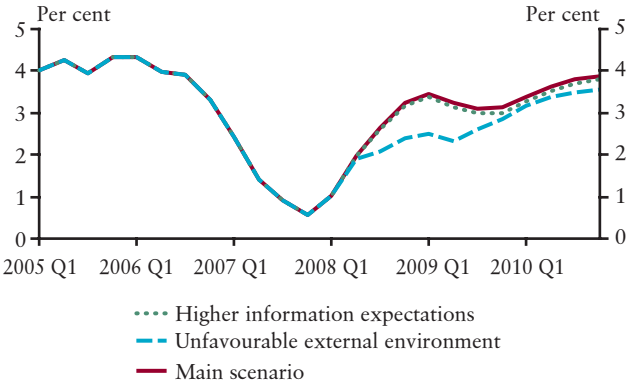
Uncertainty and risks surrounding the baseline scenario of our growth forecast

Changes in the external demand represent a major source of uncertainty regarding growth. The crisis originating in the US mortgage market has amplified concerns related to mid-term economic growth in Europe and the USA. It was published as an alternative scenario that the financial assets devalued by the re-priced risks may lead to smaller global demand through their impact on wealth. At this time, we still consider this risk scenario the most relevant with regard to Hungary's growth prospects, and we believe this path may result in a lower GDP level than indicated in the baseline scenario.

[26] This view is shared by the European Central Bank (ECB Monthly Bulletin 04/2008), the International Monetary Fund (IMF April WEO), and the European Commission (EC spring forecast).

Chart 3-9

Growth baseline scenario and risk paths

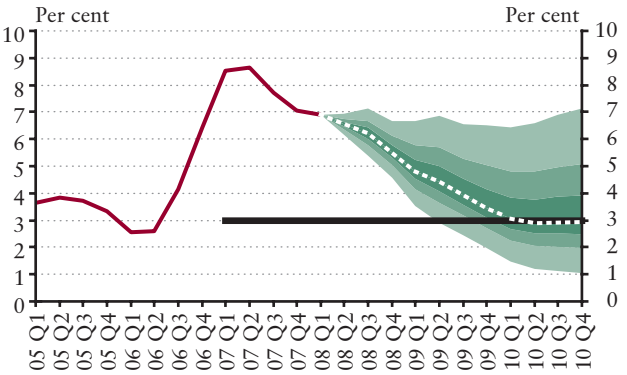


Inflation and growth forecast fan chart

On the whole, our inflation forecast is apparently jeopardised by significant upward risks, which means that actual price increases will more likely exceed our expectations, rather than fall short of them. In terms of our growth projections, we perceive some downward risk, primarily due to the doubtful state of the global economic environment.

Chart 3-10

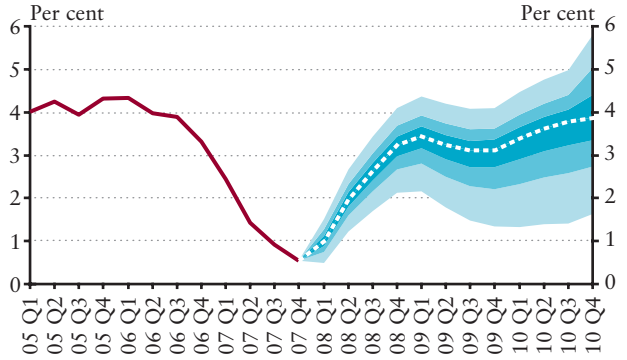
Inflation forecast fan chart*



* *The fan chart represents the uncertainty surrounding the basic forecast. The shaded areas cover a 90 per cent probability in total. The central, darkest area containing the basic forecast for the consumer price index (as the mode of distribution) indicated by the white dashed line covers 30 per cent of the probability. The continuous, horizontal line starting from 2007 indicates the announced mid-term inflation target.*

Chart 3-11

GDP fan chart*



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

Table 3-5

Bands of the inflation fan chart

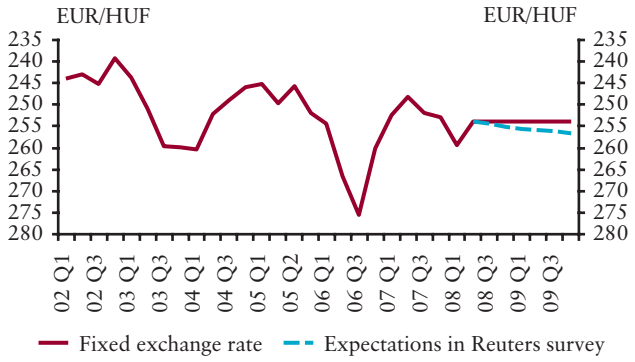
Inflation	Expected inflation with a 30 per cent probability	Expected inflation with a 60 per cent probability	Expected inflation with a 90 per cent probability
2008	6.2–6.4	6.0–6.6	5.8–6.9
2009	3.8–4.7	3.4–5.4	2.7–6.7
2010	2.6–3.9	2.1–4.9	1.2–6.8

3.3 Background information used for our forecast

In compiling this Report, as usual we studied the way our projection would change if we applied the expectations for the average exchange and interest rates, disclosed in the Reuters survey, as our basic assumption. Analysts do not envisage a significantly different exchange rate or base rate at end-2008 from what is projected in the baseline forecast. Assuming an unchanged exchange rate, they expect a 125 basis point rate cut by end-2009. These assumptions do not entail any material change in either inflation or growth projections.

Chart 3-12

Exchange rate assumptions based on Reuters survey prepared in April and fixed rate projection*



* *Inverse scale.*

Chart 3-13

Central bank base rate assumptions based on Reuters survey prepared in April and the fixed rate projection

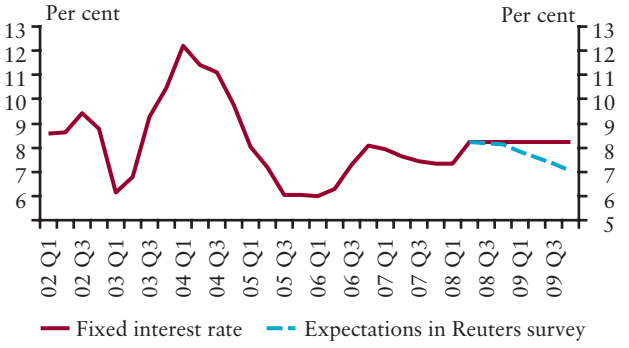


Table 3-6

MNB basic forecast compared to other forecasts

	2007	2008	2009	2010
Consumer Price Index (annual average growth rate, per cent)				
MNB (May 2008)	8.0	6.3	4.2	3.0
Consensus Economics (April 2008)[1]	–	5.1 – 6.0 – 6.8	3.2 – 3.7 – 4.2	–
OECD (December 2007)	7.8	4.7	3.4	–
European Commission (Spring 2008)	7.9	6.3	3.7	–
IMF (April 2008)	7.9	5.9	3.5	–
Reuters-survey (April 2008)[1]	–	5.7 – 6.1 – 6.6	3.1 – 3.8 – 4.2	–
GDP (annual growth rate, per cent)				
MNB (May 2008)	1.3	2.2	3.2	3.7
Consensus Economics (April 2008)[1]	–	1.5 – 2.1 – 2.7	2.5 – 3.2 – 3.6	–
OECD (December 2007)	1.8	2.6	3.8	–
European Commission (Spring 2008)	1.3	1.9	3.2	–
IMF (April 2008)	1.3	1.8	2.5	–
Reuters-survey (April 2008)[1]	–	1.7 – 2.1 – 2.7	2.5 – 3.0 – 3.5	–
Current account deficit (billion EUR/USD)				
MNB (May 2008) (EUR)[4]	5.1	5.3	5.5	6.0
Consensus Economics (April 2008)[1] (USD)	–	3.9 – 6.9 – 8.9	4.5 – 6.9 – 9.5	–
Reuters-survey (April 2008)[1] (EUR)	–	4.5 – 4.9 – 5.5	4.4 – 5.0 – 5.7	–
Current account deficit (per cent of GDP)				
MNB (May 2008)[4]	5.0	4.9	4.8	4.8
OECD (December 2007)	4.6	3.8	3.5	–
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 (April 2008)[1]	–	3.7 – 4.0 – 4.7	3.2 – 3.8 – 6.0	–
OECD (December 2007)	6.4	4.3	3.5	–
European Commission (Spring 2008)	5.5	4.0	3.6	–
Reuters-survey (April 2008)[1]	–	3.7 – 4.0 – 4.7	3.2 – 3.8 – 6.0	–
Forecasts on the size of Hungary's export markets				
MNB (May 2008)	7.8	6.4	5.9	5.9
OECD (December 2007)[2, 3]	6.3	7.3	6.8	–
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				
MNB (May 2008)	3.8	2.5	2.3	2.3
OECD (December 2007)[2, 3]	3.5	2.6	2.5	–
European Commission (Spring 2008)[2]	3.7	2.7	2.3	–
IMF (April 2008)[2]	3.7	2.3	2.0	–

The projections of the MNB are 'conditional', which means that they cannot always be directly compared with the projections of other institutions.

[1] For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the medium value), we also indicate the lowest and the highest values to illustrate the distribution of the data.

[2] Values calculated by the MNB; the projections of the institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the Bank's own external demand indices. Therefore, these figures may deviate from the figures published by the institutions.

[3] Since the OECD did not publish any data on Romania, our OECD forecast excludes Romania.

[4] Actual data for 2007 includes the impact of the Gripen purchase, which deteriorates the current account deficit and increases public consumption and imports.

Source: Eastern Europe Consensus Forecasts (Consensus Economics Inc. (London), April 2008); European Commission Economic Forecasts (spring, 2008); IMF World Economic Outlook (April 2008); Reuters survey (April 2008); OECD Economic Outlook (December 2007).

4 General government and external balance

4.1 Development of general government deficit indicators

Relative to November 2007, there has been a slight shift in our projection for the balance of the general government towards a lower deficit. The difference is due to three factors. First, a higher-than-projected wage path leads to an increase in revenues from taxes and contributions. Second, for several expenditure items,[27] in contrast with the former rule-based projections, we accept the ceilings set by the government and set forth in government resolutions, which means lower expenditures. Finally, unlike the above factors, the fact that, due to a substantial rise in the yield curve, a higher net interest expenditure to points to a higher deficit path. A lower deficit path however is achieved by higher revenue expenditure to GDP ratios.

The structure of the reduction in expenditures entails a material rise in risks to longer-term sustainability. A reduction in the GDP-proportionate expenditure would materialise mainly against the background of historically low government capital expenditure and, according to government plans, heavier reliance on EU funds. Thus, further drastic fall in capital expenditure financed by government funds can be expected. The low level and the financing scheme of capital expenditure carry serious risks shown in the fan chart of the fiscal deficit in the form of asymmetric risk distribution suggesting a higher deficit.

Our baseline projection is for a 2008 fiscal deficit amounting to approximately 3.6 per cent of GDP,[28] i.e. the deficit may actually be lower than the deficit target set in the Convergence Programme. We can no longer speak of undershooting the deficit target in 2009 or 2010: our baseline projection indicates that the deficit path outlined in the Convergence Programme can be achieved only with strict fiscal discipline and partial/complete freezing of the central equilibrium reserve. In addition, our baseline scenario is linked up with an asymmetric risk distribution suggesting a higher deficit path over the entire length of the forecast horizon, and as time passes, the likelihood of missing the target increases. Based on our projection, unless primary expenditures are reduced, there is no chance of any substantial reduction in taxes.

The overall impact of fiscal demand in a broader sense points to a reduction in the aggregate demand of the general government over the forecast horizon, i.e. fiscal policy on the demand side contributes to lower inflation. In addition to a

Table 4-1

Expected changes in fiscal deficit indicators

(as a percentage of GDP)

	Preliminary	Forecast		
	2007	2008	2009	2010
1. GFS balance	-5.4	-4.0	-3.3	-2.9
2. of which: Central balance reserve*	0.2	0.1	0.3	0.2
3. Primary balance	-1.8	0.0	0.5	0.9
4. ESA balance adjustments	-0.1	0.4	0.0	0.0
5. ESA balance → baseline forecast (1+4)	-5.5	-3.6	-3.3	-2.9
6. Central balance reserve cancelled	0.0	0.0	0.1	0.2
7. ESA balance → expected (5+6)	-5.5	-3.6	-3.2	-2.7
8. Quasi fiscal and other adjustments	-0.4	-0.9	-1.2	-0.9
9. Augmented (SNA) balance (5+8)	-5.9	-4.5	-4.4	-3.6
10. Augmented (SNA) primary balance	-2.3	-0.8	-0.6	0.1
11. Fiscal demand impact	-3.6	-1.5	-0.1	-0.8
Note				
ESA balance: Convergence programme	6.8	4.0	3.2	2.7

** Central equilibrium reserve planned by the government.*

[27] For the expenditures of budgetary units and chapters.

[28] Unless the government decides on additional expenditures in the meantime, spending extra-revenues realised compared to the Convergence Programme.

reduction in the fiscal deficit, another determining factor of future developments in the demand effect is a motorway investment implemented under a PPP scheme. The marked restriction on demand estimated to occur in 2010 is due to the fact that the majority of motorway investments will have been completed by 2010 Q2.

Based on the past 1.5 years of fiscal adjustment and our assumption, it is safe to assume that a reduction in the deficit in the first two years of adjustment was faster than the path suggested in the Convergence Programme, due mainly to higher-than-expected revenues. At the same time, government expenditure was at least partly adjusted to higher revenues. Therefore, it is true for the entire trajectory that fiscal adjustment will materialise against a backdrop of higher concentration of income and a higher level of redistribution than was planned in the Convergence Programme.[29]

From a forward-looking perspective, the strong rise in taxes and contributions, which caused earlier sharp fall in the deficit, will slow down, and the deficit will decline at a slower rate and an assumed decrease in expenditures will play an increasingly important role. In 2008, a strong reduction in one-off items may have a significant role; however, it will improve the fiscal balance less during the two years to follow. We have prepared a conditional, but only partially rule-based projection for 2009 and 2010. In our projection, we assume that real wages in the public sector will grow according to OKÉT (National Council for Public Service Interest Reconciliation) agreement; the government will meet the budget baselines it has worked out and approved and exercise tight control over other expenditures. However, given the above circumstances, expenditures are exposed to rather asymmetric upside risks, which suggests that long-term sustainability can be questioned.

2007: the first full year of adjustment – a fiscal equilibrium better than described in the Convergence Programme

In 2007, the fiscal deficit edged down to 5.5 per cent of GDP, and thus the improvement in the balance exceeded the plans in the Convergence Programme. The stronger-than-expected decrease in the deficit was due, mainly, to a larger-than-projected rise in revenues. Excess income was attributable to slower wage adjustment in the private sector and the process of 'whitening' in the case of several types of taxes, i.e. a rise in the effective tax rates.[30]

The 2007 deficit was lower (by 0.6 per cent of GDP) than our projection in the November issue of the *Report*, which was due predominantly to a robust rise in corporate taxes despite slowdown in economic growth.[31] In addition, the fact that the balance of the social security fund was more favourable than expected[32] also promoted a decrease in the deficit, and due to the decrease in purchase of goods and services, the local government deficit was also lower than projected.

As regards 2007 trends, it is important to emphasise that the general government headcount decreased faster than expected, which facilitates a reduction in wage expenditures over the longer term. Another favourable impact was the larger-than-planned reduction in expenditures on drug subsidy.

Table 4-2

Difference between the 2007 ESA balance and our November 2007 baseline projection

	Difference (percentage of GDP)
1. Profit taxes	0.2
2. Net expenditures of budgetary institutions	0.1
3. Balance of the social security funds	0.1
4. Balance of the local governments	0.1
5. GFS-ESA adjustments	0.1
6. Sum-total (1+2+3+4+5)	**0.6**

[29] Compared to the Convergence Programme elaborated in 2006, we forecast higher expenditures over the entire horizon. According to the original programme, primary expenditures would have amounted to approximately 45.5% of GDP; based on preliminary data, the GDP-proportionate level of consolidated expenditures was 1.0 basis point higher than this. Submitted to the European Commission this April, the report on the implementation of the Convergence Programme contained a similar opinion on total expenditures between 2008-2010.

[30] In 2007, in response to turning the grey economy into a legal one, income from contributions rose by approximately HUF 120 billion. A similar impact was exerted on excise duties. As we consider this process to be permanent, we took it into account in our projection for revenues from taxes and contributions.

[31] Drawing on international experience, our projection is that business profits will fall at a rate exceeding the slowdown in growth. This assumption was not corroborated by tax revenues however.

[32] Developments in social security contributions and expenditures on medical and preventive care were more favourable in the last two months of 2007 than expected.

As a result of the adjustment, intra-annual spending was smoother and thus the path of the usual intra-year cumulation of the deficit was significantly different than in previous years. At end-2007, spending by budgetary institutions and expenditure expropriations under the management of budgetary chapters (hereinafter: budgetary organisations) was lower than intended by the government. As a result, however, what is called the 'the amount of carry over' was higher than optimum, which carries risks on the expenditure side.

Expected development of revenues in 2008–2010

After a steep rise in revenues during the first eighteen months of fiscal consolidation, our projection is more moderate over the entire horizon in terms of GDP-proportionate revenues, and, due to changes in the macro-economic environment, the process may take longer than expected.

Tax revenues on consumption may be higher than estimated in November 2007, based on the macro-economic projection, steady growth in real consumption and higher inflation. However, growth in nominal consumption was lower than that in GDP at current prices, indirect tax to GDP ratio will decline from 2008. This impact may reduce GDP-proportionate tax revenues by an overall 0.5 to 0.6 percentage points between 2008 and 2010.

Compared to the projection in the November 2007 issue of the Report, wages – another major source of revenues – may grow faster over the entire time horizon.

Accordingly, revenues from contributions and income taxes may be higher than previously projected. The most recent projections for wage dynamics can be close to growth rate of nominal GDP for the three years surveyed. Thus, GDP-proportionate taxes related to wages will have decreased only to a lower extent, by approximately 0.2 percentage points, by 2010. Such a favourable position is, however, unlikely to be maintained over a longer term; as the favourable cyclical position of wage dynamics slows growth, the GDP-proportionate increase in the tax basis can be only temporary.

Higher base effect of tax revenues from businesses (corporate tax and business tax) are assumed for the entire forecast horizon. This impact alone pushed up tax revenues by close to 0.4 percentage points of GDP over the forecast horizon.

In respect of the revenues of municipalities, the local business tax is of special importance. Exemptions related to this type of tax was terminated at end-2007, therefore, the municipalities that granted such exemptions in the past years stand to realise revenue surplus, estimated to amount to 0.1–0.2 percentage points of GDP. If municipalities earn surplus revenues that differ from our estimate, due to the flexible adjustment of the sub-sector, this would modify the balance of the sub-sector only slightly.

Overall, the adjustment has resulted in a sizeable extra revenue for the budget relative to the Convergence Programme. The majority of this surplus revenue was due to stricter measures against tax evasion, and another part to better-than-expected wage growth. Thus, the level of tax burden is higher than planned and likely to remain so until 2010. As expenditures adjusted to higher revenues, this led to the postponement of a reduction in revenues. The latter aspect is especially dangerous, as the GDP-proportionate erosion of taxes and contributions may result in the deterioration of the fiscal position over the medium term already.

Expenditure-side developments in 2008–2010

A reduction in the expenditure to GDP ratio of budgetary organisations plays a decisive role in the projected level of expenditure. A key component of the reduction in expenditure is replacing own capital accumulation expenditure with EU funds. Wage costs are unlikely to lead to any further significant savings. The third key component of expenditures, the purchase of goods and services were cut so drastically over the past few years that this extent cannot be increased in the long run. As family, home and consumer price subsidies are linked at or under CPI inflation, this offers a little room for manoeuvre for a GDP-proportionate reduction in redistribution.

The most important expenditure item is the net expenditures of budgetary organisations. This is especially true in election years, as the actual government can dispose over such expenditure items at its discretion. As regards such items, our baseline projection is for meeting the requirements of expenditure appropriations.

Currently, there is no approved bill for the 2009–2010 budget. Nevertheless, our projection is based on a normative approach rather than rule-based. The reason for this is that, as opposed to practice in earlier years, the government announced the budget ceilings concerning the key expenditure items for 3 years in advance. The government intends to treat these ceilings as the expenditure appropriations of the budget bills in the years to come. In our opinion, these baselines are exacting and translate into lower expenditures than the rule-based projections do. If, for these items, our baseline scenario contained the earlier used rule-based projection, the GDP-proportionate level of

expenditure would be 0.3 to 0.4 percentage points higher compared to our normative projection. Thus, an uncertainty distribution showing a more conspicuous asymmetry than it usually does is implied in our baseline projection.

Within the above expenditure ceilings, real wages in the public sector are not expected to decrease further in 2008. We expect real wages to increase somewhat over the next two years. The way that our projection interprets the OKÉT agreement is that the real wage increase materialises on a cash basis. Accordingly, we now expect that in 2009 the public sector wage bill will be approximately 3 percentage points higher than our projection in November 2007. This excess expenditure will absorb the majority of the savings from the larger-than-expected layoffs in 2007.

The updated Convergence Programme expects the capital expenditure of the general government to remain at a GDP-proportionate level. This will, however, occur against a simultaneous substantial rise in EU co-financing. The replacement of own funds with EU financing will contribute to the adjustment of the expenditure side in 2008. This impact will also emerge in 2009, to a much lesser degree, though. Fiscal capital expenditure will be so low in 2010 that its replacement cannot exert any further impact.[33]

A change in the size of temporary expenditure items (e.g. the outsourcing of motorway construction under a PPP scheme, the completion of the procurement of Gripen fighter planes and reduction in the MÁV (Hungarian Rails) consolidation, etc.) will lead to an approximately 1.2 percentage point deficit reduction. Decline in temporary expenditures will have slowed down by 2009, when mainly the outsourcing of motorway construction, which is financed from the budget in 2008, will mean further savings on expenditures. Temporary expenditures are no longer expected to reduce the deficit in 2010.

As a rule, a peak in the capital expenditure cycle of municipalities coincides with election years, and we have factored this into our baseline projection. The increase in the deficit caused by the capital expenditure cycle my be more moderate in 2010 than earlier, because the use of EU funds will also replace, at least in part, own funds in this sub-sector.

Our assumption for the entire forecast horizon is that the losses of MÁV Start Zrt. are taken into account when corrections are made in accordance with the official accrual method. This is justified by the fact that over 50 per cent of the company's revenues stem from direct budgetary transfers. In this case only a moderated debt assumption would be necessary in the later period.

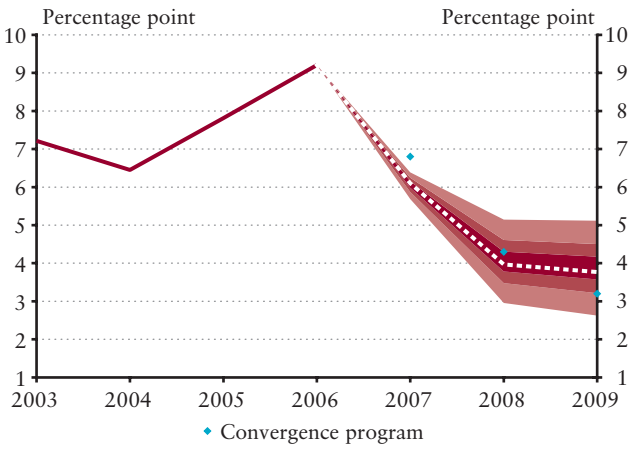
Risk distribution in our baseline projection for 2008–2010

Our perception of the risks to the fiscal balance is different regarding risks to revenues and expenditures. Uncertainty surrounding the government's ad hoc expenditure decisions only slightly increases the likelihood of a deficit higher than that set out in the baseline scenario in 2008, but increase it rather markedly in 2009 and 2010.[34] At the same time risks to revenues from taxes and contributions are symmetric in their distribution.

The risk distribution of the deficit projection suggests the emergence of a deficit larger than what is forecast in the baseline projection (Chart 1) in each of the three years. Of the factors determining the distribution, the uncertainty surrounding the macro-economic path initially represents a nearly symmetric risk and then points to a declining deficit after 2008. The underlying reason for this is that, although the risks to growth are downward, this is offset by the likelihood of higher-than-projected inflation, which reduces deficit (and increases revenues).

Chart 4-1

The fan chart of the fiscal deficit



As regards uncertainty distribution for 2008, in case of items subject to expert judgement, expenditure-side adjustment in

[33] The monitoring material compiled in April projected government investments as unchanged at a 3.6 per cent GDP-proportionate level. In practice, this means that own-funded capital expenditure will have edged down from 2.6 basis points in 2007 to 1.0 per cent of GDP by 2009. Moreover, the pace of motorway construction under PPP schemes will pick up, which will impact the ESA balance through current payments spread over time.

[34] The fact that the opinion of EUROSTAT on the proceeds from the sale of MÁV Cargo is not known yet translates into a risk amounting to 0.4 per cent of GDP. According to the relevant plans, MÁV would keep the proceeds; however, if it has to record them as rerouted budgetary transfer among expenditures, such will also affect the ESA balance.

Table 4-3

Bands of the fan chart

Inflation	Expected ESA deficit with a probability of 30 per cent	Expected ESA deficit with a probability of 60 per cent	Expected ESA deficit with a probability of 90 per cent
2008	3.6–4.0	3.4–4.2	3.1–4.5
2009	3.2–3.7	2.9–4.1	2.4–4.6
2010	2.7–3.4	2.4–3.8	1.6–4.5

the municipality sub-sector is especially important among the risks suggesting a lower deficit. Municipalities curbed their expenditures significantly in 2007. If this trend continues this year as well, their balance may improve. In contrast, in 2008, in terms of upside risks to deficit, the uncertainty about the net expenditures of budgetary organisations is rather strong. If EU funding of the projects submitted as additional projects for the development of the motorway network fails to materialise, and the remaining accumulated amount of the appropriation is spent this year, a substantial expenditure overrun may occur.

As regards expert risk perceptions for 2009 and 2010, similarly to 2008, it is mainly the projections for the net expenditures of budgetary organisations are asymmetrically skewed towards a higher deficit. We see considerable uncertainty in relation to the implementation of further reducing of expenditures as envisaged in the Convergence Programme. The reason why the risk perception of this expenditure item is more asymmetric than usual is that our baseline projection is not the standard rule-based projection. Rather, it is a normative path defined and approved by the government this spring.

There is also significant uncertainty surrounding the future use of EU funds, which will be a decisive factor in the government's capital expenditure in the two years ahead. In principle, paradoxically, weaker-than-expected absorption ability may lead to a reduction in the deficit of the sub-sector through reduction in the capital expenditure of the central budget. If, however, the government decides to maintain the current level of the capital investments, as EU funds decrease, then the role of own funds becomes increasingly important. This impact is exacerbated by the fact that, in the case of the municipality sub-sector, stronger-than-assumed reliance on EU funds may lead to higher indebtedness of the and hence, a higher deficit.[35]

Significant risks surround the metro construction project. Our baseline projection assumes that the European Union approves the project and participates in its financing to an extent that it is planned by the Municipality of Budapest and the Hungarian State. If EU funds the financing of a smaller portion than what has been planned, the missing portion will have to be financed from own funds, which may entail a rise in the deficit. It is difficult to assess the size of the risks associated with the metro project, as its total cost is still uncertain and the final decision of the EU on funding the capital investment is not yet known. In our opinion, such risks amount to at least 0.2 per cent of GDP.

The risks surrounding MÁV used to return at regular intervals, especially in election years, when the state-owned rails were consolidated through mainly debt assumption. Our expert risk assessment detects risks of a similar nature, although the size of the risk is lower than usual because the officially projected losses incurred by MÁV Start Zrt. and assessed by the government were factored into our baseline projection for the ESA deficit.

In conclusion, the asymmetry of items subject to expert judgement is the most important factor in 2008. In 2009 and 2010, the risks stemming from the macro-economic path and suggesting a lower deficit only mitigate the upward skewedness of the expert projections, but they cannot offset it.

A comparison of our projection with the objectives of the Convergence Programme reveals that the 2008 target figures will, in all likelihood, be achieved. By contrast, in 2009 and 2010, the targets are below the baseline projection, along the lower edge of the central band of the fan chart.

[35] We have no reason to assume that the standard capital expenditure (election) cycle of the municipality sub-system will be more restrained in the coming 2 years than what was experienced in earlier election cycles.

4.2 External balance

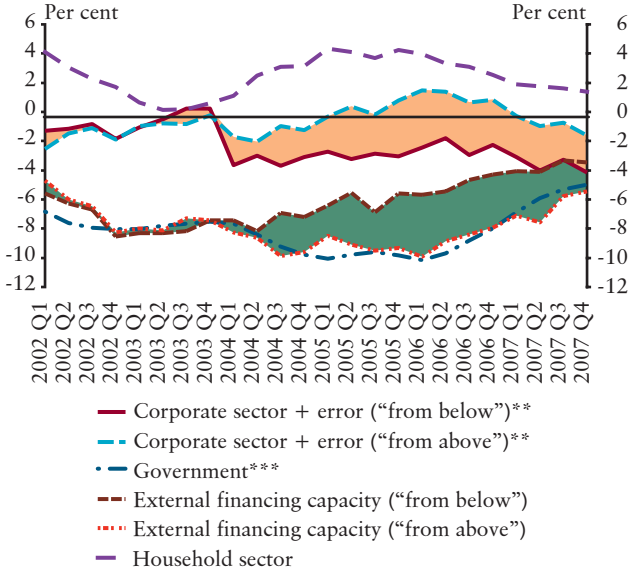
Based on the preliminary data, the combined current and capital account, i.e. the external financing requirement, amounted to about 4 per cent of GDP in 2007, representing a 1.3 percentage point decline compared to the previous year.[36,37] Regarding the real economy, the improvement in the trade balance contributed most significantly to the decreasing external financing requirement, which is due to the import lowering effect of slack domestic absorption on the one hand, and to the strong export dynamics caused by favourable external market developments on the other hand. The increase in European Union funds also contributed to the decline in the external imbalance, which, as early as in 2007, represented a net transfer revenue for Hungary corresponding to 1.4 per cent of GDP. On the other hand, the deficit of the income balance, primarily due to the increased revenues of foreign-owned companies, continued to grow.

Regarding the financing capacity of domestic sectors, it is apparent that the improved external balance is due to the substantial (close to 4 percentage point) decline in the consolidated general government deficit. However, this is only partially reflected in the external financing requirement, since as a result of consumption smoothing, the GDP-proportionate net savings of households declined continuously throughout 2007, reaching a mere 1.7 per cent for the entire year, which is just one-half the level registered in 2006. Meanwhile, the financing capacity of the corporate sector has also declined, but still not because of increased investment expenditures; but due to the substantial deterioration in profitability caused by wage increases in excess of productivity growth, rising energy costs, and sagging domestic demand.

In 2008, the external financing requirement should continue to decline, still in conjunction with the decline of the consolidated general government deficit. Although, in contrast to our former expectations, net household savings did not start to increase at the beginning of 2008, we still project a turning point during the year resulting from the combined effect of increasing real wages and moderate consumption dynamics, which may lead to a GDP-proportionate financing capacity slightly exceeding the level of 2007. Since investment activities continues to be slack and rising production costs prevent improvements in profitability, we do not expect significant changes in the financing capacity of the corporate sector. We expect that half of the reduction in the government deficit may be reflected in the improvement of the external balance, which may correspond to a 3.4 per cent external financing requirement in 2008.

Chart 4-2

Developments in the financing capacity of sectors*



* *Adjusted by the difference caused by imports brought forward on account of EU accession and by the import increasing impact generated by customs warehouses terminated due to EU accession and by the Gripen purchases.*

** *The financing capacity of the corporate sector is determined as a residual item, therefore, it contains the errors of other statistics as well.*

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

[36] In March 2008, the MNB revised foreign direct investment and related income flow figures for 2006. As a result of the revision, the official figure of the external financing requirement for 2006 was modified to 5.3 per cent from 5.7 per cent, and parallel to that the 'bottom up' external financing requirement figure was also lowered.

[37] In 2007, the 'Net Errors and Omissions' figure in the Balance of Payments statistics declined significantly, thus the external financing requirement calculated from the financing side decreased even more substantially, by 2.3 per cent of GDP. However, the gap between the two indices still represents 2.4 per cent of GDP.

Table 4-4

Net financing capacity of individual sectors

(relative to GDP, per cent, unless otherwise indicated)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Estimation						Forecast		
I. Consolidated general goverment*	-8.5	-8.3	-8.4	-9.4	-9.6	-5.9	-4.5	-4.4	-3.6
II. Households	2.7	0.2	2.4	4.2	3.4	1.7	1.8	2.1	2.4
Corporate sector and "error" (= A - I.- II.)	*-0.9*	*0.1*	*-2.1*	*-0.8*	*0.9*	*0.2*	*-0.6*	*-0.5*	*-1.4*
A) External financing capacity, "from above"(=B+C)**	-6.7	-8.0	-8.1	-6.0	-5.3	-4.0	-3.4	-2.8	-2.5
B) Current account balance**	-7.0	-7.9	-8.4	-6.8	-6.1	-5.0	-4.9	-4.8	-4.8
*– in EUR billions***	*-5.0*	*-5.9*	*-6.9*	*-6.0*	*-5.4*	*-5.1*	*-5.3*	*-5.5*	*-6.0*
C) Capital account balance	0.3	0.0	0.3	0.8	0.8	1.0	1.6	2.0	2.3
D) Net errors and omissions (NEO)***	0.3	0.3	-1.7	-2.8	-3.4	-2.4	-2.3	-2.1	-2.0
External financing capacity "from below" (=A+D)	-6.4	-7.7	-9.8	-8.7	-8.7	-6.4	-5.7	-5.0	-4.5

** In addition to the fiscal budget, the consolidated general government includes local governments, the ÁPV Ltd., institutions discharging quasi-fiscal duties (MÁV, BKV), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes.*

*** During the 2004–2007 period, uncertainty in the measurement of foreign trade statistics point toward a higher current account deficit and a higher external financing requirement.*

**** In our forecast for the 'errors and omissions' item of the balance of payments we assumed that the cumulated figure for the last four quarters will remain unchanged.*

For 2009 and 2010 we forecast a further, gradual improvement of the external balance. The financing requirement of the consolidated general government indicates a decreasing tendency, albeit in smaller steps, over the entire forecast horizon. Household consumption may increase at a slower pace than the disposable income of households, i.e. the net savings of households may slowly increase. At the same time, by 2010 a recovery in corporate investments is expected to become evident, thus the financing requirement of the corporate sector may register moderate growth. On the whole, the external financing requirement may sink to 2.5 per cent of GDP in the period leading up to 2010.

Looking at the structure of the current account, the balance of goods and services may only slightly contribute to the improvement of external balance, because the weaker international economy may lead to subdued Hungarian export growth, while gradually recovering domestic demand may result in an expansion of imports. The GDP-proportionate deficit of the income balance might decline somewhat, which may be attributed to the growing income inflow as a result of foreign investment by domestic companies. The decline in the external financing requirement may be mainly attributed to the transfer account.

Table 4-5

Structure of the current account balance

(relative to GDP, per cent, unless otherwise indicated)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Fact/Preliminary fact							Forecast		
1. Balance of goods and services*	-1.5	-2.4	-3.8	-2.7	-0.5	0.4	2.5	2.5	2.5	2.4
2. Income balance	-5.4	-5.4	-4.9	-6.0	-6.5	-6.9	-7.9	-7.7	-7.6	-7.5
3. Balance of current transfers	0.8	0.7	0.8	0.3	0.2	0.4	0.3	0.3	0.3	0.3
*I. Current account balance (1+2+3)**	*-6.1*	*-7.0*	*-7.9*	*-8.4*	*-6.8*	*-6.1*	*-5.0*	*-4.9*	*-4.8*	*-4.8*
*Current account balance in EUR billions**	*-3.6*	*-5.0*	*-5.9*	*-6.9*	*-6.0*	*-5.4*	*-5.1*	*-5.3*	*-5.5*	*-6.0*
II. Capital account balance	*0.6*	*0.3*	*0.0*	*0.3*	*0.8*	*0.8*	*1.0*	*1.6*	*2.0*	*2.3*
External financing capacity (I+II)*	**-5.5**	**-6.7**	**-8.0**	**-8.1**	**-6.0**	**-5.3**	**-4.0**	**-3.4**	**-2.8**	**-2.5**

** During the 2004–2009 period, uncertainty in the measurement of foreign trade statistics point toward higher current account deficit and higher external financing requirement.*

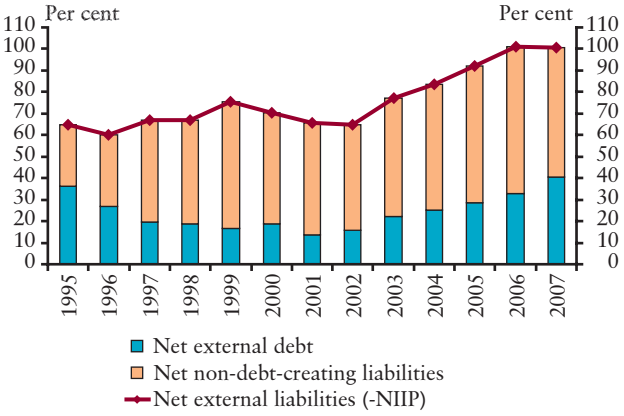
Financing the current account deficit

In 2007, the 'bottom-up' external financing requirement amounted to EUR 6.5 billion, representing 6.4 per cent of GDP. Thanks to the substantially decreased external financing requirement, the growth of GDP-proportionate net foreign liabilities came to a halt in 2007, but the structure of financing shifted in an unfavourable direction form the investors point of view: we experienced EUR 4.3 billion net outflow of non-debt-creating funds, while debt-creating inflows reached an all-time high, driving the net external debt ratio up to 40.7 per cent. Dynamic foreign borrowing characterised both the financial institutions and the corporate sector.

Chart 4-3

Net external liabilities and net external debt

(as a per cent of GDP)



The declining level of net non-debt-creating financing is largely due to the intensive direct capital outflow generated by a few domestic corporations, and to the increasing foreign stock purchases of institutional investors. We need to emphasise, however, that the external financing structure in 2007 was largely affected by two one-off transactions, which appeared in the balance of payments statistics as net non-debt-creating capital outflow and a corresponding level of debt-type capital inflow.

Seeking to resist the acquisition attempts of OMV, MOL (Hungarian Oil Company) bought up a large number of its own shares (mostly held by non-resident investors); which was financed partly by the disposal of some of its foreign deposits, and partly by loans.

In the case of the foreign owned Budapest Airport there was a change in ownership, and at the same time in the entire financing structure of the company. The former owner financed 100 per cent of its acquisition of the company in the form of direct capital investment, while the new owner paid the majority of the purchase price by loans borrowed from foreign banks, rather than in the form of direct capital investment.

The stabilisation of the GDP-proportionate net foreign liabilities in 2007 broke an upward trend that had lasted for several years, and in the case of the projected decline in the external imbalance the ratio should start to decline slowly. At the same time, even if one excludes the effects of the one-off transactions in 2007, non-debt-creating foreign investments of residents show a growing tendency, thus the external financing structure may swing towards debt-creating liabilities. In the long run, however, capital outflow may 0have a positive impact on the income balance, thereby contributing to the long-term sustainability of the Balance of Payments.[38]

[38] Developments in the external financing structure are discussed in detail in an article published in the April issue of the MNB Bulletin (The structure of external financing: Is there a reason to worry about financing through debt?).

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