MAGYAR NEMZETI BANK

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

In the inflation targeting system, since August 2005 the Bank has sought to attain price stability by ensuring an inflation rate near the 3% 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 Departments, as well as the macroeconomic developments underlying these forecasts. The forecasts are based on certain assumptions. Hence, in producing its forecasts, the staff assumes an unchanged monetary and fiscal policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this *Report* were prepared by staff in the MNB's Monetary Strategy and Economic Analysis and Financial Analysis Departments under the general direction of Ágnes Csermely, Director. The project was managed by Barnabás Virág, Senior Economist of Monetary Strategy and Economic Analysis, with the help of Mihály Hoffman and Péter Bauer. 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 2nd November and 23rd November 2009. The projections and policy considerations, however, reflect the views of staff in the Monetary Strategy and Economic Analysis and the Financial Analysis Departments and do not necessarily reflect those of the Monetary Council or the MNB.

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Summary

Restrained domestic demand generates an increasingly pronounced disinflationary effect

As a result of the global recession, economic output has declined sharply in Hungary. Although domestic export sales have started to pick up in recent quarters in line with the stabilising international environment, the marked downturn in domestic demand continues to be manifested in falling GDP. This duality in growth structure is expected to remain pronounced in the quarters ahead as well, inhibiting the Hungarian economy's recovery from the recession. Consistent with our forecast published in August, we do not expect a rebound in economic growth until mid-2010.

Subdued domestic demand has accelerated the nominal adjustment of the economy. The price-reducing effect associated with the general trend of shrinking sales opportunities is increasingly strong. Accordingly, following the indirect tax raises in July the ensuing increases in price levels were weaker than expected, and a strong disinflationary trend was observed even amongst market services, which have a history of persistently rising price levels. Increasingly subdued pricing decisions have been accompanied by deceleration in nominal wages as well. This process is also expected to remain characteristic in the coming years, contributing to the development of a sustained, low inflation path.

Exerting an unfavourable effect in terms of growth, developments in domestic demand significantly reduced the external financing requirement of the Hungarian economy, and thereby its vulnerability. This more sustainable external equilibrium position may remain evident even when growth dynamics accelerate.

Investor sentiment and domestic processes have contributed to improvement in perceptions of the risk associated with the Hungarian economy

The steady improvement in global investor sentiment has also had a favourable impact on perceptions of risk associated with the Hungarian economy. All measures of risk have continued to fall, and at the same time the exchange rate has remained at the appreciated level seen in the first half of the year. Domestic developments have also facilitated improvement in risk sentiment. The real economic adjustment has led to a sharp decline in the external financing requirement, and measures to attain fiscal sustainability have contributed to an improving assessment of the path of government debt, as confirmed by international comparisons.

Remanence of tight credit conditions may decelerate further the lending activity of corporate sector

Subdued lending activity, coupled with growth in deposits has led to a gradual decline in the loan-to-deposit ratio. While lending conditions tightened further for the corporate sector in recent months, similar development was not perceivable in case of households. Besides the supply conditions the effect of restrained demand continues to point to subdued lending activity. Declining domestic interest rate levels have made forint-denominated loans increasingly competitive, which may have an impact on new loan contracts.

Losses due to deterioration in loan portfolio quality caused by the adverse economic environment may rise gradually till the second half of 2010. Future developments in the capitalisation of European banks may pose a risk to the current projection. Write-downs on loans in Europe may even speed up the adjustment by domestic banks currently operating with high leverage through their relationships with their parent banks. Such events may pose further downside risks to Hungarian growth.

The sharp fall in domestic demand was also reflected by rapid improvement in the external balance

The sweeping changes in the real economy have resulted in a substantial reduction in Hungary's external financing requirement, which is a source of its vulnerability. The sharp fall in the country's import demand, in addition to stabilisation in export volumes, has led to an improvement in external balance. Looking at the position of the main domestic sectors, it is worth highlighting that households' consumption and saving behaviour has changed, which over the entire forecast period is expected to allow for a healthier balance between foreign and domestic financing than in the past, owing to increased reliance on domestic funding sources.

Global economic policy stabilisation proved successful, but growth remains very fragile

Following the outbreak of the crisis, the economic stimulus packages introduced by developed-country governments have succeeded in stabilising the global economy over the short term. Growth data for the second and third quarters suggest that an economic recovery may start. The positive short-term news, in addition to improvement in confidence indices, has also had a benign effect on the major international institutions' macroeconomic forecasts. Consequently, the global economic environment is likely to provide a more favourable background for the Hungarian economy than anticipated at the time of the previous Report.

There is, however, uncertainty about the sustainability of this process. In particular, there are risks related to the sustainability of government debt, labour market developments, the position of the banking sector and rises in commodity prices. If these risks materialise, they would once more result in a more unfavourable international economic environment.

Despite more favourable external conditions, domestic growth developments are dominated by the downturn in domestic demand

The improvement in the foreign economic environment has also stimulated Hungarian exports, while declining domestic demand has continued to be a drag on the economy. As regards the main components of domestic demand, the dominant factors have been the fall in household consumption, postponements of planned investment in the corporate sector and the rapid rundown of stocks. Although households' consumption decisions were also affected positively by timing considerations even during the months preceding the indirect tax increase, demand may return to a downward trend in the second half of the year. Destocking by companies was faster and stronger than previously. This may have been caused by short-term financing problems, in addition to worsening prospects for economic activity.

Wage adjustment in the services sector has intensified

With demand remaining slack, firms have continued their efforts to stabilise operations by reducing labour costs. As a result of this process, the rate of earnings growth in the private sector has fallen well below levels observed in previous years. There has been particularly marked wage adjustment in market services, which had exhibited persistently strong earnings growth in the past. In manufacturing, earnings growth has continued to rise further from very subdued levels as exports have continued to pick up.

The number of whole-economy employees has remained stable in recent months. Rising employment in the government sector, owing to the 'Pathway to Work' programme, has been offsetting the continued, albeit slowing decline in private sector employment. Compared with the past, a higher percentage of those losing their jobs manage to remain active in the labour market, which continues to create loose conditions in the labour market.

The recessionary environment has put increasing downward pressure on prices

Inflation data in recent months have been lower than the Bank expected, due in nearly equal parts to falling unprocessed food prices and better-than-expected core inflation developments. The latter suggests that the recessionary economic environment has recently exerted increasing downward pressure on prices, as suggested by the smaller-than-anticipated upward pressure on prices from the increase in indirect taxes compared with previous experience. Services price inflation has slowed steadily in recent quarters from the persistently high levels in previous years. That may be closely related to similar movements in earnings growth in the sector.

The downturn in the domestic economy is expected to be prolonged; inflation may fall below the medium-term target

The projection in the November Report is based on the key assumptions that (i) the central bank base rate is held constant at 7.00%; (ii) the forint exchange rate remains at EUR/HUF 268.7; and (iii) the price of crude oil moves around EUR 80 per barrel. Provided that these assumptions hold, the Hungarian economy is likely to remain in recession for a protracted period. Although the benign global environment is likely to have a positive impact on domestic growth prospects for 2010, the projection assumes that the negative effects of the necessarily pro-cyclical fiscal and monetary policies and the private sector's continued adjustment may be dominant. The Hungarian economy is only expected to recover strongly from the middle of 2010, lagging behind the developed European countries and the economies of Central and Eastern Europe.

As the upward pressure on the CPI index from the indirect tax increase unwinds, consumer price inflation may fall below the medium-term target from the middle of 2010 and is expected to be around 2 per cent in 2011. In the current projection, the inflationary effects of rises in oil prices are offset by lower expected core inflation. The persistently low inflation environment is likely to be supported by subdued domestic demand and labour market adjustment. Assessing the risks to inflation, the danger that inflation expectations may rise significantly due to the indirect tax increases has diminished in recent months.

Households' consumption and saving decisions indicate an increasingly precautionary motives

The crisis occurred during a period of rapid build-up in debt by Hungarian households, especially foreign currency debt. The worsening labour market outlook and falling lending activity have forced households to restructure their balance sheets, which has led to an increase in the sector's net saving. Initially, net saving was boosted by a sharp decline in lending, but in the second half of 2009 the accumulation of financial assets by the sector may pick up, reflecting the increased presence of precautionary motives. On the forecast horizon, households' financial position continues to improve slightly.

Stabilisation in corporate profitability points to a modest increase in wage expenditures and restrained investment activity

Firms' behaviour is driven by their adjustment to weak profitability. In view of the current, historical low level of capacity utilisation, a considerable increase in investment projects cannot be expected in the coming quarters, while the generally observed lower profit levels relative to previous years may be consistent with a subdued increase in wage expenditures. Although the urgent downsizing of corporate inventories may have finished by the middle of 2009, we do not expect a strong turnaround in the inventory cycle. In the restrained demand environment, the sector is expected to maintain a lower inventory level than in previous years.

It may become possible to finance the domestic economy without net external borrowing

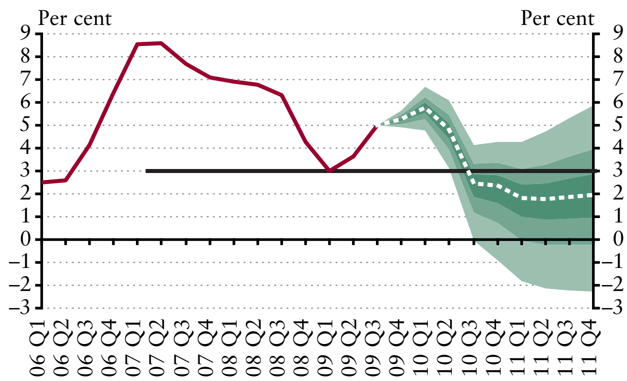
We anticipate positive developments in the net lending/borrowing of the economy this year. Although the rapid improvement in the external equilibrium position may have been supported by temporary factors as well, we expect that the domestic economy may be financed without net external borrowing across our forecast horizon, even as these factors phase out. While parallel to the normalisation of profitability the income balance is expected to deteriorate in the coming years, its balance-deteriorating effects will be offset by the improving real economy balance and inflows of EU funds.

The deficit target for 2010 may be achievable by abolishing the substantial amount of reserves in the budget

Against the backdrop of increasing tensions on the expenditure side, in our baseline projection we anticipate a slight overshooting of the budget deficit path targeted for 2009. The deficit target for 2010 may be achievable only by abolishing the larger portion of the reserves recorded in the budget. Potentially, if temporary measures are required in order to achieve the deficit target for 2009, they may further aggravate the existing expenditure-side tensions in the budget trajectory for 2010. In the absence of additional measures, the budget deficit is expected to remain unchanged in 2011.

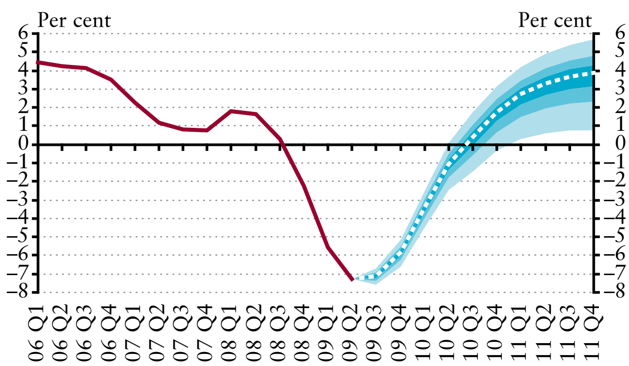
In view of the current expenditure tensions, the growing consolidation requirement of indebted firms in state ownership represents an increasingly serious problem over our forecast horizon. A future consolidation may generate a significantly higher deficit at the time it is executed.

Inflation projection fan chart



GDP projection fan chart

(Seasonally adjusted, smoothed data)



Summary table of baseline scenario

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

	2008	2009	2010	2011
	Actual	Projection		
Inlation (annual average)				
Core inflation[1]	5.2	4.1	3.0	1.3
Consumer price index	6.1	4.2	3.9	1.9
Economic growth				
External demand (GDP based)	2.1	–4.6	0.9	2.1
Household consumption expenditure	–0.5	–8.1	–3.0	3.1
Gross fixed capital formation	–2.6	–8.1	1.4	4.3
Domestic absorption	0.4	–10.1	–1.6	2.9
Export	4.8	–12.3	3.6	8.6
Import	4.7	–16.5	2.7	8.4
GDP*	0.6	–6.7	–0.6	3.4
External balance[2]				
Current account balance	–7.2	–0.5	–1.5	–1.4
External financing capacity	–6.2	1.5	0.1	0.9
Government balance[2]				
ESA balance[3]	–3.8	–4.0	–4.3 (–3.8)	–4.3
Labour market				
Whole-economy gross average earnings[4]	7.6	0.8	2.5	3.8
Whole-economy employment[5]	–1.2	–2.7	–1.2	0.3
Private sector gross average earnings[6]	8.5 (8.0)	4.4	3.7	3.8
Private sector employment[5]	–1.1	–3.8	–2.2	0.4
Unit labour costs in the private sector[5, 7]	6.0	8.8	–1.2	0.4
Household real income**	–0.5	–4.1	–1.7	2.0

[1] *From May 2009 on, calculated according to the joint methodology of the CSO and MNB.*

[2] *As a percentage of GDP.*

[3] *The numbers in brackets refer to the deficit achievable in case of abolishing the major part of budgetary reserves.*

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

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

[6] *According to the original CSO data for full-time employees. 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 are not adjusted for calendar effects.*

** *MNB estimate.*

1 Evaluation of macro-economic data

PACE OF ECONOMIC DETERIORATION SLOWING SINCE MID-2009

The global financial and economic crisis hit an ailing Hungarian economy. Due to significant external imbalances and debts as well as certain government measures, domestic trends were characterised by subdued household consumption and rather sluggish investment activity in the years immediately preceding the onset of the global recession. External demand conditions, which started to deteriorate significantly in September 2008, and an environment of increasingly tight lending forced all economic participants to adjust further, which led to a marked fall in output.

In developed economies, economic policy measures engineered to boost economic activity have succeeded in adequately stabilising the global economy in recent quarters. Overall, industrial production and export sales have been on the increase since early this year, and in the third quarter most economies experienced positive GDP dynamics. In the light of Q3 data, it is becoming increasingly obvious that the room for manoeuvre available for economic policy during the crisis has been exerting an increasingly spectacular impact on the speed of recovery. In economies where both public and private indebtedness rose quickly and asset price bubbles evolved in recent years, the significant decrease in internal demand continues to restrain economic performance. The fall in output is likely to be substantially sharper in these groups of countries, and recovery will also start later here than in the countries where measures were taken to boost the economy. A lack of room for manoeuvre for economic policy is also clearly reflected in the Hungarian growth trends.

In the first 9 months of 2009, Hungary's GDP fell by over 7% relative to a year earlier. A similar loss in output was last seen in domestic trends during the years immediately following the political changeover. Although external demand affected export sales favourably, it was only partially able to offset the marked fall in domestic demand. In line with this, Q3 data suggest only a moderate slowdown in the pace of the downturn, and no notable pick-up is expected for the time being. The government measures adopted to establish a sustainable debt trajectory are restraining domestic demand to a significant degree, while monetary policy must also act in pro-cyclical manner if it is to ensure financial stability. Accordingly, the domestic macro-economic environment continues to be shaped by a pro-cyclical monetary and fiscal policy, subdued lending and external demand conditions which are more unfavourable compared to earlier years.

The structure of the Q2 decline in GDP deviated from our expectations slightly. On the final use side, due to some temporary factors, the major components of demand (consumption, investment) and net exports generated a better-than-expected contribution to growth, but this positive impact was neutralised by fast, strong downsizing of inventories. The temporary effects on domestic demand are likely to have adjusted in the third quarter, and thus in spite of growing export sales domestic GDP has been on the decline since the end of the previous year.

On the production side, the major sectors of the economy made a significant negative contribution. Within this, the decline in the industrial sector remained dominant until mid-2009. As the environment for external demand was

Chart 1-1

Economic growth in Hungary

(year on year)

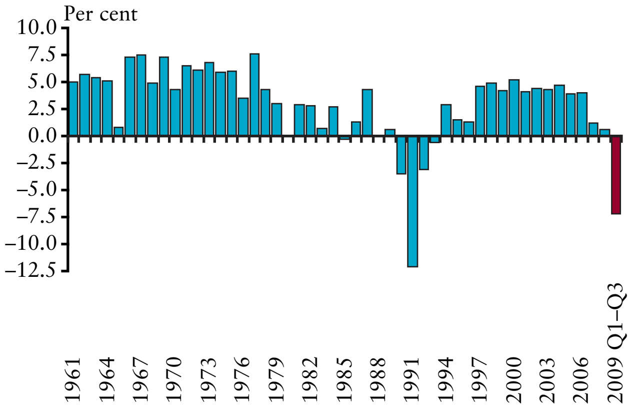
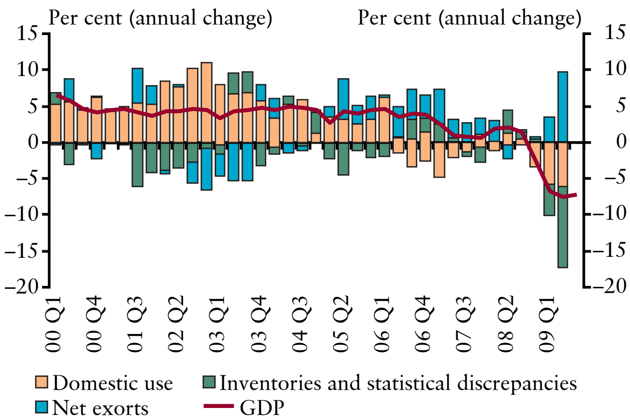


Chart 1-2

Contribution of absorption-side items to output*



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

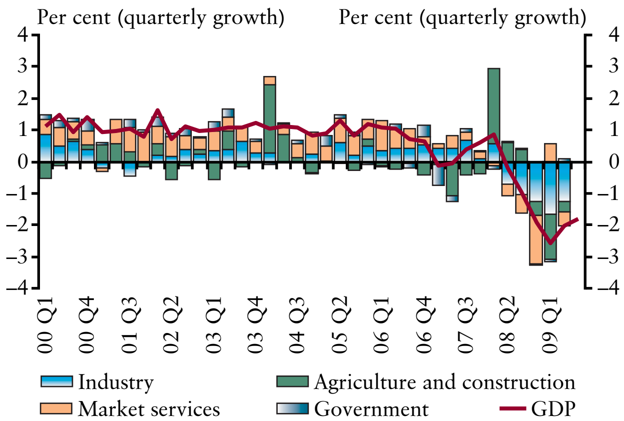
increasingly stable, this is likely to have been caused by weak domestic sales and the dramatic downsizing of inventories in the first half of the year. Consolidation in industrial production (led by export sales) continued in Q3, and the value added of this sector is likely to have surpassed the level for the previous quarter. The recession also affected the performance of market service providers to an increasingly large degree, with these impacts particularly evident in the data for the third quarter. The decline in output was especially pronounced in the sectors most vulnerable to declines in domestic demand (commerce, tourist industry, transport). Companies in the financial services sector have still only suffered moderate profit losses. Output in sectors with a lower weight is likely to have been declined further in the past quarters, while the government's growth contribution is expected to have remained neutral.

In an environment characterised by extremely subdued demand, companies adjusted their labour costs and delayed their capital investment decisions rather than increasing prices in order to stabilise their income positions. As a result, wage dynamics declined further in the private sector, especially in the service sector. Although manufacturing companies' wage and headcount adjustment in the labour market has slowed down, this is likely to reflect the more favourable economic developments in recent months.

Chart 1-3

Contribution of the major sectors of the economy to output

(quarterly growth, based on seasonally adjusted data)



The decline in domestic demand has had an increasingly strong impact on domestic pricing decisions. As a result of the increases in indirect taxes in July, the CPI rose above 5% again, but after these tax effects are filtered out, our underlying inflation indicators suggest an increasingly strong disinflationary environment again, following a pause in the second quarter.

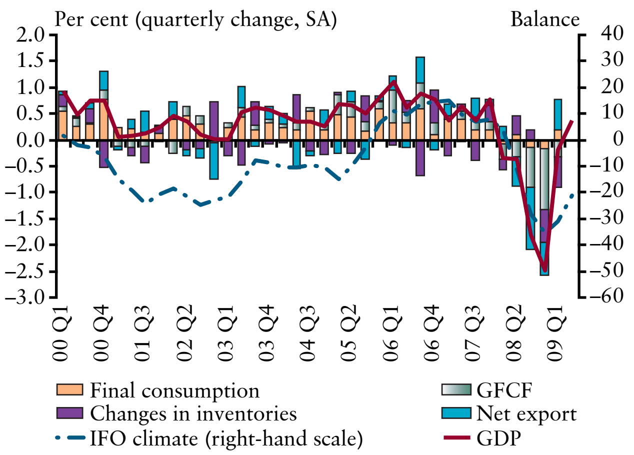
1.1 Economic policy measures have successfully stabilised the global economy over the short term

In the developed economies, economic policy measures designed to boost demand have successfully stabilised the global economy over the short term. As a result of these measures, one year after the outbreak of the crisis, GDP is growing again in the world's more developed regions. It should be noted that important one-off effects (e.g. 'cash for clunkers' programmes, restocking of corporate inventories which were seriously depleted during the crisis) were also instrumental in global GDP growth in the third quarter. With these impacts wearing off, the global recovery is likely to proceed more slowly than in recent months.

In response to the improving situation, major international institutions also upgraded their growth forecasts. In their view, the global economic recovery will start earlier than expected, which will also translate into some pick-up in economic activity in the euro area in 2010 already.

Chart 1-4

Growth in the euro area and confidence indicators



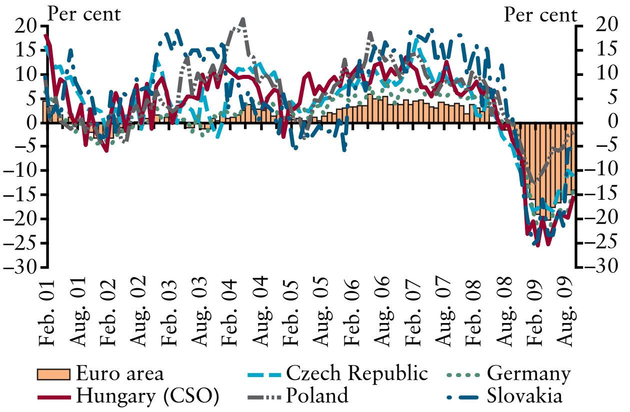
The economic policy measures also stabilised economic performance in Germany, Hungary's most important foreign trade partner. GDP increased in the third quarter; new industrial orders also picked up, influencing export sales in the economies of the region favourably.

The global recession also caused significant growth losses in the countries in the region. On average, GDP fell by 5 to 8% on a year-on-year basis in the first half of 2009. The only exception is Poland, where – due to relatively good export

Chart 1-5

Developments in industrial production in the region, the euro area and Germany

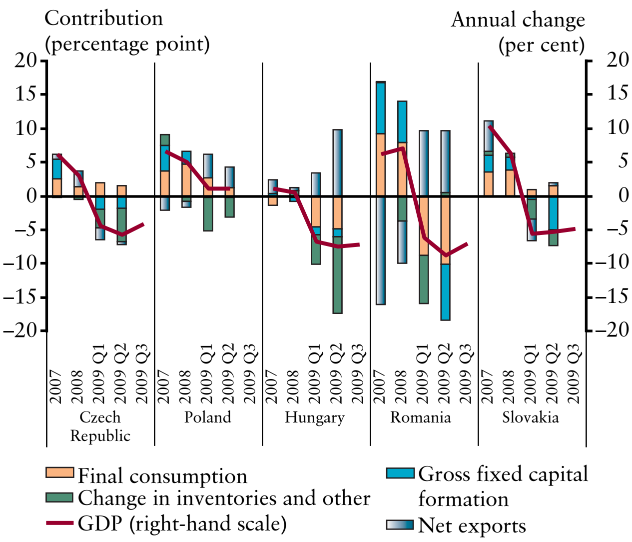
(annual change)



sales and consistent growth in household demand – GDP dynamics remained in positive territory. In respect of the structure of growth and trends in third-quarter GDP data, however, the room for economic policy manoeuvre available to the individual countries led to increasingly clear differences. Countries which had either accumulated

Chart 1-6

Contribution of final use items to annual changes in GDP in the region

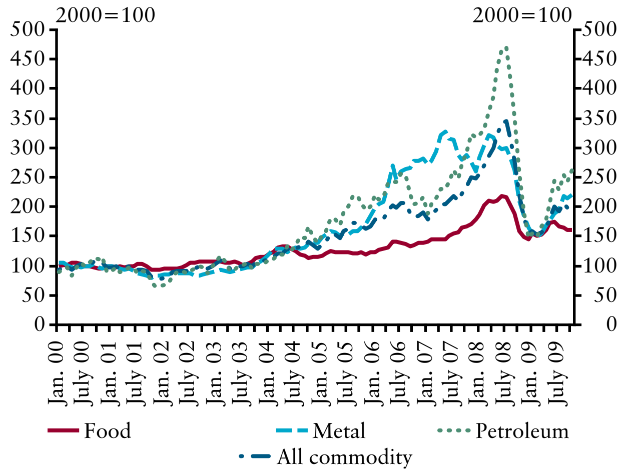


significant debts before the onset of the crisis (Hungary) or had rapidly become indebted and had an asset price bubble (Romania) had little leeway to take actions in terms of short-term economic policy stimulus, and given the generally unfavourable labour market impacts, this led to a marked decline in household consumption. By contrast, economies that pursued significant fiscal and monetary easing (the Czech Republic and Slovakia) have already experienced some quarterly GDP growth since the second quarter, thanks to consistently growing domestic consumption. These dissimilar economic policy approaches may cause significant difference in the growth path in the quarters ahead. At the regional level, rapid downsizing of inventories, restrained capital investments and improved external balances were common.

Up until the beginning of this year, the recession resulted in significant adjustments in global commodity prices. After the first quarter of 2009, however, these prices started to rise again and they are currently at a level well above their historical average. Along with the improvement in demand prospects, underlying reasons may include speculative decisions by money market participants with sizeable surplus liquidity. Overall, consistently high and rising commodity prices pose further risks to the sustainability of the global economic recovery.

Chart 1-7

Developments in global commodity prices

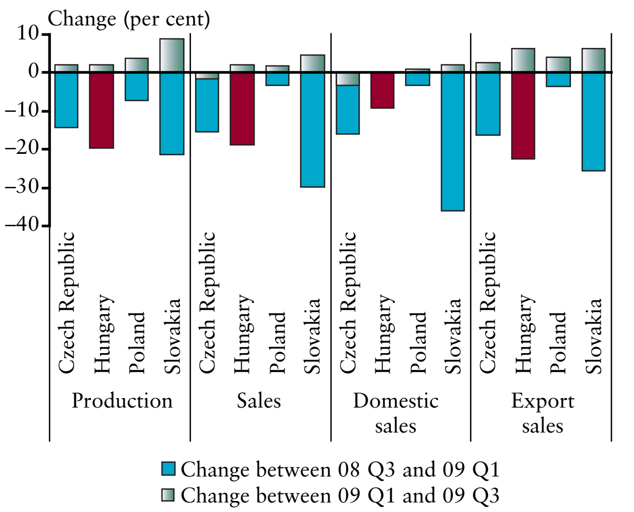


1.2 Domestic economic environment: increasingly strong decline in domestic demand

From Hungary's perspective, it is an important issue how the economy responds to the changes in external economic activity, which is showing signs of recovery. After a steep downturn that lasted until early this year, domestic industrial production also showed signs of stabilisation, but no positive shift from a low level has been experienced until September. The improvement in Hungarian industrial performance is increasingly lagging behind regional developments. Although domestic industry's export sales have picked up in line with the regional average in recent quarters, falling domestic sales have also hit industrial output adversely. It should be noted, however, that based on previous experience a large volume of domestic sales was linked to export sales. Therefore, in addition to declining domestic demand, other impacts (e.g. lack of funds facing small and medium-size businesses) may have also contributed to falling domestic sales. Overall, output in the domestic export sector responded positively to the improvement in external demand but due to the subdued domestic demand, industrial production in Hungary has grown more slowly than in the rest of the region.

Chart 1-8

Manufacturing production and sales



The downturn in market services did not grow more severe until mid-year. The underlying reasons for this also included several one-off, temporary factors. Purchases brought forward in response to the government measures introduced on 1 July (tightening of the housing subsidy scheme, a rise in indirect taxes) temporarily raised sales volumes in the market of new homes and those of certain durables. These one-off effects are no longer being felt in the third quarter, and adjustments for such have been made, the dampening impact of an unfavourable macro-economic environment and pro-cyclical economic policy on demand will become increasingly clear. The downturn is being felt in a large number of sectors. In line with the unfavourable internal demand conditions, performance in commerce and the tourist industry have continued to deteriorate; likewise, in line with subdued commodity transport demand, transport also experienced a downturn. After the impact of purchases brought forward had worn off, retail sales suffered a double-digit fall in the second half of the year. By contrast, in the first half of the year the value added of financial services was higher than expected, due to the favourable results from investment activity in the financial intermediation system, which is, however, as annual comparison suggests, less likely to be similarly impressive in the second half.

In terms of sectors with a lesser weight, last year's record harvests in agriculture increased the value added generated by the sector. Although crop yields have been higher than average this year as well, this will not influence growth data because of the extremely high basis from last year. In the second quarter, construction industry production was better than we had expected, which was due mainly to infrastructure investments financed from EU funds. This impact is expected to be temporary and be followed by a fall in output in the third quarter.

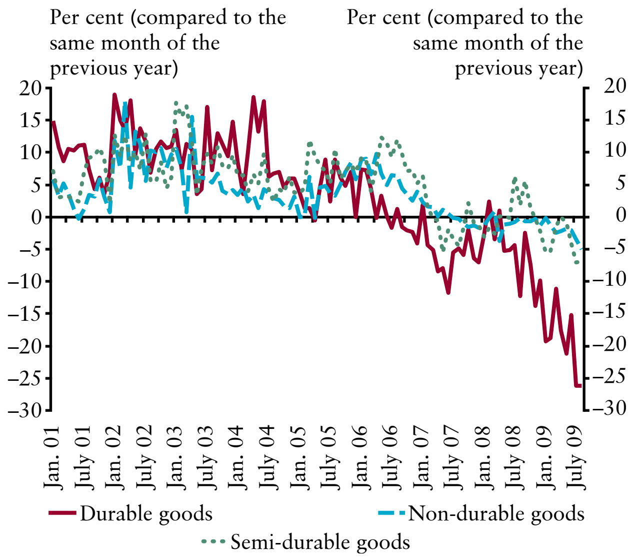
Weak performance in the private sector was somewhat offset by the public sector's favourable contribution, which was due mainly to the "Pathway to Work" programme. However, given its temporary nature, the medium-term growth impact of the programme remains moot.

On the final use side, developments in the major components of domestic demand were influenced by several temporary factors. As the effect of these temporary factors tapered off, however, the marked decline in domestic demand has been increasingly dominant since the middle of the year, which remains a determining factor in respect of developments in domestic GDP despite the pick-up in global economic activity. In line with improved export sales and weak import demand (the latter attributable to subdued domestic demand), the contribution of net exports to growth remains decidedly positive, while inventories are falling fast.

Household real incomes have fallen due to increasingly strong labour market adjustment, rising inflation caused by increases in indirect taxes and government measures. In addition, the rapid rise in debt over the past few years also prompted households to adjust their balance sheets. This factor, coupled with restrained lending in the banking sector, resulted in lower consumption. Despite the above impacts, consumption data for the second quarter were better than expected. The underlying reasons included mainly temporary impacts. In response to increases in indirect taxes, consumers brought forward their purchases of certain goods. These timing considerations are likely to have temporarily changed the path of consumption in respect of expensive durables and goods subject to excise duties; in the latter case, the price increase was significant. Retail data for the third quarter reveal that this impact shifted conspicuously in the case of the goods mentioned, and thus, we expect household consumption to fall further in the second half of the year. Growth in net household savings is likely to have continued in the third quarter. The process was facilitated by a growing financial asset portfolio, in addition to subdued lending, which suggests that the precautionary motive has become an increasingly important consideration.

Chart 1-9

Development in retail sales*



* *Durables: vehicles, furniture, household appliances, construction material and other industrial goods; semi-durables: clothing, footwear, medicine, second-hand goods, mail order services; fast-moving goods: foods, fuels.*

The continuous decline in whole-economy capital investments, which had lasted for nearly two years, came to an end in the second quarter. This change for the better was due mainly to the government's infrastructure investments, mentioned in connection with construction industry production, the underlying reason for which is a more efficient use of EU funds. Companies continued to invest sparingly, which is due to slow improvement in profitability prospects, historically low profitability and tight lending conditions.

The downsizing of inventories continued, which led to a negative growth contribution of an unprecedented scale for this item. This process is likely to have been reinforced by one-off factors, but the downsizing of inventories can also be interpreted as a natural response of the corporate sector to the crisis. The decrease in inventories is especially conspicuous in the case of the input goods of the manufacturing industry and in commerce.

Box 1-1: Inventory developments in the whole-economy

As a result of the economic crisis, the sales prospects and financing conditions of the corporate sector have changed significantly. In their production-related decisions, firms reacted to these by modifying the levels of inventories. Accordingly, the growth contribution of inventory accumulation to gross domestic product was highly negative in the first half of the year, and the magnitude of this fall was unprecedented. Our analysis briefly reviews the motivations of firms' inventory decisions and the recent evolution of inventories.

Firms do not only invest in buildings and machinery, but also keep inventories, which may be inputs for use in production or finished products waiting to be sold. Unfinished products or services (e.g. blocks of flats built for selling or legal services) are also qualified as inventories. The constantly changing business environment forces firms to continuously adapt, and inventory accumulation is one channel for this. Producers can ensure smooth operation and cope with price fluctuations on markets by accumulating inputs. Storing finished products allows for the continuous satisfaction of demand which arises and the maintenance of a stable level of production.

Short-term developments in inventory levels are mainly determined by firms' expectations of business conditions and their financial condition. Over the long term, the level of inventories may be influenced by developments in the production and inventory management methods applied.

In Hungary, in past quarters changes in aggregate inventories were mainly determined by the behaviour of firms in the manufacturing and

Chart 1-10

Changes in inventories in the whole-economy

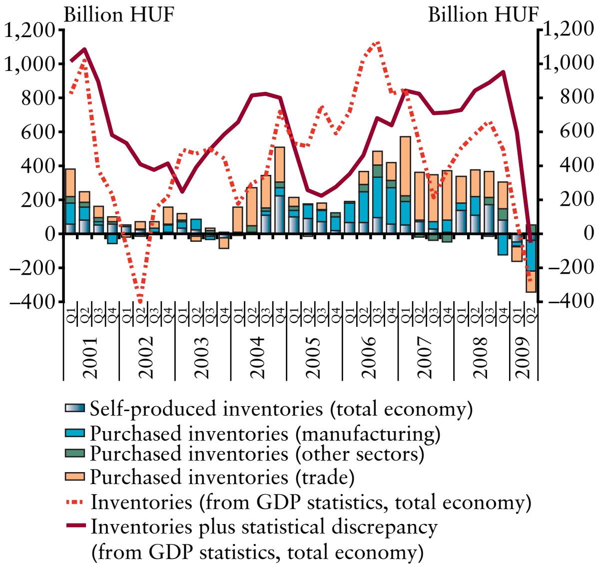
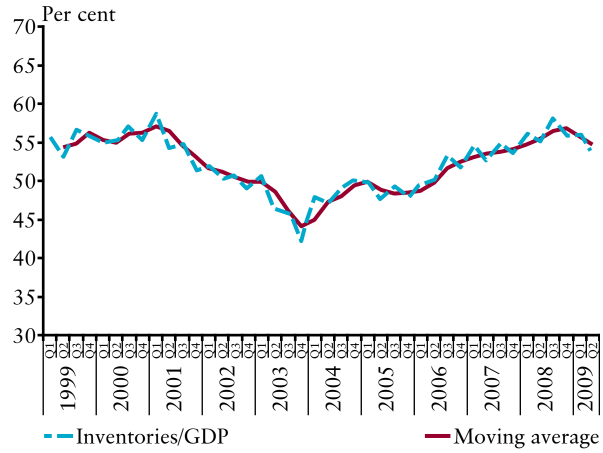


Chart 1-11

Changes in the level of inventories as a proportion of GDP



trade sectors. These sectors' production and sales were especially affected by domestic and external demand effects. The significant tightening of financing conditions further deepened short-term problems. Firms tried to stabilise their respective positions by rapidly reducing their inventories, which was also reflected in the decline in aggregate inventories. In addition to the reaction to the crisis, domestic inventories were also affected by several one-off effects,[1] which may have also played a role in the unprecedented negative growth effect.

In line with the improving economic prospects, recovering confidence indicators and – according to commercial bank surveys – the expected easing in financing conditions, a turnaround is expected in the inventory cycle in the upcoming quarters. This may also be reinforced by the fading of one-off effects within the year (e.g. the filling of gas storage facilities). However, the positive growth effects of inventory accumulation are uncertain from several aspects. The statistical accounting of quarterly inventory changes is a difficult measuring problem, especially in case of small and medium-sized enterprises. This uncertainty may also contribute to the fact that in the past – especially in recessions – inventories and the statistical error on the absorption side of GDP tended to move in opposite directions. The negative correlation between the two items may also mitigate the effect of the change in inventories on GDP growth in the upcoming quarters.

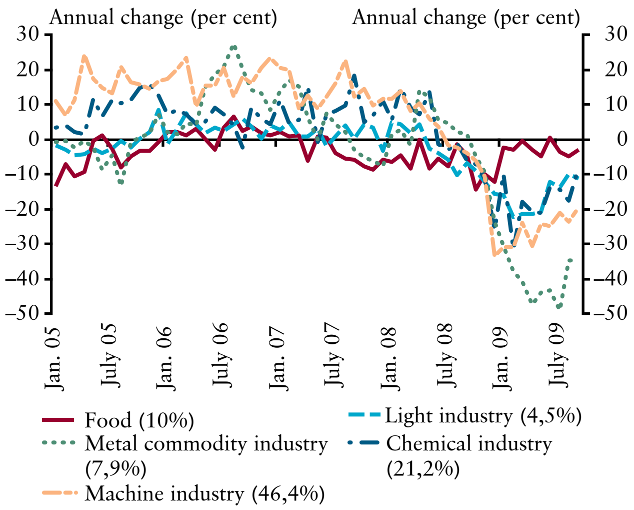
Strong growth of corporate inventories may be further questioned taking into account longer-term developments. The current level of inventories relative to GDP can be considered high even with the recent, significant adjustment. During the last global economic slowdown, an even stronger decline was observed. Long-term prospects of firms have not improved substantially, and therefore they are only expected to rebuild their inventories slowly. Following the current recession, the level of inventories is expected to be permanently lower than in previous years, due in part to the continuous development of applied stockpiling and logistics methods.

The consolidation of export processes and the decline in export demand significantly improved Hungary's foreign trade balance. Within export sales, the sales of goods with a high added value, typically machinery, fell markedly, while food exports fared better. The latter was also facilitated by the lower-than-average exchange rate of the forint. Similarly to sales of food, service exports also only experienced a moderate decline. As regards growth contribution, however, only the sharper-than-expected fall in imports came as a surprise in the past quarters.

[1] The changes in Hungarian gas imports over the year and their effects on inventories were described in detail in the August 2009 *Quarterly Report on Inflation.*

Chart 1-12

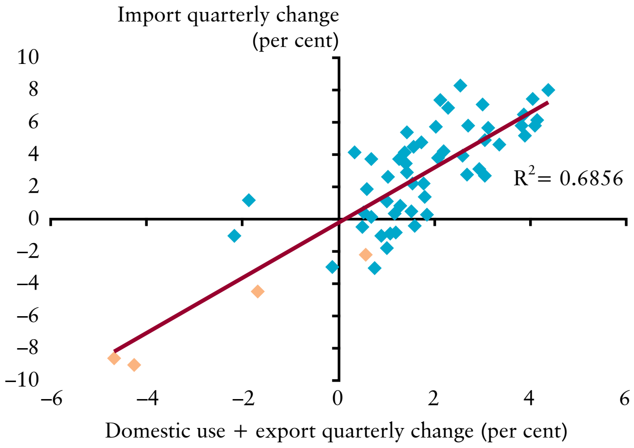
Developments in industrial production*



** The weight of the sector in goods exports is shown in brackets.*

Chart 1-13

Changes in import demand and imports*



** Data for the last four quarters are in yellow.*

We believe that the reason underlying the process was a change in domestic import demand. As regards structural changes, in a recessionary domestic environment, deterioration in income positions and prospects affected purchases with a high import ratio particularly adversely. This resulted in a relatively sharp fall in sales of durables in the case of consumption, and in machinery investments in the case of capital investments and in manufacturing exports compared with service exports, in the case of exports. Lower import demand may also persist in the quarters to come, although to a lesser extent than at present.

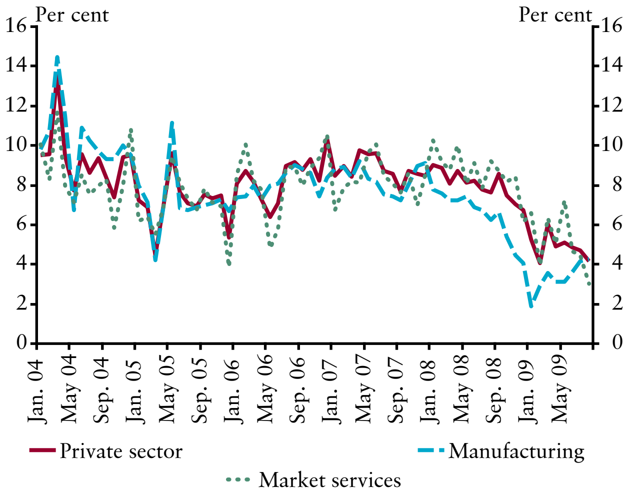
1.3 Increasingly strong wage adjustments in the service sector

Rapidly deteriorating profitability triggered by the crisis forced corporations to stabilise their income positions. As falling domestic demand was depressing prices to an increasingly large extent, corporations were reducing their costs to ensure their ability to operate. In order to do so, in the short run they postponed capital investments and reduced wage costs. In keeping with this trend, increases in private sector wages continued to slow and private sector employment was further downsized in the past quarter.

Chart 1-14

Wage developments in the private sector

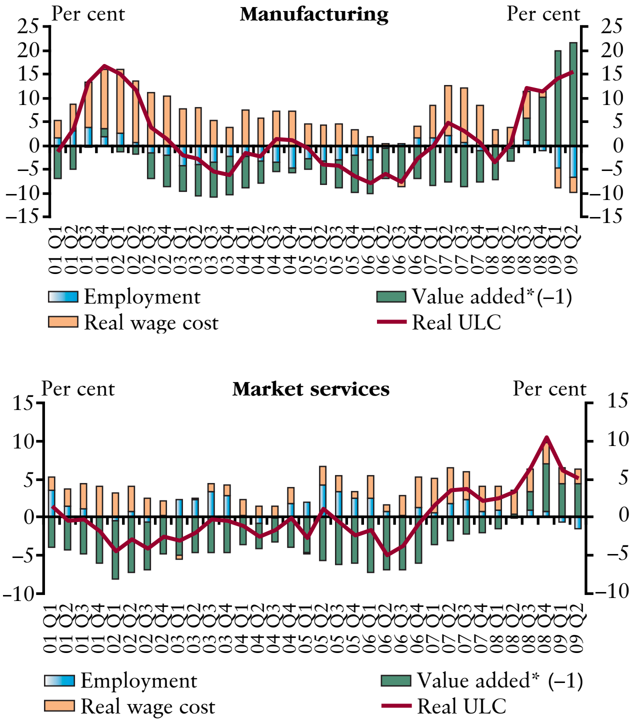
(annual index, seasonally adjusted data)



The slowdown in the growth of private sector wages fell slightly short of our expectations. At the sector level, the underlying reason for this is that the manufacturing wage index rose quickly in the past months whereas by contrast, wage increases in the services sectors were still rather moderate. Wages in the manufacturing sector – along with the changes in the total number of hours worked – were in conformity with the positive shifts experienced in industrial production. The consolidation of the sector's profitability

Chart 1-15

Developments in real unit labour cost in manufacturing industry and market services



was facilitated by a weaker HUF exchange rate in the short run; thus, despite wage dynamics gaining momentum, real unit labour costs did not suggest any further actual shift for the time being.

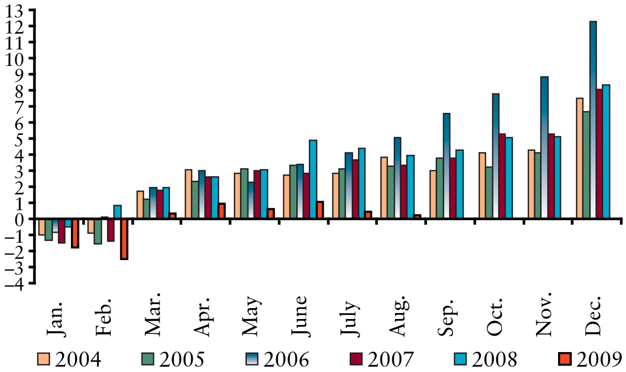
Wages in the market services sector were at consistently high levels in earlier years. This process seems to have come to a halt this year, with wages in the sector at a historical low. It should be noted that there was a general slowdown in the wage index across the sector.[2] This slowdown in wage dynamics is occurring simultaneously with the deceleration of inflation in the sector, which may help keep these processes sustainable over the medium term as well.

[2] Nevertheless, the slowdown was the most pronounced for companies with fewer than 50 employees, and in commerce and tourism. Based on our earlier estimates, these were the sectors that underwent the most intense 'whitening' in the wake of the government measures introduced in 2006 and 2007; therefore, given the current environment of recession, the possible 'blackening' of the economy is likely to have resulted in lower wage increases.

Chart 1-16

Wage development in market services

(annual cumulated change, per cent)



There was no marked change in the numbers employed in the past months, as a result of two opposing processes. The numbers employed in the public sector increased mildly owing to the impacts of the 'Pathway to work' employment programme. This was countered, however, by a slight decrease in numbers employed in the private sector, the underlying reason for which was an increasingly strong adjustment of the numbers employed in the market services sector. The unemployed stayed in the labour market longer than in earlier years. According to recent data, full-time employees stopped swapping full-time employment for part-time employment, but we have not identified substantive backflows.

The number of unemployed continued to rise in the economy. The rate of unemployment was approximately two percentage points higher than one year earlier. A large proportion of those laid off were low-skilled, low-income blue collar workers, which caused significant distortion in the total economy wage index through the composition effect.

In addition to a high unemployment rate, the number of announced new jobs was historically low, thus, free capacities in the labour market led to a consistently loose labour market environment.

Chart 1-17

Change in the numbers present in the labourmarket

(based on LFS, quarterly change, seasonally adjusted data)

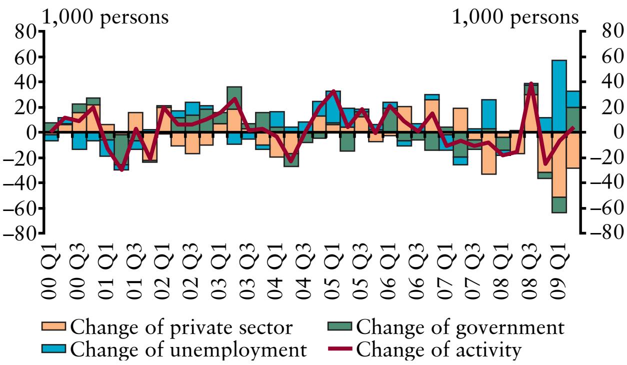


Chart 1-18

Numbers of unemployed and announced new jobs

(the Beveridge-curve)

1.4 Weak demand depressing prices to an increasingly large extent

Several major factors have had a simultaneous influence on inflation in recent quarters. The July increase in indirect taxes pushed inflation to around 5%, but the inflationary impact of the VAT increase was considerably weaker than what could have been projected on a technical basis. Again, this showed how weaker demand is depressing prices to an increasingly large extent. The development of underlying inflation indicators also suggests an increasingly deflationary environment. Following a rise early in the year, underlying inflation has decreased rapidly in recent months.

Chart 1-19

Consumer price index and core inflation

(monthly data, annual growth)

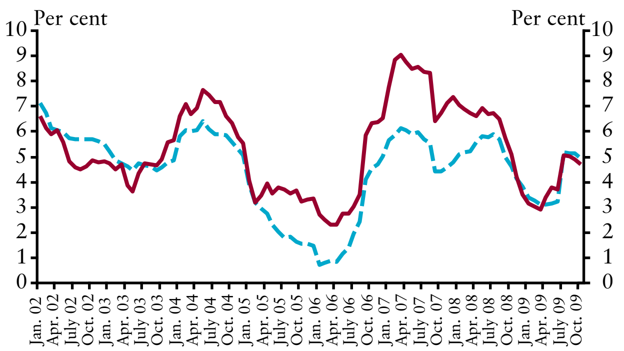
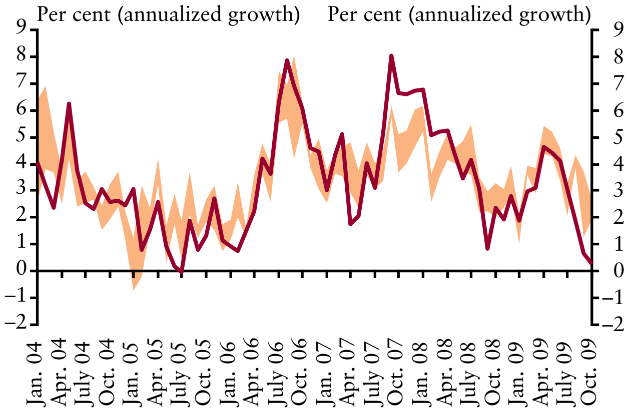


Chart 1-20

Development in underlying inflation indicators



Box 1-2: Measures of underlying inflation

In order to obtain a robust picture of current developments in inflation, we need indicators that are not volatile, but forward-looking at the same time, i.e. ones that do not only show turning points retroactively.

In this regard, the problem with the headline consumer price index is that the month-on-month index is extremely volatile, even if it is seasonally adjusted, while the much smoother year-on-year index only reveals changes in inflation trends with a delay. Therefore, using various methods it is necessary to filter inflation, which reduces the volatility of month-on-month indices.

In the case of our traditional underlying inflation indicator, i.e. core inflation excluding indirect taxes, we exclude certain fixed items that can be considered volatile from the consumer basket: energy type items (fuels), administered prices and unprocessed foods. At the same time, the question arises whether it is possible to construct a better – primarily smoother – underlying inflation indicator.

We have examined indicators that eliminate outliers from the consumer price index with the help of cross-sectional information. These indicators include the (weighted and unweighted) median, the trimmed mean (when the tails of the distribution are omitted from the average) and the so-called Edgeworth weighted index (when the original weights are modified in a way that the more volatile items receive a smaller weighting, but not zero weighting). Based on our findings, soon to be published in a study, these indicators have properties which are at least as good as the underlying inflation indicator used until now, but are usually less volatile. Chart 1-20 depicts the minimum-maximum range determined by the indicators.

Based on our earlier experience, in respect of the price-increasing impact of the VAT increase, we estimated that 80-90% of the increase would be passed on to consumers. Actual data suggest that a much lower proportion of the increase was passed on to consumers. According to estimates by product groups, companies were able to pass the VAT increase onto consumer to the largest extent in the case of processed food, and to the least extent in the case of tradables, where the fall in demand was the sharpest.

Based on experience from earlier VAT increases, the bulk of the impact emerges in the first month. Available data confirm this, and thus no further VAT impacts materialised after July. This also suggests the disinflationary effects of increasingly weak demand.

Analysis of core inflation items reveals that, following acceleration early this year, inflation in tradables stabilised in the summer and showed signs of some slowing down in autumn. The previously consistently high inflation registered for market services fell to a historically low level. The underlying reason for this may have been the increasingly strong adjustment by the sector to an environment characterised by significantly lower demand. Given the fact that a similar shift was experienced in wages in the sector, decelerating inflation may continue in the quarters to come. Except for the impact of the VAT rate change, the price of processed food rose only moderately in recent months, which is likely to be due to outstanding crop yields in 2008.

Chart 1-21

Contribution of the individual product groups to the annual changes in CPI

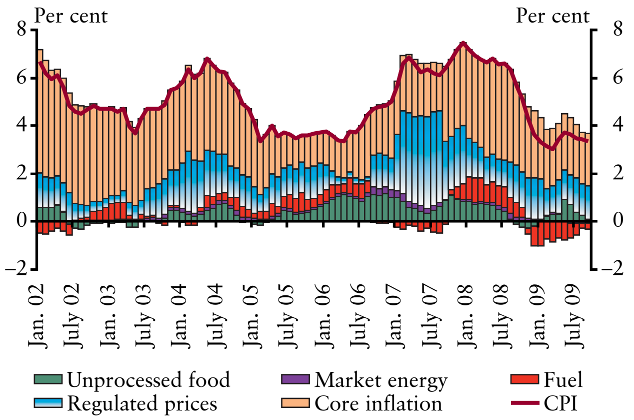
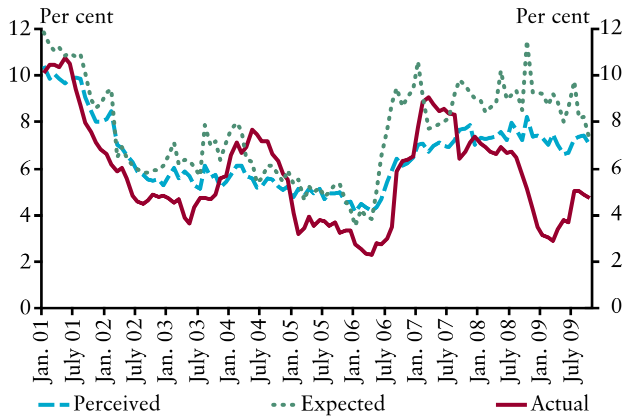


Chart 1-22

Households' inflation expectations*



** Based on European Commission's Business and Consumer Survey. The quantification of the methodology of expectations is presented in Box 1.1 of the August Report on Inflation.*

Table 1-1

Estimated impact of the VAT increase in July[3]

(percentage points)

	Technical effect (100% pass-through, percentage point)	Estimated effect (with one month pass-through, percentage point)	VAT pass-through (estimated effect/technical effect, %)
Processed food	1.3	1.2	93.1
Traded good	3.9	2.0	51.7
Market services	3.1	2.2	70.5
Core inflation	3.3	2.0	60.8
Inflation	3.4	2.2	64.7

[3] In the case of most product groups, we used time series to estimate the inflationary impact of the change in the VAT rates. This means that at the date of the VAT rate change we provided an estimate for the coefficient of a dummy variable with the help of a seasonally adjusting programme (Demetra). We did not expect further pass-through effects of the VAT increase to materialise in August, because the estimates for the coefficient of the dummy for August were low and insignificant. We made estimates for the various product groups separately. In the case of a few groups where we did not think that the time series methods would yield a satisfactory result (administered prices, fuels, alcoholic beverages and tobacco), we used expert estimates. The impact on the entire CIP index was aggregated from the estimates for the individual groups.

Regarding the non-core items of inflation, the price of unprocessed food underwent consistent adjustment in the past few months, following a significant rise in May. The impact of changes in the price of motor fuel was the opposite: fuel prices started to increase in line with rising global market prices in the past months. Due to the base effect, this factor had been decreasing the entire consumer price index until October.

The impact of the VAT increase in July further increased households' inflation expectations temporarily. Subsequently, however, this one-off impact was adjusted for, and inflation expectations returned to levels similar to those seen in earlier months. Although inflation expectations are still high by regional standards, actual inflation – which spiked due to the VAT increase – did not generate any further actual shift. The risk of higher inflation expectations related to increases in indirect taxes gradually dissipated in recent months.

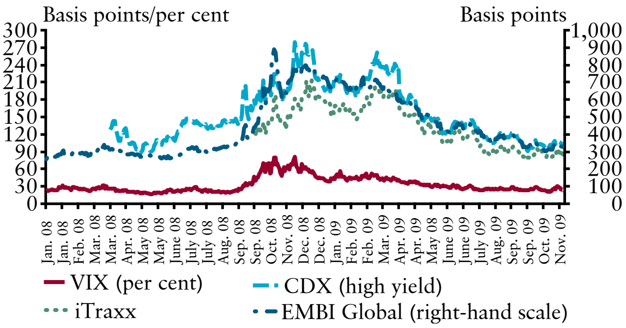
2 Financial markets and lending

2.1 Global investor sentiment has remained favourable

Since the last Inflation Report, investor sentiment has remained favourable in global markets, and risk appetite has continued to grown. Investor optimism was reflected in most financial markets. Several major stock exchange indices – among them the S&P, the Dow Jones, DAX and Nasdaq – reached highs for the year after breaking through key levels. In addition, indices reflecting equity and bond market risks fell significantly in the past months; many – such as the VIX index reflecting the implied volatility of S&P 500 index options and the North American CDX and the European iTraxx bond premium indices – fell to or below their pre-Lehman levels.

Chart 2-1

Risk indices and developments in the S&P's implied volatility*



** The VIX index is a popular measure of the implied volatility of S&P 500 index options; CDX is a North American bond index, and iTraxx is a European bond index. An increased value of a risk indicator reflects declining risk appetite and higher perceived risk.*

Source: Thomson Reuters.

The processes seen in recent months were in line with the favourable trends that started in March, as significant rises were registered for stock exchange indices and prices of corporate and emerging market bonds and commodities, i.e. all non-risk free investment assets. The historically fast rate of increase, however, calls into question the sustainability of these rises. Many still hold the opinion that the optimism in the financial markets is exaggerated and mainly pertains to the future and thus an adjustment cannot be ruled out. This is further supported by the possibility of a reversal in the real economy.

Although the latest data releases on global growth indicate a turning-point in developed economies' performance, there continue to be significant risks to the recovery process, which started with the help of government stimulus programmes and without robust demand from the private sector, in parallel with poor labour market conditions and weak lending activity. When economic policy stimuli are no longer provided in the developed economies, it may turn out that private sector demand is unable to sustain the current favourable processes. Consequently, some market participants doubt an unbroken continuation of growth, i.e. a V-shaped recovery path, and expect a halt in recovery, then another downturn, i.e. a W-shaped recovery path. For the time being, however, investor optimism has not only been fuelled by real economic data, most of which suggest the start of a global recovery, but also by quarterly corporate flash reports which disclosed better-than-expected figures as well. Although the developments in recent months point to a V-shaped recovery; the possibility of a strong financial adjustment cannot be ruled out completely.

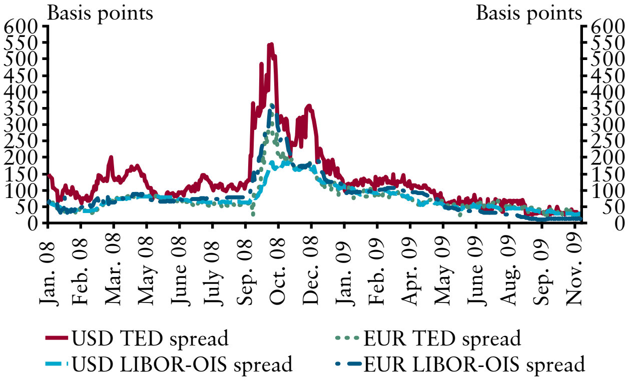
Good performance in the financial sector helped sustain a positive mood amongst investors to a large extent. The fact that the IMF significantly revised its forecast downwards for the amount of the write-offs of global financial losses linked to distressed assets in its October report on stability was a positive aspect. Sentiment on the US banking system has improved due to the Fed's announcement that only one of the ten large US banks required to raise capital on the basis of the stress test is likely to need an injection of government capital. Furthermore, major US banks – such as JP Morgan, Citibank and Goldman Sachs – all reported better-than-expected quarterly data and most of the flash reports were favourable in Europe as well.

At the same time, however, this good performance by the banks was due mostly to investment activities, while credit portfolio deterioration has been a mounting concern in relation to the vulnerability of the financial system. Due to the rising bankruptcy rate in the corporate sector, and the increasing unemployment rate and falling real wages in the household sector, the share of non-performing loans has increased both in the USA and the euro area. This may be a particularly significant problem in the euro area, as the profitability of the European banking sector deteriorated substantially in 2008. Currently, the main source of vulnerability for the financial system is that the deterioration of the credit portfolio, which has a negative impact on banks' profitability and capital position, has just started and its effects will unfold over a longer period of time.

There is no substantial liquidity crunch on the developed interbank markets. TED spreads, i.e. the differences between interest rates on inter-bank loans and short-term government debt, and the LIBOR – OIS spreads decreased further, reaching pre-crisis levels. Another sign of the consolidation in interbank trading is that recourse to short-term credit facilities provided by central banks continued to decrease. Demand in ECB's second call for bids in its 12-month tender fell short of both expectations and the results of the first tender, where the number of bids was outstandingly high.

Chart 2-2

Developments in the USD and EUR TED spreads and the LIBOR-OIS spreads



Source: Thomson Reuters.

Central banks remained cautious. In keeping with expectations, neither the ECB nor the Fed changed their key policy rates, and, judging from their communications, the current environment of low interest rates is likely to persist, in order to protect the fragile recovery process. Meanwhile, the first rate hikes since the onset of global financial crisis were implemented by central banks in the major developed nations: the Reserve Bank of Australia (RBA) decided to raise its key cash rate by 25 basis points twice in a row, and Norges Bank increased its base rate by 25 basis points.

Money supply, which has been raised considerably by the strong liquidity-providing measures, increases inflationary risks over the long run and also carries the risk of the emergence of another asset price bubble, and therefore, monetary expansion will have to be reversed sooner or later. Although assessing the influence of possible exit strategies for withdraw liquidity is becoming an increasingly topical issue for both analysts and central banks, so far only the provision of liquidity has been reduced, and no withdrawal of liquidity has occurred yet. As a first step, in early October the Fed announced that it would use passive repo transactions to test the operation of interbank markets while reducing surplus liquidity.

Currently, from an investor perspective, in terms of the trends in developed markets, developments in the exchange rate of the US dollar and the yen are of key importance. The Japanese yen has appreciated by approximately 10% vis-à-vis the US dollar since April. Further appreciation of the yen as the typical financing currency for carry trade transactions may become a determining factor in respect of the financing costs of the positions taken in emerging markets. Beyond the importance of this phenomenon in its own right, developments in the exchange rate of the dollar exert a material impact on the dollar assets that play the role of a safe haven and on commodity prices typically settled in dollar. In October, the exchange rate of the dollar reached a one-year low against the euro, the underlying reasons for which included both technical and fundamental factors such as a fall in global risk averseness and deterioration of the fiscal position and the inflation outlook in the USA.

2.2 Emerging markets have followed the path of global sentiment, though fiscal imbalances pose a risk in a number of regional countries

Emerging markets also benefited from the optimistic mood in developed markets, healthy risk appetite and a weak dollar. Though to differing degrees, decreases in CDS premia, appreciation of foreign exchange rates and falling yields occurred in each of the emerging country groups. Improved global investor mood was mostly reflected in the appreciation of foreign exchange rates in South-East Asia and a reduction in yield premia in Central Eastern Europe. Furthermore, as was pointed out by S&P, instances of downgrades have fallen off significantly in emerging markets recently.

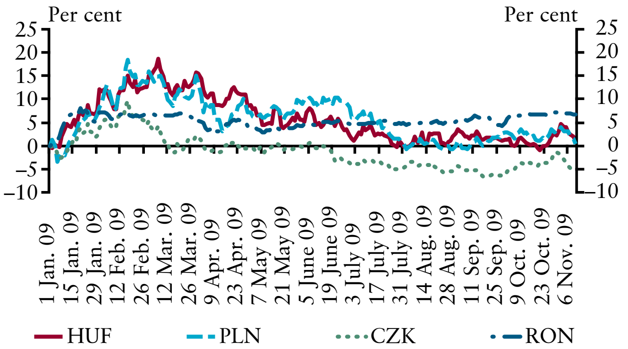
Market sentiment in Central Eastern Europe was shaped by a number of country- and region-specific factors, as a result of which the processes in the region offer a rather mixed picture. Worries concerning the IMF programmes in the region came to the fore again in October and November. In the case of Latvia, Ukraine and Romania there was a significant increase in the risk that these countries would not receive the next tranche of loans granted by international organisations owing to failure to meet promises made to the lenders. While risks moderated in Latvia after acceptance of the expected fiscal measures, tensions did not ease in the case of Romania and Ukraine. As a result, there was pressure on the concerned financial markets and CDS spreads increased. However, compared with the Latvian crisis situation in June, these problems only affected the other countries in the region to a lesser extent, and the risk of contagion decreased. The underlying reasons for this could be the fact that the market made an increasingly strong distinction between the individual countries of the region in an environment of improving risk perception.

As regards the risk perception of the countries in the region, currently, besides the reduction in external vulnerability, fiscal imbalances are the most important risk factor. Fiscal balance is expected to deteriorate significantly in the years to come in the Czech Republic, Poland and Romania, with fiscal deficits accounting for 5 to 7% of GDP. However, markets consider Hungary as a relatively good performer in this respect.

Although the central banks of emerging countries continued to maintain their eased monetary conditions, there was some shifting towards a more cautious interest rate policy. It was mainly in the South Asian and South American markets that the number of rate cuts declined. Basically, interest rate decisions in Central Eastern European countries were in keeping with expectations: there were rate cuts in Romania, Russia and Turkey, while key policy rates remained unchanged in the Czech Republic and Poland. As regards interest rate policy outlook, some divergence can be experienced, with central banks at

Chart 2-3

Changes in exchange rates of regional currencies*

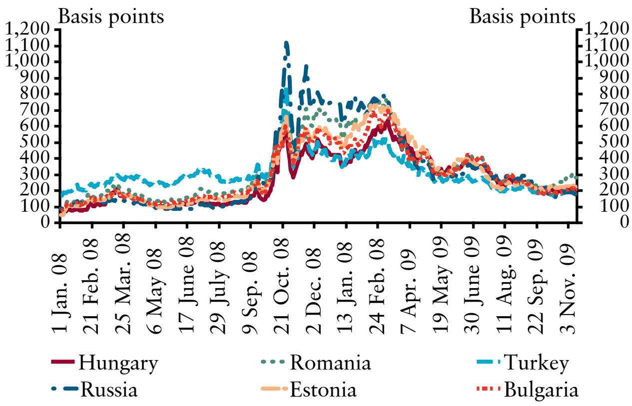


** Changes in percentages, 1 January 2009 = 0, a positive value indicates devaluation of the local currency.*

Source: Thomson Reuters.

Chart 2-4

Development of CDS spreads in some emerging countries



Source: Bloomberg.

various stages of the easing cycle. In Poland, the easing cycle seems to be over, though tightening is not expected in short term either, as the central bank is likely to take a "wait-and-see" approach. The market is divided over further rate cuts by the Czech central bank. In Romania, the domestic political crisis and uncertainty regarding the next tranche of the IMF loan may interfere with the expected continuation of the easing cycle.

2.3 Domestic markets were characterized mainly by favourable developments

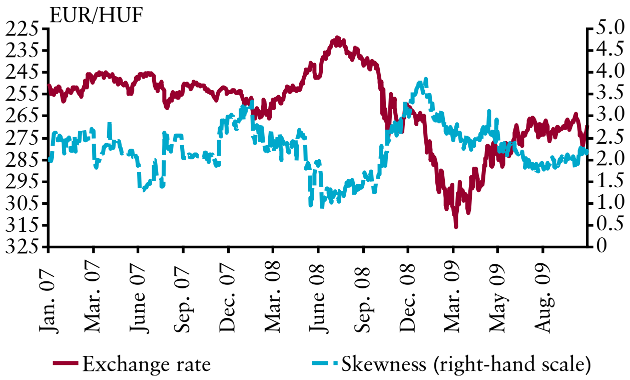
Since the last Report, Hungary's improved risk perception has persisted. An important development was S&P's revision of the outlook for the credit rating on Hungary's FX-denominated debt from negative to stable, while maintaining its 'BBB-' rating. This significantly reduced the chance of the occurrence of a major negative shock in the government securities market. Moody's and the reports of the European Commission outlined a favourable picture of Hungary's outlook and the sustainability of the country's public finances. Improved perception was also reflected in declining risk premia, e.g. in CDS spreads, FX-denominated bond spreads and the 5-year forward forint risk premium 5 years ahead, over the euro forward yield in the same maturity. CDS spreads had fallen around 200 basis points by mid-November, and there was also some improvement in relative perception.

Global investor sentiment and regional trends continued to affect the forint the most. In the past months, the exchange rate of the forint floated within the HUF/EUR 265-280 band. Taking into account exchange rate fluctuations experienced during the past year and the sensitivity of forint to global investor sentiment, the range-bound exchange rate movements over the past several months can be regarded as relatively stable. Historical and implied volatilities have subsided, and during October they approached the levels prior to September 2008. Developments in expectations also reflected this relatively stable exchange rate: the skewness indicator calculated from options remained low. Similarly, analysts' expectations vary between EUR/HUF 264-275 at a one-year horizon. showing some gradual appreciation. However, substantial exchange rate fluctuations experienced at the end of October indicate that the FX market is still relatively illiquid, so even minor negative shocks may trigger the exchange rate to overreact in a large degree.

The developments in the government securities market were rather favourable, however, there are still signs suggesting risks. Yields continued to fall sharply at all maturities in the secondary market. Since late August, short-term benchmark yields have fallen by 150 basis points and yields on securities with maturity of 3 to 5 years by 100 to 110 basis points, while yields on securities with the longest maturity fell by 75-85 basis points. As a result, short-term yields were around 6.2-6.3% in mid-November, while yields at longer maturities were in the 6.8 and 7.2% range. Secondary market liquidity improved in September, but later this improvement came to an end.

Chart 2-5

Developments in the EUR/HUF exchange rate and skewness of exchange rate expectations in the direction of weakness*



** Skewness = 1 M risk reversal/1 M volatility*10; we applied multiplication by ten for the sake of a more straightforward presentation; there is no measurement unit for skewness; a rise in the value of the indicator represents a shift in exchange rate expectations to a weaker position.*

Source: Thomson Reuters, Bloomberg.

Demand for primary issuances remained consistently high, and the volume of securities issued was often raised. Average yields at auctions, though often higher than secondary market benchmark yields, declined consistently. At the same time, however, the supply side offers a more subtle picture. The lower yields and excess demand were at least partly caused by schedule of 2009–2010 issuance plan of government securities. Though according to the current issuance plan gross sums to be issued remain comparably unchanged during next year, due to large redemptions in the fourth quarter of 2009 negative net government securities issuance is expected.

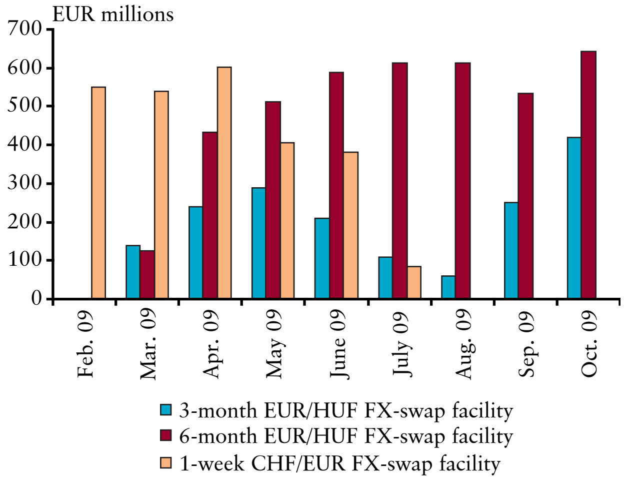
In parallel with the decrease in the supply of government securities the foreign investors continued to divest their HUF-denominated portfolio. The government securities portfolio held by non-residents has fallen by HUF 80 billion since late August, which is due mainly to the fact that an amount from a sizeable maturing investment has not been reinvested. The participation of non-residents in auctions was rather mixed. Their demand for securities was high at the start of the reference period, whereas at later auctions they only subscribed a smaller proportion of the issued securities.

Since the last Report there has been no tension in respect of the redistribution of either HUF or FX liquidity; both the unsecured interbank depo market and the FX swap market operated smoothly. Interbank HUF yields remained in the lower section of the interest rate corridor. HUF yields implied from FX swap transactions were close to HUF benchmark yields of corresponding maturity at both short and long maturities. Utilisation of the central bank's liquidity providing facilities was low, and there was no demand for HUF loans with longer maturities or one-week CHF/EUR FX swaps. EUR/HUF tenders with longer maturities were utilised to a lower extent than they could potentially have been.

The Monetary Council pressed ahead with the easing cycle started in July. Since August it has cut the base rate by a total of 1.5% over the past three months, reducing it by 50 basis points at a time. As the easing cycle progressed, the benign global investor sentiment, relatively stable exchange rate and continuously lower-than-expected inflation data resulted in a downward shift in the interest rate path priced in by the market and heightened expectations of more rate cuts to come. Based on current market prices, the base rate is likely to fall below 6% by mid-2010, but yield curves reflect expectations of rising interest rates in the second half of 2010.

Chart 2-6

Utilisation of the central bank's FX swap facilities with longer maturities*

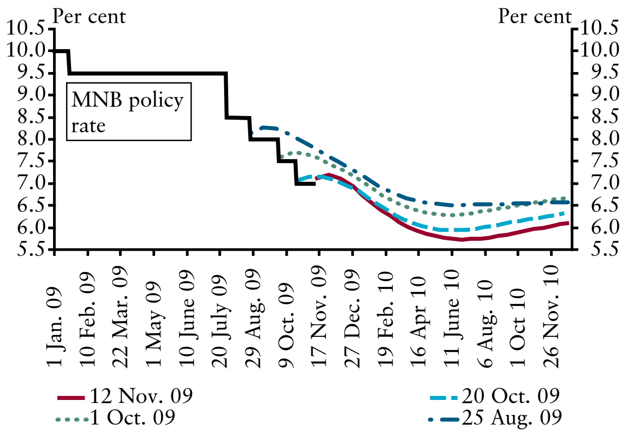


** Portfolios outstanding at month-end.*

Source: MNB.

Chart 2-7

Future path of the two-week key policy rate implied from money market yields



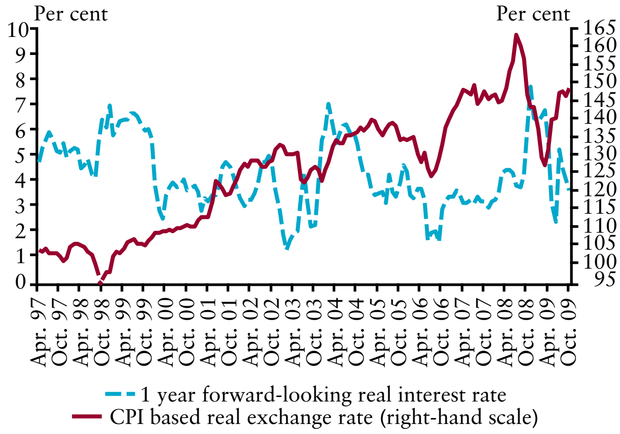
2.4 Developments in monetary conditions were mixed

Since the last *Report* monetary conditions have been varied: there has been no material change in the real exchange rate. The real interest rate has declined steadily, following an increase in July triggered by a technical impact.[4] Nevertheless, we maintain our position from the previous *Report*, i.e. that currently, in addition to traditional indicators, the non-price factors of lending are also of key importance. In this respect, changes in creditworthiness standards in the quarters to come show that lending standards are expected to ease only in the case of home loans to households. By contrast in the case of consumer loans and corporate lending, price and non-price credit conditions are likely to remain tight.

The factors influencing the real interest rate all declined. The drop in nominal yields exceeded that in inflation expectations, as a result of which the real interest rate dropped below its long-term average level. There were only minor, 1- to 2-per cent shifts in the real exchange rate, which was due mainly to the relative stability of the nominal exchange rate over the past months. A further contributing factor was the fact that monthly inflation in Hungary only departed slightly from that in the euro area and the inflation differential only exerted a marginal impact.

Chart 2-8

Developments in monetary conditions*



** Increased values of the real exchange rate reflect real appreciation. The forward-looking real interest rate is calculated using inflation expectations from the monthly Reuters poll.*

[4] When calculating the real interest rate, we use the monthly average of the fixing of the benchmark yield on government securities with maturity of one year and inflation expectations one year ahead calculated by means of the Reuters' monthly analyst survey. In July, expectations reflected the inclusion of the VAT increase in the CPI index, and in August its exclusion from the index, which, as a technical factor, modified the real interest rate thus computed. The indicator would have been able to reflect fundamental changes accurately only if the impact of the VAT increase had been filtered; however, the data needed for this were not available to us.

2.5 Economic adjustment continues to play a dominant role in the lending activity of the domestic banking system

In the third quarter of 2009, private sector borrowing was dominated mainly by sluggish macro-economic activity and banks' consistently low risk appetite. Demand for bank loans was dampened by increasingly subdued real economic activity and rising bankruptcy rates in the corporate sector, and was boosted by the limited availability of alternative channels of financing (mainly trade credit). Banks maintained stringent credit standards, while rising risk costs prevented lending rates from decreasing. The loan portfolio of the entire corporate sector shrank further in the last quarter, while a decrease in the deposit portfolio was a new phenomenon. In response to a strong wage shock, household demand for loans remained low. At the same time, strict price and non-price lending conditions persisted, due to banks' low risk appetite. This was reflected in a low level of household borrowing and households' strong willingness to increase their financial savings. Developments in private sector borrowing were in line with our expectations, and our projection for the last quarter of 2009 calls for a further decrease in lending by the domestic banking sector to non-financial corporations. This is backed by the latest "Senior Loan Officer Survey",[5] according to which banks are planning on further tightening in the corporate segment this year. The household loan portfolio is expected to remain at the same level or decrease only slightly. We expect that a new upswing in lending will follow the economic recovery with a lag.[6] A notable increase in the loan portfolio is not expected until after a recovery in external demand, a pick-up in investment projects and moderation of bankruptcy rates and unemployment by the end of 2010 or the beginning of 2011.

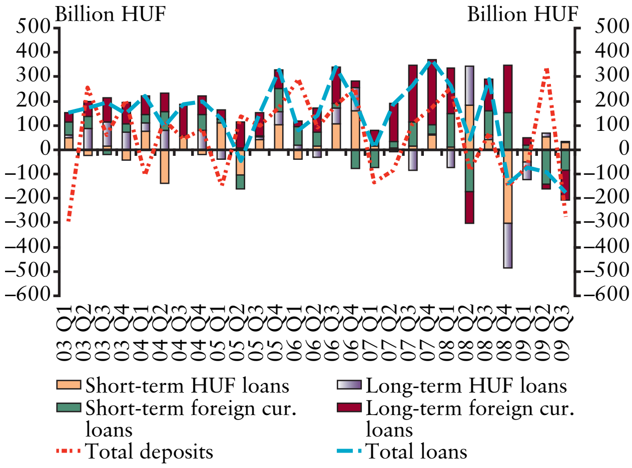
CORPORATE BORROWING AND DEPOSITS

The outstanding amount of loans granted by the domestic banking system to the non-financial sector decreased further in the third quarter of 2009, and this decline was larger than in earlier quarters. Analysis of the composition of the changes reveal that the main reason for this decline was shrinking FX portfolios, only slightly offset by a minor increase in HUF loans. In contrast to the first quarter, in Q3 long-term investment loans decreased faster than loans financing current assets (there was some increase in the case of short-term HUF loans). Looking at the size of companies, compared to large corporations, the borrowing of small and medium-sized enterprises decreased more significantly.

In addition to real economic processes, banks' tightening of both price and non-price lending criteria also contributed to the contraction of the corporate loan portfolio. A steady decrease in banks' borrowing costs is reflected in both EUR- and HUF-based lending. This favourable impact was significantly offset by the increase in credit risks as perceived by banks and the pricing of such risks in lending rates. As regards of non-price credit standards, the MNB's lending survey reveals that tightening is no longer attributable to liquidity risks, as it is rather due to the expected impacts of the economic downturn and banks' risk averseness. Non-price conditions which were tightened by most banks include collateral requirements and maximum available maturity.

Chart 2-9

Net quaterly loan flow of the domestic banking sector to corporations*



Note: Credit institutions and Hungarian branches of non-resident credit institutions.

** Original data, adjusted by the effects of exchange rate changes*

Source: MNB.

[5] Senior Loan Officer Survey on Bank Lending Practices (November 2009) http://www.mnb.hu/engine.aspx?page=mnbhu_hitelezesi_felmeres&ContentID=13361.

[6] This assumption is corroborated by international studies using data of earlier crises, e.g. Laeven, Luc–Valencia, Fabian (2008): Systemic Banking Crises: A New Database. IMF Working Paper No. 08/224. http://www.imf.org/external/pubs/ft/wp/2008/wp08224.pdf.

In the third quarter of 2009, corporations withdrew most of their FX, mainly short-term EUR deposits placed in the banking sector in the second quarter of 2009, and the HUF portfolio also shrank. The gradual withdrawal of deposits suggests that the decrease in lending can be explained mainly by supply factors. The use of savings may lead to further financing difficulties if, according to our expectations, the willingness to lend only improves in the second half of 2010.

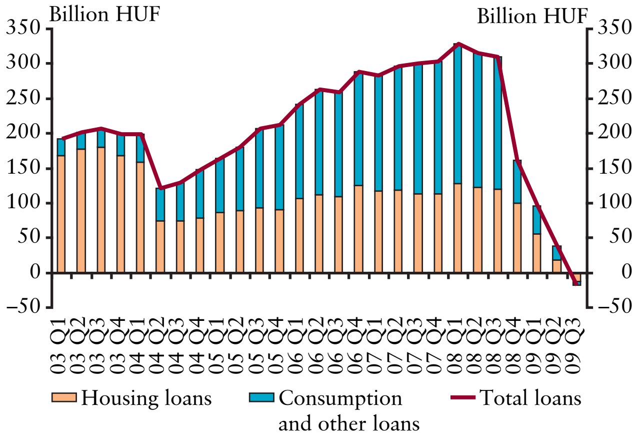
HOUSEHOLD BORROWING AND DEPOSITING

In the third quarter, processes in the household sector were slightly different from those in the corporate sector. The aggregate household loan portfolio (adjusted for the exchange rate impact and also seasonally adjusted) was broadly identical to the previous quarter; there was only a very low positive credit flow. A detailed breakdown reveals that the underlying reason for the practically zero increase in the loan portfolio is the shrinking portfolio of non-housing FX loans and a growing portfolio of non-housing HUF loans. Within the FX loan portfolio, the portfolio of CHF-based loans has been declining consistently since CHF-based loans are almost non-existent as products anymore. Simultaneously, the portfolio of EUR-based loans has been expanding, accounting for nearly the entire new part of the FX portfolio. There was no change in the portfolio of HUF housing loans in the third quarter, and the portfolio of HUF consumer loans has been growing since May.

Households' loan portfolio remained at broadly the same level in an environment of unchanged price and increasingly strict non-price conditions. Despite the declining funding costs, no significant change can be observed in interest rates on loans to households in the third quarter, which suggests an offsetting effect of the rising credit in the pricing. Tightening

Chart 2-10

Net quarterly loan flows of the domestic banking sector to households*



Note: Credit institutions and Hungarian branches of non-resident credit institutions.

**Seasonally and exchange rate adjusted.*

Source: MNB.

of non-price conditions for housing loans did not continue in the third quarter of 2009, whereas by contrast, lending criteria for consumer loans were tightened further. This was reflected in the minimum level of creditworthiness, the loan-to-value ratio and payment to income ratio.

Household deposits continued to grow almost by HUF 150 billion in the third quarter as well. FX, mainly EUR, deposits, and within this group term deposits, account for over two-thirds of the net increase. The possible underlying reasons are multi-faceted: expectations of HUF exchange rate devaluation forint did not disappear altogether, and deposit-taking competition between banks increased; as a result, deposits seem to be an attractive form of savings for households.

3 Inflation and real economy outlook

The information[7] received since the August issue of the *Quarterly Report on Inflation* has not led to any significant changes in our assessment of the macroeconomic outlook. The positive effects from a more favourable external demand path may prevail over the entire forecast period, although in our projection the aggregate growth effects of such will largely be offset by an expected stronger decline in domestic demand. For this year, we continue to expect a significant economic downturn approaching 7%, followed by slow recovery. Substantial expansion of the domestic economy will only take place in 2011, trailing developed and regional countries with a delay.

As a result of slack domestic demand and significant corporate adjustment, we expect a sustained disinflation trend, although over the short term its impact will be concealed by the inflationary impact of the increase in indirect taxes. Although rising commodity prices would justify higher inflation in 2010, these effects have been offset by the more favourable outlook for trend inflation. Following inclusion of the indirect tax increases in the basis, the overall consumer price index, which is set to reach approximately 5.5% by the end of the year, will start to fall from mid-2010 on, sinking to a level of around 2 percentage points by the end of 2011. The net inflation indicator, which does not contain the effect of indirect tax measures, may be lower than the medium-term inflation target over the entire forecast period.

Box 3-1: Changes in our basic assumptions

In accordance with our earlier practices, when compiling the forecasts, we took into account rule-based, fixed values for the base rate, exchange rates and the oil price. The assumptions correspond to the average values of the month preceding publication.

Overall, there have been no material changes in our basic assumptions since the August issue of the *Quarterly Report on Inflation.* As a result of the rate-cutting cycle, the central bank base rate is now 1.5 percentage points lower, i.e. at 7.0%. The exchange rate of the HUF has remained stable recently, although the EUR/USD cross rate has exhibited further weakening, thus mitigating the effect of oil price increases. The slope of the oil price path increased slightly in 2010, but this did not have a significant impact on the projection at the end of our forecast period.

Table 3-1

Changes in our basic assumptions compared with the August Quarterly Report on Inflation*

	August 2009			November 2009			Change compared with August (%)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Central bank base rate (per cent)**	8.5	8.5	8.5	7.0	7.0	7.0	–1.5	–1.5	–1.5
EUR/HUF	281.1	272.1	272.1	280.0	268.7	268.7	–0.4	–1.3	–1.3
EUR/USD (cent)	137.0	140.8	140.8	139.4	148.1	148.1	1.7	5.2	5.2
BRENT oil price (USD/barrel)	59.0	71.6	75.6	61.4	78.4	82.5	4.0	9.4	9.1
BRENT oil price (EUR/barrel)	42.9	50.9	53.7	43.7	52.9	55.7	1.9	4.0	3.7
BRENT oil price (HUF/barrel)	12,011	13,841	14,619	12,184	14,219	14,971	1.4	2.7	2.4

* *Annual averages, based on the monthly average exchange rate of October 2009 and the crude oil futures price.*

** *End-of-year values based on constant interest rate assumption, the change compared to August is presented in percentage points.*

[7] Projections are based on information available up to the 11th of November c.o.b. Preliminary data regarding GDP was incorporated only in macrostance evaluation but not in the projections.

3.1 Improving external demand outlook

The business activity outlook of the Hungarian economy continues to be influenced primarily by external demand, developments in lending activity and the tightening measures implemented by the government.

With respect to economic developments over the short term, the projections of the international forecasting institutions for the major economies have improved in recent months. The more benign global growth prospects are also expected to have a positive impact on the performance of the domestic export sector. At the same time, we see numerous risks in relation to the growth impulses of external demand. Some of these risks involve the sustainability of global developments, while others involve the magnitude of the additional growth generated for the domestic export sector.

The sustainability of the economic recovery may still be considered fragile, even though investor sentiment is very optimistic at present, confidence indicators are rising steadily, and a correction in asset prices has been observed for months. The fiscal measures to boost demand significantly impair economies' fiscal balance and substantially add to the expected the debt path of these countries. Mounting unemployment may remain characteristic even in an economic environment which is stabilising, and the adjustment of the balance sheets of banks and writing off of losses may be a process which lasts for years. In this environment, the timing of the withdrawal of economic policy incentives may be a key factor. Earlier-than-justified, inadequately-coordinated tightening of conditions may again result in a period characterised by declining GDP and money market turmoil, while later withdrawal of the measures may pose the threat of a new asset price bubble and increasing inflationary pressure.

Regarding Hungary's external demand in the medium term, another risk may be that in the future the sustainable growth of the global economy is expected to be accompanied by the adjustment of balance of payments imbalances. The balance of payments may gradually deteriorate in the economies that accumulated significant surpluses earlier, and internal demand may play a more pronounced role in growth than exports. This scenario affects Hungary's export prospects as well, as Hungary's export sales are closely related to those of Europe, especially to Germany. It may pose a further risk if the easing of global imbalances is coupled with depreciation of the real exchange rate of the US dollar, further reducing the competitiveness of Hungary's main European export partners. The aforementioned process may exert a negative influence not only on Hungarian export growth, but also on the export growth of the other countries in the CEE region.

Table 3-2

Forecast for Hungary's external demand

(per cent)

		Total				Eurozone*			
		2008	2009	2010	2011	2008	2009	2010	2011
MNB	November 2009	2.1	–4.6	0.9	2.1	0.6	–4.0	0.4	1.3
	August 2009	2.0	–5.1	0.3	2.1	0.6	–4.6	–0.2	1.4
IMF	October 2009	2.0	–4.5	0.8	2.2	0.7	–4.2	0.3	1.3
	June 2009	1.8	–5.1	0.0	–	0.8	–4.8	0.3	–
	June 2009 direct**	2.1	–4.9	0.3	2.3	–	–	–	–
	April 2009	2.1	–4.1	–0.2	2.2	0.9	–4.2	–0.4	–
OECD	June 2009		1.6	–4.8	0.0	–	0.5	–4.8	0.0 –
	March 2009	0.8	–4.5	0.0	–	0.7	–4.1	–0.3	–
EB	November 2009	2.0	–4.4	1.1	1.9	0.6	–4.0	0.7	1.5
	May 2009	2.1	–4.1	0.2	–	0.8	–4.0	–0.1	–
ECB	September 2009	–	–	–	–	0.6	(–4.4)–(–3.8)	(–0.5)–0.9	–
	June 2009	–	–	–	–	0.6	(–5.1)–(–4.1)	(–1.0)–0.4	–

* *MNB's aggregate contains regulary monitored eurozone members.*

** *IMF estimation (different weigths and countries as in the MNB's methodology).*

Chart 3-1

Export market share and economic growth

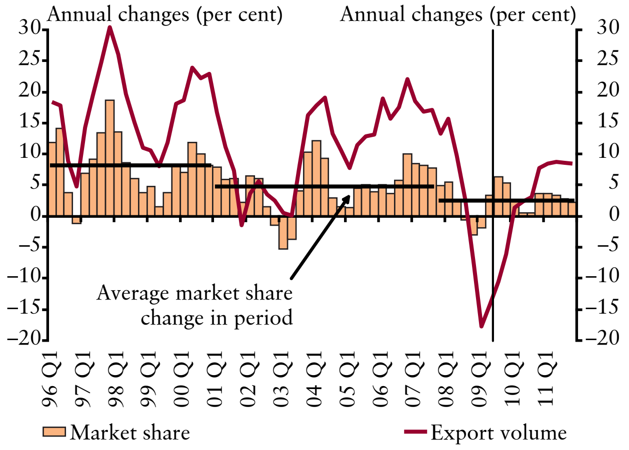
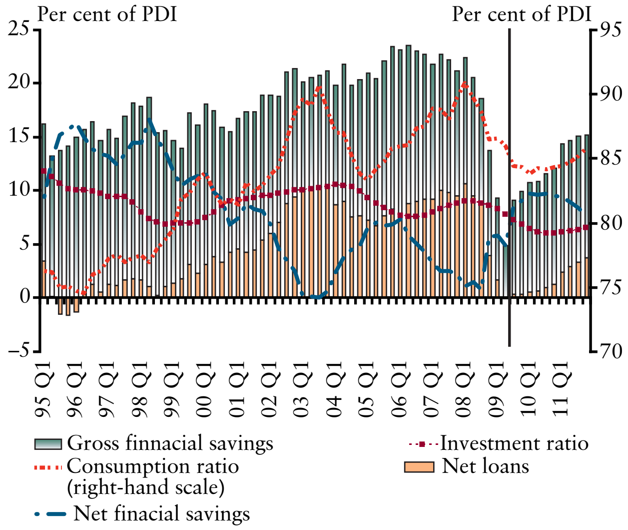


Chart 3-2

Trends in the use of household income



Over the short term, Hungary's export performance may benefit from stabilisation and steady growth in external demand conditions, while the effects of the aforementioned structural features in global growth may be felt in Hungary's export dynamics over a horizon of several years. In line with this, over the long term Hungary's export sales are expected to react to the more favourable growth processes of our main trading partners in a less sensitive manner than has historically been the case. Hungary's market share is expected to continue to grow in the coming years, although this growth may be less dynamic than in previous years. The magnitude of the impact may largely depend on the extent to which the structure of Hungarian industry is able to adjust to changes in demand conditions. Over the short run, this adjustment process may also be facilitated by a real exchange rate that is more depreciated than in previous years.

In terms of lending activity, maintaining our earlier baseline projection, we continue to expect a very moderate pace of loan dynamics, and we only expect a substantial upturn in lending volumes in 2011.

Our assessment of households' expected consumption-savings behaviour has not changed. In an environment characterised by restrained lending activity, increased uncertainty and negative income developments, households continue to strive to adjust their balance sheets and achieve a more sustainable consumption-savings profile. The consumption rate, which was historically high in previous years, will decrease over almost our entire projection horizon and is only expected to stabilise in 2011. The rate may sink to the level characteristic of the years preceding the rapid accumulation of debt (2000-2001). A similar decline may be seen in the investment rate. In addition to the factors mentioned in relation to consumption decisions, the tightening of government incentives also contributes to the decline in household investment. As a result of the aforementioned effects, households' net financial savings may increase considerably compared to previous years. The role of precautionary motives in households' consuming-saving decisions is expected to strengthen, which is reflected in subdued credit demand as well as in the increasing accumulation of financial assets.

The numerical change in our consumption forecast follows the shift in our assessment of the expected real income path. This year, slightly slower-than-expected wage adjustment and better-than-expected developments in inflation may result in a weaker decline in real incomes than previously assumed. Looking forward, however, the lower inflation environment may continue to strengthen the need of the private sector to adjust, and the consequence of this is consistent with a somewhat lower real income path both in 2010 and 2011.

We continue to expect growth in whole-economy investment only in case of EU-funded projects. The development of central budget and local government investments financed from own funds may remain extremely subdued over our entire forecast horizon. This year, especially in the first half, a substantial amount of household investment may have been brought forward owing to the tightening of the housing subsidy system. With the fading of this effect, household investment will decline considerably. The recovery in corporate investment may remain moderate even in an environment of more favourable external economic conditions as well. During the recession period, companies accumulated significant excess capacities, as a reduction in physical capital in parallel with the fall in production processes was not possible. The substantial existing free capacities also allow for the expansion of production when demand conditions are more favourable, and thus in the first phase of the economic recovery the expansion of corporate investment may remain restrained. At the same time, it should be mentioned that there has been some delay in launching some of the large-scale investments planned for this year (e.g. the Mercedes factory in Kecskemét). We took into account a significant part of such investment divided between 2010 and 2011.

Box 3-2: Indicators to measure capacity utilisation

Developments in capacity utilisation in the corporate sector provide a great deal of information on short-term business conditions. The current situation in terms of utilisation of production factors may indicate the investment need expected to materialise with changes in demand conditions and the magnitude of the inflationary pressure prevailing in the economy. Over the short term, a lower-than-average level of this indicator may be consistent with restrained investment activity and low inflationary pressure.

Capacity utilisation measures the intensity of utilisation of the factors of production available to firms. In this analysis, we present the most widespread methods in international practice. The basis of the first approach is labour productivity. Using this approach, we assume that changes in productivity partly reflect shifts in technological development and partly shift in labour utilisation. The change in the utilisation of labour also affects the utilisation of capital goods in a similar manner. Accordingly, using the Hodrick-Prescott filter, we de-aggregate the developments in labour productivity[8] into trend and cyclical components in our analysis, using the latter as an indicator of capacity utilisation.

The second method is based on a Cobb–Douglas production function, where the two factors of production are labour and capital, and we assume that the return to scale is constant. We estimated this function by sector and separately for both labour statistics.[9] If production grows while labour and capital remain unchanged, this is attributable to technological development or an increase in capacity utilisation. Accordingly, we identified the trend-filtered component of the so-called Solow residual of the functions as an indicator of capacity utilisation.

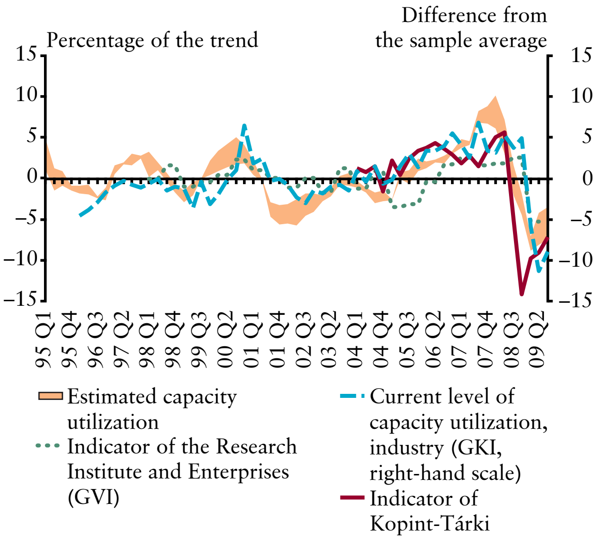
Various questionnaire-based surveys serve as the basis for the third method. However, these indicators are polled only in case of manufacturing, and we do not have a similar indicator for market services. For this method, we took account of three survey-based indicators: the indicator of the GVI (Research Institute of Economics and Enterprises), the indicator of Kopint-Tárki as well as the findings of the ESI survey conducted by the GKI on the basis of the European Commission's recommendations.

As the results of the three methods were very similar in the case of the manufacturing sector, we also accepted the results of our own estimate of developments in market services as relevant. Our results are summarised in the charts below. Starting from 2005–2006, as a consequence of increasing macroeconomic uncertainties (mainly

Chart 3-3

Capacity utilisation in manufacturing based on various indicators

(on the basis of seasonally adjusted monthly data)



[8] In order to reduce uncertainties, we included the changes in the number of employed on the basis of the institutional and labour survey data as well in the estimate. However, it should be pointed out that the LFS data, which cover a wider range of those employed in the whole economy, are the ones that are consistent with the sectoral value added data.

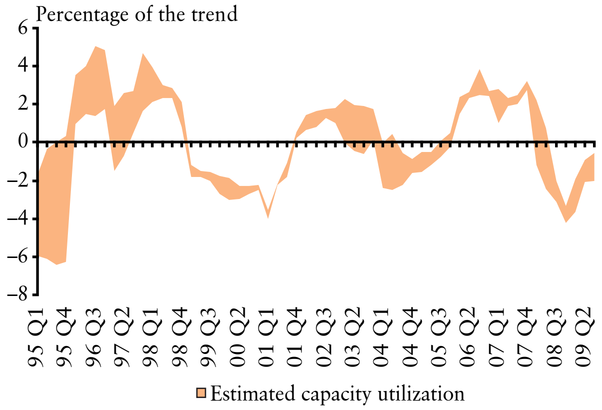
[9] The capital stock data series is an MNB estimate.

related to the equilibrium position of the economy) and the less 'investor friendly' institutional environment, firms in the Hungarian private sector reacted to changes in demand conditions by increasing their capacity utilisation instead of increasing their investment activity. As a result, in the quarters preceding the international economic crisis, capacity utilisation advanced to a historically high level, especially in manufacturing. Following the onset of the crisis, capacity utilisation declined rapidly and at present it is near its historic low point. Much stronger contraction was observed in capacity utilisation in the case of manufacturing, even with large-scale lay-offs. Based on the current developments in capacity utilisation indicators, we do not expect a general short-term upturn in corporate investment, while inflationary pressure is also expected to remain weak.

Chart 3-4

Capacity utilisation in market services based on various indicators

(on the basis of seasonally adjusted monthly data)



The contribution of net exports to growth may be even more favourable than in our earlier forecasts. The underlying reasons are the improving external demand outlook and the import demand of the economy, which has changed in recent quarters. This latter process may remain characteristic in 2010, although to a lesser degree than this year. The real economy balance ensures a positive contribution to growth over our entire projection horizon.

Despite the more favourable short-term developments in demand, our GDP forecast for 2009 has remained unchanged. The reason for this is that the reduction in inventories was even stronger than our expectations. Realisation of these low inventory levels hinders this year's growth considerably. Our assessment of growth, which is unchanged over the short run, is also supported by production side developments, which can be better measured at the quarterly level.

Table 3-3

Main components of our GDP projection

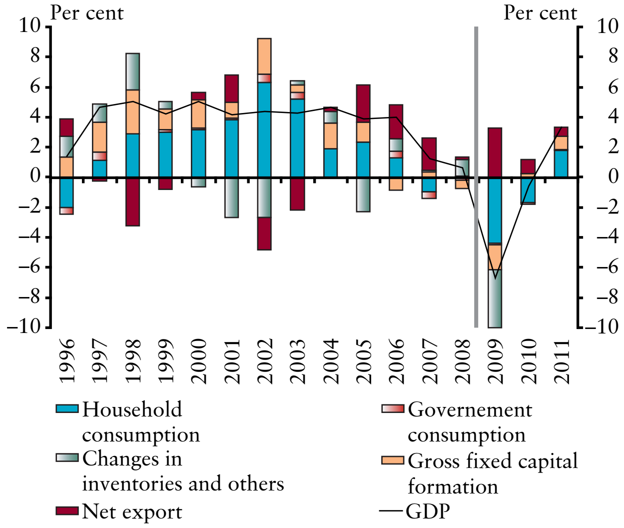
(annual change)

	2008	2009	2010	2011
	Actual	Forecast		
Household consumption expenditure	−0.5	−8.1	−3.0	3.1
Social transfers in kind	2.3	−1.0	−0.6	1.7
Final consumption of households	0.1	−6.4	−2.5	2.8
Final consumption of government	−1.9	−1.3	−1.1	0.6
Total consumption	−0.2	−5.9	−2.3	2.5
Gross fixed capital formation	−2.6	−8.1	1.4	4.3
Changes in inventories	x	x	x	x
Gross capital formation	2.3	−27.0	1.5	5.0
Domestic use	0.4	−10.1	−1.6	2.9
EXPORT	4.8	−12.3	3.6	8.6
IMPORT	4.7	−16.5	2.7	8.4
GDP	0.6	−6.7	−0.6	3.4

Overall, we continue to project a 6.7% decline for this year, although the structure of growth is somewhat different from our latest forecast. The more favourable global economic outlook will have a positive effect on domestic growth in 2010, but a substantial upturn is only expected in 2011. In addition to the increasingly dynamic international environment, a revival in domestic demand may be a source of growth during the economy's upswing. In the lower inflation environment, the increase in households' real income motivates the sector's consumption decisions, while the permanent improvement in growth prospects and the consolidation of financing conditions also stimulate corporate investment.

Chart 3-5

Composition of GDP growth



3.2 Strong labour market channel – lower wage recommendations could reduce the expected decline in employment

Falling demand as a result of the economic crisis and the tightening in the loan channel significantly narrowed companies' scope for action. As the disinflationary environment emerging as a result of extremely restrained demand does not allow for the adjustment of profitability through prices, we still see labour cost optimisation as playing a stronger role in our forecast. Within the sphere of labour cost optimisation, compared to our latest forecast, a slowdown in wage dynamics is considered more probable than a further, substantial decline in employment.

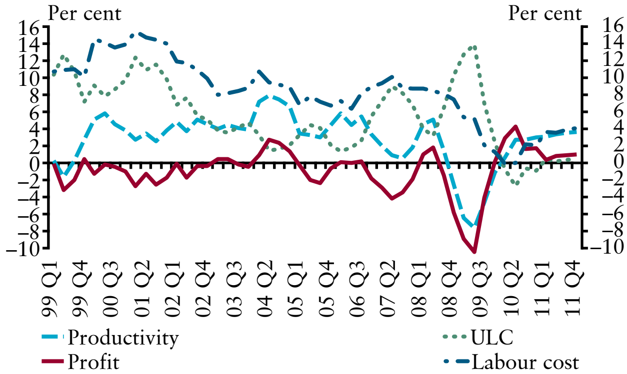
In our forecast, regarding the private sector over the short term, we shifted towards a somewhat higher wage path because of the actual data, which are slightly higher than expected. However, from 2010 on we expect stronger nominal adjustment, which was taken into account among the risks in the latest Quarterly Report on Inflation. The relevant background is established mainly by the lower trend inflation environment. Modification of personal income tax regulations next year may also facilitate this process. With the new tax rules, on average, the increase in net wages may exceed that of gross wages by approximately 2.5 percentage points. It means that an increase in net income of this magnitude may occur with a lower increase in gross wages next year. In parallel with an upswing in economic activity, the wage index of the private sector may accelerate again in 2011.

With regard to the number of employed, we continue to expect a gradually decelerating decline until the end of 2010. A positive shift in employment developments is not expected before 2011. This increase in the number of employed, however, will lag significantly behind the magnitude of the decline observed in the recession period, i.e. the unemployment rate may permanently remain above the value characteristic of previous years. One of the underlying reasons is that the global and domestic economies will need several years to recoup the output loss incurred in the recession period. In addition, similarly to physical capital, substantial surplus capacities were accumulated in the area of human resources. Owing to high recruitment and training costs, companies strived to keep their well-trained and more productive employees in the crisis period by reducing the number of hours worked and benefiting from government support. These free capacities are expected to be activated in the first period of the growth phase.

Chart 3-6

Unit labour cost and its components in the private sector

(annual change)



On the whole, the adjustment of labour costs may continue to be of key importance in stabilising the profitability of the corporate sector. As a result of the lower-than-expected development of trend inflation, the stronger nominal adjustment, which was taken into account among the risks earlier, is still a factor in our current baseline projection as well. The slowdown in wage dynamics may be especially significant in the services sector, thus also contributing to the sector's pricing moving to a permanently low level. The increase in the number of employed in 2011 may be lower than previously expected.

Box 3-3: The orienting role of the wage recommendations of the OÉT

In Hungary, the wage recommendations formulated by the National Council for the Reconciliation of Interests (OÉT) are not binding, so they do not represent strict adjustment limits for companies. However, they may play a role in influencing market participants' expectations in relation to wage inflation. In this case, companies do not set wages exactly in line with the agreement, but consider it to be a basis for comparison from which they may deviate depending on the performance of the individual or of the company.

Earlier, we showed that average wage growth in the private sector regularly exceeded the levels fixed in the agreements, and discussed the possible underlying reasons.[10] In this box, examining the distribution of wage increases, we wish to call attention to a phenomenon which may indicate that the orienting effect may nevertheless be significant in the private sector. Accordingly, the recommendations formulated during the negotiations may have a substantial impact on wage developments at the whole-economy level as well, and therefore, they are not insignificant from a monetary policy aspect either.

Charts 3-7 and 3-8 depict the distribution of the logarithmic change in base wages – i.e. the monthly base wage or the basic hourly pay, depending on the wage system – based on longitudinal data of the Public Employment Service's wage tariff database.[11] It is apparent that during the years under review the peak of the underlying distribution of changes in base wages was typically in the band determined by the wage negotiations. This result may be expected if employers determine individual pay rises compared to the values contained in the recommendation.

However, it is also conceivable that it is not the wage recommendations of the OÉT that orient expectations, but rather the participants in the OÉT – having adequate information – formulate realistic recommendations. At the same time, the probability of this explanation is undermined by the fact that the organisations participating in the negotiations cover only a narrow, specific group of the economy: large state-owned companies and certain sectors are overrepresented among them. In addition, it is also worth noting that the definition of wage recommendation is inaccurate, referring to the increase in the average wage rather than to the most typical pay rise according to their original meaning, and there may be a substantial difference between them.

We would also like to draw attention to the experiences of 2003. At the time, the OÉT formulated its recommendation for the net real wage instead of the gross nominal wage. It is apparent that in that year, the distribution of wage increases was less peaked than in earlier years. This may partly suggest higher uncertainty in connection with the agreement, and may partly be a consequence of the fact that as a result of the increase in the tax credit, the recommendation entailed very different gross wage increases for groups belonging to various wage categories.

While the changes typically centre around the recommendation of the OÉT, the average wage increase is also affected by many other factors. Clearly identifiable local peaks can be observed in the case of the values corresponding to the increases in the minimum wage and the guaranteed wage minimum. The ratio of those whose base wage has not changed is also significant, which may stem from downward wage rigidities and the fact that some companies do not change wages with an annual frequency. The number of base wage reductions is negligible, which also suggests downward wage rigidity. Partly as a result of this rigidity and presumably partly as a result of higher pay rises accompanying promotions, the distribution is skewed to the right every year in spite of the logarithmic transformation. In addition, while our analysis examines the developments in individual employees' wages, at the whole economy level the change in the composition of the workforce is also an important factor.[12]

Although the agreements of the OÉT are not binding and the growth of the average wages are influenced by numerous other factors, according to the aforementioned facts we consider it most likely that the wage recommendations play a major role in the coordination of wage inflation expectations.

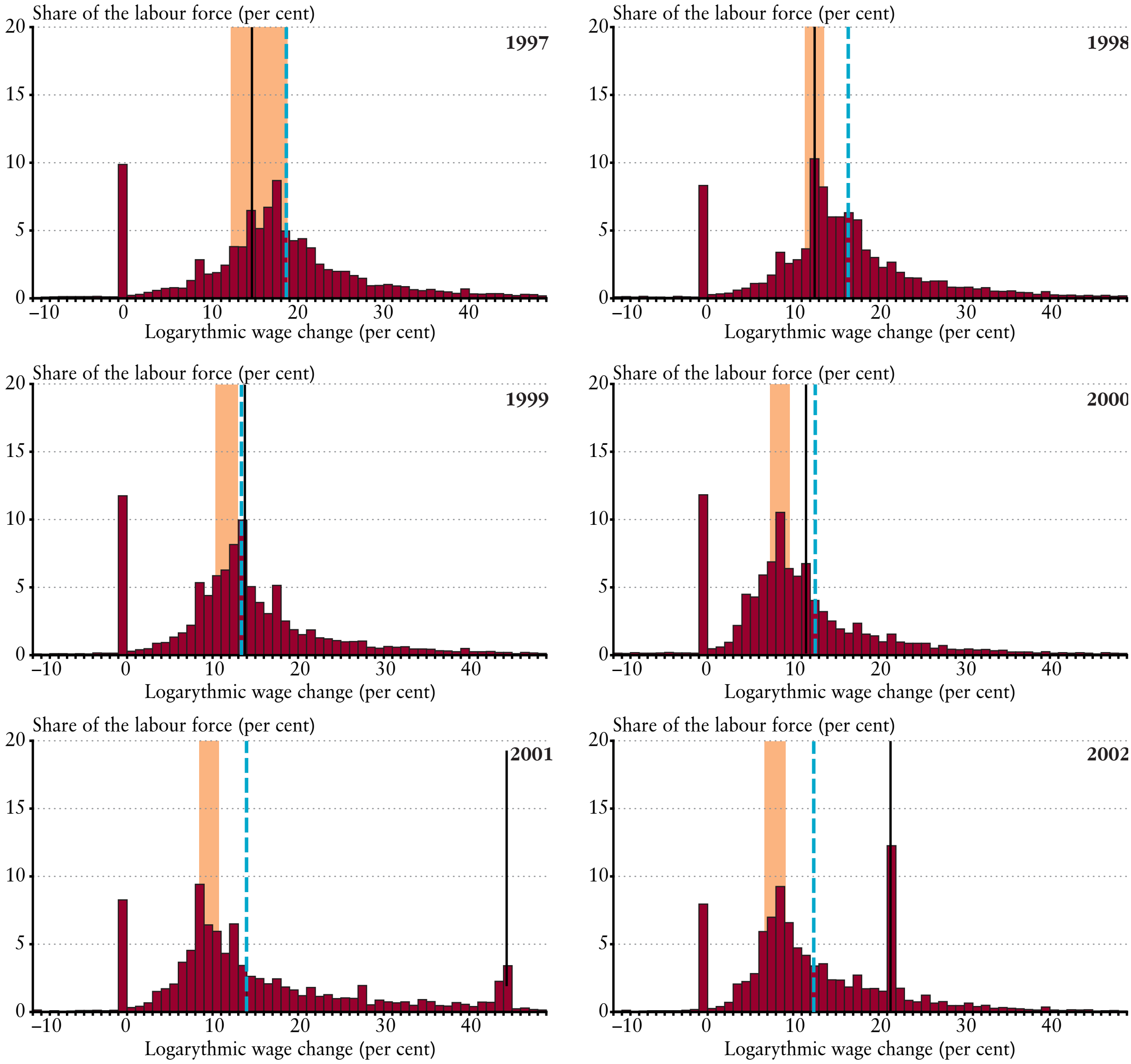
[10] See, for example, *Quarterly Report on Inflation,* February 2008, page 16.

[11] As the developments in other wage elements are more influenced by the fluctuations in individual performance than by wage inflation, we refrained from their examination.

[12] Compared to wage inflation, which shows the changes in wages of employees of the same type received for the same work, in terms of whole-economy income distribution, the increase in average wage, typically higher as a result of structural changes in the economy and in the workforce, is more important. The difference between the two indicators is particularly significant this year, as lay-offs have mainly affected the less-qualified workforce.

Chart 3-7

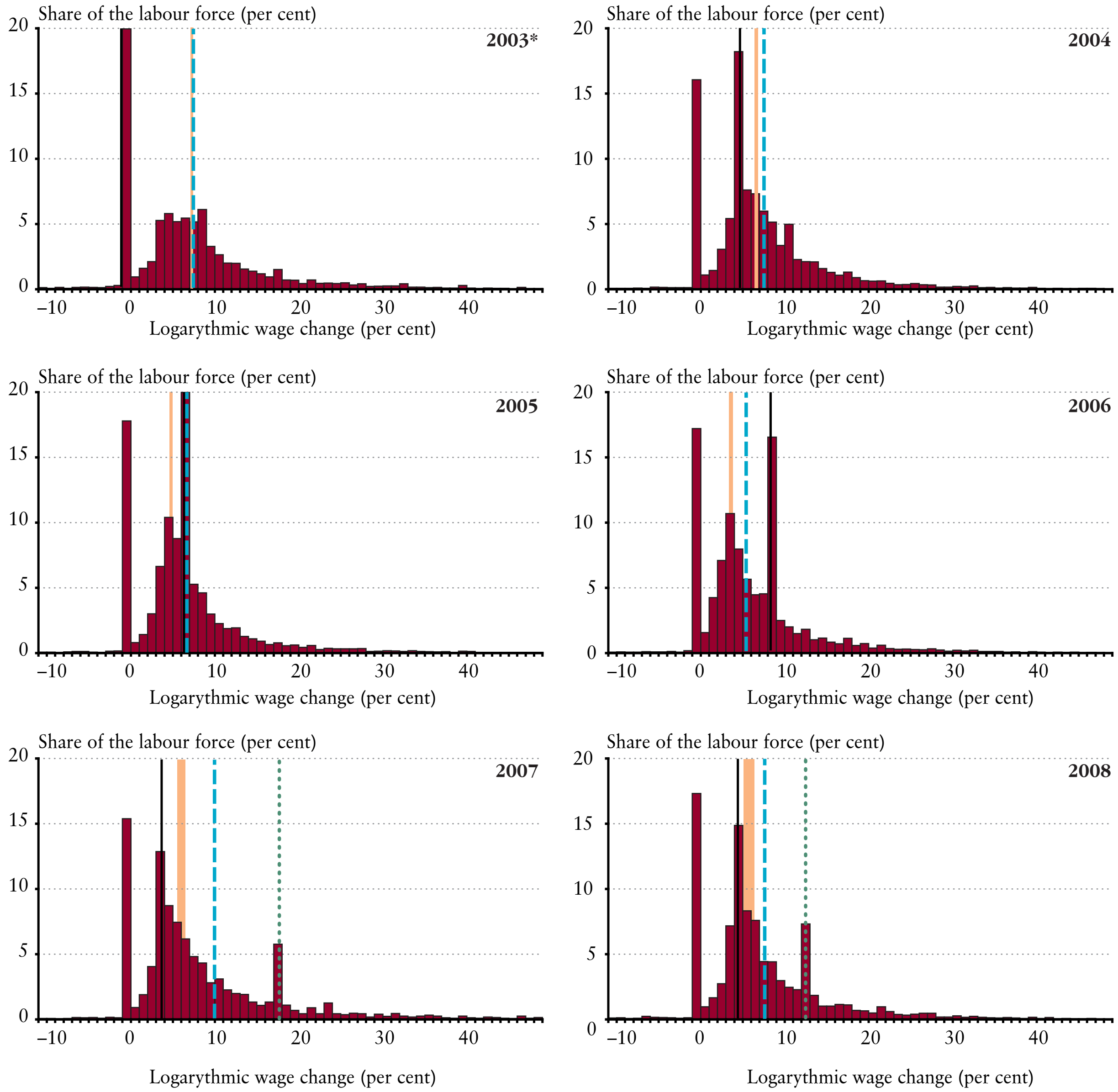
Distribution of changes in wages based on the longitudinal wage tariff data, 1997-2002



Yellow: OÉT band, black: minimum wage, blue: CSO gross growth of average wage.

Chart 3-8

Distribution of changes in wages based on the longitudinal wage tariff data, 2003-2008



Yellow: OÉT band, blue: CSO gross growth off average wage, black: minimum wage, green: guaranteed wage minimum.

** From 2002 to 2003 the minimum wage remained unchanged at HUF 50,000. The OÉT agreed on a 4.5% increase in net real wages; the red line refers to its approximated average value expressed in gross nominal wage.*

3.3 Consistently below-target inflation beyond the one-year horizon

Our inflation forecast was influenced by factors with opposing effects. Our basic assumptions, which are exogenous from the aspect of forecasting, and the information received regarding developments in regulated prices have changed in the direction of higher inflation compared to August, while the trend developments which can be deduced from the macroeconomic environment may turn out to be more favourable than previously expected. The change in our forecast is the result of these two effects.

The price-reducing effect of the fall in demand is appearing in the pricing of the market services sector in an increasingly pronounced manner. This sector is also striving to adjust to the unfavourable demand environment in its wage decisions. This process will likely remain characteristic over the entire forecast period. Our earlier analyses suggest that it is the sector's high and slowly accommodating wages rather than country-specific pricing factors that have led to the sustained high inflation of market services observed in previous years.[13] As wages represent the largest share in the cost structure of services, wage adjustment may best be detected in the price developments of this item. The fact that currently a parallel adjustment of the wages and prices of the services sector can be observed may confirm the durable nature of this process. Taking this into account, we believe that the decelerating price increase of market services is a lasting process, and over our forecast period we expect inflation to sink to around 1.5%, which is extremely low both historically and in an international comparison.

Chart 3-9

CPI and net inflation

(annual change)

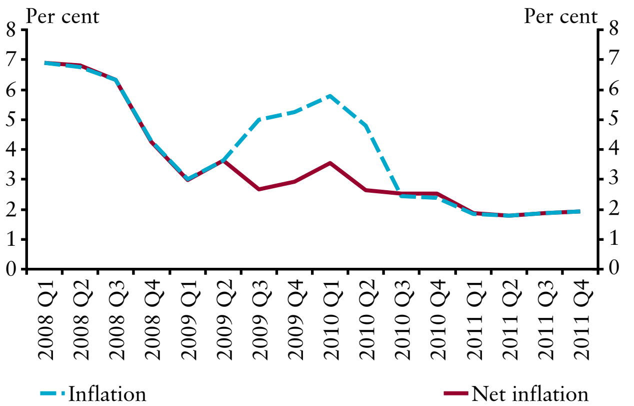
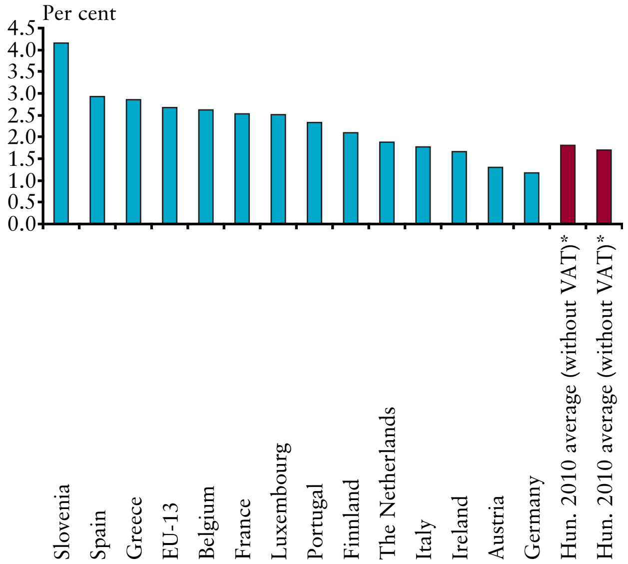


Chart 3-10

Prices of market services in international comparison

(minimum of annual average changes between 2003 and 2009)



* *Forecast.*

Over our projection horizon, restrained inflation in processed food prices may persist, but we expect a gradual acceleration of inflation, in accordance with the increase in global commodity prices, the realisation of this year's agricultural performance, which is expected to be less favourable than in 2008, and slow improvement in demand conditions.

Developments in prices of industrial products are mainly affected by the changes in the exchange rate as well as demand factors. Actual data for Q3 suggest that the significant exchange rate depreciation early in the year has already passed through to the prices of this product group, and that the price-reducing effect of domestic demand is

[13] Péter Bauer–Péter Gábriel: Inflációs perzisztencia a traded és nontraded szektorban [Inflation persistence in the traded and non-traded sectors] (MNB-tanulmányok [Occasional Papers] 82, October 2009).

increasingly coming to the fore. Accordingly, we expect continuous disinflation until end-2010, then – in line with the developments in business conditions and the changes in international industrial product prices – we expect a moderate increase in the price index in 2011.

The change in the basic assumptions was mostly felt in items outside core inflation. Oil prices measured in forint have increased by 2.5% since August, mainly with a short-term effect on the forecast via changes in fuel and regulated prices.

In respect of regulated prices, we took into account two measures, which roughly even out each other's impact. First, we took into consideration the reduction of the VAT content of district heating from January 2010, which would result in an effect of approximately one and a half tenth of a percentage point in the consumer price index. Second, we took account of the average four percent increase in the electricity tariffs, which has an impact of similar magnitude but in the opposite direction on the overall price index.

On the whole, the net inflation indicator excluding the effect of indirect tax increases may remain below the target over the entire forecast period. In early 2010, as a result of stronger base effects because of the increase of excise duty rates effective from January 2010 and the rise in oil prices, the overall consumer price index will continue to increase, although from the middle of the year on it may continuously fluctuate below the medium-term inflation target.

Table 3-4

Details of the inflation forecast

	Weight	2009				2010				2011			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unprocessed food	5.9	3.1	11.1	3.9	3.5	2.0	–1.1	5.1	5.4	3.6	3.3	3.8	4.1
Vehicle fuel and market energy	7.0	–11.5	–9.9	–5.0	4.9	16.9	12.0	5.7	6.4	2.5	1.8	1.2	0.8
Regulated prices	15.9	8.1	8.0	8.6	7.1	6.4	6.3	3.9	4.1	4.1	4.2	3.9	3.5
Core inflation	71.1	3.3	3.2	5.2	5.0	4.9	4.2	1.6	1.3	1.1	1.1	1.3	1.5
Consumer price index	100.0	3.0	3.6	5.0	5.3	5.8	4.8	2.4	2.4	1.8	1.8	1.9	1.9

Yearly avereage													
Core inflation					4.1				3.0				1.3
Consumer price index					4.2				3.9				1.9

3.4 Inflation and growth risks

In respect of the uncertainties related to our forecast's baseline scenario, the fan chart depicts the effect of the three factors that we consider to be the most important. These are the uncertainties related to the intensity of internal adjustment, the temporary improvement in external demand and the sustainability of the fiscal balance.

Slower-than-expected lending activity may occur as a result of stricter behaviour by the European banking sector. The faster-than-expected portfolio deterioration and the ensuing increase in loss write-offs may add to the capital requirements of banks and accelerate the adjustment of banks' balance sheets. Through relations with parent banks, this effect may also have a negative impact on domestic lending activity. We have also already taken into account the possibility of stronger nominal adjustment in our current baseline scenario. At the same time, however, we continue to see a risk that the low trend inflation developments may result in the wage bill increasing less than we project. Through more moderate domestic demand, both scenarios may represent a downside risk both for inflation and economic growth over the entire forecast period.

A similar impact would be felt if external demand turned out to be less favourable than expected. In this case, the favourable actual data could entirely be considered the consequence of one-off, temporary effects. As opposed to the baseline scenario, the improvement in external business conditions would halt as early as at the end of the year, and an actual recovery would be postponed to end-2011. A protracted crisis would have a negative influence on developments in GDP, suggesting stronger disinflation.

In line with our forecasting rules, in relation to fiscal measures we took account of the further easing adopted in case of the personal income tax planned for 2011 (approx. 0.6% of GDP). Considering that no proposals have been made to offset this missing revenue so far, a corresponding requirement may arise in the future, in order to attain the 3% deficit target. Considering that according to earlier experiences the improvement of the fiscal balance was implemented by reducing expenditures and increasing regulated prices, the fan chart includes their inflation-increasing and growth-reducing effect.

On the whole, we perceive nearly symmetrical risks in case of inflation and slightly downside risks in the case of growth over the longer term.

Chart 3-11

Fan chart of the inflation projection

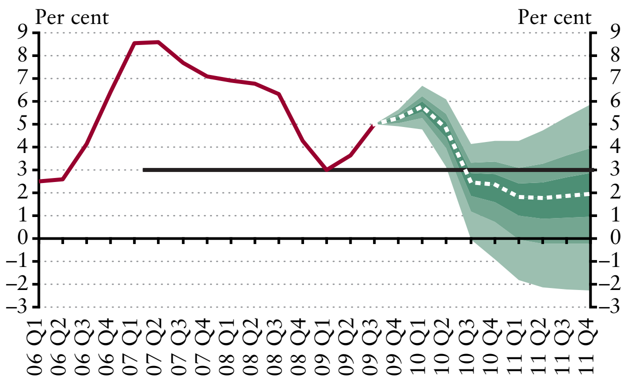


Chart 3-12

Fan chart of the GDP projection

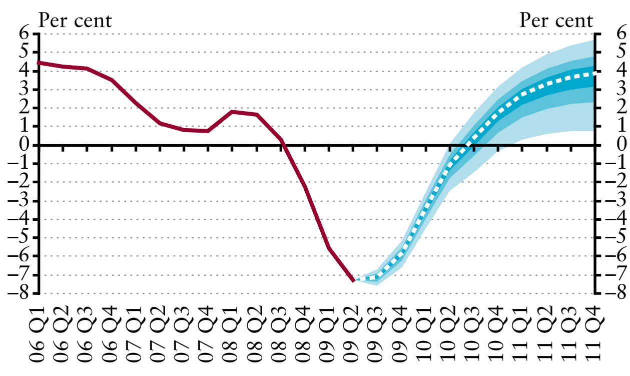


Table 3-5

Changes in our forecast relative to August 2009

	2008	2009		2010		2011	
	Actual	Projection					
		August	**Current**	August	**Current**	August	**Current**
Inflation (annual average)							
Core inflation[1]	5.2	4.3	**4.1**	3.6	**3.0**	1.5	**1.3**
Consumer price index	6.1	4.5	**4.2**	4.1	**3.9**	2.1	**1.9**
Economic growth							
External demand (GDP-based)	2.1	–5.1	**–4.6**	0.3	**0.9**	2.1	**2.1**
Household consumer expenditure	–0.5	–8.3	**–8.1**	–2.7	**–3.0**	3.4	**3.1**
Fixed capital formation	–2.6	–9.2	**–8.1**	1.0	**1.4**	3.8	**4.3**
Domestic absorption	0.4	–8.5	**–10.1**	–1.6	**–1.6**	2.9	**2.9**
Export	4.8	–14.5	**–12.3**	2.6	**3.6**	8.6	**8.6**
Import	4.7	–17.0	**–16.5**	1.8	**2.7**	8.4	**8.4**
GDP*	0.6	–6.7	**–6.7**	–0.9	**–0.6**	3.4	**3.4**
External balance[2]							
Current account balance	–7.2	–2.9	**–0.5**	–3.0	**–1.5**	–2.6	**–1.4**
External financing capacity	–6.2	–0.9	**1.5**	–0.6	0.1	0.3	**0.9**
Government balance[2]							
ESA balance[3]	–3.8	–4.1 (–3.9)	**–4.0**	–3.7	**–4.3 (–3.8)**	–4.3	**–4.3**
Labour market							
Whole–economy gross average earnings[4]	7.6	0.4	**0.8**	2.7	**2.5**	3.9	**3.8**
Whole–economy employment[5]	–1.2	–2.6	**–2.7**	–0.9	**–1.2**	0.7	**0.3**
Private sector gross average earnings[6]	8.5 (8.0)	4.2	**4.4**	3.9	**3.7**	3.9	**3.8**
Private sector employment[5]	–1.1	–3.6	**–3.8**	–1.7	**–2.2**	0.9	**0.4**
Private sector unit labour cost[5, 7]	6.0	7.9	**8.8**	–0.6	**–1.2**	1.0	**0.4**
Household real income**	–0.5	–4.3	**–4.1**	–1.3	**–1.7**	2.3	**2.0**

[1] *From May 2009 on, calculated according to the joint methodology of the CSO and MNB.*

[2] *As a percentage of GDP.*

[3] *The numbers in brackets refer to the deficit achievable in case of total blocking of budgetary reserves.*

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

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

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

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

** The table contains data excluding calendar effects.*

*** MNB estimate.*

Table 3-6

Our forecast compared to other projections

	2008	2009	2010	2011
Consumer Price Index (annual average growth rate, per cent)				
MNB (November 2009)	6.1	4.2	3.9	1.9
Consensus Economics (October 2009)[1]	–	4.2 – 4.4 – 4.8	2.6 – 3.9 – 4.7	2.7*
European Commission (November 2009)	6.0	4.3	4.0	2.5
IMF (October 2009)	6.1	4.5	4.1	2.5
OECD (June 2009)	6.0	4.5	4.1	–
Reuters survey (October 2009)[1]	–	4.0 – 4.3 – 4.6	2.5 – 3.9 –5.0	1.9 – 3.0 – 5.0
GDP (annual growth rate, per cent)				
MNB (November 2009)[4]	0.6	–6.7	–0.6	3.4
Consensus Economics (October 2009)[1]	–	(–7.5) – (–6.4) – (–5.6)	(–2.0) – (–0.3) – 1.0	2.6*
European Commission (November 2009)	0.5	–6.5	–0.5	3.1
IMF (October 2009)	0.6	–6.7	–0.9	2.5
OECD (June 2009)	0.4	–6.1	–2.2	–
Reuters survey (October 2009)[1]	–	(–7.5) – (–6.4) – (–5.8)	(–2.0) – 0.2 – 1.0	–
Current account balance (percent of GDP)				
MNB (November 2009)	–7.2	–0.5	–1.5	–1.4
European Commission (November 2009)	–8.4	1.3	1.7	1.8
IMF (October 2009)	–7.8	2.9	3.3	3.4
OECD (June 2009)	–8.2	4.0	3.2	–
Budget Balance (ESA-95 method, percent of GDP)				
MNB (November 2009)[7]	–3.8	–4.0	–4.3 (–3.8)	–4.3
Consensus Economics (October 2009)[1]	–	(–3.8) – (–3.9) – (–4.1)	(–3.5) – (–4.0) – (–5.0)	–
European Commission (November 2009)	–3.4	–4.1	–4.2	–3.9
IMF (October 2009)	–3.4	–3.9	–3.8	–2.8
OECD (June 2009)	–3.4	–4.2	–4.2	–
Reuters survey (October 2009)[1]	–	(–3.4) – (–3.9) – (–4.1)	(–3.5) – (–4.0) – (–5.5)	–
Forecasts on the size of Hungary's export markets (annual growth rate, per cent)				
MNB (November 2009)	3.7	–15.1	1.8	5.4
European Commission (November 2009)[2]	3.3	–12.8	2.1	4.5
IMF (July 2009)[5]	3.5	–13.7	–1.0	4.0
OECD (June 2009)[2,3]	2.2	–13.5	0.5	–
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, per cent)				
MNB (November 2009)	2.1	–4.6	0.9	2.1
European Commission (November 2009)[2]	2.0	–4.4	1.1	1.9
IMF (October 2009)[2]	2.0	–4.5	0.8	2.2
OECD (June 2009)[2,3]	1.6	–4.8	0.0	–
Forecasts on the GDP growth rate of euro area (annual growth rate, per cent)				
MNB (November 2009)[6]	0.6	–4.0	0.4	1.3
European Commission (November 2009)	0.6	–4.0	0.7	1.5
IMF (October 2009)	0.7	–4.2	0.3	1.3
OECD (June 2009)	0.5	–4.8	0.0	–

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 named 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 specified institutions.*

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

[4] *Data not adjusted for calendar-day variations .*

[5] *IMF estimate, based on a different country group and weighting system than the MNB's own external demand indicators.*

[6] *Aggregate based on Euro area members included in our external demand indices.*

[7] *The numbers in brackets refer to the deficit achievable in case of abolishing the major part of budgetary reserves.*

* *Data from a special survey, which reported only the average of polled analysts' responses.*

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. [London], October 2009); European Commission Economic Forecasts (November 2009); IMF World Economic Outlook (July 2009 and October 2009); IMF Country Report No. 09/304 (October 2009); Reuters survey (October 2009); OECD Economic Outlook (June 2009).

3.5 Increasing tensions in the expenditure side may jeopardize the attainability of the 2010 fiscal deficit target

OUR FORECAST – MAIN CONCLUSIONS

According to our baseline projection, we can assume the slight overshooting of the government deficit target in 2009; the target may only be attained through the complete control of expenditure developments or with the help of specific balance improving items. In 2010, higher than usual reserves may ensure the achievement of the deficit target. Based on the currently available information, the deficit target below 3 percent may not be achieved by 2011; further measures would be required to this end.

Our baseline projection contains conditional projections. They are conditional in the sense that they do not take into account the impact of a possible change in the direction of budgetary policy. However, the conditional nature of our forecast related to fiscal expenditure has somewhat changed compared with the forecast of previous reports. We believe that this year, the realisation of the net expenditures of budgetary units will be higher than government expectations. The additional spending assumed to take place in 2009 may evolve around 0.2 percentage points of the GDP, which forecast we have validated for the entire projection time horizon within our baseline projection. In the case of the closed-end appropriations of the state budget – for those where the execution of the planned measures is already appropriately elaborated – our projection remains conditional; we assume that the government's spending targets will be met. According to our forecast also including the available reserves, the accrual based general government balance target will most likely not be attained during the projection period (see tables 3-7).

Through the automatic stabilisers, compared to 2008 the economic cycle would add nearly 2 percentage points in 2009 and a further 1 percentage point in 2010 to the deficit, i.e. the ESA deficit growing only to a minimum extent compared to 2008 means considerable and accumulating fiscal tightening in both years. If we filter out the effects of the economic cycle, then the cyclically adjusted balance of the baseline forecast already shows the fulfillment of the Maastricht criteria.

The evolution of the cyclic position also points out that due to the budgetary adjustment, Hungary's relative budgetary position has substantially improved within the European Union. Namely, while in most countries they also intensify balance deterioration stemming from the deterioration of the macro-economic course with discretional tools, Hungary is partly offsetting the impact of the unfavourable macro-economic developments by measures taken on the expenditure side, conducting a strongly pro-cyclic fiscal policy. By 2010, the SNA deficit indicator also containing the quasi-fiscal activity shows the expansion of the aggregate demand which is primarily attributable to the accrual based accounting of PPP investments. This type of state activity will considerably slow down in 2011, which will also appear in the evolution, i.e. the decrease of this deficit indicator.

The sensed risks belonging to the baseline projection are symmetric by 2010 and are slightly asymmetric towards higher deficit by 2011; this is attributable to the asymmetry of the macro-economic course. However, considerable risks are associated with the balance of accumulated quasi-fiscal debt (state companies) and liabilities. Based on our assumptions, the quantified amount of accumulated debts and liabilities may be around 2.7 per cent of the GDP a part of which – based on past experiences, in the case of transportation companies, roughly the half – must be consolidated by the budget in the near future, accounting for it within the budgetary balance. Should the consolidation take place in part or in whole in the next 2 years, then this step would temporarily increase the deficit in the coming years.

ACCORDING TO OUR BASELINE PROJECTION, THE DEFICIT TARGET FOR NEXT YEAR MIGHT BE ACHIEVED ONLY WITH PARTLY ABOLISHMENT OF THE UNUSUALLY LARGE BUDGET RESERVES

Our baseline projection includes the deficit course stemming from the budgetary baseline developments, but on the expenditure side, stemming from the – above outlined – conditional forecast. This path is built on the assumption that the expenditures of budgetary units will be somewhat higher than government expectations (by 0.2 percentage points of the GDP), but the government will continue to exercise a tight control over these types of expenditures in the years to come.

Table 3-7

Evolution of general government balance indicators

(baseline projection)

	2008	2009	2010	2011
Cash-flow balance	–3.4	–4.2	–4.5	–4.1
Accrual (ESA) balance	**–3.8**	**–4.0**	**–4.3**	**–4.3**
Cyclically adjusted (ESA) balance	–4.9	–3.3	–2.6	–2.6
Augmented (SNA) balance	**–3.6**	**–4.7**	**–5.6**	**–4.5**

Our baseline projection does not include any stability reserve for 2009 as a government decision has already been adopted about its final cancellation, therefore, the government does no longer have any substantial manoeuvring room to compensate the extra spending on the expenditure side; therefore, we expect the slight overshooting of the deficit target. Next year, by distraint the largest part of the available effective reserves (reserve appropriations of around 0.6 percentage point of the GDP, not having any expenditure title) the 3.8 percentage point deficit target may be attained. There are four basic factors resulting in the deviation of our 2010 forecast from the target set forth in the budget act. First, we believe that the secondary – deficit-increasing – effect of the adjustment taking place within local governments is somewhat stronger than according to the Ministry of Finance; second, we believe that the reduction of the MÁV support is not totally effective; thirdly, our forecast pertaining to the personal income tax revenues is lower than the appropriation featured in the bill; and fourthly we believe that the expenditures of the budgetary units will be higher than indicated in the bill. The deficit expected for 2011 may more substantially exceed the target despite the fact that the level of the planned effective reserves is a lot lower than in 2010. For the time being we do not see the conditions of the planned deficit reduction yet; and further fiscal balance improving measures will be necessary to attain the envisaged deficit target.

ACTUAL FIGURES INDICATE TENSIONS ON THE EXPENDITURE SIDE

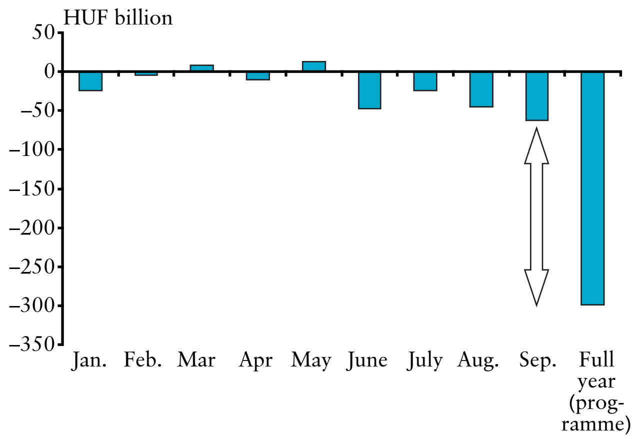
Overall, in the first three quarters of the year budget revenues were in line with our expectations, while the realisation of expenditures exceeded our expectations. The structure of revenues was somewhat different from our forecast, whereas on the expenditure side the spending of budgetary units was faster than expected.

More favourable than expected developments in VAT revenues were observed from the summer months on; the underlying reason was slowing VAT refunds. By contrast, regarding corporate tax, the higher than expected tax refunds in the summer months caused a negative surprise, related to the less favourable than expected developments in the profit situation of companies in 2008. Looking forward, we took into account for our projection the changes of both tax types, to which the unfavourable evolution of wage-related revenues (personal income tax, contributions) – although to a lesser extent than the former two tay types – observed in the course of the past few months was also added.

On the expenditure side, fiscal developments were broadly in line with our expectations, with the exception of budgetary units' net expenditures. However, the expenditures of budgetary units were high in the course of the three quarters even when adjusted with the seasonal factors and the impact of the specific measures. Until the end of September this item was only HUF 62 billion less than the level in the same period last year, while the plan for the year represents an approximately HUF 300 billion decline compared to last year. It means that a very substantial expenditure cut will be necessary in the last quarter to get close to or to attain the deficit target. There is a risk of some of the adjustment being carried out through non-structural (administrative) measures.

Chart 3-13

Difference of budgetary organisations' net cumulated expenditure last year and this year and adjustments still required



We assume that in order to meet the 2009 deficit target the expenditures of budgetary units are restrained to an extent not fully founded by the structural measures adopted earlier (withdrawal of the 13th month wage, contribution reduction, etc.). Based on this, we can conclude that the expenditures will go below a level that would be consistent with baseline fiscal developments; this is why a tangible tension was created despite the stringent spending control of the fiscal government.

Based on the above, the most likely scenario may be that the tensions existing on the expenditure side appear in the deficit and/or in the change of the carry-over balance.

Based on the actual data, in our November forecast, we calculate with somewhat lower expenditures than in our previous expectations in respect of interest expenditures and pension expenditures.

Box 3-4: Main driving forces behind the change in our forecast

Compared to the baseline scenario of the previous *Quarterly Report on Inflation* our baseline projection for the ESA balance changed considerably, mainly for 2010. Our point estimate regarding the balance in 2009 has changed slightly: for 2010 it shifted towards a higher deficit by 0.6 percentage point of GDP; however, for 2011 it remained unchanged. There are many factors underlying the changes, and occasionally they offset the effects of one another. The most important factors are presented below.

In 2009, the **macroeconomic path** shifted slightly towards a lower deficit. On the whole, the effects will slightly increase the deficit in 2010; however, due to the slower dynamics of the wage bill (resulting primarily from the less favourable developments in employment) the main tax bases (contributions, personal income tax) will increase to a lesser extent in 2011 than assumed earlier. Based on our calculations, the effect of the change deteriorates our deficit forecast for 2011 by 0.4 percentage point in itself.

In the area of **government measures** we do not have important new information; in fact, the impact of the measures affects our 2010-2011 deficit path. Next year, compared to the assumption used in our August forecast the expected general government deficit will be decreased by 0.3 percentage point of GDP by the fact that the reduction of supports to the local government subsystem has been taken into account in our forecast, because it is already adequately detailed and is included in the budget bill as well. Nevertheless, it is worth mentioning that reducing the support provided to local governments entails an increase in the deficit of the sub-sector. Consequently, the net deficit reducing effect of the measure on the general government as a whole falls behind the primary effects. In the local government sub-sector, subsidies from the central budget declined by HUF 145 billion compared to our earlier projection; this effect is partly offset by the fact that we increased the deficit of the sub-sector by approximately HUF 60 billion.

The change in the amount of **fiscal reserves** is an exogenous factor from the aspect of our forecast. Our 2009 deficit forecast was reduced by 0.3 percentage point by the final freezing of the stability reserve. At the same time, the significant increase in the level of reserves for 2010 added 0.3 percentage point to our baseline projection for 2010, as not only the stability reserve increased, but the newly created interest risk reserve also raised the level of the effective reserve by 0.2 percentage point of GDP.

The changes in the i**nterest balance and the MNB's profit/loss projection** amended our forecast in the direction of a lower deficit; the decline in yield level reduces interest expenditures by 0.1 percentage point and 0.2 percentage point of GDP in 2009-2010 and 2011, respectively. Compared to the August forecast the decline in the yields expected of Hungarian government securities shifted the yield curve downwards. Secondary market yields have become 110 basis points lower on average since August, which – in addition to other effects – reduced our interest expenditures forecast by 0.1 percentage point of GDP for 2009 and 2010 as well. All this also means that the rapid increase in interest expenditures observed in 2007 and 2008 is expected to come to a halt in the coming years. The main underlying reason is the change in the structure of financing and the use of international loans with more favourable interests than those of Hungarian government securities in the funding of the general government. On the other hand, the use of FX loans increases the holding of central bank two-week bonds, and the interest paid on them significantly impairs the MNB's interest income, as indicated in our previous reports. Therefore, there is no interest saving on the use of international loans as a whole at the level of the general government.

In 2010, the expected loss of the MNB may be lower than thought earlier; its compensation will become due in 2011. Compared to the earlier forecast, the change in this item may mean expenditure lower by 0.3% of GDP. Declining yields, for example the decrease in the forint-foreign exchange yield spread, as well as the favourable actual data of the first three quarters play a role in this.

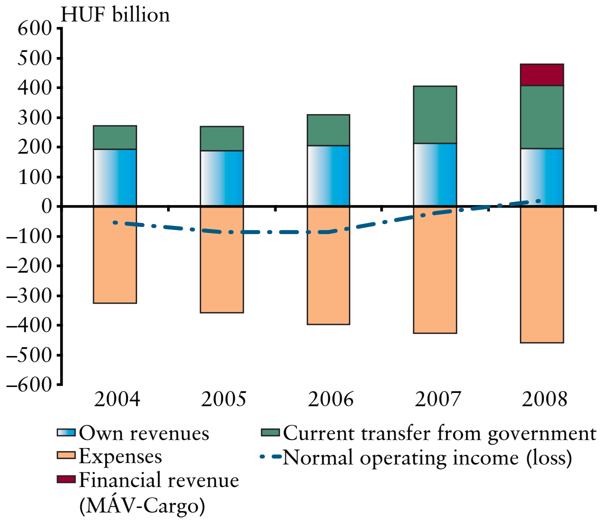
Experts' adjustments (basis corrections, changes in assumed effectiveness etc.) affect several items. They improve the deficit for 2009, while one-off items shift the balance towards a higher deficit level in 2010.

The most important is the adjustment regarding corporate tax revenues, where earlier we underestimated the reclaim related to the 2008 tax payments. Therefore, we have reduced our 2009 income expectation – to a more significant extent than the change in nominal

GDP, which is the proxy variable – by nearly HUF 50 billion. Through the base effect this modification also lowered our income expectation for 2010–2011, albeit to a lesser extent than for 2009. We have also applied experts' adjustments in forecasting the personal income tax revenue, because a decline in revenue dynamics has been observed since the second half of the year (for 2010 our revenue forecast declined by 0.1 percentage point of GDP). In our VAT revenue projection, we have reduced both the expected one-off refund and default interest obligation related to the decision of the European Commission affecting year 2009. As regards the excise tax on tobacco products, as a consequence of the increased tax rate, for 2009 we expect a higher stockpiling of the tax stamps; however, this effect will be offset in 2010, when it will generate a decrease in revenues relative to the appropriation. While we have not amended our estimate regarding the number of people returning from the private pension system, our assumptions about the timing distribution of the returns between 2009 and 2010 have changed, therefore this effect may have a smaller influence in 2009 than we had expected earlier.

Chart 3-14

Profit/loss of MÁV in recent years



Net expenditures of budgetary institutions and chapter-administered appropriations have changed significantly. First, compared to the August Quarterly Report on Inflation, – where we accepted the projection of the MoF, – the Ministry of Finance also added HUF 27 billion to its forecast, and, second, expenditures continue to exceed the pro-rata level significantly. Therefore, our baseline scenario anticipates an expenditure overrun of 0.2% of GDP for 2009-2011.

Another difference compared to August is that in our current forecast, owing to the aforementioned reasons, we reduced the anticipated balance-improving effect of subsidising MÁV by 0.1 percentage point. With regard to the restructuring of public transport, it is very likely that part of the adjustment planned for MÁV will not be implemented. According to the original concept, the rationalisation of public transport and the resulting expenditure savings would generate savings in the amount of HUF 40 billion in 2010. However, as a result of the measures that were outlined in detail by mid-November, we have access to information on the smaller part of the expected savings only. Meanwhile, the expected loss of MÁV this year may exceed HUF 60 billion, which is close to the historical average; moreover, the management of MÁV called attention to the lack of a public service contract between the network railway and the state. In the last 2 years, we experienced that the profit/loss of MÁV improved only as a result of a significant increase in state subsidies and one-off transfers, without which the company may produce a substantial loss once again.

In pension expenditures, the replacement effect is estimated to be less significant than earlier. Accordingly, we expect lower pension expenditures. Within health expenditures, the government increased the 2009 appropriation that can be spent on medical and preventive care by more than HUF 10 billion. However, this does not represent any change compared to our earlier forecast, because we already took into account this over-fulfilment of expenditures in August. The statistical adjustment between the cash- and accrual-based deficits has also changed slightly, basically towards a higher deficit.

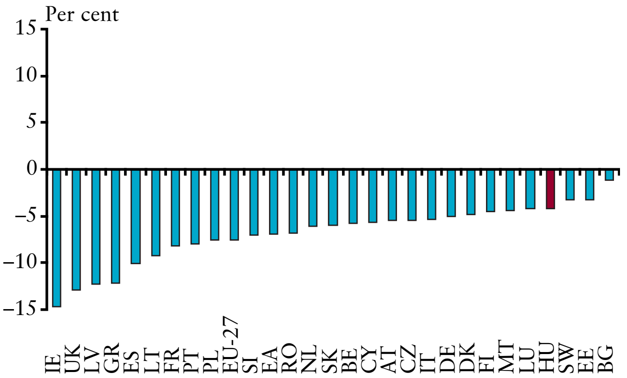
HUNGARY'S RELATIVE FISCAL POSITION MAY IMPROVE SIGNIFICANTLY IN INTERNATIONAL COMPARISON

The relative fiscal position of Hungary may improve significantly in international comparison. While fiscal policy in Hungary is strongly procyclical due to the fiscal adjustment, most developed countries conduct stimulating, anti-cyclical economic policies. In many cases, the Member States of the European Union adopt one-off fiscal measures aiming at the strengthening of demand, which, in addition to

Chart 3-15

General government deficit forecast for 2010

(as a percentage of GDP)



Source: European Commission, October forecast.

the normal balance-worsening effect of the economic downturn, result in an even higher budget deficit. However, there is no similar room for manoeuvre for fiscal measures in Hungary. Moreover, the balance deterioration resulting from economic developments must also be partly offset by adjustment steps. Consequently, in contrast with international trends, the deficit is not expected to worsen significantly compared to last year, which considerably improves Hungary's relative fiscal position in the European Union and the region.

According to the autumn forecast of the IMF, the fiscal deficit of the euro area as a proportion of GDP is expected to increase from 1.8% last year to 6.2% this year. The projection of the European Commission in October was for similar trends: deficit will be much lower than the EU average in Hungary in 2010, while government debt will stand at around the EU average.

ALTERNATIVE INDEX NUMBERS IN OUR BASELINE PROJECTION

The ESA deficit growing only to a minimum extent in 2009 and 2010 compared to 2008 conceals considerable and accumulating fiscal tightening in both years as the economic cycle would increase the deficit by nearly 2 percentage points in 2009 and a further 1 percentage point in 2010 compared to 2008 through the automatic stabilisers. However, in 2011 the change in the cyclical component will already have a neutral effect on the general government balance. Consequently, the cyclically adjusted ESA balance will sink to close to 3% in 2009, with expected stagnation standing at around 2.6 percentage points of GDP in 2010 and 2011. According to our forecast, aggregate demand of the general government is expected to grow in 2009 compared to the previous year, which is mainly indicated by the increase in our SNA-type indicator showing the deficit of the general government analysed in a wider sense. The underlying reason for growth is that tightening measures can only mitigate the impact of automatic stabilizers. Part of the tightening measures aimed at improving the ESA balance are virtual; therefore, the SNA balance deteriorates to a larger extent in 2009 due to the acceleration of the implementation of capital projects under PPP schemes in the current year and an increasingly lower amount of funds financing the operation of public transport companies (MÁV, BKV). MNB's expected losses will be reflected in the SNA-type balance already in 2010, however, they will increase the ESA deficit only in 2011. Subsequent debt settlement, as a rule, does not distort the SNA-type balance, because it accounts for the losses of the companies which, though, statistically, outside the general government, are related to the state in an economic sense in the year when they are incurred.

WE PERCEIVE ADDITIONAL SYSTEMIC RISKS IN ADDITION TO USUAL RISKS

In recent years, significant tensions emerged in connection with the financial management of the state in a wider sense. If an 'overall' consolidation of debts accumulated outside the statistically interpreted general government but related to the general government in an economic sense also took place, the deficit in the coming years could increase by as much as nearly 3 percentage points of GDP. At the same time, alleviation of the accumulated tension was not complete in the past either, and all existing problems were not necessarily managed in a given fiscal year. We intend to present the magnitude of risks in our analysis, independent of the time interval when and the extent to which consolidation affects the future ESA balance.

In case of the state-owned transport companies (MÁV, BKV) the magnitude of the accumulated debt may reach nearly 1.5% of GDP by the end of 2009. The trend observed in the past was that the central budget assumed approximately half of the debt of the state-owned transport companies accumulated by the end of the previous year, i.e. the accumulated debt appeared in this ratio in the general government balance of the year when the debt was assumed. If this past trend[14] is taken as a basis, assuming debt in the magnitude of 0.8–1.0 percentage point of GDP may token

[14] We have to point out that an argument against taking past trends automatically into account is that in the past the goods transport branch of MÁV (MÁV Cargo) produced profits, which financed a part of the losses of other business branches. Therefore, owing to the privatisation of this business, the consolidation of a higher ratio of the debt of MÁV may become justified.

Table 3-8

Maximum value of debt-type risks and expected refinancing requirement

(as a percentage of GDP)

1. Accumulated debt (until 2009) and projected losses (2010) of Railways	1.4%
2. Accumulated debt of Budapest Public Transport	0.4%
3. Estimated need for consolidation of indebted local governments	0.3%
4. Stock of unused appropriations in the central budget	2.0%
5. off which estimated need for using them	0.6%
6. Maximum amount of debt-related risks (1+2+3+5)	2.7%
7. Need for consolidation required by appropriate operation	**1.5%**

over by the government, provided that the government will have an intention to decide so.

Imbalances can be perceived in the local government sub-system as well. We estimate the consolidation requirement of indebted local governments to be 0.3 percentage point of GDP, but the date and duration of the consolidation eventually depend on political will.

The remaining amount of carryover accumulated in the state budget may be close to 2% of GDP at end-2009. This residual level can be considered high, but manageable prescribing an obligation to hold the remaining amount of carryover. In our opinion, based on the examination of past data, the optimal level of carryover balance may be around 1.3-1.5 percentage points of GDP. Accordingly, liabilities amounting to around 0.6% of GDP should be terminated in the coming years so that this factor does not pose a potential risk to the attainment of the current deficit target.

Our table contains the maximum risks related to individual selected items, but it is to be noted that all the risks are still not shown. The underlying reason for this is that the magnitude of risks is often hard to assess and that risks are difficult to quantify. Our estimate has not taken into account the risks accumulated in the healthcare system, because in this system risks arise from the conditions that determine the quality of the services. The expected additional cost of the underground investment is not included either, as even the technical parameters of the project remain uncertain, thus the expected total cost of the investment is difficult to assess.

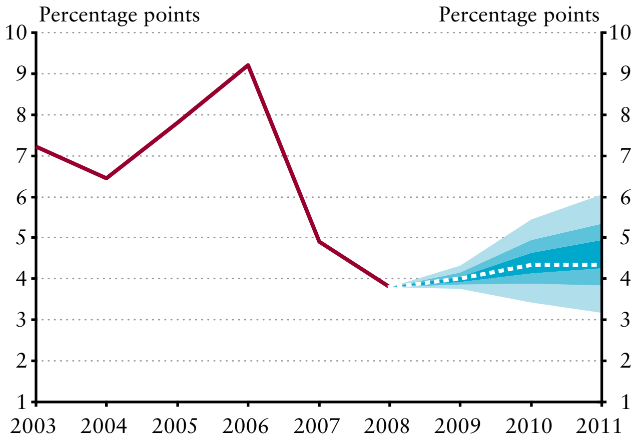
Table 3-8 shows the maximum amount of the risks that we have been able to quantify on the basis of the information available to us (see Row 6 of Table 3-8). The economically justified and reasonable refinancing requirement is much lower than this, because if part (approximately half) of the debt were not consolidated, such would not jeopardise the normal course of the operation of state-owned companies. Therefore, relying mainly on historical data, we have provided an estimate of the refinancing requirement needed for maintaining business operation (see Row 7 of the table).

RISKS RELATED TO THE BASELINE PROJECTION – FAN CHART OF THE BUDGET

The fiscal fan chart for 2010 is nearly symmetrical, while it is somewhat asymmetrical towards a higher deficit in 2011. The 2011 asymmetry is the outcome of the deficit-increasing impact of the risks surrounding the macro-economic path, because each uncertainty item of the macro-economic projection adds to the deficit. The downward risks posed by GDP (and, within that, consumption), real wages and inflation result in lower revenues in an environment characterised by a lower nominal GDP level. Our expert risk perception is nearly symmetrical in respect of both years.

Chart 3-16

Fiscal fanchart



EXPECTED DEVELOPMENTS IN GOVERNMENT DEBT

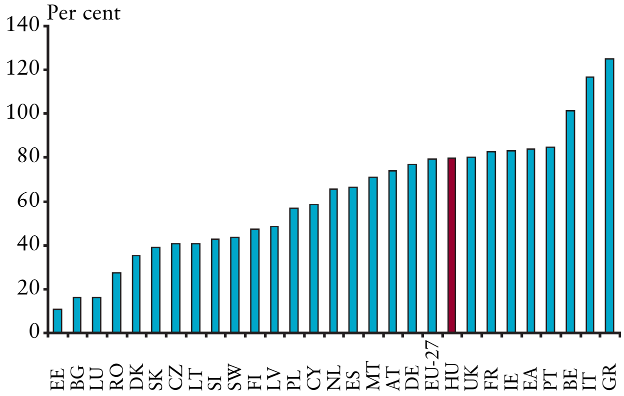
The debt trajectory, which is consistent with our baseline projection, suggests that debt rate may peak out in 2010.

Based on the information available to us, government debt consistent with the Maastricht criterion may be around 79 percentage points of GDP in 2009. In contrast to our projection in August, such moderate decline is attributable to the fact that the government will not draw down the credit granted by international organisations. In 2010 debt may increase close to 81 per cent of GDP; thus, as a result of the utilisation of the government FX deposit, it will increase at a lower rate that the current account deficit. As a joint effect of several factors, among them the repayment of the loan granted by the EU, the debt ratio will drop to close to 80% of GDP by 2011.

Chart 3-17

General government debt forecast for 2010

(as a percentage of GDP)



Source: European Commission, October forecast.

3.6 According to our baseline scenario the huge improvement in external financing position of Hungary will be permanent

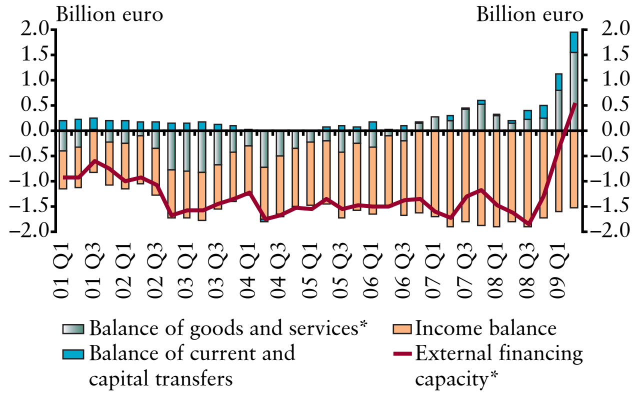
The strong adjustment in the external equilibrium position of the Hungarian economy, that had started at the end of last year, continued. External financing capacity exceeded 2% of GDP in 2009 Q2, which already means an approximately 8 percentage point improvement compared to the around 6% financing requirement observed in 2008. The net saver position evolved in parallel with the current account surplus, as the surplus of the goods and services balance by itself offset the deficit of the income balance.

The dynamic balance improvement was seen in the further decline in the import demand of the economy and the increasingly lower income expenditures. In addition, the increased usage of the transfers received from the European Union also contributed to the growth in the net savings of the economy. However, in terms of the developments in income flows it is unfavourable that the declining income balance deficit is mainly related to falling corporate profits, which resuled in a considerable decrease in foreign-owned companies' expenditures related to direct investment.[15] It is also worth mentioning that parallel to the decline in banks' foreign loans and the decreasing funding costs, interest expenditures paid to the rest of the world are also becoming increasingly lower. With regard to past changes in the external financing requirement, it is also important to take into account that the latest balance of payments data released in September contained several methodological changes (for details see Box 3-5).

Chart 3-18

Components of the external financing capacity

(seasonally adjusted data)



** 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.*

Note: Seasonal adjustment of the time series was made with direct adjustment. Therefore, the sum of the components of the external financing requirement does not necessarily equal the adjusted values of the external financing requirement.

Box 3-5: Impact of the revisions conducted in the balance of payments

In terms of the developments in the external equilibrium position, first, the inclusion of the 2008 corporate profit data is worth underlining. Based on corporate balance sheet and income reports, the earlier estimated data were replaced by actual data, according to which the 2008 profit of foreign-owned companies was much lower. The other important methodological change is related to the accounting of EU transfers. Until September 2009, the funds received from the European Union were recorded in the balance of payments on a cash basis at the date of the transfers. The new methodology aiming at a harmony between the national and financial accounts means accrual accounting, i.e. the transfers appear among the current and capital transfers at the date when they are utilized. The advantage of the new methodology is that the savings development of economic sectors is consistent with the accrual-based EU-transfer accounting.[16] The impact of the revisions was substantial in 2007 and 2008. The higher financing requirement in 2007 is almost entirely explained by

[15] The figures of income flows related to foreign direct investment are based on estimates in the preliminary Balance of payments statistics for 2009. The estimate will be replaced by data based on corporate reports in September 2010.

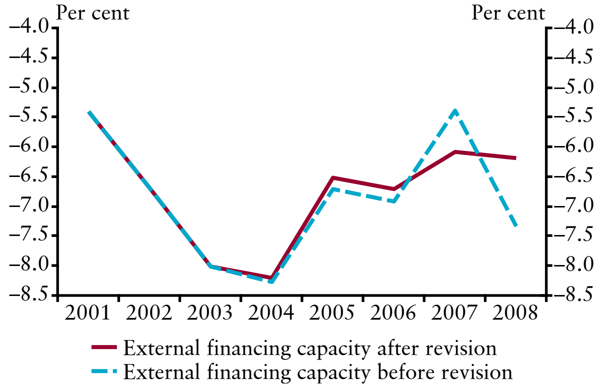
[16] For more details on the contents of methodological changes see: http://www.mnb.hu/Resource.aspx?ResourceID=mnbfile&resourcename=fizm09q2_hu.

the change in accounting the EU funds (the utilization of the funds was lower than the transfer), while the lower external imbalance in 2008 is attributable to the EUR 900 million lower income balance deficit and the higher use of EU funds.

Chart 3-19

Impact of revisions on the developments in the external financing capacity

(values as a percentage of GDP)



Regarding the evaluation of the data received, we were most surprised by the latest information related to corporate profits in 2008. The deteriorating profits of foreign-owned companies led to a decline in the external financing requirement already at end-2008, which may also indicate that the cyclical sensitivity of the external equilibrium position is stronger than previously assumed. The lower level of direct investment expenditures also indicates that compared to our earlier projection, the deficit of the income balance may be lower over the projection horizon. In addition, the developments in the trade balance were characterised by a stronger than expected fall in imports in Q2, which may have mainly been the consequence of developments believed to be permanent. Accordingly, our latest information points to a higher financing capacity compared to our earlier projection.

In the remaining part of this year we already expect a more moderate improvement in the external balance compared to the previous part of the year. Namely, the more favourable export outlook may be accompanied by slightly increasing import demand. At the same time, the deficit of the income balance may continue to decline. Both the expected fall in corporate profits and the projected decline in net interest expenditure suggest this. Overall, the external equilibrium developments taking place in the recessionary economic environment may result in a positive combined current and capital account balance on an annual level.

In 2010 and 2011 the current account balance may be influenced by processes of opposing direction. Parallel to the recovery of external demand, the export performance of the economy may become more favourable, which, according to

Table 3-9

Structure of the GDP-proportionate current account

(relative to GDP, in %, unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009	2010	2011
	Fact/Preliminary fact						Forecast		
1. Balance of goods and services	−3.8	−2.9	−1.2	−0.9	1.2	0.7	5.6	5.8	5.9
2. Income balance	−4.9	−5.2	−5.7	−6.2	−7.5	−7.3	−5.8	−6.6	−7.0
3. Balance of current transfers	0.8	−0.2	−0.3	−0.3	−0.5	−0.6	−0.3	−0.6	−0.3
I. Current account balance (1+2+3)	*−8.0*	*−8.3*	*−7.2*	*−7.5*	*−6.8*	*−7.2*	*−0.5*	*−1.5*	*−1.4*
Current account balance in EUR billions	*−5.9*	*−6.8*	*−6.4*	*−6.7*	*−6.9*	*−7.6*	*−0.4*	*−1.4*	*−1.4*
II. Capital account balance	*0.0*	*0.1*	*0.7*	*0.7*	*0.7*	*1.0*	*1.9*	*1.5*	*2.3*
External financing capacity (I+II)	**−8.0**	**−8.2**	**−6.5**	**−6.7**	**−6.1**	**−6.2**	**1.5**	**0.1**	**0.9**

our projection, would result in a slight improvement in the external equilibrium position in and of itself. However, in connection with the more benign external economic conditions, the prospects for profit of the corporate sector may also improve, which may – through increasing income expenditures – offset the balance-improving effect of the developments in foreign trade. The usage of the EU funds – low in 2010, high again in 2011 – may also be reflected in the evolvement of the external balance.

Our picture of the savings processes of individual economic sectors has remained broadly unchanged. Adjustment to the recessionary economic environment and the narrowing credit supply continued along with a surge in net savings of the private sector in Q2. From the real economy side this mainly took place through the dwindling corporate inventories and a fall in consumption, while on the financing side it took place parallel to further decelerating lending activity and intensive depositing in banks. However, banks' balance sheet data for Q3 available to us already suggest that the rapid deposit accumulation of the private sector has come to a halt and companies have already reduced their bank savings. Accordingly, the latest information confirms our earlier view that the shock-like adjustment of the private sector may have taken place in the first half of the year. On an annual basis, the net saver position of the private sector may reach an extent not experienced earlier.

In the next two years private sector savings – although at a declining measure – can counterbalance the financing requirement of the general government. The financing capacity of the corporate sector can decline in 2010 in parallel with the recovering investment activity, at the same time, the deteriorating financial position may reflect the projected lower usage of EU funds, as well. The ongoing drop of consumption may generate a slight further increase in the net savings of the households in the following year as a whole. We expect a remarkable reduction in households' financing capacity in line with intensifying borrowing. The increase in the financing requirement in the augmented general government in 2010 is generated by the accounting of new PPP investments and the expected loss of public transport companies (BKV, MÁV) and MNB. However, in 2011, along with the drop-out of the former deficit-increasing effects decreasing SNA deficit may be determinant in the rising financing capacity of the economy.

DEVELOPMENTS IN FINANCING – DECREASING FOREIGN DEBT

The continuing abrupt improvement in the external equilibrium position was accompanied by a substantial outflow of debt-type liabilities. In 2009 Q2, the restructuring taking place in banks' balance sheets played a pronounced role in the financing processes of the balance of payments. The underlying reason is that in connection with the low lending activity and the private sector's intensive deposit placements, outstanding foreign loans of the banking sector started to decline by a previously unprecedented extent. Dependency on external sources may have been

Table 3-10

GDP-proportionate net financial capacity of individual sectors

	2003	2004	2005	2006	2007	2008	2009	2010	2011
	Estimation						Forecast		
I. Augmented general goverment*	–8.3	–8.4	–9.4	–9.6	–5.9	–3.7	–4.7	–5.6	–4.5
II. Households	0.2	2.4	4.3	3.4	1.4	1.2	4.2	5.3	4.6
Corporate sector and "error" (= A – I.– II.)	0.1	–2.3	–1.5	–0.5	–1.7	–3.7	2.1	0.5	0.8
A. External financing capacity, "from above" (=B+C)	–8.0	–8.2	–6.5	–6.7	–6.1	–6.2	1.5	0.1	0.9
B. Current account balance	–8.0	–8.3	–7.2	–7.5	–6.8	–7.2	–0.5	–1.5	–1.4
– in EUR billions	*–5.9*	*–6.8*	*–6.4*	*–6.7*	*–6.9*	*–7.6*	*–0.4*	*–1.4*	*–1.4*
C. Capital account balance	*0.0*	*0.1*	*0.7*	*0.7*	*0.7*	*1.0*	*1.9*	*1.5*	*2.3*
D. Net errors and omissions (NEO)**	0.3	–1.4	–1.9	–2.3	–1.6	–2.2	–0.1	–0.1	–0.1
External financing capacity "from below" (=A+D)	–7.7	–9.7	–8.4	–9.1	–7.7	–8.4	1.5	0.1	0.8

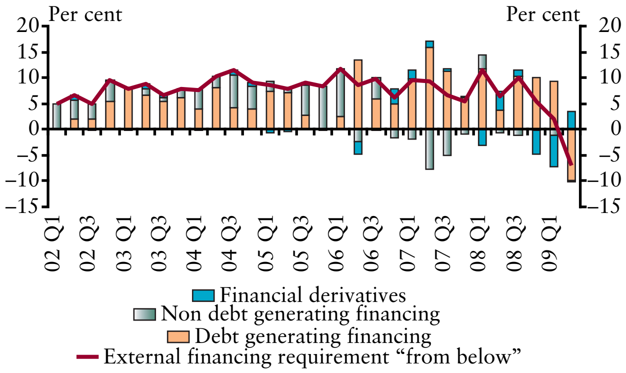
** In addition to the fiscal budget, the augmented general government includes local governments, ÁPV Ltd., institutions discharging quasi-fiscal duties (MÁV, BKV), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes.*

*** 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 would remain unchanged.*

Chart 3-20

The structure of external financing

(per cent of GDP)



reduced by transactions related to banks' derivative transactions[17] as well.

The significant outflow of debt-type liabilities resulted in a decline in the net external debt ratio, to which the revaluation of the FX-denominated debt, which may be explained by the appreciation of the exchange rate of the forint, also contributed. The GDP-proportionate net external debt indicator[16] was around 55% at end-Q2, which means an approximately 7 percentage point decline compared to the previous period. In addition, information for July and August available from banks' balance sheets suggest that the decline in external debt might have continued in Q3 as well.

On the whole, non-debt generating items did not play a role in financing processes. Direct capital inflows have been low since the beginning of 2008, although the decline in reinvested earnings played a decisive role in it. With a substantial decline in the profits of foreign-owned companies (more than 10% in 2008), the level of reinvested earnings also fell. Meanwhile, 'new' direct investment inflows have been really volatile. Therefore, the relatively low "new" direct investment inflow may not directly related to the current, unfavourable investment environment.

In the changed money- and capital-market environment we observed a change in the behaviour of institutional investors as well. Foreign share purchases in recent years did not persist in Q2, and what's more, the institutional investors reduced their foreign equity portfolios. Along the unfavourable financial market conditions the change in private pension fund regulations may also have played a role in this process.[19]

[17] Most of them are forint/FX swaps; therefore, in times of significant fluctuation in the forint exchange rate, a co-movement of net derivative financing and exchange rate changes is usually experienced. In 2008 Q4 and 2009 Q1, parallel to the depreciation of the exchange rate of the forint, the derivative transactions considerably reduced the balance of the financial account through the closed transactions and margin calls. In 2009 Q2, the exchange rate of the forint already strengthened, while the transactions related to derivative transactions reduced the dependency on foreign sources.

[18] (Forint-based) External debt indicator calculated without inter-company loans appearing among direct investment and without the financial derivatives.

[19] For private pension fund regulations, see: Government Decree 282/2001. (XII. 26.) on the rules pertaining to the investments and operation of mandatory pension funds. For the amendment of the regulation, see: 335/2008. (XII. 30.) Government Decree.

Boxes and Special topics in the Report, 1998–2009

* Recurring analyses are not listed here.

May 2007

Boxes:

Aug 2007

Boxes:

Nov 2007

Boxes:

February 2008

Boxes:

May 2008

Boxes:

August 2008

Boxes:

November 2008

Boxes:

February 2009

Boxes:

May 2009

Boxes:

August 2009

Boxes:

November 2009

Boxes:

Appendix

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