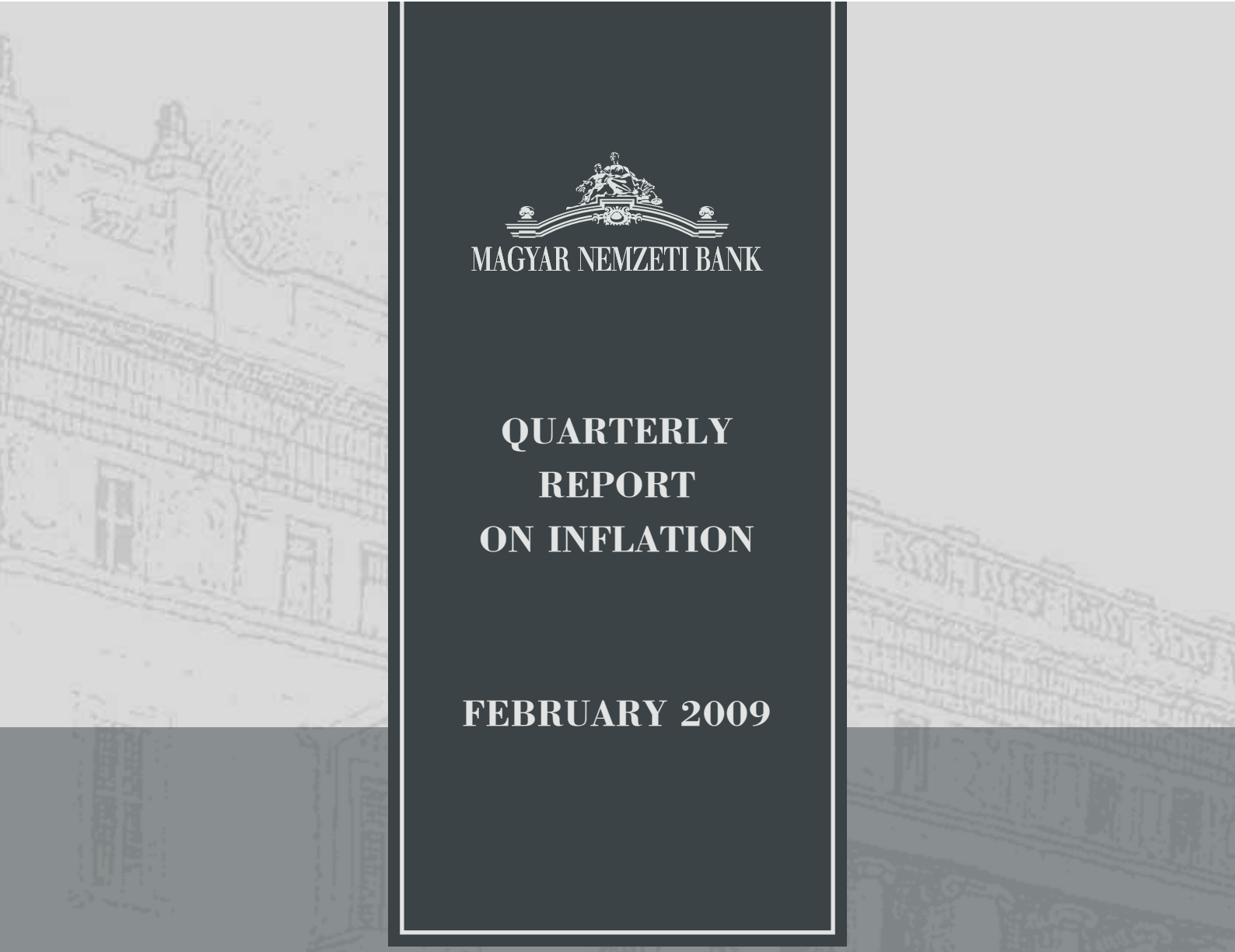

MAGYAR NEMZETI BANK

QUARTERLY REPORT ON INFLATION

FEBRUARY 2009

Quarterly Report on Inflation

February 2009

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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 promote public awareness and understanding of its monetary policy function, the Magyar Nemzeti Bank regularly publishes information available at the time it makes its policy decisions. The aim of the Quarterly Report on Inflation is to present forecasts of inflation and detailed assessments of the key macroeconomic factors driving inflation prepared by the staffs of the Bank's Monetary Strategy and Economic Analysis and Financial Analysis Departments. The projections are conditional: they assume unchanged monetary and fiscal policies and do not necessarily contain the most probable outcomes for economic variables which are beyond the control of the central bank; rather, they are based on the forecasting rules developed earlier.

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 Mihály András Kovács, Deputy Head of Monetary Strategy and Economic Analysis, with the help of Mihály Hoffmann, Gergely Kiss and Barnabás Virág. The *Report* was approved for publication by Ferenc Karvalits, Deputy Governor.

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The *Report* incorporates valuable input from the Monetary Council's comments and suggestions following its meetings on 9 February and 23 February 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.

Contents

Summary

Uncertain financial market environment, declining lending activity, coupled with recession in developed countries

The February projection was produced against the backdrop of uncertain macroeconomic and financial market conditions, similarly to the circumstances prevailing at the time of the previous Report. Although strains in financial markets have eased somewhat in the past quarter owing to actions by central banks and governments, market conditions remain substantially worse than they were before the onset of the crisis. The repricing of risks forced banks to pursue much more cautious lending policies, as a result of which lending to the household and corporate sectors slowed in the majority of countries worldwide.

Governments of the world's major economies announced substantial fiscal actions intended to mitigate the impact of the crisis on the real economy. But these policy packages have so far been unable to trigger a sharp revision of the outlook for future economic activity. Available macroeconomic data indicate a dramatic fall in world industrial activity: industrial production and new orders in Europe, for example, show double-digit declines, and global confidence indices are at their lowest levels in decades.

Parallel with Europe, Hungary fell into recession again, the quick disinflation continued

At the time the global recession set in, the Hungarian economy was already in a very weak position. Apart from the outstanding performance of agriculture, the output of industries within the private sector fell in the third quarter of 2008. The further deterioration in external and domestic macroeconomic conditions in the last quarter led to a sharp, 2% year-on-year decline in GDP.

Domestic firms adjusted to the rapid fall in output by restraining the growth of wages and reducing the number of employees; however, these proved insufficient to offset the decline in sales. As weak demand did not allow businesses to raise their prices, the recent rise in unit labour costs has led to a further deterioration in corporate sector profitability.

Rapid disinflation continued at the end of last year. The sharp drop in international commodity prices was the main contributing factor to the fall in inflation; however, declining domestic demand also had a perceptible effect on prices: despite the substantially weaker exchange rate, tradables inflation declined and the rate of increase of services prices fell further.

The domestic banking sector has been moving in parallel with international financial tendencies

Bank lending to both households and firms came to a sudden halt in 2008 Q4, with demand-side as well as supply-side developments being contributing factors. On the demand side, the economic downturn and increasing uncertainty surrounding income expectations acted as a significant drag on economic agents' willingness to borrow. On the supply side, banks' falling appetite to take risk led to a tightening of credit standards and an increase in loan prices.

Global economic activity and bank lending are unlikely to turn around rapidly

The February projection is based on the assumption that there is unlikely to be a sharp improvement in external demand conditions and bank lending activity over the next few quarters, with some recovery expected from 2010, in line with the forecasts of international institutions. Nevertheless, the possibility of a prolonged deterioration in business conditions and lending activity in Europe cannot be ruled out, which is reflected as a shift in risks to GDP growth to the downside relative to the central case. A stronger increase in household savings

than assumed in the central case in response to increased income uncertainty represents another downside risk to economic performance in the short term, which, however, may improve the country's external financing position.

Our projection assumes the implementation of government measures, announced on the 16th of February

The sharper-than-expected economic downturn put pressure on the government to take fiscal adjustment measures. These are aimed, in part, at facilitating short-term economic adjustment and in part at ensuring more sustainable general government finances. In the current projection, the policy package announced by the government on 16 February, and consisting of reductions in taxes on labour, indirect tax increases and expenditure cuts, is implemented.

ESA deficit below 3% can be achieved for this year, further detailed measures may be required for 2010

As the government's policy package is aimed at reducing net taxes on production activities, to the detriment of non-production activities, their overall impact on the growth potential of the Hungarian economy will be positive in the longer run in terms of real convergence. By reducing the tax burden on the corporate sector, the government measures are expected to increase the demand for labour and stimulate capital spending. However, higher indirect taxes and expenditure cuts are likely to reduce household disposable income and consumption expenditure temporarily, contributing to a decline in GDP in the first two years. But from 2011 supply-side factors will be beginning to dominate.

Based on available information, the measures announced by the government seem sufficient to reduce the deficit-to-GDP ratio below 3% on an ESA basis; however, the measures will only allow a reduction in deficit to around 3.3% in 2010. Further specific actions may be required to keep the deficit below the 3% level.

The economic downturn may last until 2010

In the current projection, Hungarian economic growth is negative in the next two years, as a combined result of the downturn in international business activity, the decline in lending and the government's adjustment measures.

The weakening in external economic activity in the short term is expected to make a negative contribution to production in the export sector this year. However, a slow recovery is expected in 2010. As a result of deteriorating economic conditions, firms and households are likely to cut back on spending. Businesses will adjust to the decline in sales by reducing employment and restraining the growth of wages; however, their profitability is likely to continue falling until 2010. Households' increasing uncertainty about their future incomes is expected to result in a rise in the sector's propensity to save, due to falling employment.

The procyclical behaviour of the financial sector has been a negative contributing factor to the weakening in economic activity. Banks' falling appetite to take risk has accelerated the decline in loan demand due to deteriorating profitability. In addition to the negative effect on capital spending, the tightening of working capital loans may cause difficulties in maintaining production in some sub-sectors.

Import growth will decline dramatically due to the sharp fall in domestic absorption, as a result of which the contribution of net trade to GDP growth may be positive over the entire forecast period, despite the decline in exports.

Inflation picks up slightly over the short term, then slows to around 3%

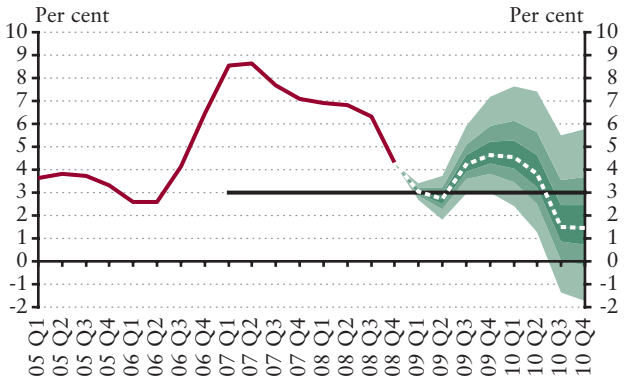
Provided that the basic assumptions (an exchange rate of EUR/HUF 290 and oil prices around USD 50 per barrel, implementation of the announced government measures) hold true, inflation may rise above 3% in the second half of the year. However, the main factor behind this is the effect of increases in VAT and other indirect taxes – inflation, adjusted for the effects of tax increases, may remain below the target over the entire forecast period. First, deteriorating global business conditions may further reduce imported inflationary pressure in the short term. Second, declining domestic activity also may lead to a very low inflation environment in the medium term.

Overall, the risks to inflation lie slightly to the upside relative to the central case. A sharper economic downturn poses downside risks to inflation, and higher risk premia on forint assets than envisaged in the central case pose upside risks to inflation, assuming unchanged interest rate conditions.

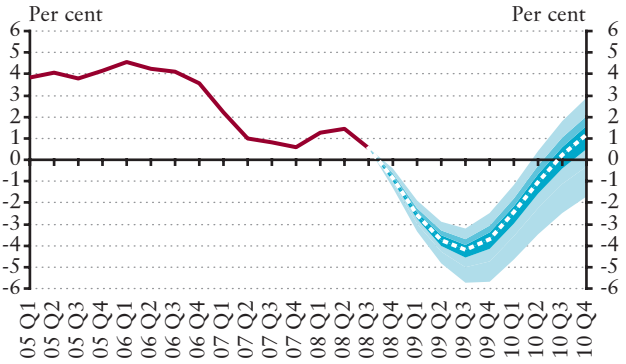
Significant reduction in the external financing requirement

In the projection, Hungary's external balance improves significantly, due mainly to households' rising saving rate. In addition, however, the reduction in the tax burden on the corporate sector and tighter credit standards may also lead to an improvement in firms' financing position.

Inflation projection fan chart



GDP projection fan chart



Summary table of the 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.)

	2006	2007	**2008**	**2009**	**2010**
	Actual		**Projection**		
Inflation (annual average)					
Core inflation[1,**]	2.4	6.0	**5.1**	**4.2**	**2.5**
Consumer price index**	3.9	8.0	**6.1**	**3.7**	**2.8**
Economic growth					
External demand (GDP based)	3.9	3.8	**2.3**	**-1.2**	**0.8**
Fiscal impact on demand[2,***]	0.4	-3.7	**-1.8**	**0.0**	**-0.3**
Household consumption expenditure	1.9	0.7	**0.3**	**-5.1**	**-1.6**
Gross fixed capital formation	-6.1	1.5	**-1.4**	**-7.1**	**-0.5**
Domestic absorption	*1.8*	*-0.9*	***0.5***	***-4.5***	***-1.2***
Export	18.6	15.9	**4.8**	**-6.0**	**4.8**
Import[3]	14.8	13.1	**4.7**	**-7.1**	**4.2**
GDP	4.1	1.1	**0.6**	**-3.5**	**-0.5**
Current account deficit[3]					
As a percentage of GDP	7.5	6.4	**7.9**	**3.9**	**4.5**
In EUR billions	6.8	6.5	**8.3**	**3.6**	**4.2**
External financing requirement[3]					
As a percentage of GDP	6.9	5.3	**6.8**	**2.1**	**1.7**
Labour market					
Whole-economy gross average earnings[4,8]	8.2	8.0	**8.3**	**0.8**	**6.5**
Whole-economy employment[5,**]	0.7	-0.1	**-1.2**	**-2.0**	**-1.8**
Private sector gross average earnings[6,8]	9.4 (7.9)	9.1 (8.5)	**9.2 (8.3)**	**4.0**	**6.5**
Private sector employment[5,**]	1.2	0.9	**-1.0**	**-2.4**	**-2.3**
Unit labour costs in the private sector[5,7]	4.4	4.0	**6.5**	**6.4**	**2.0**
Household real income*	1.3	-2.2	**-1.2**	**-1.8**	**-1.2**

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

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

[3] *Due to the high level of Net Errors and Omissions (NEO) the current account deficit/external financing requirement for the 2004-2007 period may be higher than suggested by official figures.*

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

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

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

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

[8] *In 2010, the abolition of tax-free benefits raises gross wages by 4.4%, if the government plans as known at the closing of this Report will materialize.*

** MNB estimate.*

*** The 2008 figures of these time series are not forecasts, but actual data.*

**** Fiscal impact on demand does not contain the result of MNB for 2009 and 2010.*

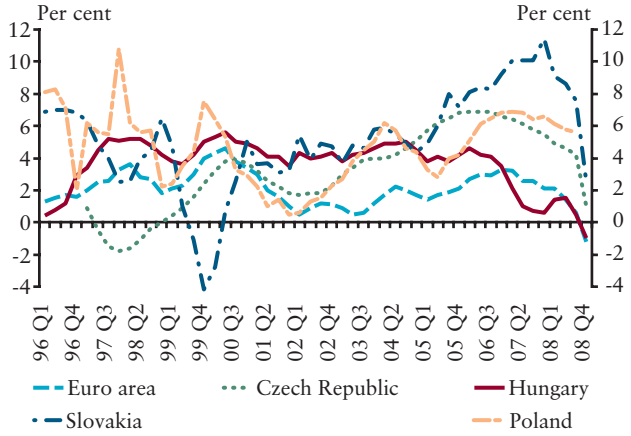
1 The evaluation of recent macroeconomic data

1.1 Recession deepens across Europe

While the deterioration in international economic conditions became obvious as early as the third quarter of 2008, the process continued in the fourth quarter at a faster rate than anticipated. The previous *Report* identified two main risk factors, which may determine developments both in global economic performance and in Hungarian economic activity over the next few quarters. One of these is a global deceleration of credit growth, which may lead to a downturn in both the production and the consumption sides of the economy. The second risk factor is a decline in foreign trade activity. Since Hungary is deeply integrated into the global economy, both in terms of financial and trade relations, negative global effects have recently had an almost instant impact on the domestic growth path.

Chart 1-1

GDP growth of our main export partners



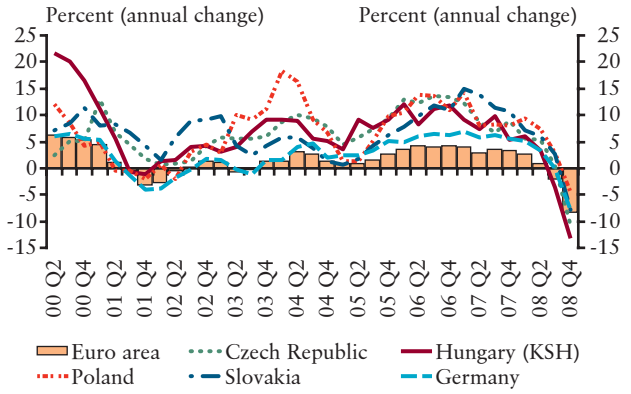
Source: Eurostat.

By the final months of the year, the downturn in lending had become a general phenomenon in the developed world, which primarily reflected banks' increased risk aversion. Combined with deteriorating income prospects, this initially affected the turnover of consumer durables, as these goods are typically financed by loans and are characterised by great income flexibility. As a result, unfavourable developments coming from financial markets triggered a decline in industrial output at first; however, by the end of 2008 they had a significant impact on European economic activity in general. The confidence indicators of the corporate and the household sectors fell to a historical low. Against the backdrop of a steep and rapid downturn in European

Chart 1-2

Industry production of the Eurozone, Germany and the region

(seasonally adjusted quarterly data, annual change)



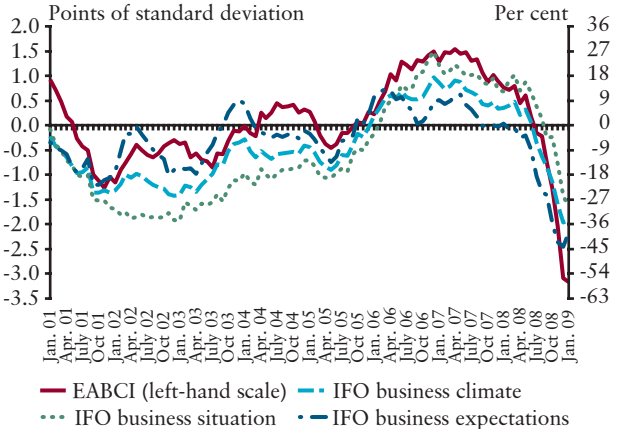
Source: Eurostat.

industrial output, the growth prospects of the sector deteriorated even further than observed during the period of economic slowdown in 2001–2002.

Confidence indices (EABCI, IFO), which move closely together with international economic activity, suggest a rapidly deteriorating economic environment. In the last months of the year the indices plunged to a historical low on several consecutive occasions, which is consistent with the

Chart 1-3

Changes in the IFO[1] and EABCI* confidence indices



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

[1] The IFO index is valued between ±100. Approximately 7,000 firms in manufacturing, construction, wholesaling and retailing are included in this survey every month. They have to value their current position and their future expectations in 6 months time with a three-grade scale.

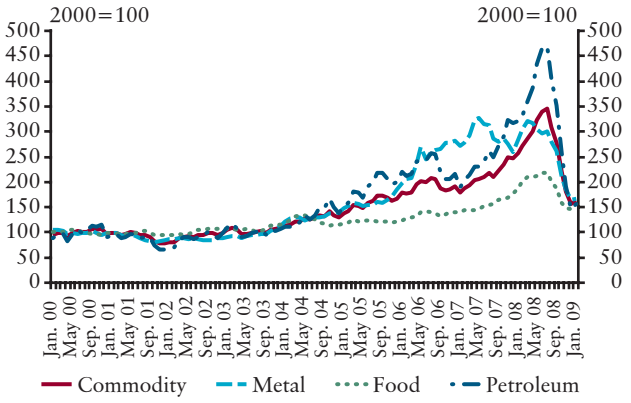
developments observed in the economic activity of the euro area. In contrast with the significant decline observed in previous months, the last data point in January indicated a slight adjustment in certain cases (IFO); however, given the historically low level at which the adjustment occurred, for the time being we cannot conclude that a positive turn is in sight.

The latest forecasts of international institutions[2] foreshadow a more significant decline for this year and next year than their previous forecasts indicated. Previous growth paths expecting a V-shaped, rapid upswing are increasingly replaced by scenarios assuming a U-shaped, more prolonged downturn.

Driven by expectations of a global economic slowdown and further, sustained recession, commodity prices fell even further. In previous quarters crude oil, commodities and food prices fell sharply and stabilised at low levels, which led to a worldwide decline in inflation.

Chart 1-4

Changes in global commodity prices*



** Denominated in USD. The highlighted product groups (food, crude oil and metal) comprise around 80% of the commodity index total.*

Source: IMF and IFS database.

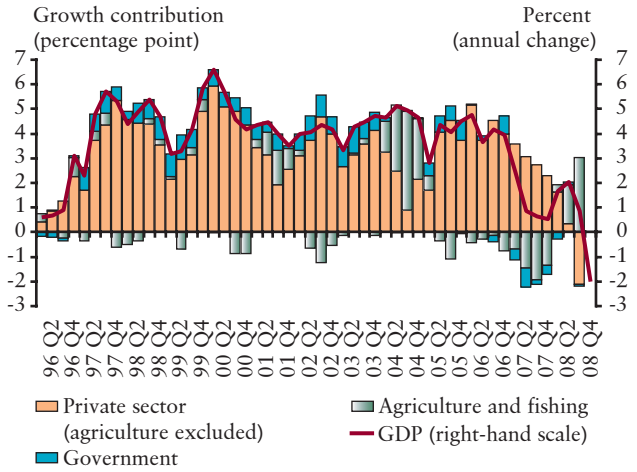
[2] European Commission, IMF.

1.2 Rapid appearance of recession effects in the domestic growth path

The global slowdown reached Hungary when its economic growth was slow. Reflecting a remarkable upsurge in agricultural output, until the third quarter of 2008 the economy was able to achieve positive growth in relation to annual dynamics; however, all other sectors gradually lost momentum as the year progressed. In Q3 whole-economy output – excluding agriculture – showed a decline of around 2%. In the last quarter of 2008, the deterioration in the general macroeconomic environment caused a significant deceleration in industrial growth and gross domestic product showed a 2% decline in year-on-year terms.

Chart 1-5

Contribution of major national economic sectors to total output*



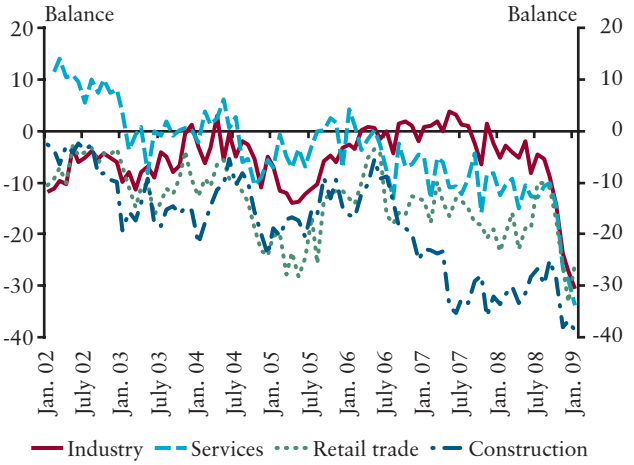
** Preliminary data from CSO for the fourth quarter of 2008.*

Construction output increased slightly in the fourth quarter, primarily reflecting the low base and ongoing government-related highway and utility construction projects. Consistent with the expected fall in home construction and gradually declining corporate building investment, the contract portfolio of the sector continues to decline. A continuing decline was observed in the market services sector as well. Shrinking money markets and falling domestic demand made an impact on all sub-sectors of industry.

The general economic recession therefore affects all sectors, and expectations regarding the upcoming period appear extremely bleak. Changes in the confidence indices reconfirm that sentiment regarding the prospects of all sectors is strikingly unfavourable and in fact has hit a historical low.

Chart 1-6

Changes in the sector confidence indices in Hungary



Source: European Commission.

Regarding the items of GDP absorption, by the end of the year there was mounting evidence of a downturn in this area as well. While the wage income of households showed a slight increase in the second half of the year, the combination of a deteriorating labour market environment and a steep decline in borrowing opportunities may have restrained investment and consumption expenditure toward the end of the year. This assumption is supported by plummeting retail sales at the end of the year, in particular among consumer durable goods.[3]

Gross fixed capital formation followed a declining trend throughout the year. While corporate investment showed signs of a slight recovery in the first half of the year, data relating to the second half suggest that firms also started to restrain their investment expenditure significantly. This may

[3] Among the components of retail sales, the most striking decline was observed in the volume of vehicle and vehicle spare parts sales, which fell by over 21% year-on-year in November. Even a weaker performance is supported by anecdotal information about January car sales data, which indicates a more then 50% decline in turnover.

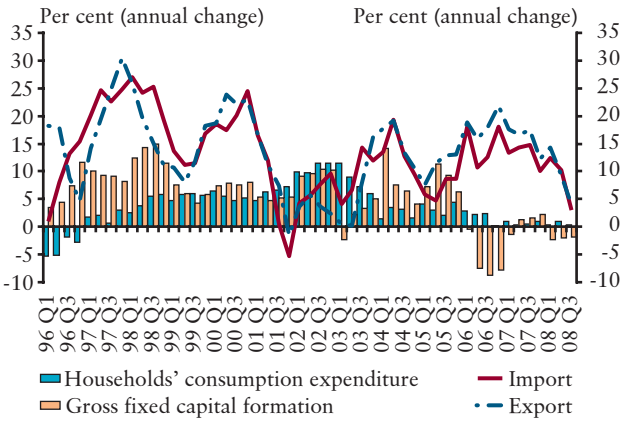
be explained primarily by two factors. On the one hand, the poor economic situation deteriorated profitability prospects, the volume of orders fell (and commercial inventories increased), which prompted firms to either postpone or cancel their scheduled investment projects on account of their unused capacities and insufficient export markets. Moreover, because corporate financing conditions have considerably tightened, in many cases firms are unable to obtain funding for their investment. Although the largest production companies in the Hungarian corporate sector are generally owned by non-resident firms, even parent companies are unable to provide real assistance in terms of funding, as they themselves are struggling with financial problems.

Government investment fell significantly throughout the year in all sub-systems of general government. Owing to a number of larger infrastructure investment projects, this situation may in fact improve somewhat by the end of the year. The volume of investment eligible for European Union funding fell behind the planned figure, representing another factor that failed to improve the state of whole-economy investment in any significant way.

The deterioration in the trade balance – which was observed since the middle of last year and was presumed temporary – came to a halt in Q4 and showed signs of a slight improvement at the end of the year. The volume of exports and imports of goods fell; the former being attributed to the deterioration in global economic activity, while declining imports can be explained by a combination of restrained exports and dwindling internal demand.

Chart 1-7

Changes in consumption side items



1.3 Gradual wage and staff number adjustments

Despite a rapidly deteriorating macroeconomic environment, 2008 Q3 was characterised by a lagged adjustment of wages and contradictory employment data. According to the labour force survey for the third quarter, the number of employees in the total economy increased by around 25,000, primarily in the private sector. Nevertheless, the last few months of the year saw larger wage reductions and staff number adjustments. Against the backdrop of slowing economic activity and deteriorating prospects, the production sectors (manufacturing and the related suppliers) primarily laid off the largest number of employees. Data for Q4 (October to December) indicate that employment decreased by 34,000 compared with the third quarter, and the level of inactivity continued to increase; in other words, the decline in employment was followed by a smaller increase in unemployment.

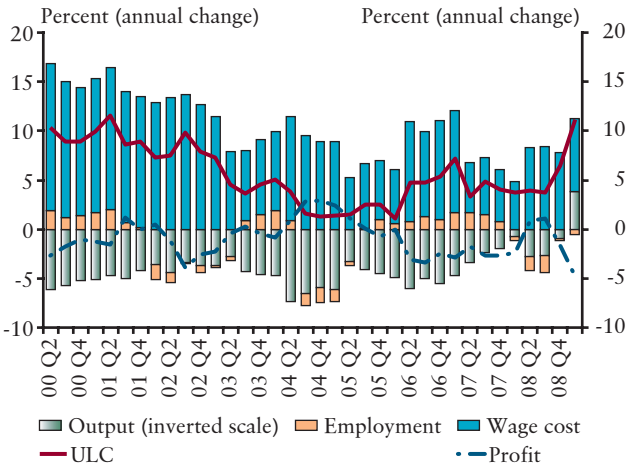
Because the rapid decline in production was only partly followed by labour market developments in respect of wages and staff numbers, unit labour costs increased. However, poor demand did not allow companies to incorporate their rising costs in prices, which further deteriorated corporate profitability. Consequently, further cuts in employment and decelerating wage dynamics are expected in the coming quarters.

Chart 1-8

Employment and unemployment in the national economy

Chart 1-9

Changes in unit labour costs in the private sector

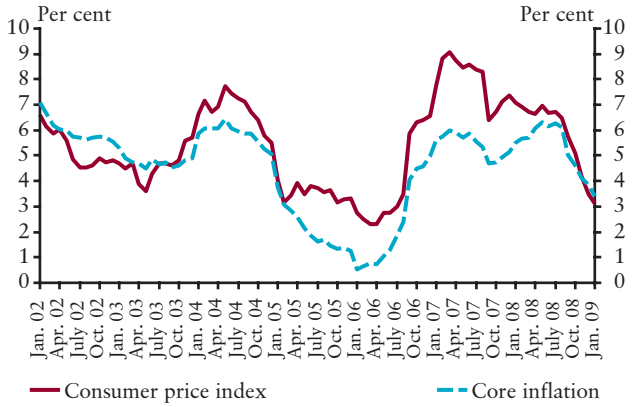


1.4 Rapid disinflation in 2008 H2

The average annual inflation rate was 6.1% in 2008; however, its within-year developments were highly uneven: while price increases in the first half amounted to around 7%, a sharp fall in prices was observed from the autumn. Changes in the consumer price index are primarily associated with commodity and food prices: while high commodity prices helped maintain the price index at the beginning of the year, from the autumn the index was moderated by falling food and commodity prices as the narrowing of the global output gap continued. However, the disinflationary effects of declining domestic demand were becoming more pronounced towards the end of the year.

Chart 1-10

Inflation developments

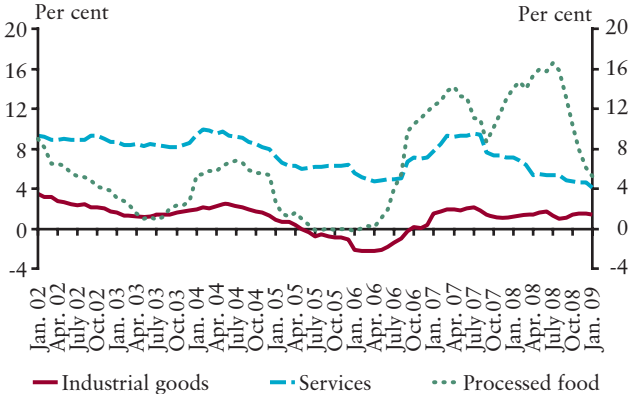


Although the decline in the prices of unprocessed foods slowed somewhat by the end of the year, they continued to significantly contribute to the fall in the consumer price index through secondary effects.[4] Food and fuel prices played an important role in the end-of-year disinflation, as falling world oil prices reduced domestic prices significantly. In the next period, due to the current levels of the price of oil and the exchange rate, we cannot count on a continuously rapid decline in inflation. This means that the disinflation period led by rapidly declining commodity prices can shortly come to an end, and restrained domestic demand may become an increasingly influential factor in the disinflation process. This tendency has strengthened in recent months.

The inflation index of industrial products decreased in the last few months, in spite of the weakening exchange rate. This means that weak household demand may offset the effect of movements in the exchange rate. With respect to services price inflation, the sharp drop in September was not followed by an adjustment; furthermore, January CPI data (important because of the yearly price raising) showed a significantly lower index than could be observed in the last few years.

Chart 1-11

Changes in the individual components of inflation

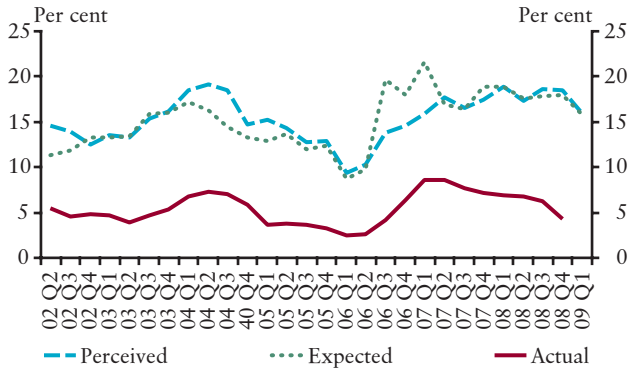


Inflation expectations of households started to decrease notably while their perceived inflation also took a favourable turn. Expectations have not been this low since the third quarter of 2006, which means that the index has reached a two-year low. A possible reason for the decrease could be a very positive turn in the prices of foods and vehicle fuels observed in recent months, considering that household perceptions are the most sensitive to this product group.

Chart 1-12

Inflation perceptions and expectations of households – Median survey

(growth rates for the past as well as the forthcoming 12 months)



[4] The January consumer price index data showed that the downward trend in food prices slowed down.

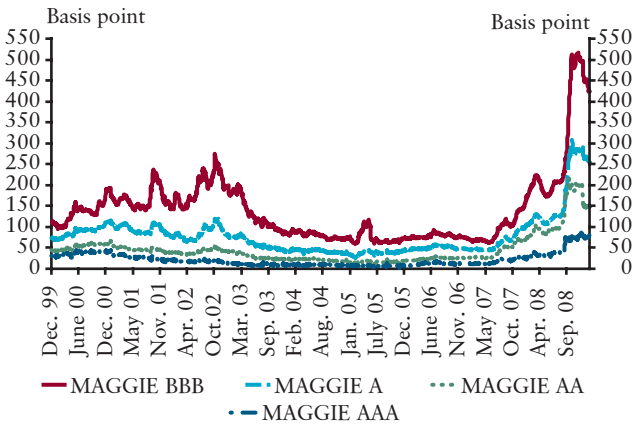
2 Financial markets and lending

2.1 Significant volatility, slightly improving global market sentiment, active central bank and government measures

In recent months, rather than continuing to focus on the liquidity and confidence problems of financial markets, investors turned their attention to the deteriorating state of the real economy, which has caused a paradigm shift in global economic thought. Central bank and government measures focused on economic recovery and preventing the collapse of lending processes. Risk aversion and lack of confidence gradually started to abate from its peak observed in September and October, investor sentiment improved slightly, risk indices dropped, and the ongoing decline in equity markets came to a halt. The optimism was mainly due to the inauguration of the new US president and the radical measures expected from him. At the same time, high volatility and frequent directional changes in asset prices remain; even minor pieces of negative news can turn the temporary optimism around, and it is reasonable to say that investor sentiment is fragile. The unfavourable welcome by the market of the previously often delayed announcement of the Financial Stability Plan clearly shows how erratic financial markets are. Due to the continuing lack of ironing out the details and vagueness regarding implementation of the package, investor disappointment surfaced and market sentiment fell again in February.

Chart 2-1

Changes in risk indices*



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

Source: J.P. Morgan.

Against the backdrop of declining risk indices, demand continued to be high for short-term US government papers, which are considered the safest. Three-month US T-bill yields remained around 0%, but even the meagre yields could not dampen auction demand for these instruments. At the same time, interbank market tensions began to ease significantly, as reflected by a substantial decline in TED spreads and Libor-OIS spreads observed in recent months. Because access to

Chart 2-2

Fed's interest rate target vs. three-month USD interbank and government securities market yields

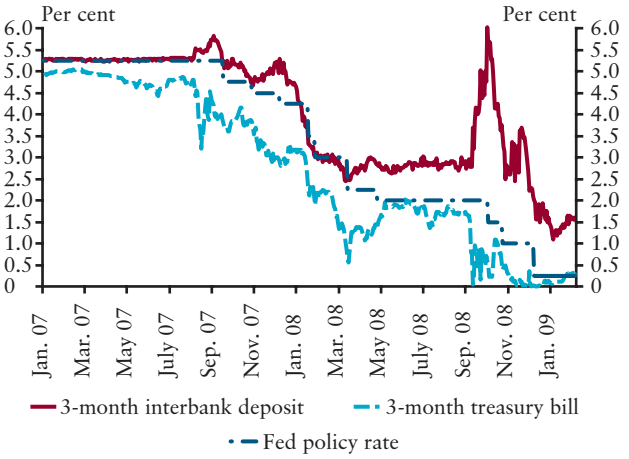
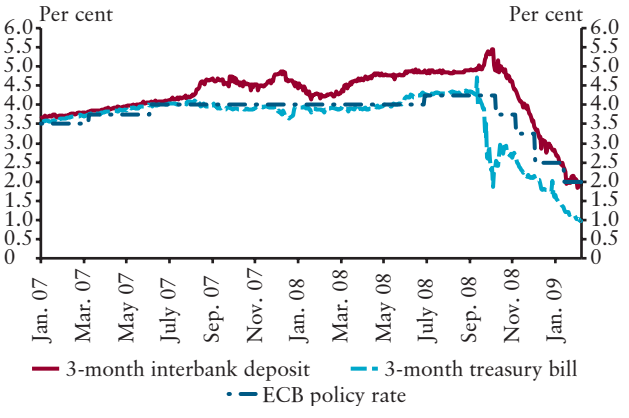


Chart 2-3

ECB base rate vs. three-month EUR interbank and government securities market yields



funds in the interbank market has become cheaper and easier, central banks now play a substantially less significant part in taking on the role of the interbank market: as a result of declining recourse to certain facilities, the balance sheet totals of the Fed and the ECB have shrunk. On the whole, while the confidence crisis has eased and the state of the international financial system has improved, the latter has not bounced back to pre-crisis levels.

Macroeconomic indices released during the period indicated a profound, global weakening in economic activity; the only remaining question is how deep and how long the recession will be. Meanwhile, several research institutes and supranational organisations (European Commission, IMF) released forecasts significantly more pessimistic than their previous forecasts, discarding previous expectations of a V-shaped path – showing a rapid rise after hitting the bottom. Now a prolonged, U-shaped path with persistently slow growth is expected. With interbank market tensions diminishing significantly and inflation risks falling, central bank and government measures have clearly focused on the mitigation of recession risks. In an attempt to moderate the extent of the economic recession and a drastic credit crunch, and to prevent the collapse of lending, large central banks have eased monetary policy. As a result of ongoing, aggressive interest rate cuts worldwide, central bank base rates fell to historic lows in several developed countries (USA, United Kingdom, Canada, Hong Kong). In the case of the Fed, maintenance of the 0%-0.25% target band is priced in by the market, while a further cut 50-100 on basis points in the base rate by the ECB is expected, which might drive the base rate to an all-time low never before observed in the euro area.

Base rates approaching zero per cent inevitably prompted several central banks to adopt certain alternative measures, those that are outside of the set of tools applied by traditional monetary policy, in an attempt to scale back the economic recession. These unorthodox monetary policy tools mainly involved a shift towards quantitative easing and the offering of different asset purchase facilities. The objective of these steps was partly to reduce yields at different maturities across the yield curve and partly to alleviate the financial problems of the private sector.

In the context of government measures, the series of new economic recovery programmes and bank rescue packages continued, the largest of which is undoubtedly the USD 787 billion massive economic stimulus package pushed through by the Obama administration in the United States. The main components of the fiscal stimulus plan are tax breaks, stimulating home purchases, aid for states and for the unemployed, and access to healthcare. According to the US financial stability plan, the previously labelled 'bad bank' concept will be replaced by setting up a Private-Public investment fund to take over the bank system's troubled and nonperforming assets, and more careful oversight is expected regarding capital injections to the financial sector. Moreover, as additional government bank rescue packages are being set up in several other countries (Germany, France, Denmark, United Kingdom), it has become obvious that the initial measures taken in relation to the crisis of confidence in September and October were insufficient.

As a result of increased government participation, several developed countries are expected to face significantly increased budget deficits, which will lead to a higher volume of sovereign bond issuance. While the increased bond supply of developed countries may have an adverse impact on the issuance of emerging economies through the crowding out effect, it also raises the credit risk of developed countries. Concerns about the deteriorating equilibrium of certain countries, in particular the peripheral Member States of the euro area, have already been reflected by the significantly increasing CDS and sovereign bond spreads, and the downgrading of their debt ratings by credit rating institutions.

2.2 Asset prices in emerging markets

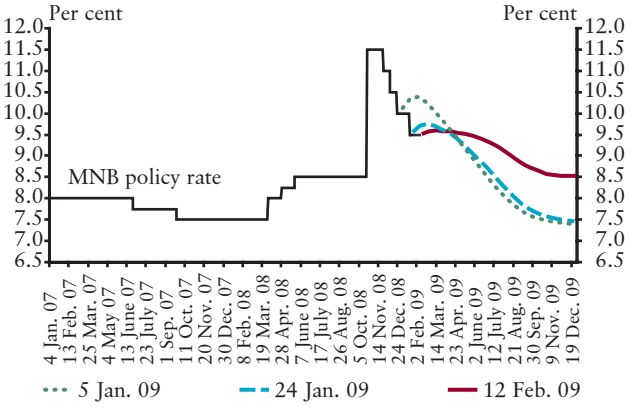
Risk aversion and enhanced preference for assets deemed safe continued to characterise the global investment appetite, well illustrated by the strong yen and the dollar. This phenomenon continues to have a devastating effect on emerging markets; investor interest in higher-risk instruments is rather fragile, and even though instrument prices keep rising temporarily from time to time, this does not imply a clear turnaround in the trend. Even though risk indices started to decline from the end of November, risk appetite was still far behind the period preceding the bankruptcy of Lehman Brothers. The asset prices of emerging markets were highly volatile and changed along with the global investor sentiment. However, from the end of January the assessment of the CEE region has diverged from that of the other emerging markets and deteriorated significantly, in both absolute and relative terms. The major factors behind the concerns are higher than expected economic downturn, deteriorating growth outlook due to the contracting export markets, vulnerability caused by high external debt and a sharp drop in net private capital inflows.

As was the case with developed economies, recession fears determined the economic policy measures taken in emerging markets, and consequently the central banks of emerging markets have attempted to support economic recovery through a relaxed monetary policy. This process can be observed in the Central and East European region. Two consecutive times, the central bank of Poland decided to lower the key policy rate by an unexpectedly high amount, by 75 basis points, reducing the rate to 4.25%. A deteriorating economic environment combined with progressively higher rate slashes indicate that further, intensive rate cuts lie ahead. In the Czech Republic as well, the loosening cycle which started in November continued; the Czech central bank lowered the key policy rate in two steps by 100 basis points altogether, so the Czech base rate stands at 1.75% now, below that of the ECB. The central bank of Romania also started monetary easing by a rate cut of 25 basis points. After the interest rate decision of the ECB, Slovakia followed suit and lowered its policy rate in December.

In Hungary, the central bank launched a series of interest rate cuts with a reduction of 50 basis points, which was followed by three additional 50 basis point cuts, bringing the extent of monetary loosening to a total of 200 basis points. Even though the market was caught unprepared by the initial steps, adjustments were made relatively quickly and easily, and expectations of market participants regarding the rate policy were revised accordingly. According to the quotes of forward interest rate contracts, after the decision in January market participants anticipated 50 basis point rate cuts until the middle of the year, and expected the key policy rate to drop to 6.5%-7% by the end of the year. However, the significant exchange rate depreciation has brought about a clearly different situation. Expectations regarding further interest rate cuts evaporated; according to asset prices and analysts' comments the most probable outcome is an unchanged policy rate during the following months, while the yield curve estimated from interbank interest rates indicates an 8.5% level of policy rate for the end of the year.

Chart 2-4

Policy rate expectations



** Estimated by the MNB from interbank interest rates using the spline-technique.*

All currencies in the region suffered a significant devaluation in recent months, and as a result of several waves of weakening from the end of January they reached successive all-time lows. The steepest fall was recorded for the Polish zloty, consequently – and due to other factors as well – doubts started to mount regarding the schedule of the euro changeover in Poland originally planned for 2012, especially since premature ERM II membership might pose substantial risks in the current, highly volatile environment.

Similar to other currencies in the region, the forint has weakened substantially, associated with increased volatility. Parallel to its depreciation, long-term exchange rate expectations also changed significantly. The shift of the expected centre of exchange rate fluctuations into a weaker position may be a result of the continued interest rate cuts following the initial weakening of the exchange rate, which indicated, as it were, that with significantly lower inflation risks the central bank would tolerate an even weaker exchange rate than before. At the same time, exchange rate

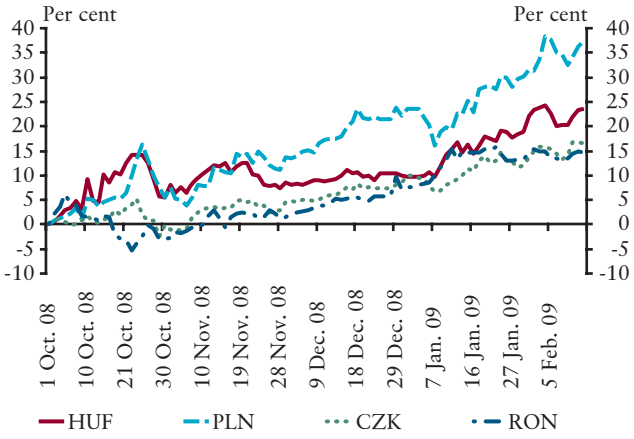
expectations did not become asymmetrical; even with weaker expected exchange rate value, market participants assign notable probability to further substantial devaluations.

In consideration of all this, movements in the forint exchange rate was basically similar to those in the emerging currencies, particularly to those in the regional ones. Despite several waves of weakening in the exchange rate and a substantial shift in exchange rate expectations, the forint foreign exchange position of non-residents was relatively even during the last few months; there were no significant speculative positions taken up against the forint. On the other hand, liquidity provision in the foreign exchange market shrank notably; moreover, certain mechanisms that had provided automatic support for the forint in the past were either missing or had weakened (decreased foreign currency lending, departure of the forward stocks of domestic participants from exchange rate developments). As a consequence, the probability of the risk that relatively lower quantities may cause severe fluctuations in the exchange rate has increased considerably.

Changes in CDS spreads – the prices of derivatives serving as collateral in the case of default on sovereign foreign currency bonds of a specific country – are good indicators of the risk perception of emerging markets and changes in global investor sentiment. In the first half of the period since November, spreads declined slowly and gradually up until the beginning of January, when deteriorating investor sentiment triggered a significant increase in the spreads again. As was the case with the exchange rate, from November on the CDS spread of Hungary basically followed the changes in the global climate and, as opposed to the previous period, country-specific factors did not affect it significantly. During the period of improvement that lasted until the beginning of January, the CDS spread of Hungary narrowed to 350 basis points (7 January); however, it subsequently jumped again, reaching 570 basis points by the middle of February. Originating in the deteriorating sentiment regarding the CEE region, currently the CDS spread of Hungary exceeds that of Turkey and Brazil, although not so long ago Hungary's CDS spread fluctuated at similar levels to that of those countries.

Chart 2-5

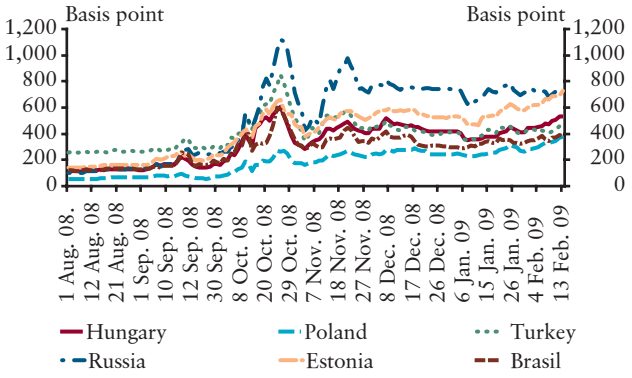
Changes in the exchange rates of the currencies in the region*



** Changes in percentages, 1 October 2008 = 0; a positive value indicates a devaluation of the local currency.*

Chart 2-6

Developments in CDS spreads in some emerging countries



2.3 Consolidation of domestic liquidity problems, new MNB tools

After the crisis of confidence reached its peak in October 2008 with the functional disorder of interbank markets, turmoil in the domestic financial markets started to gradually abate starting from November. Besides maintaining the monetary policy instruments introduced in October, the MNB modified its existing set of tools several times in a continuing attempt to facilitate a gradual consolidation of the operation of domestic markets and to assist the banking sector in both domestic and foreign currency liquidity management.

Table 2-1

Facilities and measures taken by MNB

Description of the measure	Date of introduction	Frequency	Aim of the facility	Notes
FACILITIES ENHANCING FORINT LIQUIDITY				
Announcement of MNB's auctions for the purchase of government securities	17 October 2008	weekly	Supporting domestic credit institutions' forint liquidity management	Primary dealers of the Debt Management Agency, who fulfil their obligations undertaken in the agreement concluded with the MNB
Six-month, variable-rate collateralised loan tenders	21 October 2008	weekly	Supporting domestic credit institutions' forint liquidity management	Till 2 February 2009: Primary dealers of the Debt Management Agency From 2 February 2009: All resident credit institutions subject to reserve requirements
Narrowing the interest rate corridor around the key policy rate to ±50 basis points from ±100 basis points	22 October 2008	–	Supporting domestic credit institutions' forint liquidity management	
Two-week, collateralised loan tenders with a fixed interest rate	21 October 2008	weekly	Supporting domestic credit institutions' forint liquidity management	
Widening the range of eligible assets	in a series of steps, from 28 October 2008	–	Supporting domestic credit institutions' forint liquidity management	28 October 2008: the provision on close link does not apply to covered bank bonds. 18 November 2008: minimum criteria for eligible assets have modified to ""BBB-"" from ""A"". 20 February 2009: bonds issued by Hungarian local authorities denominated in HUF, EUR or CHF.
Reducing the reserve ratio from 5% to 2%	24 November 2008	–	Supporting domestic credit institutions' forint liquidity management	
FACILITIES ENHANCING FOREIGN CURRENCY LIQUIDITY				
Two-way O/N FX swap tenders (providing euro and forint liquidity) under a competitive bidding scheme	13 October 2008	daily	Increasing FX-swap market liquidity decreased due to lowered partner limits	
O/N FX swap standing facility providing euro	16 October 2008	daily	Increasing euro liquidity in the domestic FX-swap market	
Swiss franc liquidity-providing one-week, fixed price FX swap tenders	2 February 2009	daily	Increasing Swiss franc liquidity in the domestic FX-swap market	
Euro liquidity-providing six-month EUR/HUF FX swap tenders	2 March 2009	daily	Increasing long-term euro liquidity of the domestic credit institutions	Domestic credit institutions undertaking to keep at least constant at its 31 December 2008 value or increase their outstanding domestic corporate lending, after adjusting for exchange rate effects, on a quarterly basis from the second quarter of 2009 until the end of 2009, while the 2009 average of their net foreign liabilities, after adjusting for exchange rate effects, does not fall below the amount outstanding on 31December 2008. Institutions also undertake to draw new foreign liabilities and/or reduce their foreign obligations,after adjusting for exchange rate effects, at least up to the amount of the swap-line in 2009.

In order to enhance forint liquidity, the Monetary Council decided to reduce the reserve ratio to 2% in November, while maintaining the measures adopted in October. In January the Bank broadened the range of counterparties eligible to participate in its six-month, variable-rate collateralised loan tenders, and expanded the range of eligible collateral accepted in lending to banks in a series of steps. The Bank has added two new facilities to its existing policy instruments, in order to alleviate foreign currency liquidity problems. First, from February it provides Swiss franc liquidity in exchange for euros by conducting one-week EUR/CHF swap transactions with credit institutions subject to reserve requirements. The provision of Swiss franc liquidity has been facilitated by a temporary EUR/CHF swap agreement concluded with the Swiss National Bank. Second, from 2 March 2009 domestic credit institutions have access to a six-month EUR/HUF swap facility providing euro liquidity. With the introduction of the new instrument, the Bank's intention is to stimulate corporate lending and help banks to have access to longer-term funding.

The regained confidence among banks is confirmed by the fact that the primary liquidity reallocation is once again fundamentally performed in the unsecured forint interbank market. While turnover was relatively small in recent months compared to previous months, it should be noted that this can primarily be explained by excess liquidity most market participants currently have; therefore, dependency on this market is rather low at a system level. In another positive sign, simultaneous recourse to the overnight deposit and lending facilities of the MNB came to a halt, while demand for longer-term lending facilities has gradually declined as well.

As frictions regarding forint liquidity subsided, foreign currency liquidity conditions started to improve as well. Largely contributing to this improvement, fears that the foreign parent banks of domestic credit institutions would not come to the aid of their subsidiaries if the FX swap market dried up have proved unfounded. On the contrary; non-resident owners in fact stepped up to assist their subsidiaries more than ever, acting as counterparties in FX swap contracts. In the last few months of the year the number of contracts made within the bank group (typically directly with the parent bank) increased substantially, resulting in a higher ratio of owner-held stocks within the net FX swap holdings of domestic banks. More active participation of parent banks mitigated the rollover risks on the FX swap holdings of domestic banks, thus these banks appear to have a largely sufficient access to foreign exchange liquidity.

In another positive sign, following the drought in October, the share of non-residents in the FX swap turnover rose to pre-October levels by January. Moreover, implied forint yields increased significantly following the negative values observed in October, and while they are slightly still below the interest rate corridor, they are close to it. Recourse to the two-way FX swap tender practically stopped, which means that the previous typical problem of banks not being able to trade with each other because of reduced limits vis-à-vis each other has been resolved. The banks no longer need the intermediary services of the MNB to eliminate counterparty risk. The one-way FX swap instrument was used almost continuously up to the end of January; however, recourse to this facility became scarce in February. Nonetheless, the participation of the MNB in providing euro liquidity is still needed and normal operations have not been resumed as of yet. Reduced value of the average maturity and the predominance of very short-term deals in trading also support this assumption. As a negative development, due to the substantial weakening of the exchange rate, rolling over foreign exchange swap holdings of the same size takes up a significantly higher portion of the banks' forint liquidity (known as the 'margin call effect').

On the whole, processes in the government securities market indicate mixed trends. Measures of the ÁKK to reduce the supply of government papers, auctions conducted by the MNB for the purchase of government securities and the purchases made by primary distributors under an agreement with the MNB all contributed to the initial improvement of market functioning. Favourable entry opportunities resulting from the expected decreasing interest rate path arising from the cycle of interest rate cuts launched by the MNB may have contributed to the return of non-resident investors to the domestic government security market in January. The total value of forint government securities non-residents purchased exceeded HUF 200 billion. The major part of this growth resulted from secondary market bond purchases, while a smaller but still significant part was related to the auction demand for discount Treasury bills. After the considerable weakening in the forint exchange rate and the reduction in expectations regarding further rate cuts, during the second half of the period non-residents began to sell forint government securities again.

Reflecting the recovery of demand, in the first part of the period the yields on government securities substantially declined from the extremely high levels recorded in November; however, a global deterioration in investor sentiment resulted in rises in yields from the middle of January. As a result yields rose to almost as a high level as

they had topped in November. In December and January short-term primary issues were sold against the backdrop of increasing demand and decreasing yields. Demand at the auctions proved to be sufficient in most of the cases at the end of the period, too; however rising yields were present at the primary markets as well. In February the Government Debt Agency conducted successful government bond auctions of three series with low offered amount, aimed to test investors' appetite for Treasury bonds. However, despite the success of the sales, one of the key questions for the upcoming months remained whether the market is robust enough for the resumption of regular bond issues.

While there has been a significant overall improvement in the functionality of domestic financial markets since the last Report, normal business operations have not been completely restored. There is less inconsistency in the yield levels of certain markets; therefore, the information content of yields became more reliable. Central bank measures largely contributed to a more efficient orientation of market yields. At the same time, the liquidity of most market segments is still below the levels observed in the periods prior to the turbulence in October.

2.4 Developments in monetary conditions

Looking at the developments in monetary conditions, it has become increasingly obvious that 'classic indices' such as real exchange rates and real interest rates do not completely reflect the tightness of monetary conditions. While the former were relaxed during the previous period, developments in the non-price factors of lending undoubtedly point to a tightening of conditions.

The forward-looking real interest rate fell markedly from its historic high recorded in November, due to the unexpectedly steep decline in the nominal yield level, which surpassed that of inflation expectations. The index rose to record heights following the extraordinary interest rate increase in October; however, as the cycle of rate cuts was launched, and the expected interest rate path was overwritten by central bank measures in November, the nominal short-term yield level declined significantly. The value of the real interest rate is still over 6%, which is well above the long-term average.

The nominal forint exchange rate continues to determine developments in the real exchange rate, and overall it significantly depreciated in recent months in an increasingly volatile environment. Regarding the period elapsed since the last Report, developments in the forint exchange rate occurred in two stages. From the end of November to the beginning of January, the exchange rate was reasonably stable, moving within the boundaries of a relatively narrow band. Subsequently, reflecting the deterioration of market sentiment regarding the CEE region and following the shifts in the exchange rates of other currencies in the region from the end of January, the forint exchange rate climbed to a level of around EUR/HUF 300, as a result of several waves of weakening. Although the level of inflation in Hungary exceeded that of the euro area, the extreme weakening of the nominal exchange rate significantly over-compensated the real appreciation effect of the positive inflation differential, and overall it lead to a substantial real depreciation again.

While developments in the real interest rate and the real exchange rate pointed to the loosening of monetary conditions, the impact of tightening credit standards and the shrinking of the credit supply have become obvious: in the last few months foreign currency lending decreased significantly in both the household and the corporate segments. Foreign exchange liquidity problems and the risks the financial sector faced proved to be particularly devastating in the case of loans denominated in Swiss franc: the supply of franc loans and the stock of new lending suffered a steep fall in the last few months of the year. This is the most obvious manifestation of the tightening of monetary conditions.

Chart 2-7

Developments in monetary conditions

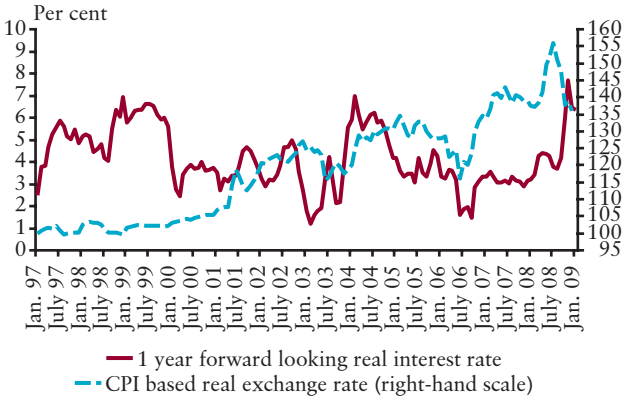
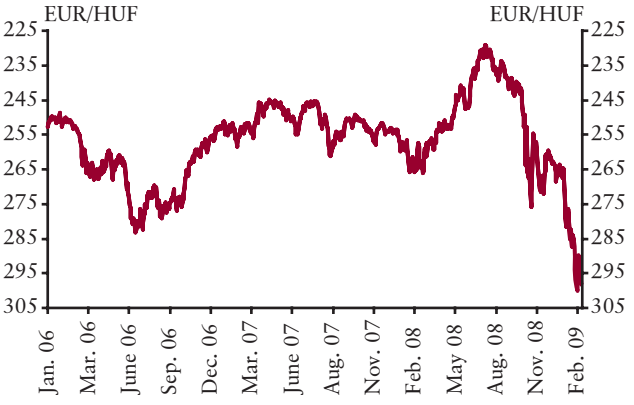


Chart 2-8

Developments in the forint/euro exchange rate



2.5 Decline in bank lending

Bank lending activity declined markedly in the last quarter. While the decline in bank lending helps reduce the external financing requirement of the economy as it decreases domestic consumption, it has an adverse effect on economic prospects through several channels. Thus developments in corporate lending play a crucial role. On the one hand, when the financing of corporate investment comes to a halt, it puts a downward pressure on the future growth prospects of the economy. On the other hand, if firms fail to obtain even the required working capital loans (or their existing working capital loans are not rolled over), it may jeopardise the financing of their production, which in turn may reduce the short-term performance of the economy. In addition, declining household borrowing reduces household consumption as well, which also has a negative impact on economic growth.

In the last quarter of 2008 lending activity of banks dropped back significantly both in the corporate and in the retail segment. Corporate loans continued to grow in 2008 until September, albeit at a slower pace. However, in October and in November the volume of corporate loans stagnated, then dropped off sharply by nearly HUF 160 billion in December (the value excludes exchange rate effects, see the chart below). This decline was caused partially by the bigger than seasonally usual fall of short-term loans, and by the omitted end-of-the-year rise of long-term investment loans. Thus the seasonally adjusted negative net flow in December is shared in a ratio of 45%-55% between changes in the short-term and in the long-term loans, respectively (although the non-adjusted figures only show the fall of short-term loans). However, in January net flow in corporate loans was slightly positive, due to a small increase in short-term loans.

Even an overall evaluation of the last quarter of 2008 indicates that net lending to the household sector dropped substantially; a review of monthly data shows more obviously how sharp the decline really was. The HUF 25 billion net lending recorded in December (excluding exchange rate effects) is lower than any value observed in any month over the last four years. In January net lending continued to diminish.

In December there was a clear shift in FX lending from Swiss franc to the euro. This implies that some part of net lending certainly stems from loan applications after the great tightening of lending criteria in October. For the first time since December 2002, the total stock of consumer credit declined, although growth recovered slightly in January. In line with the trends observed in previous years, the total stock of forint loans continued to decline, both in the housing segment and in consumer credit. In other words, despite increasing exchange rate fluctuations, households continued to prefer foreign currency-based products because of the large difference between forint and foreign currency interest rates.

Chart 2-9

Net quarterly growth of the corporate loans of the domestic bank sector, excluding exchange rate effects

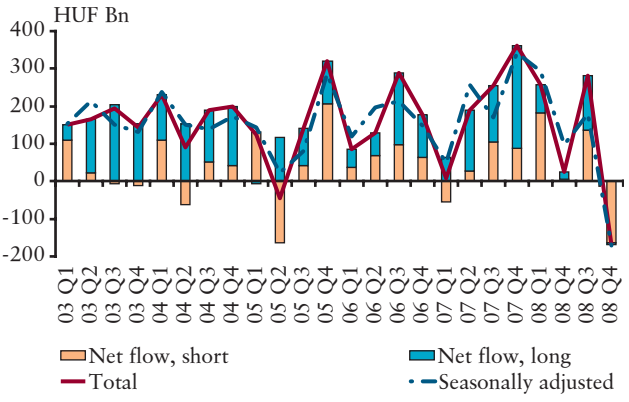
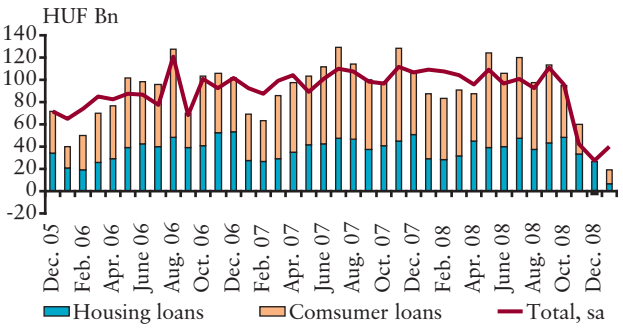


Chart 2-10

Net monthly growth of the household loans of the domestic bank sector, excluding exchange rate effects



In summary, economic agents significantly adjusted their behaviour in the midst of a financial crisis. Reasons associated with loan supply and demand equally played a role in these changes. On the supply side, the declining risk appetite of banks led to a more conservative lending policy than before. This is confirmed by the fact that several credit institutions introduced markedly tighter loan conditions in the areas of both household and corporate lending. On the side of loan

demand, a looming recession must have prompted firms and households to restrain or postpone their high value expenditures.

According to our expectations, the decline in lending activity may continue in 2009: available information indicates that several banks aim to reduce risk, curtail dependence on external funds, and decrease loan-to-deposit ratios in their business plans for this year. As a consequence, their loan portfolio should not exceed its current level in general, and some banks may in fact streamline some of their portfolio.

It is reasonable to assume that credit institutions will initially attempt to cut back their activities in the least profitable credit segments, as well as in areas where their contractual obligations most allow it. It is important to note however, that credit activity in different sectors of the economy also strongly depends on credit demand. Based on our first assumption, the decline will affect household lending to a lesser extent than the corporate portfolio. Based on our second assumption, restrained credit supply will primarily affect working capital loans in the corporate segment, which have a shorter maturity (3 to 4 months on average); as these loans expire, the banks can eliminate them very quickly by not renewing them, whereas investment loans are more difficult to terminate due to contractual obligations. This latter effect however is counteracted by the strongest decrease in loan demand at longer maturities, as a result of a cut-back in investment demand.

3 Inflation and real economy outlook

Beside the usual basic assumptions, the forecast assumes that the fiscal measures announced on February 16 will come into effect.[5] Regarding the economic outlook we expect a downturn of the Hungarian economy in the upcoming two years. Inflation may rise to near 5% temporarily, due to the impact of the tax increases, followed by disinflation from 2010 H2. Excluding the direct impact of tax increases, inflation is likely to remain below the medium-term target in both 2009 and 2010.[6]

Box 3-1: The basic assumptions of our forecast

In line with the practice adopted in the previous issues of the *Report,* we peg our forecast on certain fixed assumptions regarding the expected path of the base rate, the EUR/HUF exchange rate and oil prices. We fixed the central bank base rate at 9.5%, which reflects the level to which it was lowered on 19 January. As regards the other variables, we assume that the average value of the 4 working weeks between 19 January and 13 February will continue to apply. This has resulted in a EUR/HUF exchange rate representing an over 12 percentage point lower exchange rate relative to the November assumption. There has also been a strong shift in global oil prices, which expressed in USD are now approximately 35% lower than our last assumptions. Accordingly, our assumption for crude oil prices expressed in forints is – despite a weaker exchange rate path – nearly 30% lower for 2009 and over 20% for 2010 than our basic assumption in November.

Table 3-1

Changes in the basic assumptions of the forecast compared with the November Report*

	November 2008			February 2008			Change compared with November (%)		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Central bank base rate (per cent)**	11.5	11.5	11.5	10	9.5	9.5	-1.5	-2.0	-2.0
HUF/EUR	250.4	257.9	257.9	251.5	289.7	290.6	0.4	12.3	12.7
USD/EUR (cent)	147.5	133.5	133.5	147.1	129.7	129.5	-0.3	-2.8	-3.0
BRENT oil price (USD/barrel)	101.8	80.7	86.7	97.2	49.4	57.9	-4.5	-38.7	-33.3
BRENT oil price (EUR/barrel)	68.1	60.4	64.9	64.6	38.1	44.7	-5.2	-36.9	-31.2
BRENT oil price (HUF/barrel)	17,052	15,584	16,751	16,239	11,047	12,983	-4.8	-29.1	-22.5

** Annual averages, based on the monthly average exchange rate of the 20 working days precedeing 13th February 2009 and the crude oil futures price.*

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

[5] See details in Box 3-2.

[6] Our forecasts are based on information available up to 5 p.m. on 16 February 2009.

3.1 We expect a period of protracted downturn

In our forecast – similarly to the November *Report* – three significant factors determine trends in the macroeconomic path. Global business activity, domestic lending and the impact of fiscal measures. Overall, we envisage a path that is less favourable than it used to be in the case of the first two factors. As regards the fiscal measures, they will lead to a contraction in aggregate demand on the forecast horizon.

Box 3-2: The macroeconomic effect of the fiscal measures

Our forecast assumes that the fiscal measures announced on February 16 will come into effect. However, we used only those measures in our calculations that are sufficiently detailed to have their macroeconomic and fiscal effects judged. All in all, for 2010 nearly HUF 200 bn non-specific measures were not taken into consideration. The measures partly serve the budget adjustment in the short run, and partly the improvement of the longer run sustainability of public finances. The following section provides a brief summary of the major effect mechanisms.

On the revenue side, the objective of the restructuring of taxation is to improve competitiveness while maintaining tax revenues. Employer contributions will be cut back by a considerable 5%. Simultaneously, taxes on consumption (VAT and excise duties) will be raised. In itself, the transformation of personal income taxation will have a zero net effect, as raising the lowest income tax rates is only possible through abolishing tax breaks. Our model calculations reveal that a rearrangement of taxation will be beneficial to long-term growth: labour demand will be boosted by the lower tax burden on wages. However, no positive effects will be discernible in the near term, our forecast horizon, as they will be diluted by lower demand due to tax increases and measures to cut spending.

In addition to increases in indirect taxes, household consumption will be curbed by a cut-back of transfers to households (stricter eligibility criteria for gas price and district heating subsidies, inclusion of family benefits in the tax base and changes in the pension indexation rules). Furthermore, the general government-related measures of the austerity package, e.g. a reduction in agricultural subsidies and a cap on spending by public institutions, will also curb government consumption and investment spending.

Thus overall it is safe to assume that, although the government's fiscal measures will boost growth in the long run, the negative growth effects will dominate in 2009 and 2010. Inflation will rise significantly due to these measures in both years, with an aggregate increase amounting to 2.5% of the price level over the two years.

Table 3-2

Government measures quantified in the forecast

Revenues (HUF bn)	**2009**	**2010**
Reduction of employers' contribution	-81	-281
PIT reductions	-40	-192
Abolishng tax-free benefits		215
Tax on capital	-2	-43
Taxes on consumption	123	288
Total	**0**	**-13**
Expenditures (HUF bn)	**2009**	**2010**
Household transfers	-17	-121
Government consumption and investment	-93	-123
Transfers in kind	-30	-30
Other	-63	-57
Total	**-203**	**-331**

As to external demand, the economic downturn experienced by Hungary's main export partners may approximate 2%, and we expect only a slow recovery for 2010. This will inevitably entail a marked fall in export sales this year. We do not anticipate any significant growth in the household loan portfolio in 2009. Only in 2010 will it rebound and edge up to the levels of 2000 and 2001, when lending activity was fairly moderate. By contrast, net corporate borrowing may experience negative growth throughout the year, with lending only slowly taking off in 2010.

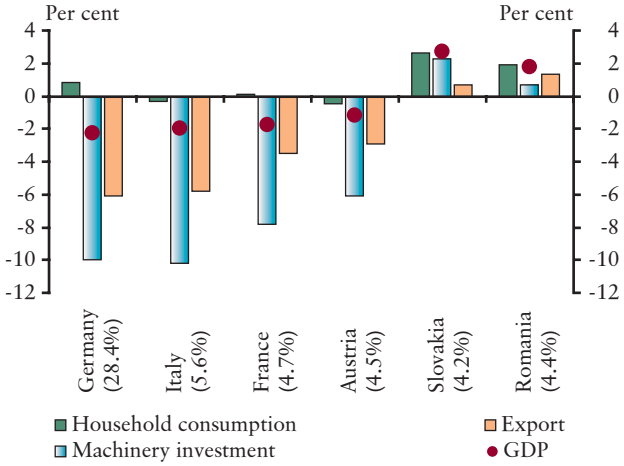
Sectoral trends – a sharp fall in industrial output, confidence indexes bottoming out, adverse trends in market services and the construction industry – all suggest recession. A decline in income and more stringent lending standards will likely dampen investment and consumer spending in the case of all major domestic agents.

In sum, both external and internal growth factors point to rapid recession in the short run. Recovery is most likely to commence in late 2009 and early 2010. In respect of external business activity, recovery in the euro area hinges on the success of economic policy interventions designed to boost demand, while major domestic factors facilitating the recovery are a new take-off in lending. Overall, the economic downturn may be around 3.5% in 2009, which is likely to be followed by some minor decline in 2010.

Chart 3-1

Economic forecast for Hungary's major export partners based on the EC's current projection

(export shares of countries in parentheses)

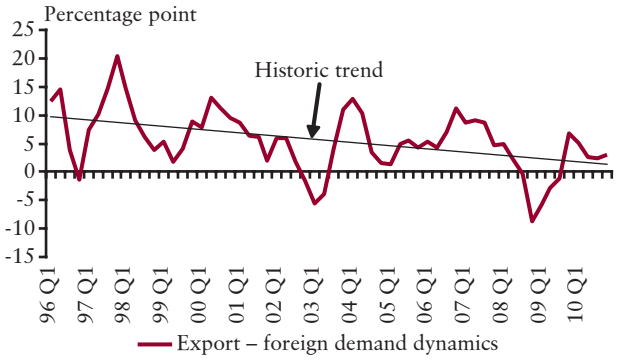


Hungary's export sales will continue to be determined by its major export partners' increasingly dismal outlook for an upturn in business activity. The global recession is expected to lead to a significant decline in GDP or a marked slowdown of GDP growth in both developed and emerging economies. The investment and the intermediate goods sectors, which respond strongly to changes in the business cycle, are particularly vulnerable to the slowdown in external demand. As these sectors represent a major share in Hungary's exports, we expect that a fall in domestic export sales may be even more pronounced than the contraction of Hungary's external markets. We witnessed a similar phenomenon during the global downturn at the turn of the millennium. Similarly to major international institutions, we also expect global business activity to pick up from the end of this year, which may help put the export-driven sectors back on the growth trajectory, making them first among the domestic sectors to experience this. It is worth noting that a forint exchange rate that is below previous years' averages and the cut in employer's social security contribution may improve the price and cost competitiveness of Hungarian export companies. Nevertheless, the extent to which these companies will be able to take advantage of this in the short run against a background of dwindling demand is still uncertain.

Chart 3-2

Difference between the annual export dynamics and the annual growth of external demand

(Percentage points)



As regards lending activity, we expect a procyclical banking behaviour. Due to declining risk appetite, banks might cut credit supply, which means that credit flows will decline more than the demand for credit would justify it during the recession.

The sudden tightening of lending standards may lead to a decrease in both output and capital demand in the corporate sector in the future through several channels. The drying up of short-term, mainly working capital loans may jeopardise the continuous operation of companies – mainly SMEs – that rely heavily on this type of financing. As a slower global economic activity may directly or indirectly through suppliers adversely influence the demand of this sector, further reduction in financing may easily increase the possibility of the discontinuation of production and of bankruptcies. These adverse impacts may be offset successfully by the more

efficient utilisation of EU support if, in line with the government's intention, the implementation of the projects can be accelerated.

Given the difficulty of securing credit and an increasingly bleak growth outlook, banks are expected to apply stricter cost and non-cost type standards to the corporate creditworthiness appraisal process, especially this year. Simultaneously, deteriorating sales opportunities, lower potential profits and cost reductions will urge the majority of companies to postpone or discontinue capacity increasing investments, which in turn may lead to lower demand for loans. Stricter lending standards and deteriorating microeconomic prospects suggest that, except for the implementation of a few large-scale investment projects already announced (e.g. the construction of a Mercedes plant in Kecskemét), corporate investment spending will decrease over the entire forecast period.

The only favourable stimulus for total economy investment in the years to come may be investment by the broad government sector through successful applications for EU funds. Although the projects financed from EU funds have hitherto failed to truly boost investment, the government's current intention suggests that special emphasis will be put on the implementation of these projects in the coming years.

Households' behaviour will continue to be affected by deteriorating labour market conditions, increasingly tight lending, government measures and a temporary increase in inflation. Companies in the private sector may respond to the rapidly deteriorating profit conditions by reducing staff levels and insisting on wage levels significantly lower than before (or which even fall in nominal terms). Although based on the budget for 2009 part of 13th month salaries will continue to be granted in the public sector, nominal wages will decrease by approximately 6% due to a moratorium on the payment of bonuses. Although we expect an acceleration of gross nominal wages in 2010, much of the increase (more than 4%) is due to abolishing tax-exempted benefits. Our assumption is that in the adverse conjunctural environment the tax burden of the previously tax-free benefits will be borne by employees. Thus, all in all, despite the loosening of the personal income tax rules the nominal income of households will not increase. Furthermore, government measure through a cut-back of nominal transfers and increasing inflation will reduce real income.

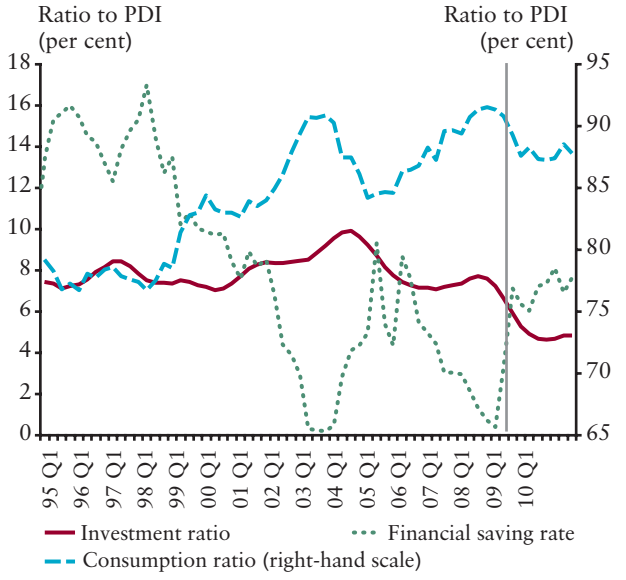
These two effects will combine to lead to a substantial reduction in households' real income in 2009 and in 2010. As in the short run credit financing for consumer and investment spending is also becoming increasingly hard to obtain, alongside dwindling income, a fall in the consumption and investment demand of a large share of households may be sharper than that in real income. This trend is the opposite of what was seen during the 2006 adjustment, and is more reminiscent of the developments following the tightening of housing subsidies in 2004. We expect that this year, as a result of this process, there will be some visible correction in financial savings, which have been falling since 2005. This will also improve the external position of the Hungarian economy.

The extent of the correction will be determined mostly by a fall in household borrowing. We expect only a minor increase in the financial holdings of households. We base the latter assumption on two opposing factors. While in an environment of falling real income, moderation in financial holdings would be consistent with households' consumption smoothing, increased caution warranted by a deteriorating labour market situation should result in an increase in financial savings. Savings are rather concentrated. Only a minority of households have liquid assets. The savings of most households are regulated by long-term contracts (e.g. pension funds savings, insurance policies) whose liquidation would be rather costly; therefore, of the two impacts we consider the latter will prevail. Accordingly, we expect financial holdings to decline further for only a quarter or two, and even then only to a limited extent. As part of the adjustment process, the sector's investment spending may – as a proportion of disposable income – reach historic lows.

Chart 3-3

Trends in the use of household income

(As a proportion of disposable income)



Overall, we expect a marked economic downturn in 2009, which may be followed by a further moderate reduction in economic activity in 2010 as well. The most important

cause of the downturn is a reduction in household consumption, total economy investment spending and export sales. Nevertheless, due to a significant drop in domestic import demand, the contribution of net exports to growth may, despite the unfavourable sales opportunities abroad, remain positive over the entire forecast period. This will significantly improve the sustainability of the external balance of the Hungarian economy. A kick-start around late 2009 and early 2010 is likely to come from export sales boosted by a moderate recovery of external business activity and domestic demand invigorated by a new take-off in lending in.

Table 3-3

Growth projection

(Annual growth)

	2007	2008	2009	2010
	Actual	Nowcast	Forecast	
Household consumption expenditure	0.7	0.3	-5.1	-1.6
Social transfers in kind	-11.5	3.5	-0.3	0.0
Final consumption of households	-1.7	0.8	-4.2	-1.3
Final consumption of government	-2.8	-0.8	-2.6	-1.5
Total consumption	-1.9	0.5	-4.0	-1.3
Gross fixed capital formation	0.9	-1.4	-7.1	-0.5
Changes in inventories				
Gross capital formation	1.4	0.4	-6.1	-0.8
Domestic use	-0.9	0.5	-4.5	-1.2
Export	15.9	4.8	-6.0	4.8
Import	13.1	4.7	-7.1	4.2
GDP	**1.1**	**0.6**	**-3.5**	**-0.5**

3.2 A further decrease in employment and stronger wage adjustment

The adjustment process in the corporate sector warranted by a further deterioration in the sector's profitability will remain dominant in the labour market. In an unfavourable macroeconomic environment, lower profitability urges companies to reduce their staff levels and wage dynamics. Although experience shows that wages take longer to adjust, given the current situation adjustment is very likely to accelerate and the wage channel will play an increasingly significant role in labour market adjustment.

In 2010, due to the government measures, a statistical effect will also be reflected in gross wages. As the net value of the hitherto tax-exempted benefits (e.g. meal and holiday vouchers) will count towards wages, wage indexes will grow by approximately 4%. Even so, we do not think this will affect wage costs in any way, i.e. employers will not compensate their employees for the increasing tax burden imposed on them, because due to lower income tax rates, the net income of employees will not fall. This latter effect will approximately compensate for the reduction of the personal income tax rate.

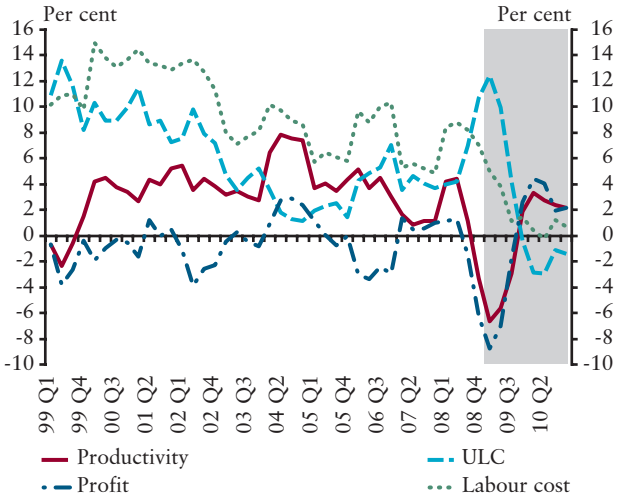
Due to possible further lay-offs, the number of those employed in the private sector may decrease by close to 2% in both 2009 and 2010. Thus, although the government measures described in Box 3-2 will in the longer run increase labour demand, only few positive labour market impacts will materialise before 2010. Experience suggests that only part of the labour laid off remains registered as unemployed in the labour market. A significant part will exit the labour market and become economically inactive. The foregoing notwithstanding, we expect a sharp rise in unemployment over the entire forecast period.

Simultaneously, the negative output gap – which curbs wage increases – will also be felt to an increasing extent in wage dynamics. In addition to a number of economic impacts, due to robust statistical effects, wage growth in the private sector will be significantly lower than earlier. Of the former effects, in particular the adjustment necessitated by dwindling demand, employers' improved bargaining position due to a higher unemployment rate, an environment of lower inflation and the so-called demonstrative effect brought about by nominal wage reductions in the public sector are worth mentioning. Furthermore, output during a shorter (4 rather than 5-day) working week also favours lower wage dynamics. Although corporate adjustment through the number of hours worked can be regarded as quantitative adjustment, if the properties of our statistical tests that monitor – mainly monthly average wages – are taken into account, the latter impact will also be reflected in a lower rate of wage growth.

In the case of the public sector, we assume that labour market processes will be consistent with the government's intentions over the entire forecast period. This translates into unchanged staff levels in the public sector, while as regards wages, after a nominal decrease this year, there will be some minor increase in real wages in 2010, in parallel with the private sector.

Chart 3-4

Components of the unit labour costs of the private sector



3.3 Temporarily higher inflation due to tax increases

The expected path of inflation will be affected significantly and directly by the government's tax-increasing measures, in addition to economic interconnections and changes in our basic assumptions. Therefore, in the following section we will discuss the impacts of these measures in detail.

Over the short run, provided that our basic assumptions apply, we expect a further mild reduction in inflation until mid-2009. A EUR/HUF exchange rate that is 12% weaker than the one in our November projection points to higher inflation over the entire forecast period. The impact of the forint's exchange rate will be dampened by lower imported inflation and the significant drop in prices in the global commodity markets over the past few months. In line with our previous forecasts, we expect a marked disinflationary impact of an envisaged reduction in domestic demand over the entire forecast period.

A significantly negative domestic output gap, which mitigates inflation, may make itself felt especially in the items of core inflation. The inflation of market services was consistently 6%-7% for several years. Disinflation, which started late last year and continued this January, may persist and is expected to gain further strength in 2010. In addition to demand effects mitigating inflation, trends in the wage dynamics of the sector may be a key determinant in this process. The more flexibly wages in the service sector adjust to productivity – which will probably be rather weak over the entire forecast period – the faster disinflation may occur.

In line with a rapid fall in commodity and energy prices over the past quarters, we expect further correction in the prices of processed food in 2009 H1, to be followed from 2010 by a slow rise in the prices of these goods, due to a slow increase in the prices of unprocessed foods.

As a combined outcome of the above trends, inflation may fall below the medium-term target as early as in 2009 and fall even further, below 2% in 2010. This is adequately underpinned by expected trends in the price index, net of tax changes, which is yet again in the focus of our analysis.[7]

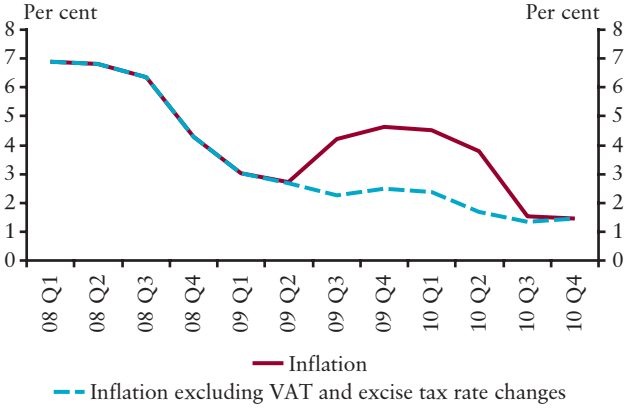
However, the tax increase will accelerate inflation from mid-2009. Of the announced government measures, the one that will exert the most significant impact is raising the standard VAT rate from 20% to 23%. This tax hike, which will affect approximately 93% of the entire consumer basket, will according to our estimates increase the current level of inflation by approximately 1.8%. As a result, around 75%-80% of the technical impact will be reflected in the price index. Experience based on past VAT rate increases reveals that it is only a few months before producers and retailers pass on the effect of the VAT rate increases to customers. As a result, a major part of this impact will already be reflected in the CPI in Q3, i.e. immediately after the VAT rate increases in July. The increase of excise duties on alcoholic beverages, tobacco and fuels will, according to our estimates, increase the price level by a further 0.3%. In addition to these two impacts of tax increases, spending cut measures may – through administered prices – increase inflation by another approximately 0.5%.

Based on macroeconomic trends and the government measures, our projection is for annual average inflation to stand above 3.5% in 2009 and slightly below 3% in 2010. As regards within year inflation, it is worth noting that inflation, which stood at 3.1% in January, may decline slightly further in the short run; however, due to the tax increases, price indexes are likely to remain over 4% for nearly a year from Q3. Annual indexes will only drop below the inflation target in 2010 H2.

Chart 3-5

CPI projection*

(Annual growth)



** In the case of the CPI net of VAT, we have taken into consideration the impact of the feed-through of the VAT rate and excise duty increases to the CPI rather than their full technical impact.*

[7] Similar to changes in VAT rates in the past, the exclusion of the impact of tax increases from the CPI is a major methodological issue. Our calculations show that not the entire impact of taxes is reflected in consumer prices. Therefore, it stands to reason that if we exclude the impact of the tax increases 100%, we could easily undershoot inflation, which is relevant in an economic sense.

3.4 Inflation and growth risks

The main causes of uncertainty in our current projection are external demand, lending activity and global market turmoil.

As regards external demand, there is a real risk that global business activity is facing a downturn that will be deeper and more protracted than our baseline expectations. Under this scenario, the import demand of Hungary's major foreign trade partners will continue to decrease in 2010. Such a protracted global downturn would affect economic growth through lower export sales mainly in 2010. Inflation would be lower, due to adverse trends in business activity. This might be reduced further by the disinflationary impact of global commodity prices, which are most likely to continue to fall.

Trends in lending standards continue to represent a substantial risk in our projection. In our judgement, the conditions of borrowing and the unfavourable income position of the borrowers may, for as long as the entire forecast period, lead to less dynamic lending than assumed in the baseline scenario. It cannot be ruled out that both net household and net corporate borrowing may remain negative over the next two years. This could especially affect this year's figures. Its disinflationary effect would materialise mostly in 2010.

The impact of the protracted turmoil in the global financial markets on macroeconomic trends has also become more accentuated in Hungary over the past few months. From a forward-looking perspective, a sudden significant deterioration in Hungary's risk assessment may, provided that interest rates remains unchanged, amplify upside risks to inflation.

Overall, based on the risks presented above, risks to the baseline scenario for economic growth are to the downside, while those to inflation are slightly tilted to the upside.

Chart 3-6

Fan chart of the inflation projection

(Annual growth)

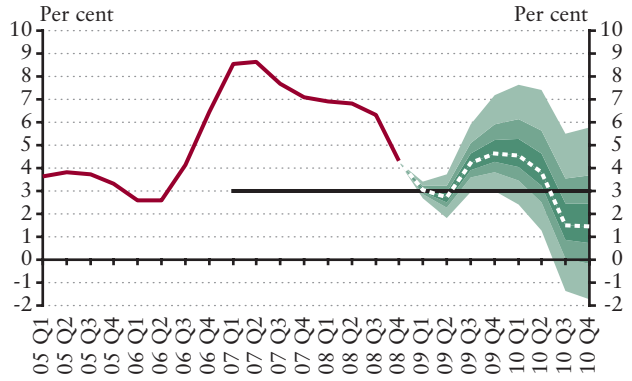


Chart 3-7

Fan chart of the GDP projection

(Annual growth)

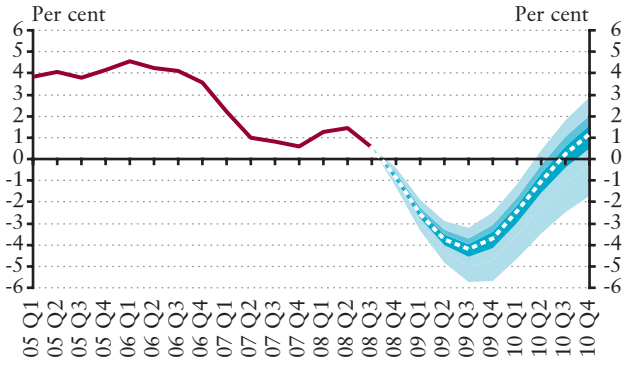


Table 3-4

Changes in our projections compared to November 2008

	2007	2008		2009		2010	
	Actual	Projection					
		November	**Current**	November	**Current**	November	**Current**
Inflation (annual average)							
Core inflation[1,**]	6.0	5.2	**5.1**	2.7 – 3.0	**4.2**	1.3 – 1.8	**2.5**
Consumer price index**	8.0	6.2	**6.1**	3.1 – 3.4	**3.7**	1.5 – 1.9	**2.8**
Economic growth							
External demand (GDP-based)	3.8	2.1	**2.3**	(-0.4) – 0.3	**-1.2**	(-0.2) – 1.5	**0.8**
Impact of fiscal demand[2,***]	-3.7	-1.8	**-1.8**	(-0.6) – (-0.1)	**0.0**	(-0.5) – 0.3	**-0.3**
Household consumer expenditure	0.7	0.4 – 0.5	**0.3**	(-3.6) – (-1.1)	**-5.1**	0.4 – 1.2	**-1.6**
Fixed capital formation	1.5	(-0.9) – (-0.5)	**-1.4**	(-3.5) – 1.1	**-7.1**	(-0.2) – 2.8	**-0.5**
Domestic absorption	*-0.9*	*1.2*	***0.5***	*(-2.7) – (-0.4)*	***-4.5***	*0.2 – 1.2*	***-1.2***
Export	15.9	6.2 – 6.4	**4.8**	0.0 – 1.6	**-6.0**	2.0 – 5.8	**4.8**
Import	13.1	6.6 – 6.7	**4.7**	(-1.2) – 1.5	**-7.1**	1.8 – 4.9	**4.2**
GDP	1.1	1.0 – 1.1	**0.6**	(-1.7) – (- 0.2)	**-3.5**	0.5 – 2.0	**-0.5**
Current account deficit[3]							
As a percentage of GDP	6.4	7.0 – 7.2	**7.9**	4.0 – 4.9	**3.9**	4.3 – 4.4	**4.5**
EUR billions	6.5	7.7 – 7.8	**8.3**	4.3 – 5.4	**3.6**	4.8 – 4.9	**4.2**
External financing requirement[3]							
As a percentage of GDP	5.3	5.7 – 5.8	**6.8**	1.8 – 2.8	**2.1**	1.7 – 1.8	**1.7**
Labour market							
Whole-economy gross average earnings[4,8]	8.0	8.7	**8.3**	0.9 – 1.4	**0.8**	4.4 – 5.6	**6.5**
Whole-economy employment[5,**]	-0.1	-1.2	**-1.2**	(-1.3) – (-0.9)	**-2.0**	(-1.8) – (-0.8)	**-1.8**
Private sector gross average earnings[6,8]	9.1 (8.5)	9.3 (8.5)	**9.2 (8.3)**	5.0 – 5.7	**4.0**	4.3 – 5.5	**6.5**
Private sector employment[5,**]	0.9	-1.1	**-1.0**	(-1.4) – (-0.9)	**-2.4**	(-2.2) – (-1.0)	**-2.3**
Private sector unit labour cost[5,7]	4.0	4.6	**6.5**	4.7	**6.4**	2.0 – 2.8	**2.0**
Household real income*	-2.2	0.5 – 0.7	**-1.2**	(-0.6) – (-1.8)	**-1.8**	1.3 – 1.8	**-1.2**

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

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

[3] Due to the high level of Net Errors and Omissions (NEO) the current account deficit/external financing requirement for the 2004-2007 period may be higher than suggested by official figures.

[4] Calculated on a cash-flow basis.

[5] According to the CSO LFS data.

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

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

[8] In 2010, the abolition of tax-free benefits raises gross wages by 4.4%, if the government plans as known at the closing of this Report will materialize.

** MNB estimate.*

*** The 2008 figures of these time series are not forecasts, but actual data.*

**** Fiscal impact on demand does not contain the result of MNB for 2009 and 2010.*

Table 3-5

MNB basic forecast compared to other forecasts

	2007	2008	2009	2010	2011
Consumer Price Index (annual average growth rate, per cent)					
MNB (February 2009)	8.0	6.1	3.7	2.8	-
Consensus Economics (January 2009)[1]	-	-	1.6 – 2.6 – 3.5	2.4 – 2.7 – 3.2	-
OECD (November 2008)	8.0	6.4	3.6	3.2	-
European Commission (January 2009)	7.9	6.1	2.8	2.2	-
IMF (November 2008)*	7.9	6.3	4.5	4.1	-
Reuters-survey (January 2009)[1]	-	-	1.2 – 2.5 – 4.4	1.4 – 2.6 – 3.5	2.5 – 2.9 – 3.5
GDP (annual growth rate, per cent)					
MNB (February 2009)	1.1	0.6	-3.5	–0.5	-
Consensus Economics (January 2009)[1]	-	-	(–4.2) – (–2.4) – (–0.8)	(–1.0) – 0.7 – 2.4	-
OECD (November 2008)	1.1	1.4	–0.5	1.0	-
European Commission (January 2009)	1.1	0.9	–1.6	1.0	-
IMF (November 2008)*	1.1	1.8	–1.0	0.6	-
Reuters-survey (January 2009)[1]	-	-	(–3.0) – (–2.4) – (–1.3)	0.0 – 1.5 – 3.3	-
Current account deficit (percent of GDP)					
MNB (February 2009)	6.4	7.9	3.9	4.5	
OECD (November 2008)	6.4	6.1	6.1	5.4	-
European Commission (January 2009)	6.4	7.2	5.5	5.2	-
IMF (November 2008)*	6.4	6.2	2.0	1.5	-
Budget Deficit (ESA-95 method, percent of GDP)					
MNB (February 2009)	5.0	3.4	2.9	3.3	
Consensus Economics (January 2009)[1]	-	-	2.5 – 2.7 – 3.0	2.0 – 2.5 – 3.0	-
OECD (November 2008)	5.0	3.4	3.6	3.5	-
European Commission (January 2009)	5.0	3.3	2.8	3.0	-
IMF (November 2008)*	4.9	3.4	2.5	2.0	-
Reuters-survey (January 2009)[1]	-	-	2.4 – 2.7 – 3.4	1.8 – 2.6 – 4.0	-
Forecasts on the size of Hungary's export markets (annual growth rate, per cent)					
MNB (February 2009)	8.2	5.5	-4.9	1.5	-
OECD (November 2008)[2,3]	6.1	4.0	1.3	3.7	-
European Commission (January 2009)[2,4]	7.4	4.4	-1.8	1.3	-
IMF (November 2008)[2]	6.4	3.3	0.8	-	-
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, per cent)					
MNB (February 2009)	3.8	2.3	-1.2	0.8	-
OECD (November 2008)[2,3]	3.5	2.0	0.0	1.7	-
European Commission (January 2009)[2]	3.6	2.2	-1.2	1.0	-
IMF (January 2009)[2,**]	-	1.5	-1.9	0.7	-
Forecasts on the GDP growth rate of euro area (annual growth rate, per cent)					
MNB (February 2009)	2.7	0.9	-2.1	0.4	-
OECD (November 2008)	2.6	1.0	-0.6	1.2	-
European Commission (January 2009)	2.7	0.9	-1.9	0.4	-
IMF (January 2009)	2.6	1.0	-2.0	0.2	-

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] Since OECD did not publish any data on Romania, our OECD forecast excludes Romania. [4] The January 2009 forecast of the European Comission does not publish an import forecast for the United States, so this figure does not contain the United States.

** The figures refer to the IMF Staff Report for Hungary, published in November 2008.*

*** The January 2009 IMF WEO does not contain a forecast for all countries, so in some cases we used country group projections.*

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. (London), January 2009); European Commission Economic Forecasts, January 2009; IMF World Economic Outlook (October 2008 and January 2009); Reuters survey (January 2009); OECD Economic Outlook (November 2008).

4 General government and external balance

4.1 Developments in the general government balance

As a result of the strong fiscal consolidation since 2006, the deficit declined by around 6% of GDP between 2006 and 2008. Consequently, taking account of the private pension fund adjustment, in 2008 Hungary met the Maastricht criterion regarding fiscal deficit. If the measures announced in February are fully implemented, the deficit may continue to decline in 2009, with a high probability of it decreasing below 3% of GDP. In 2010, however, we expect a slight increase in the fiscal deficit, even taking into account the realistically acceptable part of the package of measures known so far. In the event that the plans not yet detailed are also elaborated and implemented, an increase in the level of deficit for 2010 may be avoided and sustaining a level of deficit below 3% may become feasible.

In 2008 the ESA deficit of the general government may have been around 3.4%, which – due to methodological differences – exceeds the forecast in the November *Report*. The developments of the deficit of the state budget on a cash basis met our expectations, although the settlement of the amount received from the privatisation of MÁV Cargo increased the accrual-based deficit.[8]

Although the 2008 cash deficit was in line with our expectations, its composition was different from our forecast, and this projects unfavourable trends regarding the developments in the deficit for 2009 and 2010. At end-2008 we observed remarkable shortages mainly in corporate tax and contributions revenues, which were largely offset by one-off items, providing for a close-to-target deficit.

In 2009, as a result of the noted deterioration of the macroeconomic path, we expect substantial shortages in tax and contributions revenues. To offset this, on 16 February the Prime Minister announced a series of measures aimed at significantly reducing expenditures, including steps to restructure the tax system. In 2009 disciplined financial management is expected on the expenditure side, with considerable restrictions on most items except pension expenditures, where an increase is expected as a proportion of GDP. On the revenue side, we expect a nominal decline in the determining items as a consequence of the recession, which will only be partly changed by the government's tax restructuring measures.

The cyclically adjusted general government balance reveals that the economic environment already deteriorated the balance slightly last year, and its extent is expected to increase significantly this year. While the improvement in the official deficit figures in 2009 is only slight, taking account of the cyclical processes the picture of a much more definite adjustment is emerging. The cyclically adjusted ESA-balance can improve by more than 2% of GDP.

In autumn 2008 the government set a new, lower deficit target. To achieve it, the government introduced restrictive measures in two steps. However, as a result of the

Table 4-1

Changes in the balance indicators of the general government

	2008	2009	2010
GFS balance	-3.5	-3.2	-3.7
ESA balance	**-3.4**	**-2.9**	**-3.3**
Augmented SNA balance	-4.1	-4.7	-4.5
SNA primary balance	-0.3	-0.4	-0.1
Fiscal demand effect	-1.8	0.0	-0.3
Cyclical component	-0.2	-1.9	-1.9

[8] A preliminary ESA deficit figure is expected to be revealed in March; the balance of local governments and methodological issues may still alter it. Based on the preliminary financial accounts, the financing requirement of the general government may have been around 3.1% of GDP in 2008. Based on this, we cannot exclude the possibility that the final 2008 deficit figure will also be different from the preliminary estimate of 3.4%.
When preparing our previous forecast, we did not expect the privatisation revenue to be realised in 2008, thus the revenue left with MÁV could not spoil last year's balance, even as a fiscal transfer. However, after closing the forecast, the financial closure of the transaction still took place, which will probably completely burden last year, although the final decision is expected only in March 2009.

deterioration in macroeconomic developments, these measures were virtually neutralised by the cycle's negative effect. This was followed by further measures in February, which partially offset the increasing effect of lost revenues on the deficit. As a result, the ESA balance of the general government will improve in 2009 compared to 2008, although in comparison with the deficit target of 2.6% set earlier, a somewhat higher deficit of 2.9% is expected.

The augmented SNA deficit indicator, which reflects the effect of the government on the other sectors, is expected to increase in 2009, mainly due to the increase in motorway construction and the losses of the central bank. However, in 2010 mostly due to the ending of motorway construction we expect a slight decrease in the SNA balance. The fiscal demand effect (change in the primary SNA balance) showed a significant tightening in 2008, will have a neutral effect in 2009 and we expect a further tightening in 2010, in contrast to the official deficit indicator.

4.1.1 CHANGES IN GENERAL GOVERNMENT REVENUES

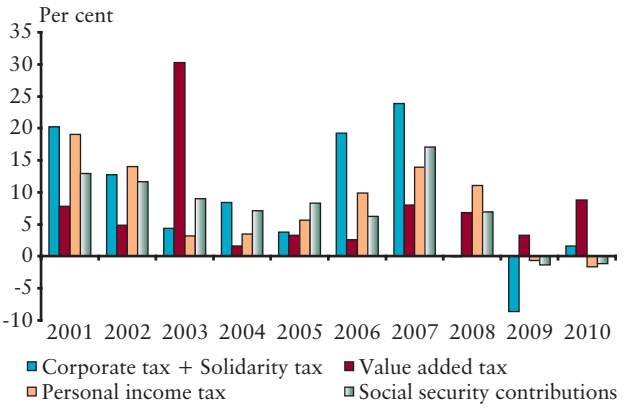
In 2008 the developments in budget revenues were basically determined by a gradual deterioration of the macroeconomic path. In particular, the amount collected from corporate tax and contributions failed to meet expectations during the year, but the effect of declining household consumption could be slightly felt in consumption-related taxes in the last quarter. At the same time, there was no fall in personal income tax, presumed to be due to revenues related to non-wage type incomes.

As part of the adjustment package announced by the Prime Minister on 16 February, the tax system will also be restructured. In the context of this restructuring, taxes and contributions on labour will decrease, while taxes on consumption will increase. In 2009 the reduction in employer's contributions and the easing of the personal income tax system will be practically completely offset by a rise in VAT and excise tax. In 2010, in addition to a further cutback in wage taxation, taxation on capital will also be slightly more favourable, which will again be offset by an increase in taxes on consumption. As a result of these changes, the tax wedge may narrow considerably, although the total tax burden will remain largely unchanged. Meanwhile, a reorganisation will take place: the tax burden of households will rise significantly, while in parallel, the tax burden of enterprises will fall.

Compared to the targets of the budget act, general government revenues may fall by more than HUF 300 billion in 2009 as a result of the more unfavourable macroeconomic path. As for the major state revenues, the last 10 years have not seen an individual revenue item decline compared to the previous year, even in nominal terms. By contrast, without the package of measures and in line with the decline in tax bases, negative growth indices for each important revenue item (personal income tax, VAT, corporate tax, contributions) would have developed for 2009. This negative trend already began in 2008 in the case of corporate tax (not including solidarity tax). However, as a result of the changes in the tax system announced in February, the dynamics of individual revenue items will also change to some extent. As a consequence of the increase in the tax rate, the growth index of VAT revenues may already become positive in 2009, while revenues from contributions and personal income tax may fall even more. There will be no measures affecting corporate tax in 2009; the steep decline may be fully considered as a result of the deteriorating macroeconomic environment (Chart 4-1).

Chart 4-1

Nominal growth rates of major revenue items



The indices presented in the chart combine both the effects of the change in the macroeconomic path and the measures related to the various individual revenue items. For example, in 2003 the outstanding VAT revenue is basically the consequence of the shift in the inter-annual timing of VAT reimbursement, while the jump of corporate tax in 2006-07 is a result of the introduced solidarity tax.

In 2010 a very high growth rate is expected for the corporate tax, although this is mainly due to the raised tax rate, the widening of the tax base and the narrowing of exemptions. However, the abolition of the corporate solidarity tax will offset the increase in corporate tax revenues. Consequently, the overall taxation on capital will remain essentially unchanged in 2010. Due to the annualised effect of raising the rate, VAT revenues will also notably increase in nominal terms in 2010, while a further, relatively slight drop is expected in wage-related revenues, essentially due to the effect of the measures.

4.1.2 CHANGES IN GENERAL GOVERNMENT EXPENDITURES

On 16 February the Prime Minister also announced numerous measures aimed at reducing expenditures, which – with the tax restructuring steps, which have a nearly zero effect in net terms – may lead to the achievement of the modified deficit target in 2009. Among the expenditure-side government measures announced so far, our forecast took account of the items which have been outlined in adequate detail and can be realistically implemented on the basis of the information available. The measures aim at reducing transfers to households on the one hand, and cutting the government's consumption and investment expenditures on the other. In 2009 approximately one half of the expenditure decrease derives from falling government consumption, while in 2010 the cutback of transfers and government consumption will contribute to the fall in deficit to a similar extent.

In 2009 the latest series of measures will entail a cutback of approximately HUF 200 billion on the expenditure side, which can facilitate the achievement of the deficit target, modified to 2.9%. For 2010 the proposals revealed so far and elaborated in adequate detail amount to nearly HUF 350 billion. However, it is important to emphasise that the government's intention aims at a somewhat larger reduction in expenditures, in the magnitude of HUF 500 billion, i.e. if all planned measures are implemented, the extent of the adjustment may be greater than the one taken into account in the baseline scenario.

Net expenditures of budgetary units

In 2008 net expenditures of budgetary units declined by more than HUF 250 billion, a major part of which was mainly due to the loss of or decline in items considered one-off. Compared to the previous year, expenditure related to motorway construction declined in 2008, and the Hungarian Railways (MÁV) did not receive an extra capital allocation as in 2007. These items altogether reduced expenditures by nearly HUF 200 billion. Expenditures declined mainly as a result of a fall in investment expenditures, while wage expenditures remained at almost the same level and purchase of goods and services increased.

For 2009 the fiscal target is the further saving of over HUF 200 billion compared to the previous year. Its main components are the expected nominal decline of around 6% in public sector wages on the one hand, and on the other, motorway projects are planned to be implemented under the PPP scheme in 2009, i.e. practically only outside the budget. The former measure means a shift in levels of expenditures, while the latter is the spreading of a one-off high expense over the coming years in the form of an availability fee. Compared to the target, the February announcements represent a further reduction in expenditures of budgetary units. First, a considerable part of chapter expenditures has been blocked. Second, certain types of subsidies will be reduced (gas price compensation, agricultural subsidies). Third, as a result of restructuring the tax and contributions system, the amount of wage type expenditures of the general government will also automatically decline.

Overall, during 2008 and 2009 the expenditures of budgetary organisations may decline by more than 2.5% of GDP compared to the 2007 level, considered very high. For 2010 we forecast an essentially unchanged level of expenditures.

Pension expenditures

The dynamic increase in pension expenditures continued in 2008 and this trend is expected to continue at a decelerating pace in 2009 and 2010, even taking into account the measures presented in February. In contrast to the decline in the net expenditure of budgetary units, which is another major expenditure item of the state budget, pension expenditures constitute a steadily increasing part of all government expenditures (Chart 4-2).

Table 4-2

The distribution of expenditure measures

(HUF Bn)

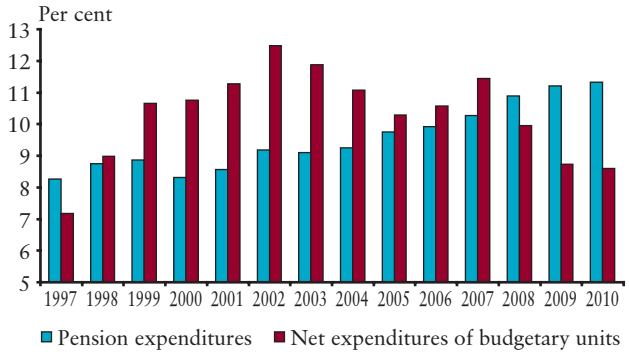
	2009	2010
Financial transfers to households	-17	-121
Government's consumption and investment	-93	-123
Transfers in kind	-30	-30
Others	-63	-57
Sum	**-203**	**-331**

Over the past 10 years nominal pension expenditures grew by nearly 15% a year on average, which also significantly increased expenditures as a proportion of GDP. In these increases, in addition to the rises determined by the Swiss indexation method, one-off measures also played a role: one-off pension rises, introduction of the 13th month pension payment, the pension correction programme, as well as the replacement effect, which influences the composition of pensioners. Pension expenditures increased by more than 10% in 2008; of the determining factors, both the price index and the wage index played a major role.

Chart 4-2

Net expenditures of budgetary units and pension expenditures

(as a percentage of GDP)



Pursuant to the decisions of last autumn, 13th month pension payments have been maximised for 2009, and the pension correction programme will only continue as of September, helping to decelerate the growth rate of pension expenditures. However, no further step bringing forth any significant fiscal effect will be taken in 2009. In 2010 the modification of the Swiss index to indexation tied to economic growth, termination of the 13th month pension payment for new pensioners as well as other minor changes may slightly rein in the increase in pension expenditures. However, raising the legal retirement age – which could represent a major contribution to the reduction of pension expenditures – will be implemented gradually, only starting from 2016, and changing the 13th month pension payment also only facilitates the improvement of the balance of the pension fund at a very slow pace.

Interest expenditures

Compared to the previous year, in 2008 the interest expenditures of the general government increased in both nominal terms and as a proportion of GDP, mainly due to a substantial increase in yields. In 2009 and 2010 the result of the extensive restructuring in government debt funding will be that the interest expenditures of the ÁKK (Government Debt Management Agency) will not increase significantly compared to last year on a cash basis. Foreign currency loans received from international organisations (IMF, European Commission, World Bank) markedly increased the share of foreign currency debt within total debt, which directly reduces the interest expenditures of the ÁKK through the lower cost of funding. However, in parallel, as we already highlighted it among the risks in the November Report, the MNB's interest income is deteriorating considerably through the high interest expenditure on the stock of the two-week MNB bonds, which is increasing significantly. This effect is partially offset by the realised holding gain of the central bank. In recent years the central bank managed to cover the emerging losses from its accumulated profit reserve, but for 2009 and 2010 the central bank loss is expected to be financed from the budget, which will appear in the deficit as well. The settlement is performed in the year following the year under review, but the magnitude of the settlement is currently surrounded by great uncertainty, which essentially depends on the factors influencing the size of the loss (price, developments in the yield, timing of drawing down of credit, etc.). For 2009 and 2010 the size of the additional deficit is expected to be around 0.2 and 0.3% of GDP respectively, which will appear in the fiscal deficit in 2010 and 2011.

4.1.3 RISKS SURROUNDING OUR FORECAST

Similarly to the May 2008 issue of the Report, we have prepared a fan chart which once again indicates the uncertainty of the fiscal forecast. The fan chart contains the risks hidden in the macroeconomic path and the non-political ones additionally perceived by experts.

The fan chart shows that the risks surrounding our baseline projection are asymmetrical, and both the macroeconomic and experts' uncertainty point to trends of higher deficit for both years. The skewness of the macroeconomic path is the result of two contrasting effects in 2009 and 2010. The downward asymmetry of GDP growth indicates a higher deficit, while the upside risks to inflation can improve the deficit path due to higher nominal revenues. The main underlying reasons are the increase in budgetary units' expenditures, which exceed the assumptions of the baseline projection, and certain implementation risks related to not yet specified measures.

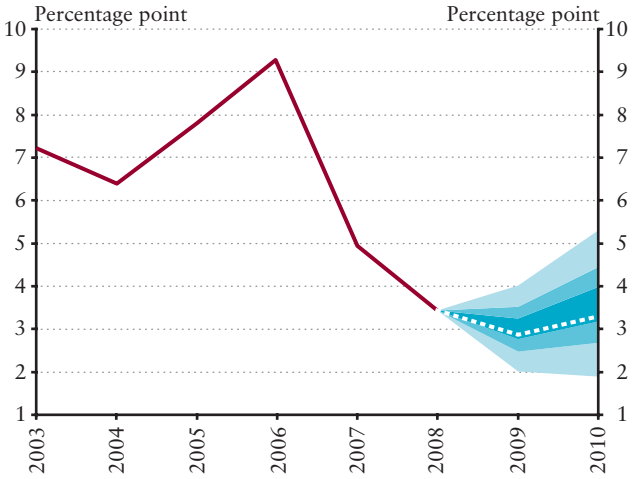
As for the expert items, although in the main scenario we accept the vast majority of the measures announced in February, for lack of statutory confirmation we must signal that the implementation risk related to the measures is high. For example, on the revenue side we see considerable implementation risk in making fringe benefits which were

tax-exempted subject to taxation. The regulations regarding fringe benefits which are at present exempted from taxation (e.g. meal vouchers, holiday vouchers, etc.) have not changed so far to make these benefits subject to taxation and payment of contributions, and it might occur that the changes will only apply to a part of the original complete range of tax-free benefits. Consequently, the expected additional revenue from this source may not be realised either.

Our baseline projection takes into account a stability reserve of 0.3% and 0.2% of GDP for 2009 and 2010, respectively, i.e. in the event that the deficit target is exceeded, blocking the reserve may facilitate the achievement of the target.

Chart 4-3

Fan chart illustrating the uncertainty surrounding the fiscal deficit forecast



4.2 External balance

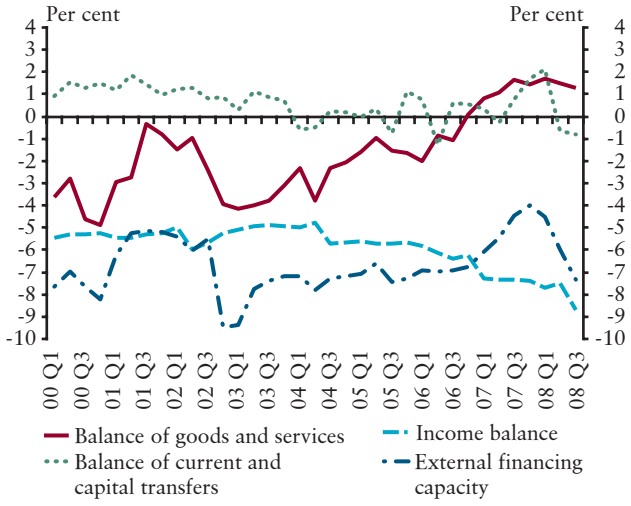
Available data suggest a significant increase in the external imbalance in 2008. According to the Q3 balance of payments publication, the improvement in external balance came to a halt at end-2007, and until 2008 Q3 the country's financing requirement increased again. Although a correction may have started at the end of the year, the external financing requirement – the combined current and the capital account balance – may still have been around 6.8% of GDP at the annual level.

The external equilibrium picture, which is even much more unfavourable than our earlier forecast, is attributable to two factors. On the one hand, the increase in the deficit on the income balance exceeded our expectations, which partly reflects the increasing costs of external funding.[9] Namely, the data indicate that as a result of the financial crisis, domestic economic agents can roll over their maturing debt only with shorter maturities and at higher interest rates. On the other hand, the value of both current and capital transfers significantly fell short of our earlier projection, which is mainly due to a fall in EU funding. Meanwhile, in line with our forecast, the surplus of the real economic balance started to decrease from the middle of the year.

Chart 4-4

Components of the external financing requirement

(Seasonally adjusted data; as a proportion of GDP)

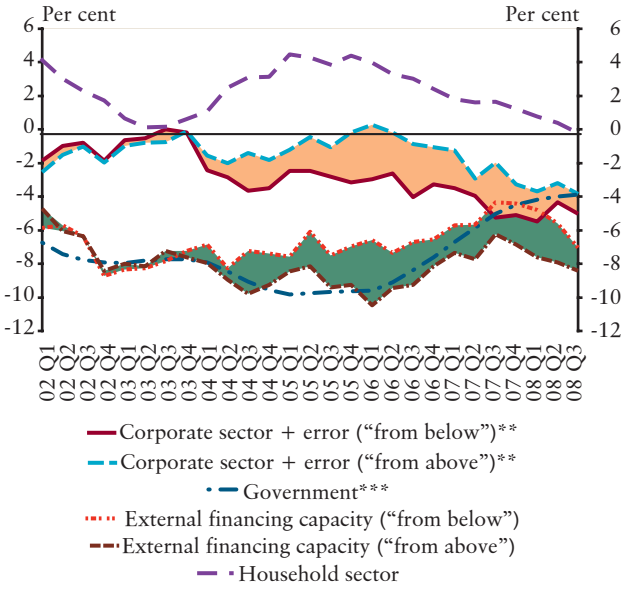


* *Dividends are usually voted for in the first half of the year. In 2008, in an irregular manner, a large Hungarian company voted for a significant amount of dividend in July, which upset the usual seasonality of the income balance. In the time series shown, this item was corrected back to Q2.*

The emerging picture of external balance is in line with our existing knowledge about the domestic sectors' financing position. Although the deficit of the consolidated general government continued to decline in 2008, the pace of improvement in the balance was far behind the extent characteristic of the initial period of adjustment. However, households' and firms' net financial savings may have declined in the first three quarters of 2008, which may primarily be due to a fall in disposable income. An increase in unit labour costs and the considerable rise in the cost of funding mentioned above may have played an important role in the decline of corporate income.

Chart 4-5

Developments in the financing capacity of sectors*



* *Adjusted by the difference caused by imports brought forward on account of EU accession and by the increasing impact on import generated by termination of customs warehouses following EU accession, and by the Gripen purchases. ** The financing capacity of the corporate sector is determined as a residual item, therefore it contains the errors of other statistics as well. *** In addition to the fiscal budget, the consolidated general government includes local governments, ÁPV Ltd. (the Hungarian Privatisation and State Holding Company), institutions discharging quasi-fiscal duties (Hungarian State Railways [MÁV] and Budapest Public Transport Company [BKV]), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes.*

We expect a considerable improvement in the external balance in 2009. Banks' balance sheet data already show a sharp fall in domestic borrowing for the end of last year,

[9] Income outflow related to direct investment also increased, although this figure is mostly based on estimation. More accurate information will only be available after receipt and processing of the corporate profit and loss statements for 2008.

Table 4-3

GDP-proportionate net financing capacity of individual sectors

	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Estimation						Forecast		
I. Consolidated general government*	-8.5	-8.3	-8.4	-9.4	-9.6	-5.9	-4.1	-4.7	-4.5
II. Households	2.7	0.2	2.4	4.4	3.3	1.6	0.8	5.6	4.5
Corporate sector and "error" (= A–I.–II.)	*-0.9*	*0.1*	*-2.3*	*-1.7*	*-0.7*	*-1.1*	*-3.6*	*-3.0*	*-1.7*
A) External financing capacity, "from above" (=B+C)	-6.7	-8.0	-8.3	-6.7	-6.9	-5.3	-6.8	-2.1	-1.7
B) Current account balance	-7.0	-8.0	-8.6	-7.5	-7.5	-6.4	-7.9	-3.9	-4.5
– in EUR billions	*-5.0*	*-5.9*	*-7.1*	*-6.7*	*-6.8*	*-6.5*	*-8.3*	*-3.6*	*-4.2*
C) Capital account balance	0.3	0.0	0.3	0.8	0.6	1.1	1.1	1.8	2.7
D) Net errors and omissions (NEO)**	0.3	0.3	-1.4	-1.8	-2.3	-1.6	-2.7	-2.8	-2.8
External financing capacity "from below" (=A+D)	-6.5	-7.7	-9.7	-8.5	-9.3	-6.9	-9.5	-5.0	-4.5

** In addition to the fiscal budget, the consolidated 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.*

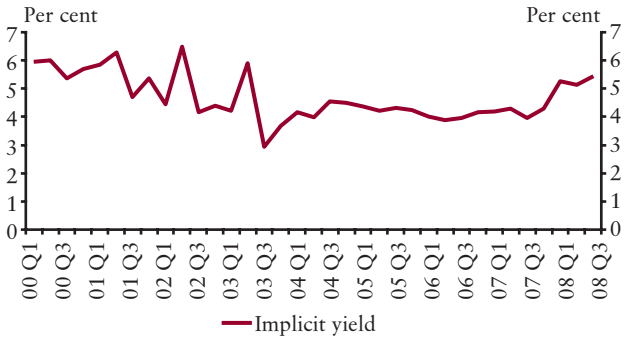
which projects a significant decline in consumption and investment expenditures. The significant tightening of credit conditions as well as the elements of the fiscal package that make consumption more expensive may primarily enforce a strong adjustment of household savings. However, we also expect a decline in the corporate sector's borrowing requirement, since the postponement of investment, increasing EU transfers and the reduction in tax burden may offset the deterioration of profitability. As a result of the erosion of major tax bases (wages, consumption), the SNA deficit of general government may increase even despite the fiscal measures.[10] Yet the GDP-proportionate external financing requirement of the country may still decline by nearly 5 percentage points compared to the previous year.

The improvement in the external balance, accompanying the deep economic recession, may primarily appear in a large increase in the surplus on the real economic balance through a fall in import demand. However, there may be contrasting developments in the income balance. On the one hand, we expect a decline in income on equity, because in parallel with declining sales opportunities in the domestic and external markets, foreign companies' earned incomes may also fall considerably. On the other hand, as a result of the continuous repricing of the maturing debt, the interest burden of the country's high external debt may continue to increase, even if the level of the costs of funding remains unchanged. It is worth mentioning that, due to the high proportion of foreign currency-denominated external debt, the real economic balance-improving effect of the weaker exchange rate is attenuated by the increase in outflows of income on debt. However, the forecasted high increase in current and capital transfers from the EU may reduce the effect of declining national income on the external balance.

Chart 4-6

Implicit average interest rate of gross external debt*

(including other capital)



** The implicit interest rate is the ratio of the average gross debt stock and the relevant income outflow. The data source is Hungary's balance of payments statistics.*

[10] The expenditures of the M6 highway carried out in a PPP-scheme play an important role in the increase of the SNA deficit of the consolidated general government. Nevertheless, this will not appear in the official 2009 ESA deficit number.

Table 4-4

Structure of the GDP-proportionate current account

(Relative to GDP; per cent, unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009	2010
	Fact/Preliminary fact					Forecast		
1. Balance of goods and services	-3.8	-2.9	-1.2	-0.9	1.4	1.4	4.1	4.0
2. Income balance	-4.9	-5.3	-5.7	-6.2	-7.3	-8.1	-8.2	-8.2
3. Balance of current transfers	0.8	-0.5	-0.6	-0.5	-0.5	-1.2	0.1	-0.3
I. Current account balance (1+2+3)	*-8.0*	*-8.6*	*-7.5*	*-7.5*	*-6.4*	*-7.9*	*-3.9*	*-4.5*
Current account balance in EUR billions	*-5.9*	*-7.1*	*-6.7*	*-6.8*	*-6.5*	*-8.3*	*-3.6*	*-4.2*
II. Capital account balance	*0.0*	*0.3*	*0.8*	*0.6*	*1.1*	*1.1*	*1.8*	*2.7*
External financing capacity (I+II)	**-8.0**	**-8.3**	**-6.7**	**-6.9**	**-5.3**	**-6.8**	**-2.1**	**-1.7**

In 2010 the increase in EU funds appearing in the transfer items of the balance of payments may allow a further modest decline in the dependence on external funding. Following a sharp recession, a stabilisation in economic activity is projected for 2010, both in Hungary and abroad. Accordingly, if our basic assumptions hold, no improvement can be expected in the real economic and income balances. However, according to the government's current forecast, the funds available from the EU may exceed EUR 3.2 billion in 2010, which may result in a slight decline in the external financing requirement as a proportion of GDP.

4.2.1 FINANCING THE CURRENT ACCOUNT DEFICIT

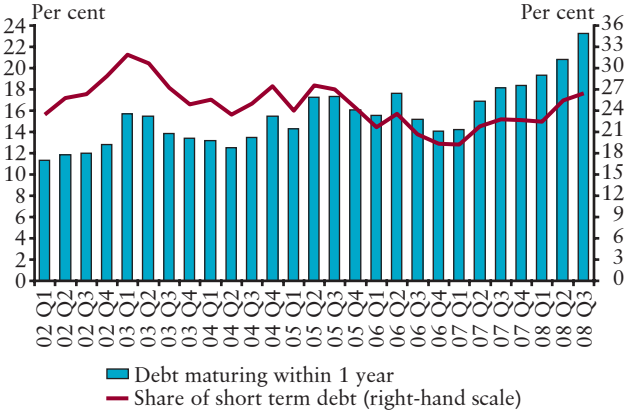
In 2008 the macro-vulnerability risks, which were the focus of attention in the period of financial market turmoil at year-end, increased on the financing side of the balance of payments. In the first three quarters of 2008 the 'bottom-up' external financing requirement amounted to EUR 7.2 billion, only a small proportion of which was covered by the net non-debt generating items. As a result of heavy debt-generating financing, the country's net external debt continued to increase, reaching 48% of GDP at end-Q3. From a financial stability perspective, it is also negative that the proportion of short-term debt within the increasing gross external debt has risen.

The loan agreement concluded with international organisations provides adequate room for manoeuvre for managing potential external funding problems. However,

Chart 4-7

Hungary's gross short-term debt

(At remaining maturity, as a proportion of GDP)



over the short run, we may expect a further rearrangement and unavoidable adjustment on the financing side of the balance of payments. A significant part of the adjustment may take place on the assets side, i.e. through the reduction in external assets. In recent years substantial non-debt generating capital outflows have been observed, partly in the form of direct investment and partly in the form of portfolio-type stock purchase. In 2008 Q4 such capital outflows may have declined considerably or there is high probability that they even reversed. In parallel, a further shortening of the outstanding external debt is expected because, as a result of the general mistrust in the financial markets, the private sector presumably only managed to roll over its liabilities at shorter maturities at the end of last year.

5 Appendix: Evaluation of our inflation forecasts for 2008

In line with previous years' practice, we again review to what extent our inflation forecasts for last year were successful. The measure of success is not primarily the difference between facts and forecasts, since the MNB's forecasts are rule-based, conditional forecasts. Quantifying the effects of the assumptions, the analysis can shed light on how precisely our forecasting tools could capture the actual trends.

The forecasts for the average annual inflation in 2008 are examined below on the basis of two aspects: on the one hand, we compare them with market analysts' inflation forecasts, and on the other, we break down the forecasting errors into exogenous and endogenous factors. When assessing the forecasts, it is important to emphasise that in the inflation targeting system we prepare conditional forecasts; according to our methodology, we do not try to forecast exchange rates and oil prices, but we use rule-based assumptions for them.

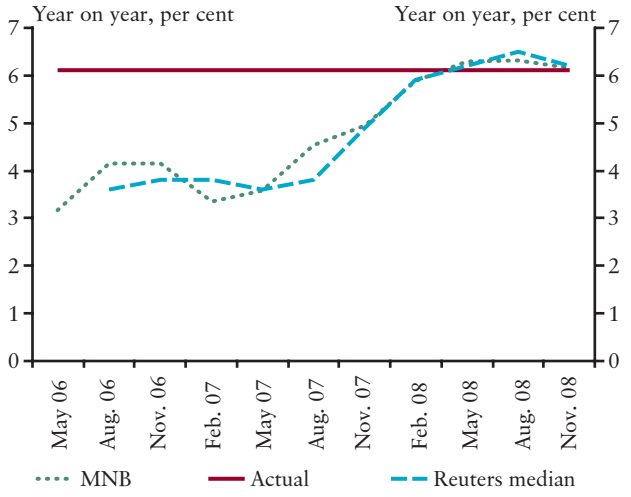
As of May 2006, we issued forecasts on inflation for 2008 eleven times. Up to May 2007 we thought that the inflation-increasing effects of the fiscal adjustment package of 2006 would dwindle by 2008, and thus the average annual inflation in 2008 might be close to the target corresponding to price stability. Therefore, we projected inflation to be around 3%-4%. It was in August 2007 that we perceived for the first time that, due to the unfavourable harvest results, increases were to be expected first in raw, then in processed food prices, which could drive inflation for 2008 significantly above target. Accordingly, from August 2007 to May 2008, as a combined result of the rise in food prices and the subsequent sharp spike in the price of oil, we gradually increased our forecast. From February 2008 on we issued forecasts which were very close to the later actual fact.

The MNB's forecasts and the median of the projections of the analysts participating in the Reuters survey are essentially identical for the whole period (starting from August 2006, since when both types of forecast have been available). There was only one major divergence, in August 2007, when market analysts had probably not yet taken account of the expected increase in food prices in their forecasts. (Chart 5-1) The average absolute error of the two groups of forecasters is 1.3 (MNB) and 1.4 (Reuters) percentage points.[11]

When evaluating our inflation forecasts, it is worth distinguishing between the effects of several factors. On the one hand, the inflationary effect of the difference between

Chart 5-1

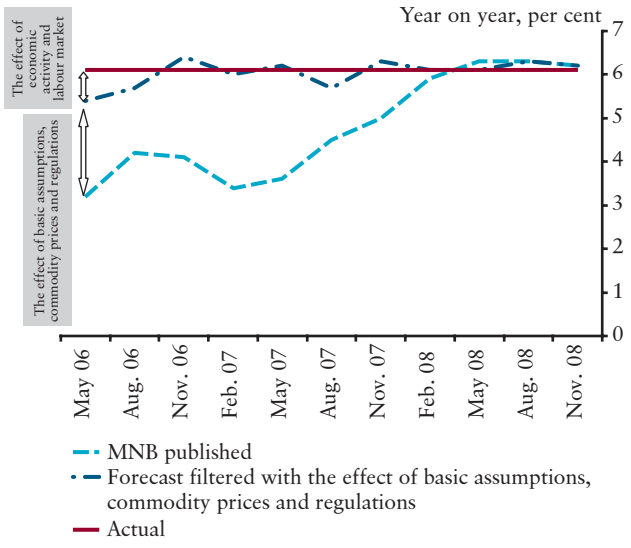
Forecasts of the MNB and the analysts participating in the Reuters survey for the 2008 average annual inflation



the rule-based basic assumptions (oil prices, HUF/EUR exchange rate) and the actual oil price and exchange rate are eliminated from the total difference. On the other hand, we also eliminate the effect of regulated prices,[12] which are also exogenous for our models, as well as the impact of the price fluctuations of rather volatile agricultural commodities. Namely, the price changes of the latter are driven not only by

Chart 5-2

The MNB's forecast and actual inflation in 2008



[11] We took into account the Reuters survey corresponding to the month of publishing the Quarterly Report on Inflation. Consequently, given the date of the survey within the month, market analysts were usually able to build their forecast upon a wider information base than the MNB. Calculated on the basis of the Reuters survey in the month preceding the publication of the Report, the average absolute error is 1.5 percentage points.

[12] On the one hand, the introduction and the subsequent withdrawal of the medical visit fee were considered an effect of regulation. On the other hand, the effect showing to what extent the developments in regulated energy prices were different from the changes in market energy prices was also considered an effect of regulation.

economic effects, but significantly by other factors (e.g. the weather) as well. Therefore, we performed a simulation in which we calculated what inflation forecasts we would have given for 2008 in previous *Reports* if we had known the above variables (Chart 5-2).

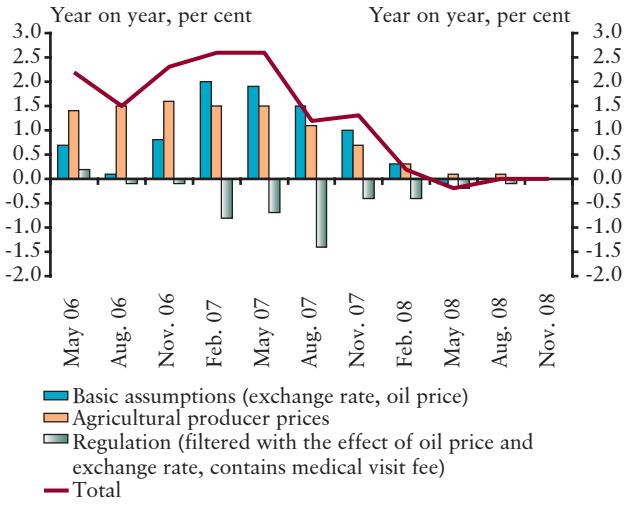
The resulting forecasting error adequately reveals the modelling error we actually made. To some extent, this error contains the changes in the inflation effect of macroeconomic developments (labour market, economic activity) which are different from what was forecasted, and also includes the error of the model used for the inflation forecast (i.e. the error which the model makes, even in possession of the factual figures of all explanatory variables). Based on the simulation – eliminating the effect of exogenous factors – the average absolute error is very low, at 0.2 of a percentage point.

In addition to the modelling error, breaking down the error explained by factors exogenous for our models may also be enlightening (Chart 5-3). This reveals that from May 2006 to November 2007 the exogenous error is mainly explained by the basic assumptions, the increase in oil prices and agricultural prices. Between February and August 2007 regulated prices had a significant negative impact. The underlying reason is that the consumer price of natural gas/district heating was increased to a lesser extent than what would have been justified by the oil price increases,[13] and to a small extent the effect of the medical visit fee – abolished in April 2008 – also appears.

Chart 5-3

The exogenous forecast error for average inflation in 2008

(i.e. excluding the economic cycle and the labour market)



On the whole, it can be concluded that our forecasts for the year 2008 average annual inflation captured the relationship between the domestic economic activity and inflation well. Nevertheless, the magnitude of the forecasting error over a year was relatively high, mainly caused by exogenous factors (global energy price increases, domestic regulated prices and volatile food prices). The average modelling error was a mere 0.2 of a percentage point over the entire projection period.

[13] E.g. comparing our August 2007 regulated price expectations with the facts, we see that the overall effect of the deviation of non-energy regulated prices from the expected was zero.

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

Appendix

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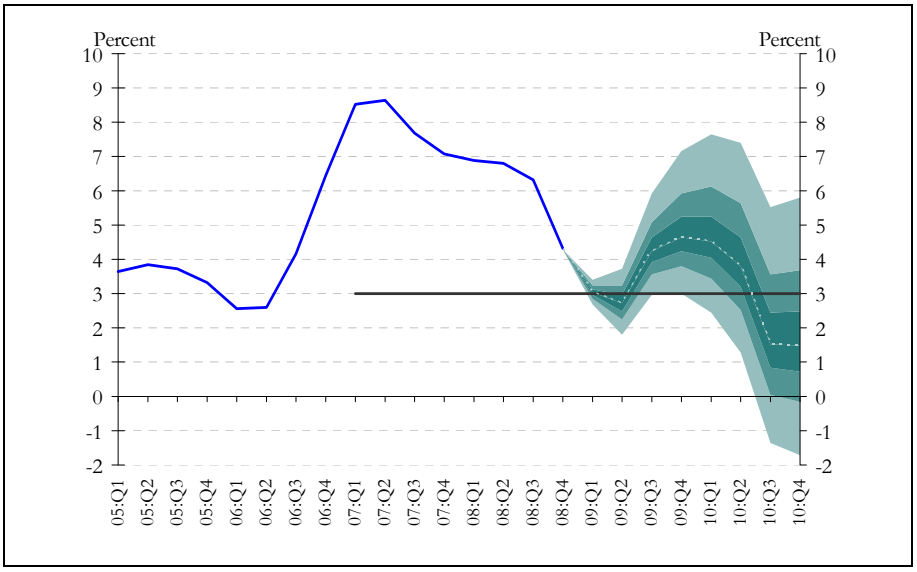
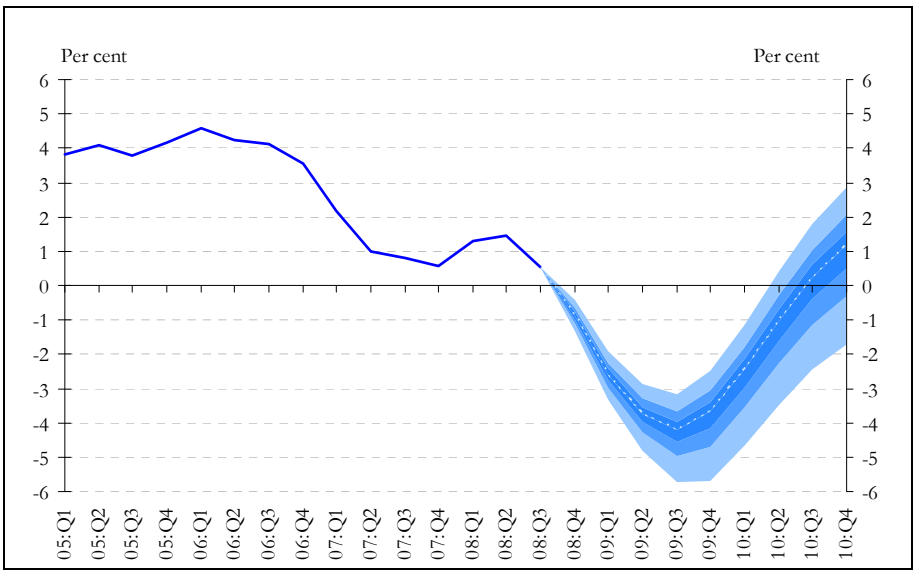
The baseline inflation and GDP projection of the Inflation Report, February

Per cent	2009	2010
Consumer price inflation	3,7	2,8
Economic growth	-3,5	-0,5

Inflation projection fan chart



GDP projection fan chart



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