MAGYAR NEMZETI BANK

QUARTERLY REPORT ON INFLATION

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

In the inflation targeting system, since August 2005 the Bank has sought to attain price stability by ensuring an inflation rate near the 3% medium-term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of the expected development of inflation every three months, in order to establish the monetary conditions consistent with achieving the inflation target. The Council's decision is the result of careful consideration of a wide range of factors, including an assessment of prospective economic developments, the inflation outlook, money and capital market trends and risks to stability.

In order to provide the public with clear insight into the operation of monetary policy and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Monetary Strategy and Economic Analysis and Financial Analysis Departments, as well as the macroeconomic developments underlying these forecasts. The forecasts are based on certain assumptions. Hence, in producing its forecasts, the staff assumes an unchanged monetary and fiscal policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this *Report* were prepared by staff in the MNB's Monetary Strategy and Economic Analysis and Financial Analysis Departments under the general direction of Ágnes Csermely, Director. The project was managed by Mihály András Kovács, Deputy Head of Monetary Strategy and Economic Analysis, with the help of Mihály Hoffman, 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 13 May and 25 May 2009. The projections and policy considerations, however, reflect the views of staff in the Monetary Strategy and Economic Analysis and the Financial Analysis Departments and do not necessarily reflect those of the Monetary Council or the MNB.

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Summary

Deteriorating opportunities for external funding have put significant pressure on the Hungarian economy to adjust

The international financial market crisis and the associated global economic recession have resulted in significant stress on the Hungarian economy to adjust. The general reappraisal of risk, coupled with a dramatic decline in demand for risky assets, has forced a rapid reduction in the country's external financing requirement. The combination of tighter credit conditions, budgetary measures to maintain fiscal balance and the recent real depreciation of the forint has resulted in a significant reduction in external imbalance and, consequently, the vulnerability of the domestic economy. However, in terms of its impact on economic activity, the procyclical behaviour of both the financial sector and fiscal policy is likely to cause the current downturn to be deeper and more protracted. As a consequence, the economy is only expected to return to a robust growth path in 2011. Inflation may remain subdued over the entire forecast period, net of the first-round effects of the tax measures.

Confidence has improved in international financial markets, but risk appetite remains well below pre-crisis levels

During the last quarter, there was some improvement in the various measures of risk tolerance in international financial markets. Nevertheless, considerable uncertainty remains in relation to the quality of the global banking system's lending portfolio and the amount of capital needed to repair banks' balance sheets, due to write-offs of toxic assets and deep recession. With the improvement in global investor sentiment, the assessment of risks associated with the Hungarian economy has also become more benign. Despite this, there is no firm evidence yet of significant strengthening in investors' demand for risky assets.

Lending has continued to contract

Direct lending by the government and the introduction of new policy instruments by the MNB have helped satisfy domestic economic agents' need for foreign currency and ensure that they have ample HUF liquidity. Bank lending, however, remains constrained: in line with global developments, domestic banks are attempting to reduce loan-to-deposit ratios and slow the growth of their risky asset portfolios.

Global economic activity slowed sharply in the first quarter, but there have been some tentative signs of stabilisation in recent months

World trade dropped off by nearly one-fifth in the first few months of 2009. The deterioration in export prospects led to falling employment, with the result that various measures of consumer sentiment also declined to historical lows, in addition to business confidence. Based on the latest data, however, the slow recovery in business expectations and de-stocking may suggest that business conditions in the world's large economies are stabilising. Fiscal stimulus packages and recent monetary policy easing by central banks may have played a significant role in this. The available information, however, does not point to a quick rebound, but rather indicates that the pace of economic decline may be bottoming out gradually.

The recession in the Hungarian economy accelerated in 2009 Q1, with the corporate sector responding by sharp reductions in employment and wage freezes

While the decline in export markets occurred in conjunction with strong domestic demand in other countries in the region last year, in Hungary both external and domestic demand fell as an effect of the fiscal tightening since 2006. However, the financial crisis has caused a sharp drop in household expenditure in all European countries over the past six months and, consequently, the gap between Hungary, where the recession continued to deepen, and the European average narrowed.

The corporate sector attempted to adjust to the rapid decline in output in numerous ways, including reducing hours worked, cutting back bonus payments, freezing regular pay in several instances and significantly reducing the number of employees.

These actions, however, only proved to be partially successful in offsetting the rapid deterioration in sales prospects, and as a result unit labour costs continued to rise. Corporate sector profitability deteriorated sharply, given firms' inability to raise their prices, due to slack demand.

Declining demand has offset the inflationary effects of exchange rate depreciation

The rapid decline in inflation seen in previous months did not continue in early 2009, with CPI inflation and core inflation both fluctuating around 3%, a level consistent with price stability, in the first four months of the year. The fact that inflation was close to the target was, however, the result of a number of contrasting forces. Core inflation continued to fall, despite the sharp depreciation of the forint in recent quarters, due mainly to the disinflationary effects of fading demand. On the other hand, exchange rate weakness has had more pronounced effects on unprocessed food prices, where the import content is high and the income elasticity of demand is relatively low.

Deep recession in 2009, slow recovery in 2010, robust growth is projected for 2011

In the baseline projection, world economic activity only recovers slightly in 2010, while the global output gap closes in 2011 with a marked expansion in output. Nevertheless, lending activity remains very subdued over the entire forecast period, due to a prolonged period of deleveraging by banks.

In the current projection, the Hungarian economy contracts more sharply than the European average, as the slowdown in business activity abroad, the tight supply of credit and the government's fiscal measures simultaneously exert negative effects on growth. GDP is expected to shrink by nearly 7% this year and by around 1% next year. However, the economy is expected to recover strongly in 2011, as external business activity may begin to pick up and the positive medium-term impact of the fiscal adjustment may materialise at that horizon. In addition, the significant amount of spare capacity in the economy also points to a robust expansion.

The current projection is based manly on the assumption that the measure announced by the government on 19 April are implemented

The measures taken by the government will strongly influence developments in domestic demand. Amidst the current conditions, the Hungarian budget can only be financed and maintained if the impact of the deterioration in economic prospects does not result in a significant rise in the deficit. However a partial operation of automatic fiscal stabilisers is possible, as a result of the agreement concluded with international institutions.

Consequently, as a combined effect of the new measures and a deteriorating macro outlook, the fiscal deficit may be around 3.9% this year. Budgetary processes in 2010 are surrounded by a considerable degree of uncertainty. Based on an estimate for the effects of government measures derived from available information, a 4.5% deficit is projected for next year. The downward path for deficit, undertaken in an agreement between Hungary and international institutions, will require drawing up a detailed package of measures equal to some 0.7% of GDP.

The package of measures announced in Hungary is likely to undermine demand and deepen the recession over the short term, but is expected to help

the economy recover from 2010, as the planned restructuring of taxes and measures to increase the supply of labour may improve competitiveness and contribute to long-term growth. Preserving the sustainability of deficit financing, the restructuring of taxes aimed to strengthen competitiveness and expenditure-reducing measures to improve the debt path over the longer term may help to restore market confidence and, indirectly, contribute to faster growth through a reduction in the costs of financing for the economy.

Companies and households are adjusting to the deteriorating and increasingly uncertain income outlook by scaling back expenditure

The decline in external business activity will lower production in the export sector this year, with a slight recovery expected in 2010. Although over the short run Hungarian exports are likely to drop off more sharply than external business activity, the recent real depreciation of the forint and reductions in taxes on labour will contribute to an improvement in export competitiveness, and consequently we expect to see an increase in the country's market share from 2010.

Firms have cut back investment spending in response to the worsening economic conditions. Companies are adjusting to the decline in sales by reducing employment more sharply than expected and by freezing wages. Although the government's measures are likely to stimulate labour demand and supply over the longer term, the negative effect of the recession on employment will dominate in the short term. Consequently, a fall in employment and an increase unemployment, associated with very modest wage growth, are expected over the period to the end of 2010. In 2011, however, employment and earnings growth may rise again, and unemployment may fall.

Over the short term, deteriorating sales prospects and the contraction of credit supply will cause firms to scale back investment spending sharply. Nonetheless, corporate investment is expected to recover gradually, as external demand improves. Profitability may gradually move near the pre-crisis levels in 2011, with the reduction in taxes on labour playing a significant role in restoring profitability.

In 2010–2011, greater income uncertainty caused by declining employment, coupled with tighter credit conditions, will result in a significant deterioration in the outlook for household consumption and investment, and thus the sector's propensity to save is expected to increase significantly. In 2011, however, household consumption and investment spending may rise, as household income increases.

The rate of import growth is expected to slow significantly, due to the sharp decline in domestic absorption. As a result, the contribution of net trade to growth may be positive over the entire forecast period, despite the fall in exports.

Downside risks to growth remain

The baseline projection assumes a deep and protracted recession, and we continue to see the balance of risks on the downside. A steeper-than-expected decline in bank lending, coupled with a larger fall in potential output in response to the financial crisis compared to what is envisaged in the projection, may deepen the recession.

Inflation is expected to be below target, despite the increase in indirect taxes

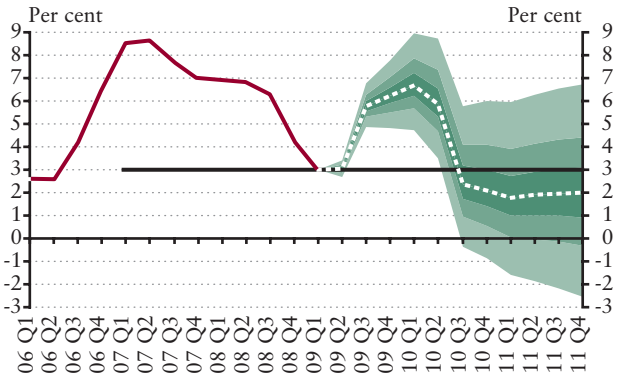
The current projection is based on the following assumptions: (i) the exchange rate remains at EUR/HUF 295; (ii) the price of oil ranges between USD 50-60 per barrel; and (iii) the measures announced by the government are implemented in full. Provided that these assumptions hold, inflation may rise to close to 6.5% by the end of this year. This is due to the effects of the increase in the rate of VAT and other indirect taxes. The inflation rate, net of the effects of changes in taxes, may remain below the target over the entire forecast period. Despite the depreciation of the forint over the past year, declining domestic economic activity, falling consumption in response to the austerity measures affecting the household sector and the reduction in taxes on labour are expected to result in a very low inflation environment over the medium term through more moderate growth of wage costs.

The balance of risks around the inflation projection is to the upside. A more protracted decline in bank lending than assumed in the projection represents a slight downside risk, while a larger-than-expected decline in potential output poses a strong upside risk to inflation.

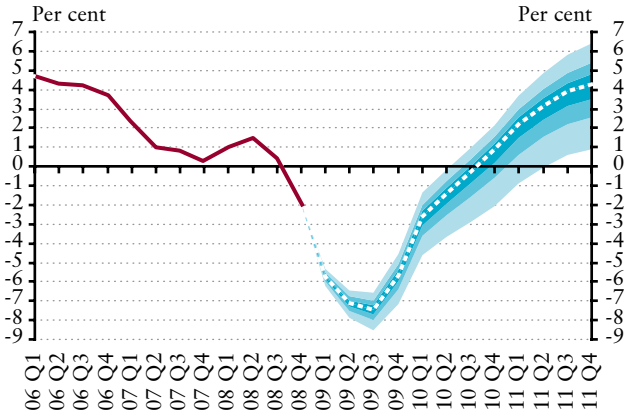
Sharply falling external financing requirement

External balance is expected to improve significantly, driven mainly by the rise in the propensity of households to save. In addition, however, reductions in the tax burden on firms and tighter credit conditions in the corporate sector may contribute to a fall in the financing requirement.

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.)

	2007	2008	2009	2010	2011
	Actual		Projection		
Inflation (annual average)					
Core inflation[1]	5.4	5.2	**4.4**	**3.5**	**1.3**
Consumer price index	8.0	6.1	**4.5**	**4.3**	**1.9**
Economic growth					
External demand (GDP based)	3.8	2.1	**-3.2**	**0.1**	**2.0**
Household consumption expenditure	0.7	-0.7	**-8.0**	**-2.9**	**2.9**
Gross fixed capital formation	0.9	-2.6	**-10.3**	**0.8**	**4.2**
Domestic absorption	*-0.9*	*-0.1*	***-7.9***	***-1.7***	***2.9***
Export	15.9	4.6	**-15.1**	**3.0**	**8.7**
Import[2]	13.1	4.0	**-16.7**	**2.1**	**8.3**
GDP*	1.1	0.5	**-6.7**	**-0.9**	**3.4**
Current account deficit[2]					
As a percentage of GDP	6.5	8.4	**4.1**	**4.0**	**3.3**
In EUR billions	6.6	8.9	**3.6**	**3.5**	**3.1**
External financing requirement[2]					
As a percentage of GDP	5.4	7.4	**2.0**	**1.4**	**0.2**
Labour market					
Whole-economy gross average earnings[3]	8.0	7.6	**-0.3**	**2.1**	**4.5**
Whole-economy employment[4]	-0.1	-1.2	**-3.2**	**-1.7**	**0.7**
Private sector gross average earnings[5]	9.1 (8.5)	8.5 (8.0)	**3.0**	**3.0**	**4.5**
Private sector employment[4]	0.9	-1.1	**-4.0**	**-2.1**	**0.9**
Unit labour costs in the private sector[4,6]	4.0	6.2	**5.7**	**-2.0**	**1.6**
Household real income**	-3.2	-1.4	**-4.3**	**-1.6**	**1.8**

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

[2] *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.*

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

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

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

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

** Figures refer to the original data including calendar year effects.*

*** MNB estimate.*

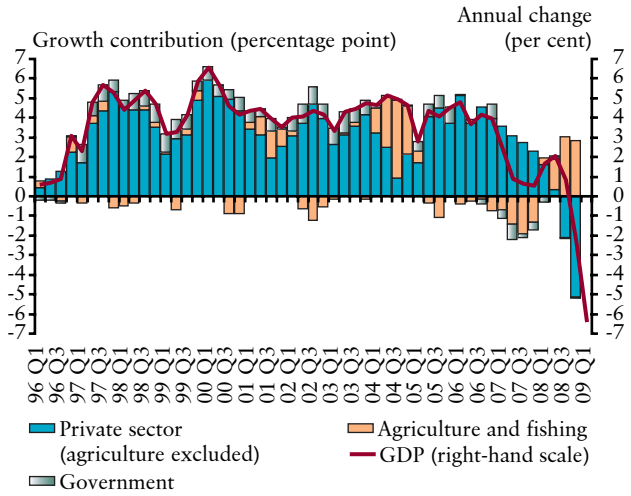
1 Evaluation of the available macro-economic data

Preliminary data indicate a significant 5.8% year-on-year decline in the gross domestic product in 2009 Q1, excluding calendar effects. According to data reflecting quarterly changes, the extent of the decline is historically comparable to the recession observed during the years following the political changeover, and the Hungarian economy has been shrinking continuously for a year. This poor growth performance can be attributed to three main factors. First, international economic conditions have deteriorated significantly in recent quarters, inhibiting manufacturing on the production side, and investment and exports on the consumption side. Second, a sharp decline in bank lending activity has affected household consumption and investment. Finally, further fiscal tightening has also put downward pressure on household and government consumption. These effects were partly offset by a decline in import demand, and thus net exports may have made a positive contribution to growth.

A review of the detailed data for 2008 Q4 reveals that Hungary has an unfavourable GDP structure in terms of the long-term prospects. The performance of the largest national economic sectors (manufacturing, market services) deteriorated more rapidly and more significantly than expected, and as a result the positive growth effect of certain one-off factors in 2008 proved to be stronger than anticipated. These factors included the outstanding yield of agricultural production, some major infrastructure investment projects, and certain base effects influencing state production.[1]

Chart 1-1

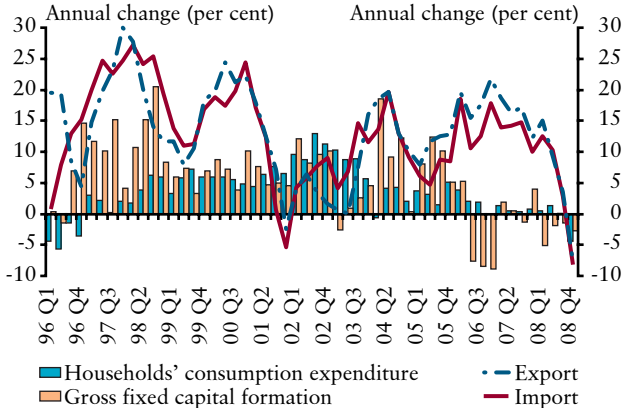
Contribution of major national economic sectors to total output*



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

Chart 1-2

Annual growth of the main consumption items of GDP



[1] The annual dynamics of health care services were stimulated by the fact that a significantly larger number of patients used these services in 2008 Q4 than in the final quarter of 2007, when co-payments by patients were still in effect.

1.1 Prolonged global recession and mild signs of stabilisation in industrial activity

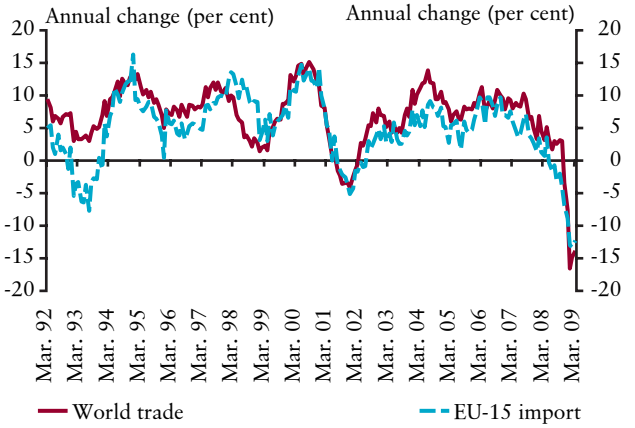
The world economy is currently facing the most severe recession in the last fifty years. Both financial and real economic factors contributed to the rapidly deepening international economic crisis. According to a retrospective evaluation by NBER, the US economy entered into recession in December 2007, which led to a global economic slowdown in 2008. The downturn was further aggravated by the mounting financial crisis triggered by the bankruptcy of Lehman Brothers, a large US investment bank. Escalating turmoil in the international financial system in the autumn of 2008 resulted in profound liquidity and financing tensions on the international money market: interbank markets froze up, while banks' tightening of credit conditions significantly constrained the ability of real economic actors to obtain credit. At the same time, international capital flows were driven by investors' flight to low-risk investments. This tendency resulted in higher borrowing costs, particularly for emerging countries which run a current account deficit, such as Hungary. Consequently, the credit crisis rapidly spread around the world, shrinking consumption-investment demand even further.

At the turn of 2008–2009, world trade experienced an unprecedented decline of close to one-fifth. In addition to the above factors, the spread of the crisis to trade finance may have contributed to this deterioration. Moreover, as globalisation has greatly lengthened corporate supply chains in recent years, extending them to a growing number of countries, the current recession hit a wider range of countries through trade relations more strongly and more rapidly than ever before.

Economic policy responses to the crisis, particularly monetary and fiscal measures, were faster and more massive than those taken during similar episodes in the past, and went beyond the conventional framework.[2] According to the IMF, thanks to these measures, it may be possible to avoid a recurrence of the Great Depression of 1929–33.[3] On the other hand, resolving the problems of the financial system remains essential to recovery and, due to the complexity, cost and political difficulty of the task, the process has proven longer than expected.

Chart 1-3

Growth of world trade*

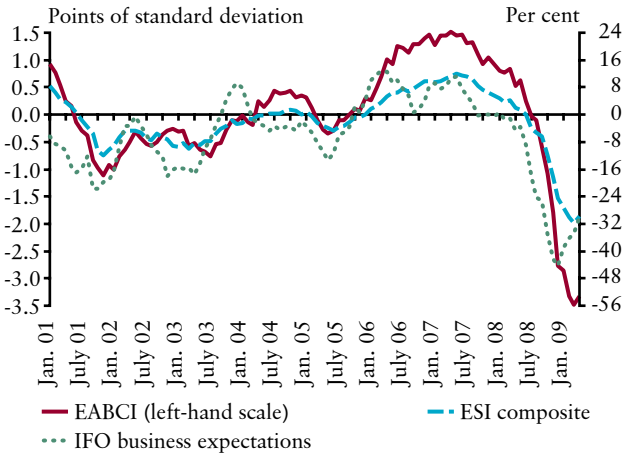


** Seasonally adjusted data.*

Source: CPB Netherlands.

Chart 1-4

Changes in the EABCI, ESI composite and IFO confidence indicators*



** EABCI is a Business Climate Indicator for euro area countries published by the European Commission. The ESI composite indicator is the average of the Economic Sentiment Indicator values published by the European Commission for the 18 largest EU Member States except Hungary, weighted by their share in the Hungarian export structure – 100.*

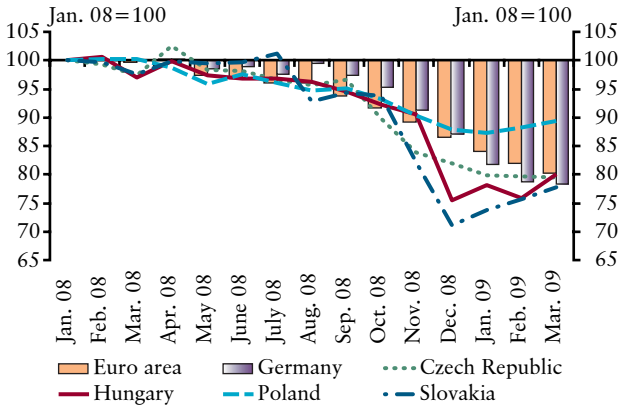
[2] See Chapter 2 for details on the measures taken by central banks.

[3] 'From Recession to Recovery: How Soon and How Strong?' In: *IMF World Economic Outlook, April 2009: Crisis and Recovery,* IMF.

Chart 1-5

Volume of industrial output in the region, Germany and the euro area

*(seasonally adjusted levels)**

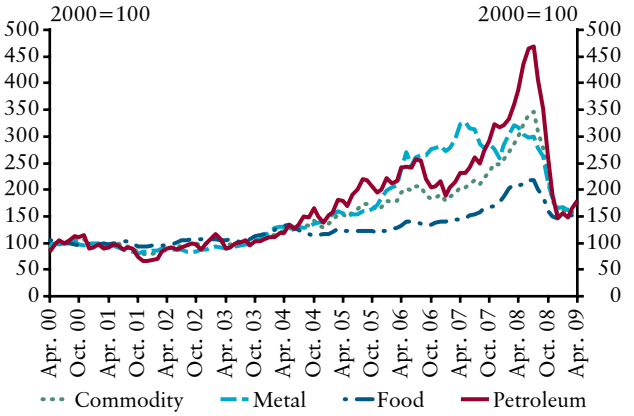


* *Euro area excluding Slovakia.*

Source: Eurostat.

Chart 1-6

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 IFS database.

Confidence indicators which reliably measure the Hungarian economy's external demand have suggested a stabilisation of business expectations in recent months. On the one hand, this may have resulted from the confidence-boosting effect of the announced economic policy measures. On the other hand, it appears that the shrinking volume of unsold stocks may put a halt to the decline in production. The rapid fall in industrial output in our region appears to have stopped, which might also indicate that economic activity may be close to bottoming out.

Due to easing global demand pressures, commodity prices stabilised in early 2009, and based on futures quotes, a prolonged recession may keep them at moderate levels in the near future. With regard to oil futures, markets appear to expect only mild price increases due to the prolonged recession. On the other hand, grain futures rose sharply partly in connection to the dry weather since the beginning of the year. In sum, the extent to which an eventual recovery in the global economy may revive commodity markets remains highly uncertain.

1.2 Hungarian economy is in recession

Recently received data point to the acceleration of the economic slowdown in 2009 Q1. Real economic activity is still dominated by the international recession, the credit crunch and fiscal adjustment measures.

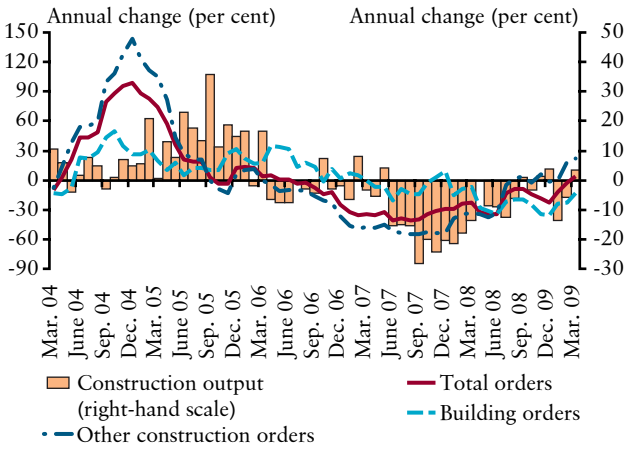
Declining production has been felt in a wide range of sectors. Sharply falling external demand had an instantaneous, massive impact on industrial production. Due to the downsizing of inventories from historically high levels and the dispute between Russia and Ukraine over gas supplies, many factories were forced to halt production in January, contributing to the fall of capacity utilisation in the manufacturing industry to unprecedented low levels in 2009 Q1. At the same time, the volume of production in the manufacturing sector has stabilised in recent months. This is due partly to favourable external developments (the German cash-for-clunkers scheme and improving confidence indicators), and partly to the impact of the recent real depreciation of the forint in sectors sensitive to the real exchange rate (e.g. food industry).

The decline in construction output slowed in Q1, and the construction contract portfolio indicates signs of stabilisation, and even some growth in March. As was the case in 2008 Q4, this mainly reflects the impact of infrastructure investment projects financed with EU funds. The situation is considerably more complex for building construction, where both the contract portfolio and the number of residential construction permits issued have declined. At the same time, the rate of decline in real housing prices has decelerated, and the number of occupancy permits issued increased significantly as previously started construction projects were completed. Nevertheless, scarce credit combined with the worsening income position of households further undermine the prospects for the construction industry, which is corroborated by the continuing fall in the sector's confidence indicators.

In summary, Q1 construction sector data indicate favourable developments in construction investments. At the same time, the sharp contraction in private sector value added and the drying up of bank lending boost the likelihood of a significant downturn in fixed capital formation, as these factors are expected to have set back investments in equipment and machinery.

Chart 1-7

Changes in construction industry output and the contract portfolio



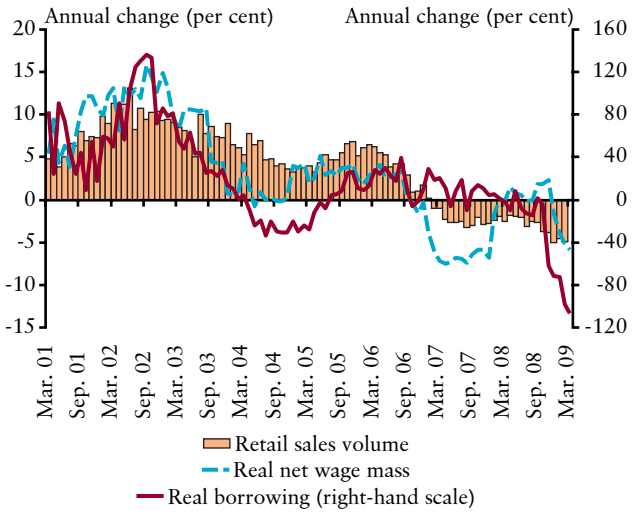
Corporate labour market adjustments, tighter credit conditions and the newly planned fiscal adjustment measures have resulted in deteriorating and more unpredictable income prospects for households. In conjunction with tighter borrowing conditions, this has led to an increase in precautionary savings, and the fall in household consumption and investment may continue. Amongst other things, these developments are reflected by financial accounts data for the first quarter and by retail sales figures, which indicate that the year-on-year decline in private consumption may have accelerated and that households' propensity to save may have increased strongly.

According to our calculations, the traditionally strong link between household consumption and retail sales has weakened in recent months. This may be explained by a rise in shopping tourism triggered by the weaker forint exchange rate and falling consumption of financial services.

In addition, restrained government expenditure may have exerted downward pressure on the growth in public consumption. By contrast, foreign trade turnover data for the first few months suggest an improvement in net exports. This may be explained by the fact that in parallel with the decline in exports, export-related import demand has also weakened, which has complemented the effect of slacker domestic demand. Based on data available until February, terms of trade have started to improve, mainly due to the fall of fuel prices in the last half-year.

Chart 1-8

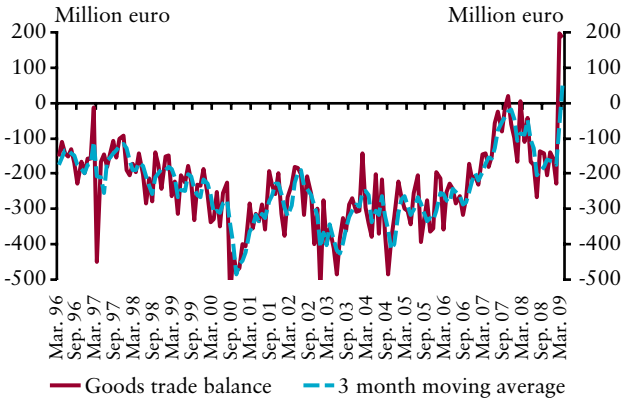
Developments in retail sales, net wage bill and household borrowing*



** Seasonally adjusted data; borrowing includes leasing; the wage bill and borrowing data are deflated by the consumer price index.*

Chart 1-9

Changes in the trade balance*



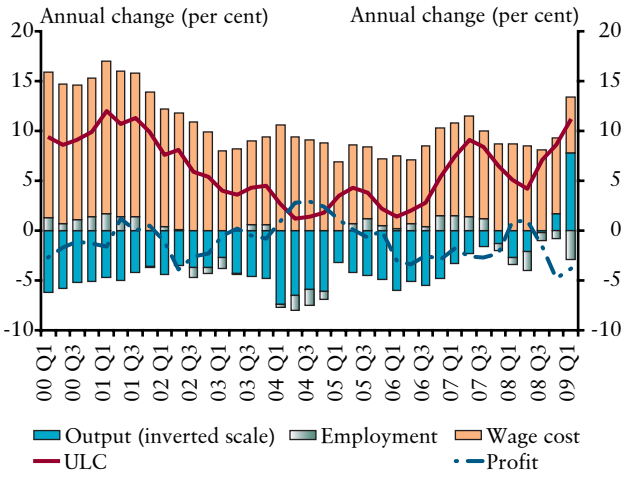
**Based on foreign trade data, adjusted to reflect the methodology of national accounts.*

1.3 Intensifying adjustments on the labour market

The sharp decline in sales has had a devastating effect on firms' profitability. The private sector has reacted to rising unit labour costs by layoffs and wage cuts. While the private sector has seen a massive decline in the wage bill in recent months, this process must continue in order to restore corporate profitability.

Chart 1-10

Changes in unit labour costs in the private sector*



** Nowcast for 2009 Q1. Unit labour cost is the ratio of wage cost per employee and value added per employee.*

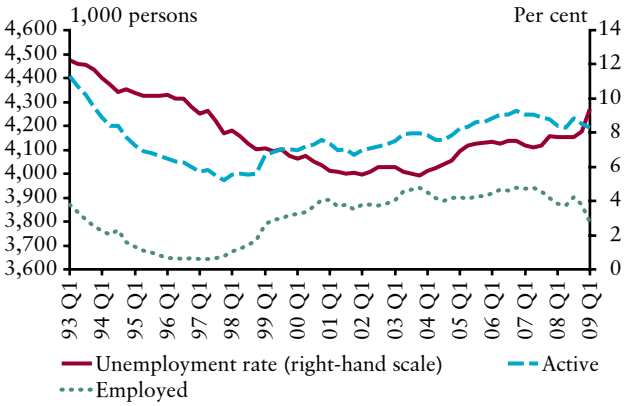
Employment cuts initially affected manufacturing primarily, but the service sector has also seen staff cuts in several areas in recent months. The majority of laid-off workers remained active job-seekers instead of quitting the labour market, which is a critical aspect for the tightness of the labour market and runs contrary to the trends seen in previous years. At the same time, this also led to a marked rise of the rate of unemployment.

Wage adjustments initially appeared in restrained bonus payments at the end of 2008. Since January 2009 there is mounting evidence pointing to the freezing of regular wages as well: these remained unchanged in Q1 compared to 2008 Q4. In addition, according to a number of non-representative surveys (Hay, Hewitt, Manpower) conducted in recent months, an increasingly large number of firms are planning on freezing wages. In fact, wage growth may have been even smaller than suggested by statistics considering that employees with lower salaries would have been more likely to lose their jobs than better-paid employees.

Chart 1-11

Employment and unemployment in the national economy

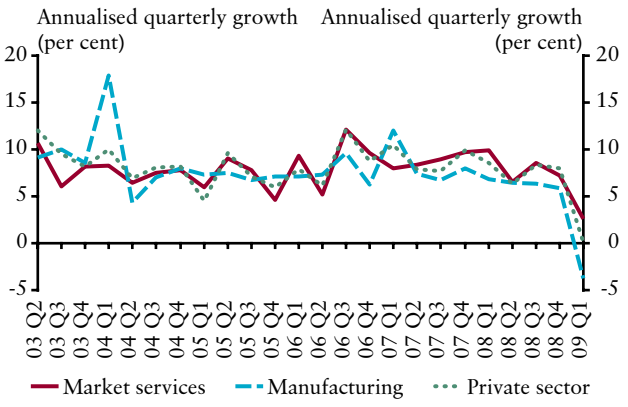
(seasonally adjusted data)



Restrained wages were complemented by a decline in the hours worked, which, according to statistics, primarily affected regular wages. In Q1, a number of one-off effects resulted in a decline in the number of hours worked, including loss of production due to days off in the period around Christmas and New Year's Eve and the gas crisis between Russia and Ukraine. At the same time, an increasing number of firms announced the introduction of shorter work weeks.

Chart 1-12

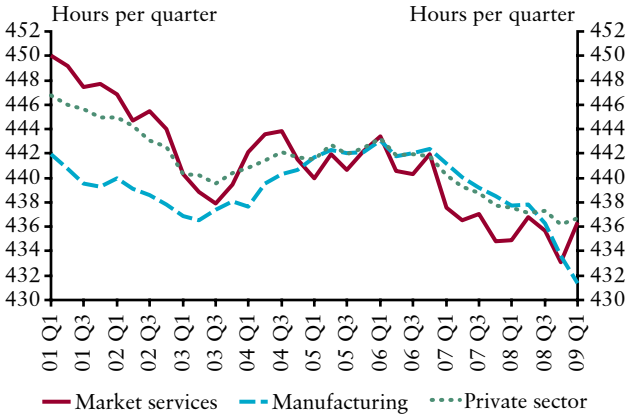
Evolution of regular wages in the private sector*



**Adjusted for the whitening of wages and seasonality.*

Chart 1-13

Number of hours worked in the private sector*



Among those employed at least 60 hours per week.

At the beginning of 2009, there was no increase in the remuneration base in the public sector. The annual increase in regular wages can be attributed to a carry-over effect, as municipalities' annual wage increase last year was implemented as late as the middle of 2008. At the same time, gross average wages in the public sector significantly decreased in the first few months of the year, reflecting the introduction of the 13th month salary cap and the change in its disbursement schedule.[4] These developments are consistent with expectations of restrained wages in the public sector in 2009.

[4] The average amount of compensation paid in 2009 instead of the 13th month salary is smaller than the 13th month monthly wage paid for the previous year. On the other hand, 50% of the 13th month salary for 2007 was paid in January 2008, while no such payment was made at the beginning of 2009.

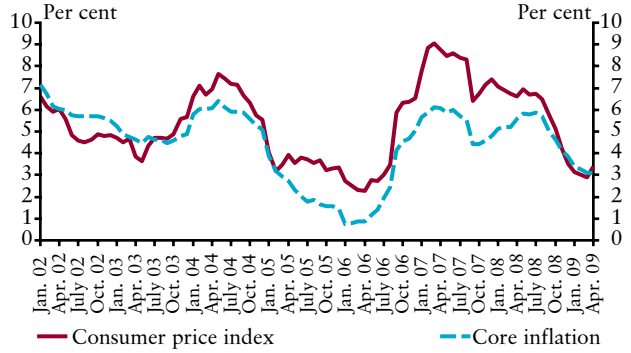
1.4 Inflation near the target

In the first four months of the year both inflation and core inflation were around 3%, a level consistent with price stability. Following the stable price indices observed in Q1, the overall consumer price index increased by 0.5 percentage points in April compared to March, but core inflation remained unchanged at 3.1% in the same month. The three main factors affecting inflation were the depreciation of the forint, firms' increasing unit labour costs, and the decline in domestic demand. Of these factors the last appears to be dominant at present, as the effects of exchange rate weakening appear gradually, typically with a lag of several months.

Chart 1-14

Inflation developments

(annual change of monthly data)



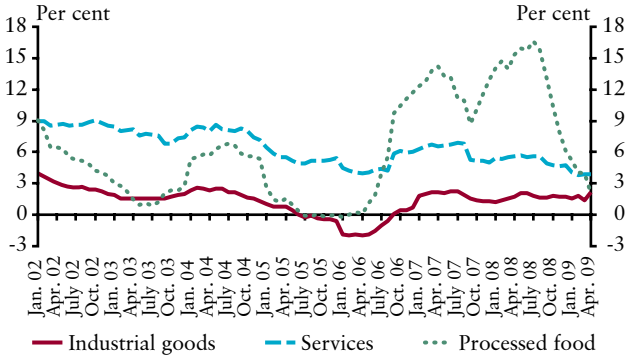
The stability of core inflation masks some contrasting developments for specific items. In recent months, the volatility of prices of tradables has increased significantly. This mainly reflected changes in a major item, new vehicle prices, as the sharp fall in prices observed in March was followed by a large increase, considerably contributing to a higher annual index in April. In the meantime, inflation of other durables remained stable, consistent with expectations about the pass-through effect of exchange rate changes. Inflation of market services continued to decline, reaching a historical low level of around 4% at the beginning of the year. Processed food prices increased moderately, with monthly indices suggesting stable prices for the previous two months.

With regard to non-core items, the price of unprocessed food continued to increase. Weakening exchange rates may have contributed to the process, particularly because the share of imports is relatively high in this product group in the first

Chart 1-15

Changes in certain inflation components

(annual change of monthly data)



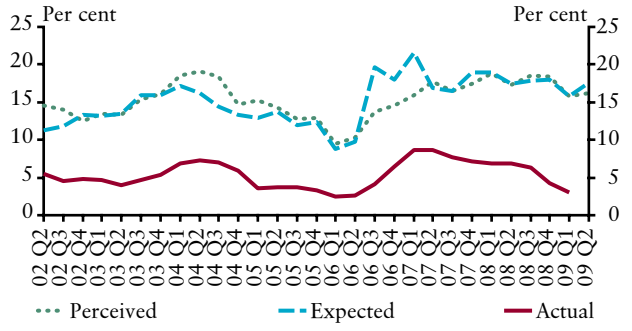
months of the year. Fuel prices contributed to a decline in inflation, but this was due to a technical effect: the substantial increase in fuel prices observed in March 2008 fell out from the base of the annual index. Regarding regulated prices, the lack of a gas price increase at the beginning of 2009 – resulting from decreasing oil prices – had a particularly significant effect. At the same time, the tightening of medication assistance schemes in April was reflected in regulated prices.

Inflation perceived by households stopped falling, even though the ratio of actual price increase reached record lows. This may be attributable to the fact that inflation perception can also reflect general economic sentiment. The anticipated VAT increase and a weaker forint exchange rate resulted in heightened inflation expectations.

Chart 1-16

Household inflation perception and expectations – Median survey

(for the past month and the next 12 months)



2 Financial markets and lending

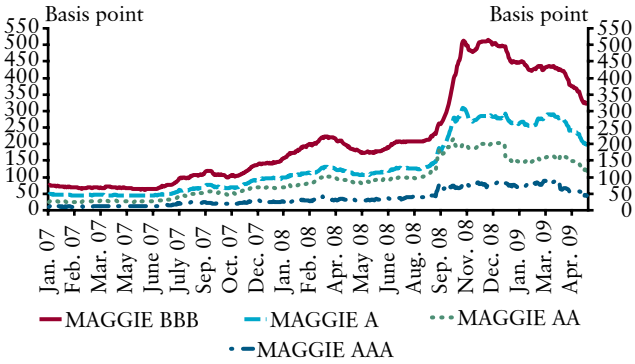
2.1 Improving global investment appetite

Starting from the middle of March, some favourable changes occurred in the global market environment: an overall improvement in risk tolerance, rising stock exchange indices, and optimistic investor sentiment. Although during the first weeks following the publication of the previous Report the global financial markets were still characterised by heightened risk aversion and pessimism coupled with sharply falling stock exchange indices and high volatility, from the second week of March some improvement in general sentiment became evident. Encouraged by favourable reports by a number of US banks at the beginning of the year and led by the financial sector, major equity market indices turned positive, and then started to rise markedly, while risk appetite also rebounded. Contributing to the positive changes, a government package was announced for the management of the distressed assets of US banks, and the accounting rules of mandatory mark-to-market valuation were changed to a more favourable arrangement. However, even this period continued to witness some negative developments (concerns regarding swine flu, discouraging growth data and deteriorating projections), resulting in a pause or a turnaround in rising markets, reflecting the fragility of investor sentiment. Some market participants are hoping that the worst of the crisis has passed, and opinions are mainly based on the developments in certain leading confidence indicators. However, several analyses demonstrate the need for caution when it comes to overestimating the importance of these indicators.

Additional government measures and supranational actions played a key role in the improving market sentiment as well. The results of the G-20 summit were more tangible than in the past and were greeted with a favourable market reception. At the summit of the largest developed and developing economies, attended by the leaders of the European Union, the most important issues discussed included the replenishment of IMF funds, cracking down on tax havens, stimulating world trade, harmonising fiscal stimulus packages, renouncing protectionist economic policies and tightening the regulation of the financial system. Moreover, the US government put an end to the uncertainty that had surrounded the US financial sector for months by announcing the PPIP (Public Private Investment Program) package. In addition, the stress test analysis of US banks was completed and the results allayed fears that the state would shortly have to provide an additional, large-scale capital injection to banks. However, a number of sceptical market analyses raised doubts regarding the solidity of the stress test results.

Chart 2-1

Changes in risk indices*



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

Source: JPMorgan.

Consolidation of developed interbank markets continued. By the beginning of May, TED spreads decreased to 70-90 basis points, which for the euro implies values close to those preceding the default of Lehman Brothers, while for the dollar these values are below that level. While LIBOR–OIS spreads declined gradually during the period, they have not reached the levels prevailing before September 2008.[5] The fact that the reallocation of liquidity is increasingly returning to the interbank markets is indicative of improving interbank market conditions. Consequently, recourse to the standing facilities of major central banks has decreased significantly, and the previously fast-growing central bank sterilisation portfolios have stagnated in recent months, and are expected to dissipate soon after the longer maturity contracts expire. Nevertheless, banks' CDS spreads do not reflect a return of confidence in financial institutions. The fact that banks' solvency problems have recently taken the spotlight as opposed to their liquidity problems may be the underlying reason for this. In the coming months investors are expected to focus their attention on lending losses and increasing provisioning.

[5] The TED spreads are calculated as the difference between the short-term, three-month interest rates in interbank markets (LIBOR) and the three-month T-bill interest rate. The LIBOR-OIS spread shows difference between the interest rates on interbank loans and the expected average base rate during the coming period. As such, both measures can be viewed as indication of banks' perception on the risk and liquidity conditions in the money market.

Although for the most part of the period financial markets were characterised by continuing optimism and easing tensions, as was pointed out in Chapter 1 real economic developments remained unfavourable. In parallel with the economic downturn, downward risks remained pronounced with respect to inflation. According to the ECB's inflation forecast, inflation is poised to undershoot the target in the euro area both in 2009 and in 2010 (0.4% and 1%, respectively). The Fed warns that the level of the projected price index may be below the level required for facilitating long-term economic growth and price stability. In addition, central banks forecasted price indices to turn negative in a number of developed countries (Switzerland, Japan) in 2009.

Chart 2-2

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

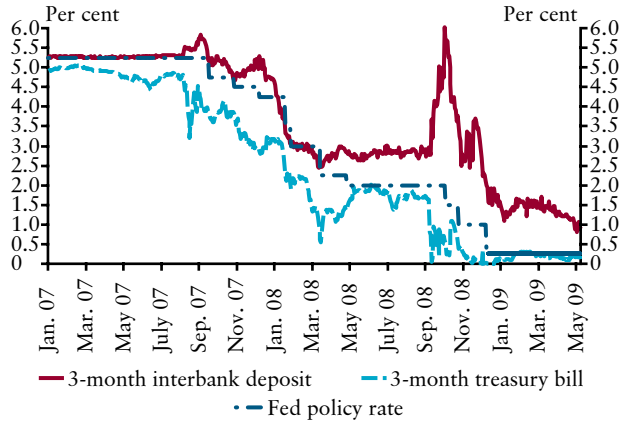
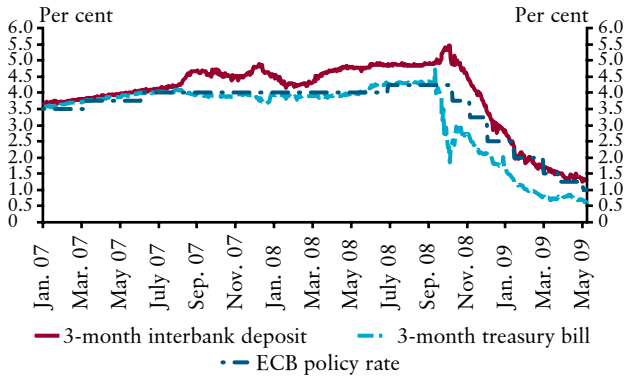


Chart 2-3

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



In line with the above, central banks continued to shift their policy towards easing the monetary stance and lending conditions. This is manifested in further rate cuts on the one hand, and the increasing use of a set of unconventional expansive policy tools on the other hand. In line with market expectations, the Fed has not modified the 0%-0.25% Fed funds target rate band in recent months. Consistent with the press releases following the announcements, quotes for Fed funds futures contracts point to a long-term maintenance of current interest conditions, with the market expecting the first moderate interest rate raise to take place in November at the earliest.

In line with expectations, the ECB cut its base rate by 50 basis points in March and by 25 basis points in April, which was below the market consensus, to be followed by an expected additional cut by 25 basis points in May. At the same time it narrowed the corridor around the rate of the main refinancing operations to ±75 basis points, and extended the maximum maturity of loans from six months to 1 year, through which the ECB provides unlimited liquidity. The Swiss National Bank decided to lower the top of the interest rate corridor by 25 basis points to 0.75%, and set the three-month LIBOR interest rate target at 0.25%. Somewhat unexpectedly, the interest rate decision was complemented by a number of unconventional measures (increasing interbank liquidity through repo transactions, FX market intervention, and corporate bond purchases). In addition, the central banks of several other developed countries (Bank of England, Bank of Canada, the central banks of New Zealand, Australia and Norway) followed suit and lowered their interest rates.

In the absence of further room for interest rate cut manoeuvres, the Fed, the Bank of England and the Bank of Japan resorted to a practice of active quantitative easing under different instrument purchase schemes. However, these differed significantly in terms of the volume and types of instruments purchased. The ECB, on its part, made a decision at its May meeting on the use of alternative instruments and accordingly, the ECB is to purchase 60 billion euro worth of EUR-denominated covered bonds issued in the euro area.

At the beginning of 2009, as the issuance of sovereign bonds increased, so did the credit risk of developed countries, which resulted in significantly higher CDS and sovereign bond risk premia. In contrast, recent months have seen a decline in yields on government securities in most developed markets, while concerns regarding peripheral euro area member states have eased. Improving investor sentiment is reflected by the developments in CDS spreads as well: in the case of low risk developed countries, CDS spreads decreased by 20-50 basis points, while a decrease of 60-80 basis points was observed for higher risk countries. While growth in demand for higher risk, high-yield investment options was evident, yields on three-month US discount Treasury bills, which are considered as the safest investment, finally departed from around zero percent where they were stuck in January and fluctuated in the upper side of the Fed funds target band.

2.2 Asset price developments in emerging markets

The negative global investor sentiment characterising the beginning of the period had an adverse impact on emerging markets as well, and had a devastating effect on Central East European countries in particular. Along with increased volatility, foreign currencies in the region depreciated substantially by the beginning of March. As the extent of the weakening reflected risk perception departing from fundamentals, in response central banks in the region committed themselves to stabilising their respective currencies through coordinated as well as individual actions. Even though verbal interventions succeeded in easing the pressure on foreign currencies, concerns about the exposure of Western European banks in the region reinforced the already negative perception of the region.

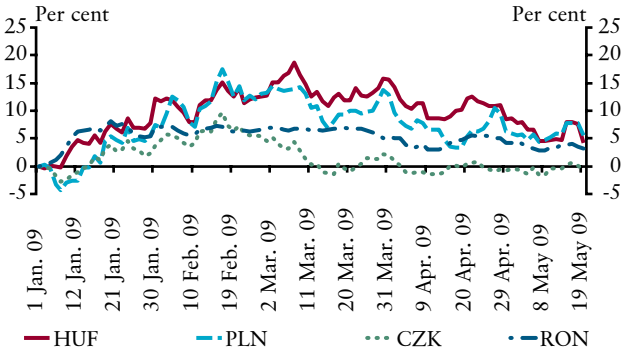
The perception of the region has changed favourably in the wake of the announcement of several supranational development banks (EIB, World Bank, EBRD) at the end of February on setting up a credit facility in the amount of EUR 25 billion to assist Central European firms and financial institutions. In addition, the positive effect of the favourable turn observed in developed markets from the middle of March eventually reached emerging markets as well. Regional and country-specific factors (Polish and Hungarian verbal intervention, IMF-led aid package to Romania, Poland's option of using the flexible credit line facility of the IMF) reinforced the impact of the optimistic global climate. As a result, the risk perception associated with the region improved, asset prices and stock exchange indices started to rise, risk premia declined and exchange rates appreciated. With increasing risk appetite and decreasing exchange rate volatility, investment strategies capitalising on the interest rate differentials (carry-trade positions) may return into focus.

The results of the G-20 summit gave a further boost to the improving attitude on the emerging markets. Most of the funds made available for the IMF are intended to make emerging countries less vulnerable to shocks. In addition to the freshly announced FCL instrument, Mexico's and Poland's announcement of their intentions to seek loans under the credit line were met with a positive market reception. The region as a whole was affected positively when the IMF admitted that the calculations it had published in April regarding the short-term financing needs of Central and Eastern European economies were incorrect and suggested a significantly more negative picture than would have been realistic. Taking advantage of the improving investor perception of CEE economies, certain countries in the region (Czech Republic, Poland, Slovakia) managed to again sell considerable quantities of EUR-denominated benchmark bonds in international capital markets. The issues were substantially oversubscribed, but the deals were priced with relatively high spreads over mid-swap.

Declining CDS spreads, which have been observed since the middle of March, also reflect the improving perception of the Central and Eastern European region. While in terms of foreign currency exchange rates, the region did not significantly surpass the performance of the Latin American and South-East Asian emerging markets, it in fact did register better performance in respect of improvement in CDSs. While those two regions experienced a decline by 100-200 basis points compared to the peeks observed in early March, default premia fell by 250-500 basis points in the CEE region. At the same time, the level of the average CDS premium in the CEE region still exceeds the values prevailing

Chart 2-4

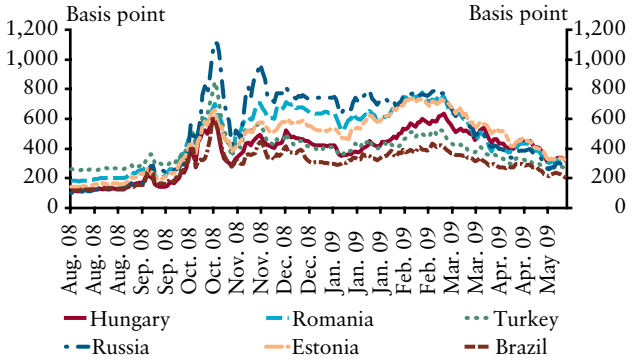
Changes in the exchange rates of currencies in the region*



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

Chart 2-5

Developments in CDS spreads in certain emerging countries



in the other two regions. The decline in risk premia took place despite several sovereign debt rating downgrades in the region in recent months. Although it is still typical of emerging markets that easing policy measures would be justified according to the poor growth prospects, central banks are undoubtedly restrained in cutting their rates by the considerable risk of new weakening waves in the exchange rate of the region's currencies, the high exchange rate volatility and the financial stability risk concerning the banking system.

2.3 Improving trends in domestic financial markets

Over the last three months, despite the persistent problems, a number of fundamentally favourable trends have been observed in the Hungarian financial markets, and turmoil has continued to subside gradually. Besides maintaining its previously introduced instruments, the MNB introduced further foreign currency liquidity providing instruments to assist banks in obtaining longer-term foreign exchange funds or ensure banks' access to such, and in order to make certain instruments more attractive to banks, it modified the related conditions. With these measures, the central bank continues to provide assistance in the liquidity management of the Hungarian banking sector.

The steps taken by the MNB to provide forint liquidity proved successful, and the interbank depo market essentially resumed normal operation. Primary liquidity reallocation is performed in the unsecured forint interbank market, while simultaneous recourse to the deposit and lending facilities of the MNB has been very rare in recent months. As a result of excess liquidity in the sector, interbank yields typically resided in the lower section of the interest rate corridor. In the case of individual liquidity tensions, the two-week lending facility of the MNB provides an adequate and favourable option for managing liquidity issues, and banks apparently make use of this opportunity if needed. This is supported by the fact that rather than using this tool to roll over a fixed principal amount, they typically take two-week loans in the amount required for their current liquidity needs.

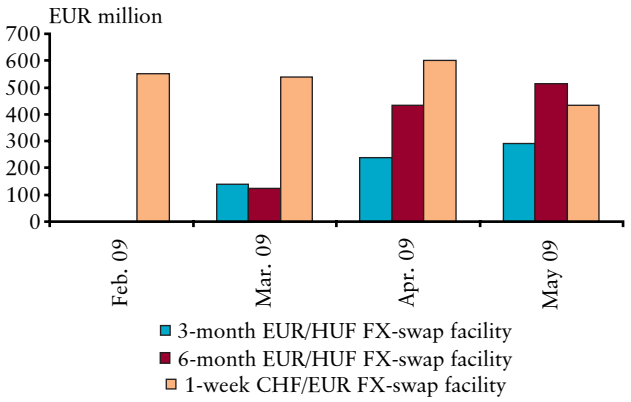
Besides the consolidation of forint liquidity allocation, access to foreign exchange liquidity has become cheaper and easier, contributing to continuing improvement in conditions on the FX swap market. Implied forint yields along short-term maturities typically resided near the interest rate corridor, which primarily reflected a more active recourse to the overnight central bank FX-swap line. This was facilitated by the central bank's pricing policy, which has become increasingly favourable for counterparties. The two-way O/N FX-swap tender was aimed at resolving the partner limit problems of credit institutions, but due to the elimination of the limit problems and the fact that the pricing of the subsequently introduced one-way FX-swap line providing euro liquidity approached the market price, recourse to the two-way instrument practically came to a halt. Thus, its maintenance became pointless, and the MNB decided to discontinue its use.

In March, the MNB introduced new FX-swap tools to provide longer-term euro liquidity. Seven banks submitted bids for the six-month tender, which had tighter conditions, and the MNB concluded bilateral agreements with each of them. In addition, the MNB announced a three-month FX-swap tender as well, which can be used with more favourable conditions, although it is somewhat more expensive. The introduction and continuous announcement of longer-term central bank FX-swap instruments also contributed to an increase in implied forint yields, and as a result, in recent months their yields have gradually approached the benchmark forint market yields at the corresponding maturities even for longer maturities (3, 6 and 12 months). While the use of longer-term central bank FX-swap instruments fell behind the anticipated level, this primarily reflects more favourable liquidity conditions on the one hand, and on the other hand, it may be attributed to the fact that market agents tend to use these instruments as a last resort. Banks use the one-week CHF/EUR tender continuously, essentially for rolling over previously drawn loan amounts. Along with other modifications to central bank tools, at the end of April it was announced that the above tool would be maintained by the relevant central banks at least until July 2009. On the whole, the previously experienced turmoil in the FX-swap market has largely subsided.

During the period under review, the forint exchange rate continued to move within an extremely wide range and was highly volatile. Following publication of the previous Report, the forint continued to depreciate, falling to an unprecedented

Chart 2-6

Recourse to new central bank FX-swap facilities*

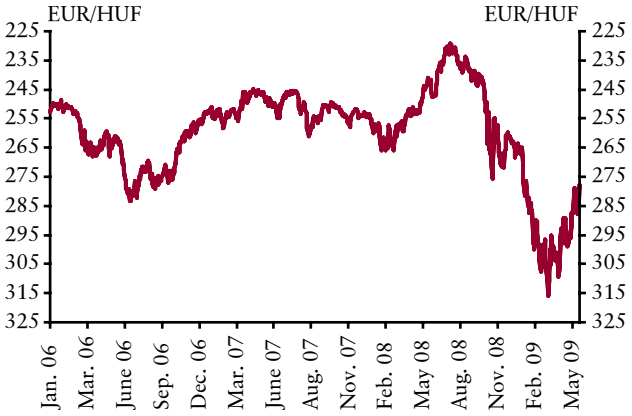


** Outstandings at the end of months and on 20 May 2009.*

low level at the beginning of March as a result of several waves of weakening. The MNB responded to the depreciation with a firm statement, in which it declared that the central bank was prepared to use all available means to defend the forint. At the same time, it was announced that the central bank would start introducing EU funds to the market. As a further boost to the forint, a separate press release was issued shortly thereafter, which stated the specific amounts available. Later in March the EUR/HUF exchange rate stabilised somewhat at around 300, the depreciation trend came to a halt and in April, driven by the improved international climate combined with increasing risk appetite, the Hungarian currency appreciated significantly, and at the beginning of May it was able to drop below 280. Nevertheless, as several market agents have pointed out, in the assessment of these developments it should be also noted that the forint FX market turnover was rather low in the previous period, and all exchange rate movements took place in a highly illiquid market. For the time being, option quotes failed to reflect a shift towards more positive exchange rate expectations.

Chart 2-7

Developments in the forint/euro exchange rate



In the secondary government securities market yields rose to historical highs in early March while liquidity was extremely low, and the market came under strong selling pressure. Subsequently, the improving market climate and the appreciation of the forint led to an extremely intense decline in yields along the entire length of the yield curve. As a result, by the end of April secondary market yields fell by a total of 100-200 basis points for maturities under one year, while yields fell even more dramatically around the middle of the yield curve, declining by 190-370 basis points. It should be noted that this decline in yields was not only linked to fundamental factors. In fact, in order to alleviate tensions on the supply side, the Government Debt Management Agency (ÁKK) conducted several high-value bond buy-back actions from the middle of March, which put some artificial downward pressure on yields. On the one hand, with this measure the Debt Management Agency intended to provide a regulated framework under which the (partially hidden) excess supply would be withdrawn from the market, as it was hindering the normal operation of the government security market; at the same time this measure served to reduce the volume of debt. Following the announcement in the middle of March, by the middle of May the ÁKK had repurchased government bonds maturing between 2009-2012 with a nominal value of HUF 480 billion, taking advantage of the international bail-out package to finance the transactions. Secondary market liquidity improved and turnover increased slightly, while interest rate swap spreads – which are also reliable indicators of the liquidity position of the market – decreased significantly, particularly for short maturities. However, the liquidity of secondary government security market is still low.

The fact that uncertainties regarding bond issues dissipated should be highlighted as an important development in the primary government security market; at the end of April the ÁKK resumed its practice of conducting regular government bond auctions. According to the press release on the new auctions, the Debt Management Agency will initially offer bonds every two weeks in relatively small amounts at three maturities (3, 5 and 10 years). In addition, from May the ÁKK will use more flexible bond issuance methods to supplement its normal auction issuance which, in the case of strong demand, will enable investors to buy more of the same government bonds at the average auction price after the auction. The Treasury Bill (DKJ) auctions conducted in recent months have been characterised by high demand and decreasing yields. In view of the considerable amount of oversubscribing, the ÁKK increased the amount of T-bills issued several times, and the average auction yields have gradually approached secondary market yields. Regarding the other measures of the debt agency, buy-back auctions will continue, supplemented by new, bond switch auctions. The volume of bought-back bond stock gradually decreased in the repurchase auctions, and compared to the large initial volumes (60-70 billion HUF worth of government bonds) the ÁKK accepted offers only in limited quantities (20-30 billion HUF) by the end of the period.

The government security portfolio of non-residents has decreased by HUF 215 billion since the end of February, of which a net sum of HUF 150 billion in sales was related to secondary market transactions. The contribution of maturing T-bills and bonds to the decline was nearly HUF 105 billion, while non-residents bought HUF 40 billion worth of Hungarian T-bills and bonds in the primary market through auctions. However, the decline in the government security stock held by non-residents was parallel with a substantial decrease in the total outstanding HUF-denominated government bond portfolio, and the ratio of foreigners' holdings from the total government security portfolio remained at a relatively stable level during the last months.

Moreover, having a look at non-residents' holdings by tenor, the foreigners were net sellers mainly on short maturities, while on longer terms the level of their holdings stagnated or even increased in the case of bonds with the longest time to maturity, which resulted in a longer average time to maturity of foreigners' government security portfolio.

The forint positions of non-resident investors have increased by HUF 550 billion since the end of February, while the volume of their FX-swap contracts decreased by a comparable amount. This may suggest that – even though they were absent from the government security market – non-resident investors increasingly closed their positions against the forint in the FX market and opened positions in forint. (From the beginning of the year until early March a great number of speculative positions were taken up against the forint. The decline in the net FX-swap portfolio held by non-residents is largely due to the elimination of these positions).

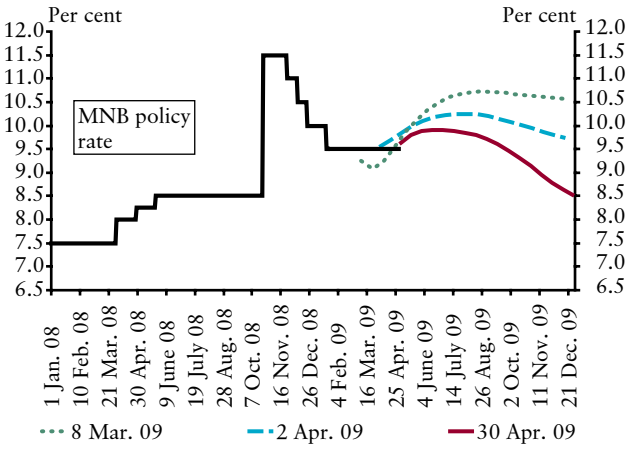
In recent years, the forward holdings of domestic non-bank market participants have consistently moved in tandem with the forint exchange rate, but this relationship started to shift from the beginning of 2009. On the one hand, there was a shift in the levels of the two time series: this time the weakening of the exchange rate was not followed by an increase in the portfolio, which in turn would have bolstered the forint exchange rate. On the other hand, the coefficient of this relationship has changed as well: the impact of exchange rate changes has grown considerably less significant. Nevertheless, a certain measure of correlation has been observed between their movements, albeit to a lesser degree.

Reflecting the steady deterioration in the risk perception of Hungary, following a period of growth which began at the end of last year, the five-year sovereign CDS spread peaked at 638 basis points – a historical high – on 9 March. Reflecting the turnaround in the global investor climate and the overall perception of the region, there was a decline in the sovereign CDS premia in the middle of March, but the extent of this drop was lower than that observed in countries previously associated with the same risk level as Hungary. Although the price of the insurance on credit default decreased to around 320 basis points by the middle of May, the relative position of Hungary has clearly deteriorated in this regard during the last three months. By the end of April, several countries (Bulgaria, Romania, Russia) had a much more favourable CDS spread than Hungary, while at the beginning of March their risk premia were higher. Currently, Hungary is nearly on par with Estonia, while the difference between them was over 100 basis points only few months ago.

In February, the MNB discontinued the cycle of rate cuts that it had started in November 2008 and decided to leave the central bank key interest rate unchanged at the subsequent two policy meetings as well. Primarily influenced by the exchange rate, expectations regarding the interest rate path have varied widely during the previous period. After several waves of exchange rate depreciation, in February and March market agents considered a massive rate increase and the maintenance of the existing rate as equally likely scenarios, and the probability factors associated with each scenario depended mainly on expected exchange rate developments. After hitting bottom at the beginning of March, the exchange rate returned to a level of around EUR/HUF 300, before – following several attempts – it strengthened to a range between EUR/HUF 280-290. In line with these developments, expectations of an interest rate increase have gradually declined, and were subsequently priced out altogether. Based on asset prices, the market currently expects the interest rate to be maintained for the following months, while forward interest rate quotes have started to suggest the possibility of a slight rate cut over a 3- to 6-month horizon. Market prices indicate that the central bank base rate may be lowered to 8.5% by the end of the year, and 7% by the end of 2010.

Chart 2-8

Future path of the two-week base rate as implied by money market yields



While there has been significant improvement in the functionality of Hungarian financial markets since the previous Report, normal business operations have not been restored yet. The liquidity of most market segments is still below the levels observed in the periods prior to the turbulence in October. Moreover, certain markets (spot FX market, HUF government securities market) are still characterised by low liquidity. At the same time, the yield levels of certain market segments have become less inconsistent: short-term yields of government securities market and interbank lending market, as well as implied yields from FX-swap transactions and FRA quotes have approximated each other, and fluctuated within or near the interest rate corridor. Central bank measures have in fact largely contributed to a more efficient orientation of yield levels.

2.4 Appreciating real exchange rate, declining real interest, tightening lending conditions

Looking at developments in monetary conditions, it is still true that under the current conditions, 'traditional' indices such as real exchange rates and real interest rates do not fully reflect the tightness of monetary conditions. While the real interest rate declined considerably, the real exchange rate strengthened significantly, surpassing the notable depreciation experienced during the preceding two months, and non-price factors of lending continue to point to an obvious tightening in credit conditions.

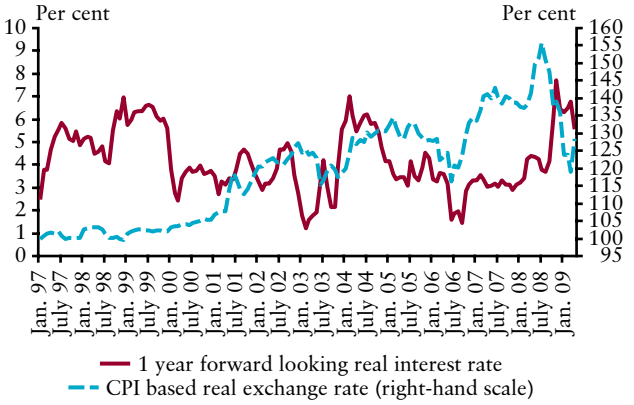
The forward-looking real interest rate increased in February and March before falling sharply in April. The value of the index was mainly driven by developments in the nominal yield level: the increase observed at the beginning of the period was triggered by an unexpectedly steep increase in one-year government security market yields, which surpassed the slightly increasing inflation expectations. The subsequent positive turn in the government security market was accompanied by a substantial decline in yields, which was due to a combination of more optimistic global investor sentiment, the improving risk perception of the region, and the yield restraining effect of the buy-back auctions conducted by the ÁKK. Meanwhile, inflation expectations started to increase slightly again, thus both factors put downward pressure on the real interest rate. After six months – for the first time since the turmoil in October – the index again dropped below 6%; however, it is still well above the long-term average.

Developments in the real exchange rate are determined by the nominal forint exchange rate, which significantly depreciated in the first few months of the year. However, the strengthening experienced during March and April surpassed this effect, so on the whole, real appreciation occurred. Inflation in Hungary has continued to exceed the level observed in the euro area in recent months, thus the effect of the positive inflation differential slightly moderated the depreciation of the real exchange rate in the first half of the examined period, while it facilitated appreciation during April.

Trends observed in the lending process continue to be a primary indicator of tighter monetary conditions: banks' willingness to lend has not improved, and price and non-price lending conditions (e.g. downpayment, loan-to-value ratio, required credit score) underwent more tightening.

Chart 2-9

Developments in monetary conditions*



** In the case of real exchange rate increasing values indicate a real appreciation.*

2.5 Continuing decline in bank lending

Bank lending activity and loan demand continued to decrease in the last quarter. Real economic developments suggest deceleration in lending activity, but the decline in the lending path has been steeper since the default of Lehman Brothers than would have been warranted by the macroeconomic developments alone. Based on the experiences of previous financial crises, lending activity may remain subdued over the long run, and the recovery is expected to be slow. Negative developments in the corporate sector may be compounded by restrained credit supply in particular, putting downward pressure on economic growth.

In 2009 Q1, the volume of the loan portfolio of the non-financial corporate sector continued to decline. The decline was more pronounced in the case of short-term loans (with an agreed maturity of up to one year) than for loans with longer maturities. At the same time, banks registered increased demand for short-term loans. Based on this it can be stated that for short-term loans loan supply factors have contributed to the decline in loan flows.

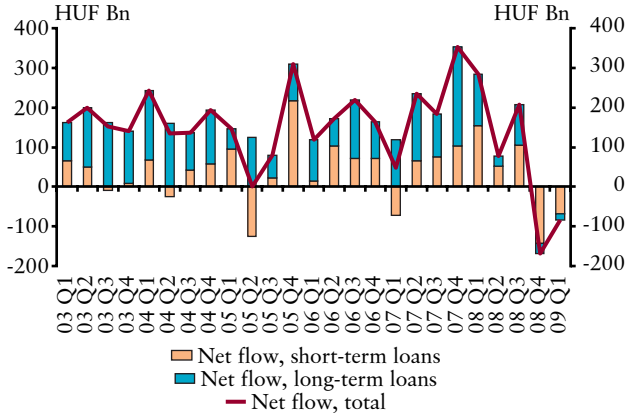
In terms of denomination, the decline primarily affected forint loans, while FX borrowing remained positive, but was more restrained than before. Banks participating in the Lending Survey conducted in March 2009 reported a significant tightening in lending supply, the reasons of which were not exclusively supply side factors: some of them were related to customers' creditworthiness. At the same time, banks experienced an increase in credit demand, particularly in the case of short-term loans. The assumption that FX loans continue to play a crucial role is supported by two facts: first, the interest rate on euro-denominated corporate loans – which dominate new borrowing of FX loans – has declined, because the impact of rising risk premia was overcompensated by the gradual decrease in the ECB base rates. Second, although corporate loans with a state subsidy may be disbursed in forint primarily, their impact has not yet been reflected by the data available, and may become apparent only in the coming quarters.

Households' borrowing dynamics have also continued to weaken since November 2008. Borrowing remained positive in the first few months of 2009, but dropped to the level observed in 2001 (i.e. before the surge in household borrowing). Triggered by a sharp fall in FX loans, the decline in consumer credit was unexpected and massive, which was only partially offset by a moderate increase in forint-denominated loans. At the same time, in the case of housing loans net outflows have gradually subsided. In terms of denomination, forint loans continue to decline at the same pace, while FX borrowing has turned positive, but still remained significantly below the previous levels. Overall, the decline in net borrowing reflects a continued tightening in lending conditions and falling credit demand, while the effect of the weak forint exchange rate observed in Q1 has not encouraged FX borrowing.

Chart 2-10

Net quarterly flow of the corporate loans of the domestic bank sector*

(seasonally adjusted data)

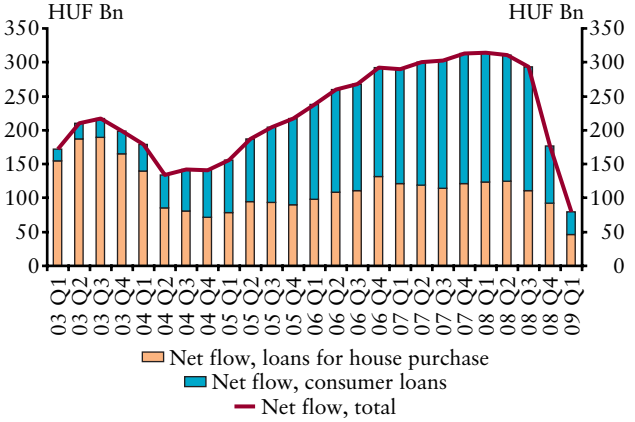


* *Credit institutions and the Hungarian branch offices of non-resident credit institutions.*

Chart 2-11

Net quarterly flow of the household loans of the domestic bank sector*

(seasonally adjusted data)



* *Credit institutions and the Hungarian branch offices of non-resident credit institutions.*

3 Inflation and real economic outlook

This year, the Hungarian economy faces a recession of nearly 7%, which is deeper than previously expected and unprecedented since the early 1990s. According to our forecast for the coming nearly three years, recovery will be a protracted process: the economy is expected to continue to decline next year, although at a slower pace, and growth will only turn positive again in 2011. Provided that our usual fundamental assumptions hold true, inflation will grow significantly compared to the level close to price stability as a result of indirect tax increases in the second half of the year. From 2010 H2, we again expect low inflation below the 3% target until the end of our forecast period, as the direct impact of tax increases will not be included in the price index, and the fall in demand as well as the labour cost-reducing effect of tax restructurings will become dominant.[6]

Box 3-1: Basic assumptions of our forecast

In line with the practice adopted in the previous issues of the *Report,* we build our current forecast on rule-based, fixed assumptions regarding the expected path of the base rate, the EUR/HUF exchange rate and oil prices. In accordance with our earlier practices, we used the average values of the month preceding publication, i.e. the April averages on this occasion.

Compared to recent quarters, there has been no considerable change in our basic assumptions in comparison with the previous *Report*. The base rate did not change in the last quarter, remaining at 9.5% since January. The EUR/HUF and the EUR/USD exchange rates are approximately one and a half per cent weaker, while oil prices in euro are around five per cent higher. The fall in oil prices observed in 2008 H2 was followed by a mild increase in recent months. It is worth noting that according to long-term futures prices the oil path will remain upward-sloping until 2011.

Table 3-1

Changes in our basic assumptions compared with the February Report*

	February 2009			May 2009			Change compared with February (%)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Central bank base rate (per cent)**	9.5	9.5	–	9.5	9.5	9.5	0.0	0.0	–
HUF/EUR	289.7	290.6	–	294.9	295.1	295.1	1.8	1.6	–
USD/EUR (cent)	129.7	129.5	–	131.5	131.9	131.9	1.3	1.9	–
BRENT oil price (USD/barrel)	49.4	57.9	–	52.0	62.2	67.4	5.2	7.4	–
BRENT oil price (EUR/barrel)	38.1	44.7	–	39.5	47.1	51.1	3.7	5.5	–
BRENT oil price (HUF/barrel)	11,047	12,983	–	11,662	13,904	15,077	5.6	7.1	–

** Annual averages; looking forward based on the April 2009 average exchange rate and oil future prices.*

*** End-of-year values based on the assumption of unchanged interest rates; changes relative to February are expressed as percentage points.*

[6] The projections are based on information available up to 20 May c.o.b.

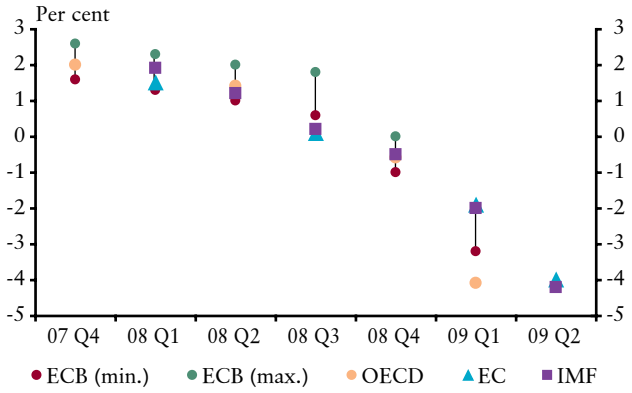
3.1 Deep recession and gradual recovery from 2010

The effects of the financial crisis have dominated domestic and international macroeconomic forecasts since last autumn: as a result of the global loss of confidence and the fall in international trade turnover and industrial production, the prospects for this year deteriorated from month to month in developed economies as well (Chart 3-1).

Chart 3-1

Changes in the forecasts for growth in the euro area in 2009

(forecasts of the IMF, OECD, ECB and the European Commission)



At the same time, as already mentioned in the first chapter, the latest information from recent weeks suggest that the positive effects of the wide-ranging economic policy interventions are becoming tangible, and the world economy may be approaching the turning point in the economic cycle. Accordingly, the recovery will start from a level lower than expected earlier, but the rate of economic contraction should decelerate significantly in the second half of the year. These favourable signs are even less apparent in the actual data, although they can already be traced in economic agents' expectations, the rise of major stock exchanges and in euro area – especially German – confidence indicators, which are decisive in terms of Hungarian exports.

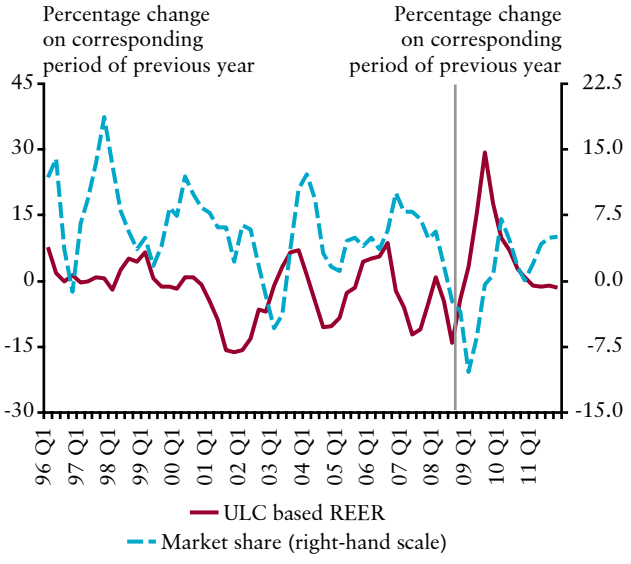
However, it is important to add that for the time being the favourable indicators should be treated with caution. On the one hand, the appearance of risks in both directions, i.e. upward and downward risks, only represents a significant shift when one compares this with the one-way, downside cyclical risks that have been dominant in earlier months; in its own right, this will not necessary lead to a recovery of the global economy from the crisis. On the other hand, based on the experience of earlier recessions, downturns caused by bank crises and ones which affect several regions are deeper and longer than average.[7] As both properties are typical of the current global economic recession, the most recent forecasts (e.g. IMF, OECD, European Commission) only project a slow recovery starting in 2010.

Slow consolidation is also justified by the persistence of uncertainties surrounding the 'health' of the financial sector. According to numerous analyses, financial intermediation is only expected to return to normal in developed economies next year, following the write-off of the actual losses.

In this international environment, Hungary's external demand may gradually pick up from 2010 H2, following an 11% decline this year. Resulting from the structure of Hungarian exports, developments in Hungary's market share are procyclical, i.e. the slump in the country's exports exceeds the decline experienced by Hungary's trading partners. This effect will be dominant in 2009. In addition to the developments in external business conditions, changes in the real exchange rate

Chart 3-2

Real exchange rate and market share*



** Positive values indicate real depreciation.*

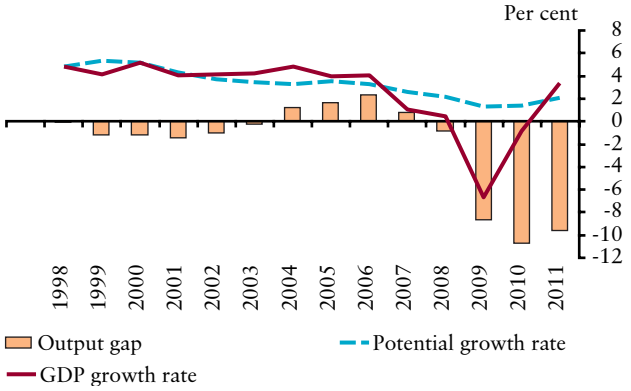
[7] Lásd: „From Recession to Recovery: How Soon and How Strong?" In: *IMF World Economic Outlook April 2009: Crisis and Recovery,* International Monetary Fund, Washington D.C. (3. fejezet, 103–138. o.)

also have a substantial impact on Hungary's exports and market share. As a result of the depreciation of the nominal exchange rate in recent months, real exchange rate indicators weakened considerably, and on the basis of the government measures and the planned reduction of labour costs, the real exchange rate based on the unit labour cost may continue to improve over our forecast period, contributing to an increase in Hungary's market share. Looking ahead, following this year's low, the growth rate of Hungarian exports is expected to pick up as a result of improving external business conditions and a weaker real exchange rate.

In a regional comparison it can be established that the downturn in the Hungarian economy in 2009 and 2010 will be more severe than the average in the neighbouring countries or the slump expected in the EU as a whole. The greater decline is explained by domestic factors: the procyclical fiscal policy and the decline in lending by the banking sector, which is dependent on external funding. However, compared to the previous year, a relatively strong positive adjustment in growth is expected for 2011, which is explained by four main factors. First, as a result of strengthening competitiveness, the expansion of Hungary's export market share may be relatively robust. Second, the strongly restrictive character of the budget will not be effective by 2011, furthermore, due to the improvement in competitiveness, the growth enhancing effect will dominate. Third, as a result of surplus capacities accumulating in the economy, inflation may also be very low. This latter factor, coupled with improving external business conditions, allows a strong growth in real income. Finally, banks' lending activity – which is expected to become stronger, though will remain below pre-crisis level – also contributes to the gradual closing of the negative output gap (chart 3-3), which has been widening for a long time.

Chart 3-3

Growth path, output gap



Box 3-2: Government measures and their macroeconomic effects

When the version of the Quarterly Report on Inflation was being prepared, no detailed package of fiscal measures beyond this year was available to the authors. Therefore, while our calculations for 2009 were based on the valid budget as well as the submitted and partly adopted bills, our projection for 2010 is based on the government's crisis management plans, and for 2011 we have made technical projections. As the government measures described in the February issue of the Quarterly Report on Inflation were not adopted in recent months, the measures continue to be quantified compared to our November Report. Overall, measures listed in Table 3-2 were taken into account in our Report:

As shown, on the expenditure side the measures basically restrict financial transfers to households. However, the measures also include the dismantling of price subsidies and the freezing of civil servants' wages.

On the tax side, the direction of the measures is basically tax restructuring: the increase in indirect and wealth taxes and the termination of some tax exemptions finance the reduction of taxes on labour (social insurance burdens + personal income tax), but overall the tax package can rather be considered as minor tightening in terms of total tax revenue.

Macroeconomic effects

Both the reduction of transfers to households and the increase in indirect taxes reduce households' disposable income, which may result in a decline in households' consumption and investment expenditures. At the same time, cutting the taxes on labour ceteris paribus improves the profitability of the corporate sector. We expect that over the short run companies will use approximately 2/3 of the decline in labour costs to restore their historically very low level of profitability, and will let employees have only 1/3 of the additional income. As the adjustment has a negative effect on growth prospects, which also impairs the creation of jobs, compared to the baseline scenario, a substantial increase in employment is expected only in 2011. The improvement in competitiveness resulting from the reduction in the tax wedge on labour stimulates investment and adds to the profitability of exports as well. These effects will be felt strongly in 2011, when the demand-reducing measures and the increase in indirect taxes will no longer affect the developments in household expenditure.

Table 3-2

Measures taken into consideration in the forecast compared to the situation in November 2008*

	2009	2010	2011
		Expenditure side measures (billion HUF)	
Financial transfers to households	-166	-368	-437
Government consumption	-63	-103	-103
Government investment	0	-160	-125
Transfers in kind	-50	-112	-112
Wage freeze	0	-70	-70
Other	-57	-37	-37
Overall	**-336**	**-850**	**-884**
		Revenue side measures	
Employer's labour taxes	-91	-300	-
Employee's labour taxes	-41	-238	-
Capital taxes	-2	-25	-
Consumption taxes	173	411	-
Wealth tax+levy+fringe benefit	0	137	-
Overall net effect	**39**	**-15**	**-**

** The base of comparison of the expenditure-reducing steps is the government's December 2008 Convergence Report, while in case of revenue-side measures we only present new measures compared to the ones accounted in the November Report.*

Long-term effects of the fiscal package on growth

There is an ongoing debate in the international literature over the short and long-term effects of fiscal adjustments. Depending on the structure in which such adjustments are implemented, significant differences may exist in terms of the short and long-term effects. Moreover, it is also debated whether they act as a drag on economic activity in the short term. These issues are discussed in detail by Horváth et al. (2006).[8]

In connection with the fiscal measures recently announced by the government, this box briefly describes the economic effects of the various measures and provides a quantitative estimate of their impact on growth. The values are based on the results from simulations of two of the Bank's macroeconomic models. The list below contains the measures and impact mechanisms taken into account for the purpose of the simulations.

– The narrowing in the tax wedge due to the reduction in personal income tax and social security contributions will provide an opportunity to increase employment.

– However, higher VAT and excise tax rates will exert downward pressure on demand for a prolonged period. In addition, they will trigger a shift in relative prices: export goods will become cheaper relative to domestic products, which, in turn, will stimulate exports.

– The reduction in cash transfers will lead to a decline in consumption even in the short term. Over the longer-term, however, they will encourage employment. Changes in the rules for child care allowances and retirement benefits will increase activity directly, but their short-term effects will be marginal, due to their delayed implementation.

– A successful adjustment may have other favourable effects: it can reduce country risk, place the economy on a sustainable path, which, in turn, may boost capital flows and domestic capital investment. International experience has shown that the coordinated behaviour of labour market participants may help firms to have a smaller decline in profits, by committing themselves to retain more jobs. Consequently, the costs of firing, re-hiring and training could be saved. This latter effect has not been taken into account in these calculations.

However, the impact mechanisms presented above only occur if agents regard the adjustment as a permanent change, which will significantly reduce taxes on primary (labour and capital) incomes. Otherwise,

[8] Horváth et al. (2006) "Macroeffects of fiscal adjustment in Hungary", MNB Studies 52.

stronger future growth will not compensate for the short-term growth sacrifices.

In summary, assuming, as in Engen–Skinner (1996),[9] that the effects of the measures are spread evenly over 10 years, the potential growth rate may increase by up to 0.4% annually, half of which will result from the effects on activity and employment of the measures to stimulate the labour market. The remaining part can be attributed mainly to a rise in the capital stock. It is important to note however, that in respect of their effects on employment and economic growth, the changes in personal income taxes have not been implemented in an optimal manner: the personal income tax has been reduced the most in income groups where the flexibility of legal labour supply is relatively low. Overall it can be argued, that with a different PITsystem (lower marginal tax rate for higher, higher marginal tax rate for middle-level wages earners) the overall effect on growth could have been increased.[10]

With regard to the expected path of lending, we are even more pessimistic than previously. The underlying reason is that, according to international experiences, following a financial crisis, lending dynamics pick up only very slowly, after several years of stagnation. Consequently, for 2011 we expect a significantly slower credit expansion than the dynamics preceding the crisis. Among the effects of government measures described in detail in the box above, tightening demand is the one which has the strongest impact over the short run. Over the medium term (from 2011 on), however, the favourable effect of tax restructuring may dominate, which will primarily appear through the labour market.

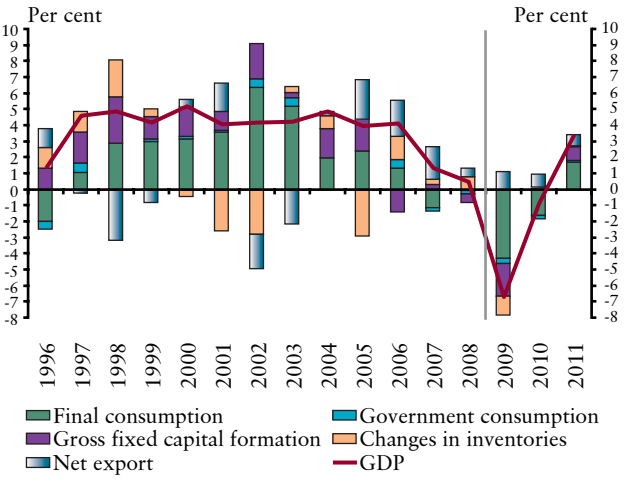
All these factors indicate an extremely deep, nearly 7% economic slowdown for the current year, and annual average growth may be negative in 2010 as well. However, in 2011 growth may be stronger again, close to the average of the years preceding the crisis.

Examining individual sectors' contribution to growth, each factor points to recession this year, with the exception of net exports, and an increase in domestic components is only expected from 2011.

As a result of the combined effects of labour market adjustment, the government's tightening measures and the temporary increase in inflation, households are facing a significant decline in disposable income this year. Household behaviour in the coming years will not only be determined by the decrease in income, as the relationship between income and consumption may also change compared to previous years. Looking ahead, as opposed to recent years' abundance of loans, the drop in consumption is expected to exceed the decline in income. Households will have much more limited opportunities to smooth their consumption through

Chart 3-4

Contribution of GDP components to growth



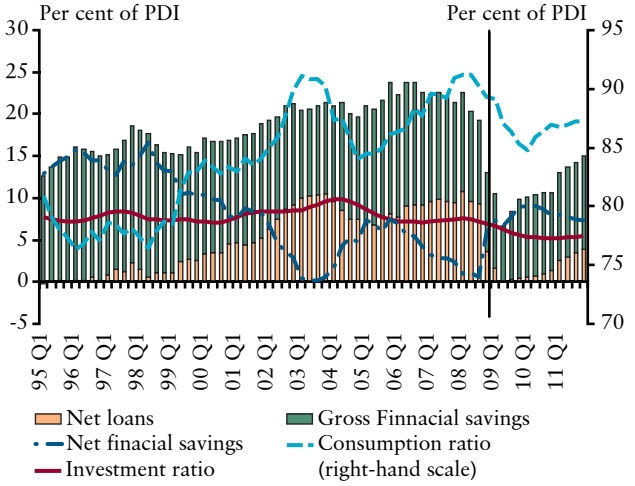
borrowing, and as a result of the increasing economic uncertainty and fear of lay-offs, precautionary savings will also increase. Accordingly, in 2009 and 2010 the decline in consumption will be almost twice as large as the decline in disposable income. This also means that according to our forecast, the consumption rate as a proportion of disposable income will decline until 2010 by nearly 6 percentage points from the peak at end-2007. Then, following some slight increase, it may stabilise around a level of 87% in 2011. A significant downturn is projected in household investment as well. In H1, this year's recession will still be attenuated to some extent by demand brought forward due to the termination of state subsidies on house purchase, but after this effect fades away no adjustment is expected until 2011. Consequently, the level of household investment, which is mainly in the housing market, may be approximately 30% lower than in 2007, which was characterised by vigorous loan dynamics.

[9] See Enger–Skinner (1996) "Taxation and Economic Growth" NBER Working papers 5826

[10] See Kátay et al. (2009) "The causes and consequences of low activity and employment rate in Hungary" MNB Study 79.

Chart 3-5

Household income



The decline in investment may not only be restricted to the household sector. Corporate sector investment has also been hit by the subdued external prospects and financing difficulties, as well as the increasing general economic uncertainty. In addition to individual investments which are also significant at the macroeconomic level, both corporate and government sector investments may be stimulated by better utilisation of development funds received from the EU. Overall, investment dynamics may show a decline of around 10% this year, exceeding the rate of decline in GDP. Modest growth is expected from next year on, and a more vigorous pick-up in 2011.

In the current situation, near the bottom of the trough, there is considerable uncertainty about the longer-term prospects. Nevertheless, we think that during the economic crisis so much capacity will be freed up that starting from 2011, in an international environment becoming more favourable, strong adjustment is expected in capacity utilisation, serving as a foundation for economic growth above 3%. This rate cannot be considered historically high, but in line with economic logic it already allows the start of the closure of the negative output gap accumulated between 2007 and 2010. The reduction of the tax wedge on labour and the permanently weak forint exchange rate together foster export competitiveness, which may result in a relatively strong expansion of Hungary's export market share in an accelerating global economy. In addition, the strongly restrictive character of the budget will not be effective by 2011. Owing to the surplus capacities accumulating in the economy, inflation may be very low, which, in addition to the improving external business conditions, allows for strong increases in real income. Finally, banks' lending activity, which is expected to grow stronger, also contributes to the gradual closing of the negative output gap, which has been widening for quite some time.

3.2 Pronounced labour market adjustment: mass lay-offs, low wage dynamics

In the Hungarian economy, the crisis has caused the strongest changes on the labour market. As a result of the decline in production and value added, companies face a significant need to adapt, pushing to use all the available labour market channels to the maximum extent in the coming quarters. Starting from 2010, the need to adapt stemming from market developments may be reduced by the decline in spending cuts by the government, but the measures entering into force this year will only contribute to the reinforcement of the profitability situation of the corporate sector to a minor extent.

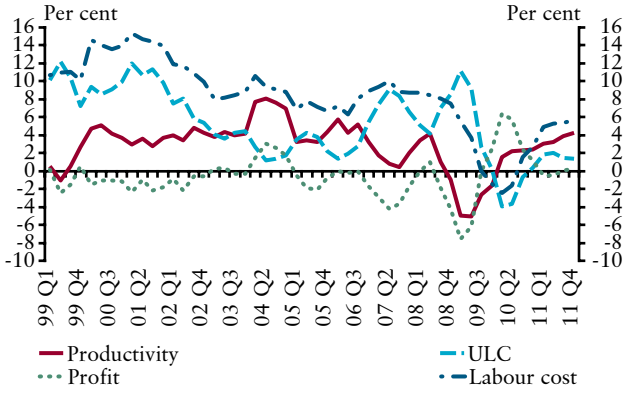
Companies are mainly trying to adjust to the deteriorating sales prospects by reducing employment and wages. Although labour demand and supply may gradually pick up as a result of government measures, the unfavourable effects of the strong recession will dominate over the short run. Consequently, no clear-cut increase in the number of employed is expected until end-2010 or early 2011. Overall, we expect lay-offs on a magnitude of 180,000 people in 2009-2010, which corresponds to nearly 5% of the total number of employed. In the area of labour utilisation, in addition to adjustment via the number of employed, the corporate sector can also adjust in the number of hours worked, albeit to a smaller extent.[11] Regarding the timing of developments in the number of employed, more significant lay-offs are expected in the first quarters. It was observed in earlier periods that following staff cuts, only approximately one half of those dismissed appeared as unemployed, while the other half left the labour market and became inactive. By contrast, Q1 workforce figures show that those dismissed have a stronger relationship with the labour market, so most of them added to the number of unemployed. All in all, in contrast with the earlier trends, we expect that 2/3 of those who lose their jobs will appear as registered unemployed. Consequently, the unemployment rate may increase above 11%. The higher unemployed ratio among those losing their jobs can be explained by the fact that recently mostly main earners lose their jobs, and those who have been closely linked to the labour market for a longer period.

Wage dynamics will also be determined by the need to adjust in the coming years. One important difference compared to workforce adjustment is that freezing wages represents a strong lower limit because of the rigidity of nominal wages. Our current expectation is that wage dynamics in the competitive sector this year will be positive only as a result of the pass-through effects and the changes in the composition of the workforce, i.e. there will essentially be wage freezing in the private sector as whole. Very low wage dynamics are expected for 2010-2011 as well, but by this time the situation in the corporate sector – in large part as a result of the reduction in contributions – will allow for a slight increase in nominal wages. However, the oversupply stemming from the high unemployment rate will limit any pick-up in wage dynamics.

As illustrated in Chart 3-6, this year the corporate sector may suffer from significant profit losses not seen in previous years, despite the extremely strict labour market adjustment. However, based on improving business conditions and the reduction of contributions, tangible improvements in profitability will become possible. According to our estimates, approximately one third of the savings stemming from the reduction of contributions will be passed on to employees in the form of higher gross wages and in employment, i.e. two thirds will add to corporate profitability. Overall, we believe that profitability in the competitive sector may approach the level typical of the years preceding the financial crisis by 2011.

Chart 3-6

Components of unit labour costs of the private sector



[11] According to the data available to us, since last autumn there has been a downtrend in the per capita number of hours worked, and this trend may continue in the near future as well. However, due to the high volatility of monthly data, for the time being only tentative conclusions can be drawn regarding future developments in working hours.

3.3 Temporary surge in inflation due to tax measures, net inflation below the target

The starting point of our inflation projection is the nearly 3% price indices of the January-April period, which correspond to price stability. However, it is important to add to this benign picture that inflation declined to 3% as a result of opposing effects stemming from the global economic crisis, and even looking forward both downward and upward forces remain significant, adding to the uncertainty of the forecast.

In addition to the inflation effects stemming from macroeconomic developments, similarly to our February Report, government measures again affect the trend in inflation significantly: on the one hand, through the direct inflation effect of the tax increases (VAT, excise tax) announced by the new government, and on the other hand – in an indirect manner – through the business conditions and the change in contributions due on labour.

The EUR/HUF exchange rate has weakened by more than 25% since the summer of 2008, and the effect of this exchange rate depreciation appears in the consumer price index gradually. According to our estimate, the complete pass-through of an exchange rate shock takes about 5-6 quarters. Therefore, based on our basic assumption of a fixed exchange rate, the weakening which has already taken place will add to the price level until end-2009 or early 2010, to a gradually declining extent. The impact of this depreciation is somewhat offset by imported inflation, which is lower than in the previous periods, a situation which may, according to international forecasts, continue to exist in the coming years as well.

Whereas the weakening of the exchange rate may have a nearly identical effect on core inflation and the overall price index, the effect of the drop in demand may be felt mainly in core inflation items. In our forecasts for 2009–2010, we have taken into account the disinflationary effect of the negative output gap for a longer time. In parallel with the deterioration of economic prospects, this effect may become increasingly pronounced, and in our current forecast we expect an disinflationary effect of unprecedented magnitude from this source. In addition to the output gap, which is easy to capture in models but difficult to measure in practice, several actual data confirm the significant disinflationary effect of shrinking demand. Compared to the values typical of earlier years, the month-on-month price indices of market services declined significantly in the first quarter. This also conforms to the subdued developments in industrial domestic sales price indices in recent months. The pronounced labour market adjustment, the freezing of wages implemented in practically the whole competitive sector and the decline in government wages provide further arguments.

In respect of items outside core inflation, it is worth underlining the indirect effects of lower oil prices. On the one hand, owing to the longer delay, the steep fall in oil prices at the end of last year will only appear in gas and district heating prices in 2009 H2. On the other hand, the spot price of electric energy also declined significantly in international markets in the past half year, and our forecast also takes this effect into account in production costs.

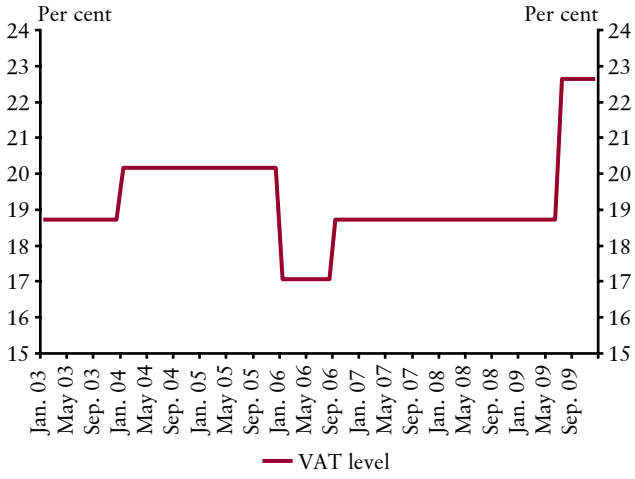
As mentioned before, government measures will have a large impact on inflation in the coming quarters. According to our latest information, most of the price measures will come in two larger waves: July 2009 (VAT, excise tax) and 2010 January (further excise tax). On top of this, a number of other government measures will have an inflationary impact via regulated prices.

The planned government measures will have a significant impact on the inflation path mainly through two channels from the middle of the current year. The direct effect appears through the increase in VAT and excise taxes. In this respect, our calculations are similar to the ones in February, although the VAT increase in July will be much higher than previously assumed. The VAT rate of around 85% of the consumer basket will increase from 20% to 25%, while the VAT rate of approximately 8% of the basket will decline from 20% to 18%. The resulting technical effect is a 3.4% increase in the price level, 90% of which is estimated to appear in the price index in Q3.[12] The magnitude of the tax increase is well illustrated by the fact that compared with previous years' VAT increases, this one will result in a more than double increase in the price level compared to 2004 or 2006, and as a result of this increase, the average VAT rate will also be close to the highest rate of the regime before 2004.

[12] The experiences of earlier VAT increases show that the entire technical effect did not appear in consumer prices, but only 80-90% of it, depending on the items involved. A smaller shift than the technical effect is justified by the recession in the economic environment, while the fact that this increase affects a larger segment of items, thus there is no room for substitution points in the opposite direction.

Chart 3-7

Average VAT rate of the consumption basket 2003–2009



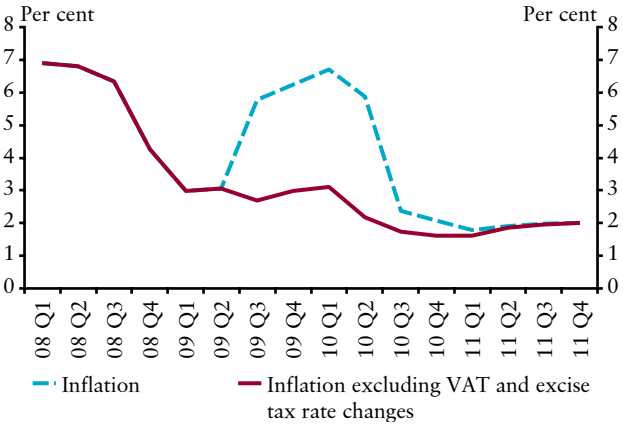
In addition to the VAT increase, the two-step excise tax increase will add another 0.7% in total to the price level. Thus, the total technical effect of tax increases will be 4.1%, of which 3.7% will show up in the indices between 2009 July and December and an additional 0.4% in January 2010. The actual, direct inflationary impact, taking into consideration incomplete VAT pass-through, will be 3.7%, as shown in Table 3-2. In this case, it is also true that most of the increase will appear in the consumer price index between 2009 Q3 and 2010 Q3.

Above and beyond the larger effects, in respect of regulated prices, we take into account both measures already in effect and also planned ones. The reduction in medication price subsidies and the restructuring of gas price compensation (if prices decline, for those who receive the subsidy, the amount of the latter will be reduced, not the fee to be paid by the consumers) are already in effect. Apart from the measures already in effect, we take into consideration the following announced measures: a further reduction of the gas price and district heating subsidies in 2010 as well as reduction of subsidies on long-distance travel and students' meal subsidies. These effects combined will increase the price level by 0.8-0.9%, most of which will appear in the price index in 2010.

While the government crisis management package increases inflation directly to a significant extent, other measures of the package will partly offset this effect. The restrictions affecting households (reduction of financial transfers, decline in real income stemming from the higher inflation) will reduce consumption demand, and thus they will play a determining role in the further deepening of the output gap. In addition, within the framework of tax restructuring, the contributions due on labour will decline considerably (by more than 5 percentage points), which can restrain the rate of price increases through lower unit labour costs in the labour market. However, when evaluating the inflation impulse arriving from the direction of unit labour costs, it should be noted that the effect of the aforementioned extremely low wage dynamics, the strong labour market adjustment and the tax restructuring is mitigated by the fact that owing to the economic crisis, the extent of the drop-of in production in the competitive sector – in manufacturing in particular – still results in a significant temporary increase in unit labour costs this year. In light of these combined effects, it is not surprising that in the current macroeconomic environment one of the most difficult components to capture in terms of inflation forecasting is the inflation-reducing effect of the decline in demand. Relying on our models and also taking

Chart 3-8

Consumer price index forecast



** 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 CIP rather than their full technical impact.*

Table 3-3

Direct effect of government measures on inflation

	2009	2010	Total	Timing of measures
VAT	1.45	1.55	3.00	July 2009
Excise tax	0.10	0.60	0.70	July 2009 and January 2010
Regulated prices	0.29	0.53	0.82	various steps
Total	**1.84**	**2.68**	**4.52**	

account of the demand-reducing effect of the government package, we believe that consumption demand will have a significant inflation-reducing effect over the entire forecast period.

As a result of all these effects, inflation close to price stability is expected for Q2. Then, starting from the middle of the year, tax increases may result in an increase in the annual price index towards 7%. From mid-2010, however, as the tax increases will not be included in the price index any more, the price index may fluctuate around 2% until end-2011 following a steep fall. Accordingly, an annual average of 4.5% is expected for this year. In 2010, despite the significant decline during the year, annual average inflation may be above the target again (4.3%), while in 2011 it may be below the target (1.9%). It is also worth mentioning that core inflation values are expected to be lower than those of the consumer price index over the entire forecast period. From 2010 H2 on core inflation may fluctuate between 1-2%.

Table 3-4

Details of our inflation forecast

	Weight	2008				2009				2010				2011			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unprocessed food	5.9	13.8	11.3	2.1	-4.1	3.1	5.8	12.4	13.6	8.3	6.3	1.7	0.9	1.8	3.2	3.9	3.9
Vehicle fuel and market energy	7.0	14.8	13.3	12.8	-1.3	-11.5	-10.7	-5.6	5.0	16.4	13.1	7.8	7.5	3.5	2.9	2.4	2.0
Regulated prices	15.9	9.0	7.1	8.7	10.1	8.1	7.9	8.9	6.6	6.3	6.0	3.0	3.6	3.7	4.2	4.0	3.8
Core inflation	71.1	5.2	5.7	5.5	4.2	3.3	3.1	5.7	5.6	5.7	5.1	1.7	1.3	1.2	1.2	1.3	1.4
Consumer price index	100.0	6.9	6.8	6.3	4.3	3.0	3.1	5.8	6.2	6.7	5.9	2.4	2.1	1.8	1.9	2.0	2.0
Yearly avereage																	
Core inflation					5.2				4.4				3.5				1.3
Consumer price index					6.1				4.5				4.3				1.9

3.4 Inflation and growth risks

The main uncertainties surrounding our forecast are related to credit activity and the potential output of the economy.[13]

In connection with our baseline scenario, we already indicated that lending may fall even lower than our earlier expectations in both the corporate and household sectors. Experiences in recent decades have shown that lending dynamics can remain negative for 3-4 years following a financial crisis, even if economic growth is able to pick up in the meantime. For lack of precedents in Hungary, the risk that lending will not pick up even until 2011 cannot be ignored, on the basis on international examples. In such a case, GDP dynamics over our entire forecast horizon may be lower than the baseline scenario, and the more negative output gap would reduce inflation as well.

As mentioned previously, banks' credit supply contracted sharply as a result of the financial crisis, triggering a larger decline in corporate investment than would have been expected given the slowdown in economic activity. The tightening in credit supply has made it difficult for a large number of firms to maintain access to working capital financing and previous levels of production. For this reason, the productive capacity of the Hungarian economy, i.e. potential output, may fall more sharply than embodied in the projection. If this is the case, then the economic downturn will not be associated with the assumed degree of oversupply in the product market. Consequently, the disinflationary effect may be lower and the outlook for longer-term growth may be worse than in the projection. Overall, and in view of the above uncertainties, the risks are to the upside for inflation and to the downside for growth relative to the projection over the entire forecast horizon.

Chart 3-9

Fan chart of the inflation projection

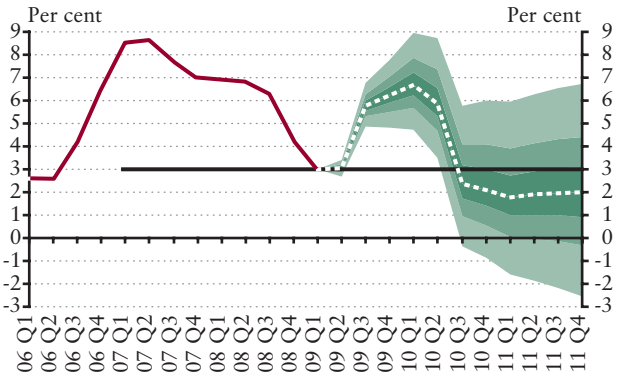
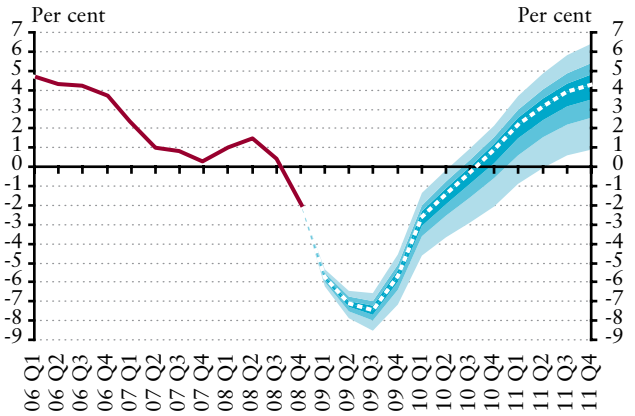


Chart 3-10

Fan chart of the GDP projection



[13] Besides these factors, the external growth path and commodity prices are also important sources of uncertainties. However, as in these cases we see rather symmetric risks, these are not included as sperate scenarios for producing the fan chart. Through previous forecats errors, though, due to the prodcution technology of the fan chart, the widths of the fan chart is affected by these factors as well.

Table 3-5

Changes in our forecast compared to February 2009

	2008	2009		2010		2011	
	Actual	Projection					
		February	**Current**	February	**Current**	February	**Current**
Inflation (annual average)							
Core inflation[1]	5.2	4.2	**4.4**	2.5	**3.5**	-	**1.3**
Consumer price index	6.1	3.7	**4.5**	2.8	**4.3**	-	**1.9**
Economic growth							
External demand (GDP-based)	2.1	-1.2	**-3.2**	0.8	**0.1**	-	**2.0**
Household consumer expenditure	-0.7	-5.1	**-8.0**	-1.6	**-2.9**	-	**2.9**
Fixed capital formation	-2.6	-7.1	**-10.3**	-0.5	**0.8**	-	**4.2**
Domestic absorption	*-0.1*	*-4.5*	***-7.9***	*-1.2*	***-1.7***	-	***2.9***
Export	4.6	-6.0	**-15.1**	4.8	**3.0**	-	**8.7**
Import	4.0	-7.1	**-16.7**	4.2	**2.1**	-	**8.3**
GDP*	0.5	-3.5	**-6.7**	-0.5	**-0.9**	-	**3.4**
Current account deficit[2]							
As a percentage of GDP	8.4	3.9	**4.1**	4.5	**4.0**	-	**3.3**
EUR billions	8.9	3.6	**3.6**	4.2	**3.5**	-	**3.1**
External financing requirement[2]							
As a percentage of GDP	7.4	2.1	**2.0**	1.7	**1.4**	-	**0.2**
Labour market							
Whole-economy gross average earnings[3]	7.6	0.8	**-0.3**	6.5	**2.1**	-	**4.5**
Whole-economy employment[4]	-1.2	-2.0	**-3.2**	-1.8	**-1.7**	-	**0.7**
Private sector gross average earnings[5]	8.5 (8.0)	4.0	**3.0**	6.5	**3.0**	-	**4.5**
Private sector employment[4]	-1.1	-2.4	**-4.0**	-2.3	**-2.1**	-	**0.9**
Private sector unit labour cost[4,6]	6.2	6.4	**5.7**	2.0	**-2.0**	-	**1.6**
Household real income**	-1.4	-1.8	**-4.3**	-1.2	**-1.6**	-	**1.8**

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

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

[3] Calculated on a cash-flow basis.

[4] According to the CSO LFS data.

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

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

** Figures refer to the original data including calendar year effects.*

*** MNB estimate.*

Table 3-6

Our forecasts compared to other institutions' projections

	2007	2008	2009	2010	2011
Consumer Price Index (annual average growth rate, per cent)					
MNB (May 2009)	8.0	6.1	4.5	4.3	1.9
Consensus Economics (April 2009)[1]	–	–	2.0 – 3.4 – 4.5	1.6 – 3.2 – 4.7	–
OECD (November 2008)	8.0	6.4	3.6	3.2	–
European Commission (May 2009)	7.9	6.0	4.4	4.1	–
IMF (April 2009)*	7.9	6.1	3.8	2.8	–
Reuters-survey (April 2009)[1]	–	–	2.2 – 3.7 – 4.9	2.5 – 3.6 – 5.8	1.9 – 2.9 – 4.0
GDP (annual growth rate, per cent)					
MNB (May 2009)[4]	1.1	0.5	-6.7	-0.9	3.4
Consensus Economics (April 2009)[1]	–	–	(-7.5) – (-5.2) – (-3.5)	(-2.0) – (-0.4) – 0.5	–
OECD (November 2008)	1.1	1.4	-0.5	1.0	–
European Commission (May 2009)	1.1	0.5	-6.3	-0.3	–
IMF (April 2009)*	1.1	0.6	-3.3	-0.4	2.5
Reuters-survey (April 2009)[1]	–	–	(-7.5) – (-5.2) – (-4.0)	(-1.6) – 0.0 – 1.4	–
Current account deficit (percent of GDP)					
MNB (May 2009)	6.5	8.4	**4.1**	**4.0**	**3.3**
OECD (November 2008)	6.5	6.1	6.1	5.4	–
European Commission (May 2009)	6.5	8.4	5.0	4.8	–
IMF (April 2009)*	6.5	7.8	3.9	3.4	–
Budget Deficit (ESA-95 method, percent of GDP)					
MNB (May 2009)	5.0	3.4	**3.9**	**4.5**	**4.3**
Consensus Economics (April 2009)[1]	–	–	2.0 – 3.0 – 3.4	2.0 – 2.7 – 3.4	–
OECD (November 2008)	5.0	3.4	3.6	3.5	–
European Commission (May 2009)	4.9	3.4	3.4	3.9	–
IMF (November 2009)*	4.9	3.4	2.5	2.0	–
Reuters-survey (April 2009)[1]	-	-	2.7 – 3.1 – 5.0	2.5 – 2.8 – 3.3	–
Forecasts on the size of Hungary's export markets (annual growth rate, per cent)					
MNB (May 2009)	8.2	5.5	-4.9	1.5	–
OECD (March 2009)[2,3]	6.1	4.0	1.3	3.7	–
European Commission (May 2009)[2]	7.4	4.4	-1.8	1.3	–
IMF (April 2009)[2]	6.4	3.3	0.8	–	–
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, per cent)					
MNB (May 2009)	8.5	4.2	-11.3	-0.3	4.4
OECD (March 2009)[2,3]		0.8	-4.5	0.0	–
European Commission (May 2009)[2]	3.7	2.1	-4.1	0.2	–
IMF (April 2009)[2]		2.1	-4.1	-0.2	2.2
Forecasts on the GDP growth rate of euro area (annual growth rate, per cent)					
MNB (May 2009)	2.7	0.7	-4.1	-0.3	1.5
OECD (March 2009)	2.6	0.7	-4.1	-0.3	–
European Commission (May 2009)	2.7	0.8	-4.0	-0.1	–
IMF (April 2009)	2.7	0.9	-4.2	-0.4	–

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] Data adjusted for calendar-day variations.

** The figures refer to the IMF Staff Report for Hungary, published in April 2009.*

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. [London], January 2009); European Commission Economic Forecasts, May 2009; IMF World Economic Outlook (April 2009); Reuters survey (January 2009); OECD Economic Outlook (March 2009).

4 General government and external balance

4.1 Developments in the general government balance

In 2008, the general government deficit according to the EDP methodology was 3.4% of GDP, in accordance with our February estimates. Taking account of the effect of the reform of the publicly managed pension pillar, Hungary complies with the Maastricht deficit criterion, but the deficit may be higher in the following years according to our forecast. Compared to earlier expectations, our forecast was altered by two important factors: the less favourable economic path on the one hand, and the recently announced – although yet only partly adopted – package of government measures on the other hand. The economic downturn will result in a decline in revenues in 2009 and 2010. This effect will be partly offset by cuts in expenditures, but partly contributes to a higher deficit.

As a result of gradually deteriorating economic prospects, the fiscal adjustment necessary in 2009 is larger than assumed in our February forecast. The deeper recession in itself increased the deficit by more than 1% of GDP, and a moderate increase in the interest payment also deteriorates the balance. Compared to February, the government measures announced so far offset approximately one half of the fiscal effect of the deeper recession. Therefore, we expect a 3,9% ESA deficit in 2009, compared to 2.9% deficit projected in February. Our forecast includes reserves amounting to 0.3% of GDP.

In 2010, the effects of the continued recession and other rising non-cyclical expenditure factors[14] could increase the deficit further. The government decided on additional spending cuts compared to February, but only to a lesser extent than the budgetary effect of the recession. The Hungarian government has committed to achieving a lower deficit in 2010 than in 2009. Nevertheless, our baseline forecast shows 4,5% deficit for 2010. The reason for this is that a certain part of the announced measures is not completely specified, consequently in line with our forecasting principles we could not take it into account. Most if it affects the central subsidy of local governments. Accepting these announced but not yet specified measures the deficit could decrease by 0.7% of GDP, hereby the deficit reduction compared to 2009 is achievable.

The uncertainty resulting from the unspecified measures concern 2011 as well. In our baseline scenario with no policy change we expect a decline in the deficit-to-GDP ratio, caused by the automatic stabiliser effect becoming positive as a result of a pick-up in economic growth. Further measures are necessary in order to decrease the projected 4,3% deficit. It is important to note that some of the measures announced in 2009 are structural (cancelling 13th month pensions, change in the indexation of pensions, increase in the retirement age, reforming family support, decrease in price subsidies): in other words they may help contribute to a sustainable fiscal policy and enhance the rate of potential growth.

The deficit-reducing effect of the changes will be felt completely through cuts in expenditures. The net effect of the changes in taxes is negligible on the revenue side, but the rearrangement from labour taxes to consumption taxes is significant. The adjustment measures and the ones resulting

Table 4-1

Indicators of the general government balance and government debt as a percent of GDP

	2008	2009	2010	2011
GFS balance	-3.6	-4.4	-4.9	-4.3
ESA balance	**-3.4**	**-3.9**	**-4.5**	**-4.3**
ESA primary balance	0.8	0.8	0.5	0.6
Augmented SNA balance	-3.9	-5.3	-6.1	-4.7
Cyclical component	0.6	-1.6	-2.7	-2.0
General government debt	73.0	81.8–83.6	83.1–83.9	80.7

[14] The effects of those non-cyclical expenditure factors which increase the deficit are usually small, but their combined effect is sizeable. These factors include increases in the deficit of the local governments, interest payments, and some expenditure, like contribution to the EU budget and compensation for the higher inflation in pensions.

in tax restructuring have different impacts on the household and corporate sectors. The reduction of transfers to households and the increase in certain types of taxes, mainly consumption taxes, entail substantial deductions from households' disposable income. By contrast, the changes in taxes add more to firms' pre-tax income than the extent to which it is reduced by the restrictions on government consumption and investment demand.

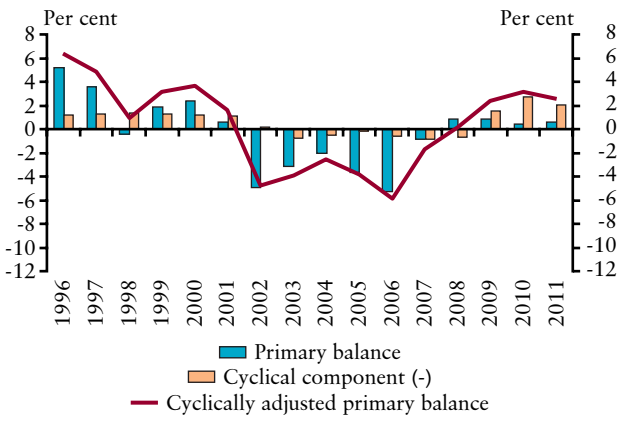
The current deficit projection is less favourable than the one issued in February, but as a consequence of the global economic recession, the expected fiscal deficit is increasing significantly in almost all European countries. Therefore, Hungary's relative position in terms the size of fiscal deficit is improving among EU Member States in 2009. It should be noted that in addition to the negative effect of the automatic stabilizers, the countries which were in more favourable fiscal situations earlier are increasing the deficit with discretionary fiscal policy which may stimulate the economy. By contrast, in Hungary not only the fiscal expansion unfeasible, but even the negative budgetary effects of automatic stabilizers must be partly outweighed due to the much narrower fiscal room for manoeuvre. Accordingly, as opposed to international practice, Hungary is not pursuing an anti-cyclical economic policy, but a pro-cyclical one. Expenditure cuts and tax changes reduce GDP over the short run, but over the long term they add to the potential growth rate (see Box 3-2.).

Considering the magnitude of the recession, it is worth paying special attention to the effect of automatic stabilisers and to the cyclically adjusted indicators. If the cyclical component, which shows the effect of the economic downturn, is deducted from the primary ESA balance, a strong, 2% adjustment in 2009 becomes visible, followed by another 0.8% adjustment in 2010. The turning point is 2010, because then the growth rate of the economy is expected to exceed potential. Accordingly, provided that fiscal policy remains unchanged, in 2011 the cyclically adjusted balance will slightly deteriorate, mainly because of the government transfer to the MNB covering its losses in 2010.[15]

Chart 4-1

The cyclical component and the cyclically adjusted primary ESA deficit

(as a proportion of GDP)



ERODING REVENUES

The first wave of fiscal adjustment in 2006-2007 relied heavily on revenue-side measures, which resulted in an increase in the main tax revenues as a proportion of GDP. It results from increased tax rates and the efforts aiming at "whitening" of the economy. However, in 2009 we expect a decline in tax revenues, partly because of the deep recession (corporate taxes), partly because of the decreasing tax efficiency. In 2010 the main tax bases change less favourable than GDP, which causes a further deterioration of revenues. Overall, government measures concerning taxes do not modify the total revenues, but nevertheless the effect on the revenues structure will be substantial.

As a result of the stronger economic downturn, all important tax bases will decline even more than previously assumed. Following a decline in 2009, the nominal wage bill, which determines the personal income tax and the contributions, is not expected to reach its 2008 level even in 2010. The picture is similar in the case of the household consumption, reducing the value added tax and the excise tax. As a result of the recession, GDP-proportionate tax revenues in 2011 will still be 2 percentage points lower than in 2008.

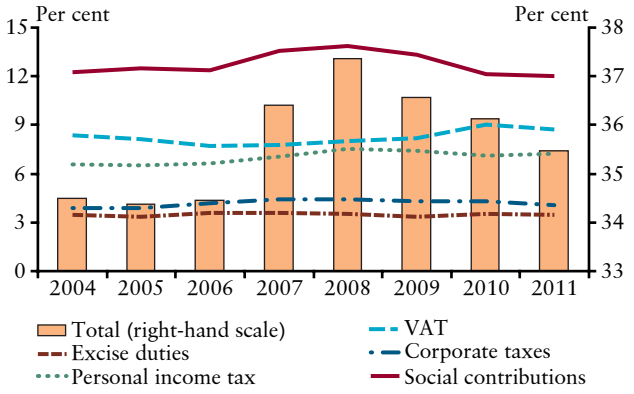
The tax measures will have little fiscal effect, but will cause significant restructuring among the various types of taxes. The weight of taxes on labour will decline, and that of consumption and wealth-type taxes will increase, i.e. corporations' burdens will decline in parallel with growing taxes paid by households. This year, the rate of contributions paid by employers will decline by 5 percentage points up to the double of the minimum wage, while in 2010 the lower rate will be valid for total earnings. From the historical peak, this will reduce the GDP-proportionate contribution payments to the levels preceding the rate increase in 2006. Regarding taxes on capital, the termination of the corporate surtax, the increase in the regular rate, the reduction of exemptions and other minor measures together result in a slight reduction of tax burdens.

[15] As the loss of the MNB is mainly accounted for by interest loss, the item would also be regarded as an interest expense; however, the expense is recorded in the primary balance, in accordance with statistical methodology.

Chart 4-2

Revenues from taxes and contributions as a proportion of GDP

(excluding local governments)



In respect of taxes on households, larger-scale measures were adopted. Overall, they result in an increase in tax payment. The increase in the band limit of the personal income tax, the changes in tax rates and refunds represent a smaller tax cut in 2009 and a major one (over HUF 200 billion) in 2010. However this will be more than offset by significant increases in several types of taxes. Raising the regular VAT rate to 25% has a latger effect by itself,[16] but imposing taxes on fringe benefits are also significant. The government narrowed the group of assets subject to property tax and the revenue expected from property tax as well compared to the earlier plans. Among the measures offsetting this narrowing, we took into account only those that are underpinned by concrete strategies.

STRONG ADJUSTMENT IN PRIMARY EXPENDITURES

As a result of the deepening recession, further steps became necessary, in addition to the expenditure cutting measures announced in February. The programme made public in April includes cutting HUF 336 billion in expenditures in 2009 compared to the December 2008 Convergence Programme instead of the previously announced HUF 200 billion, and the effect of the package in 2010 increased by over HUF 800 billion. The reduction of the expenditures affects transfers to households as well as government consumption and investment. Tightening will occur primarily through financial and in-kind transfers to households, relating to pension expenditures first and foremost.

Pension expenditures have been among the fastest-growing expenditure items in recent years, and the financing of the pension expenditure caused a major difficulty due to its weight. Therefore, a substantial part of the approved measures aims at improving the short- and longer-term sustainability of pension expenditures. However, these expenditures will increase as a percentage of GDP both in 2009 and 2010, but may decline in 2011. The measures are efficient, which can be seen when we compare the expected expenditures with our previous projection. Compared to our February projection, expenditures in 2010 will be HUF 130 billion lower, and the saving will be slightly higher in the following years. Over the short run, the change with the greatest effect is the termination of the 13th month pension, which was much more limited in earlier plans, and the cancellation of the planned pension correction. The effect of increasing the age limit, the changing of the pension indexation and the stricter calculation of early pension may be felt over a longer term. Pension-related measures amount to more than one half of the change in the transfers to households. The plans also include the reduction of the family allowance, the home-building subsidies and some labour market expenditures.

In-kind transfers may be reduced via the dismantling the gas and district heating subsidies, a lower amount of school catering and cutting certain health expenditures. Of the above, the termination of heating subsidies weighs most. The elements of government consumption are a reduction in subsidies for MÁV, blocking of funds at ministries and freezing wages in the public sector in 2010.

INCREASING INTEREST EXPENDITURES

The declining-stagnating trend of net interest expenditures turned round in 2008, and the interest burden on government debt increased significantly, mainly as a result of rising yields. In 2009, as a result of the surge in government debt and the fall in GDP, interest payment as a proportion of GDP will continue to increase. A slight increase is expected in 2010 as well, but then the trend is expected to turn round. The main underlying reason is that the increase in debt will stop, and the effect of the increase in the ratio of lower-interest foreign currency debt in 2008 and 2009 will be felt more strongly.

Our forecast for 2009 is based on the financing plan of the Government Debt Management Agency. It is uncertain whether Hungary will use the whole credit line which can be drawn from international organisations this year, but this does not change net interest expenditures significantly. As was also indicated in our February forecast, financing through international loans reduces interest expenditures compared to the situation when the government would have

[16] Raising the VAT rate increases the tax burden of the companies as well but to a smaller extent.

issued forint government securities with the same value but higher interest. On the other hand, indebtedness in foreign currency entails a significant exchange rate risk, which can involve not only the interest payments but also the redemptions. For the coming two years, we assumed that the government will gradually use the loans drawn in excess of the financing requirement and held in foreign currency deposits. In addition, we calculate an increasing bond issue, which would cover the expiring amount of bonds in 2010, and in 2011 the fiscal deficit as well.[17]

Regarding the consolidated general government, the MNB's interest income also has to be taken into account. Financing the general government from foreign currency substantially increases the two-week MNB bond holdings, and the interest paid on the higher holdings impairs the Central Bank's profit. The effect of the realised exchange rate gain and the income received from the existing swap holdings vis-à-vis the ÁKK is just the opposite. Overall, we expect a Central Bank's profit/loss close to 0 in 2009, and a deficit corresponding to 0.5% of GDP next year.

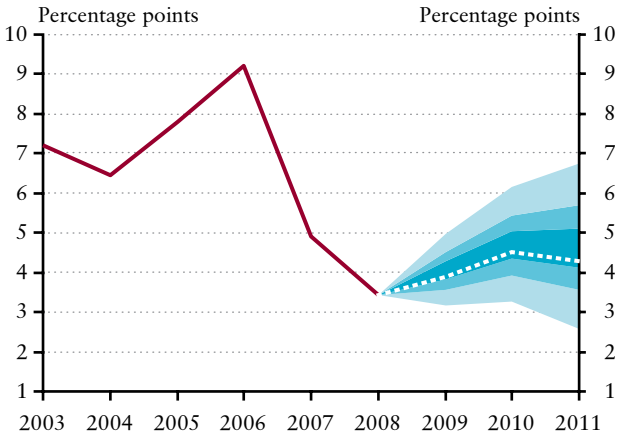
UPSIDE RISK TO THE DEFICIT-FORECAST

A fan chart illustrating the risks has also been prepared, in addition to the projection fan chart. According to this, the risks around the central projection for the deficit lie to the upside over the entire forecast period. The effects of the macroeconomic path, one of the two main factors determining the distribution of uncertainty about the deficit, are nearly symmetrically dispersed over the entire forecast horizon. Within this, the significant downward asymmetry of GDP is counterbalanced by the upside risks to inflation, as the impact of the latter on the revenue side is stronger than that of GDP.

Consequently, this asymmetry results from the perception of risk to items on the expenditure side. Three factors are responsible for the bulk of the risks of higher deficit. One is the co-financing of investment projects implemented on EU funds, where there is a risk of higher spending than envisaged. Secondly, a potential ease of the wage freeze in the public sector may increase the expenditures of budgetary institutions. Thirdly, based on experiences we regard conceivable, that the indebted public transport companies with financing difficulties would needed government

Chart 4-3

The fiscal fan-chart



subsidies in the coming years. An additional risk factor in 2011 is that the EU funds to finance the construction of the Budapest underground may fall short of the required level and the difference is borne either by the Government or the Municipality of Budapest.

DECLINING GOVERNMENT DEBT IN THE LONG-TERM

As a result of borrowings from international organizations, by the end of 2008 the debt-to-GDP ratio had surged to 73%. In 2009, the debt ratio may continue to increase close to 84%, mainly as a result of the deteriorating macroeconomic environment and in spite of the surplus of the primary balance. However, it is highly probable that downward trend will start after 2010, and the debt ratio may decline again to around 80% in 2011.

One factor of uncertainty in our forecast is the financing strategy of the ÁKK. Therefore, we quantify two scenarios in our calculations. In the one scenario, we postulated the ÁKK drawing the total international credit line and holding its part not used for financing in the form of foreign currency deposit with the MNB (Scenario I). In the other scenario, we assumed the ÁKK using the international credit line only to the extent corresponding to the financing requirement of the government (Scenario II). Overall, depending on the financing strategy, the debt ratio is expected to peak in 2009-2010, and is then highly likely to embark on a downward

[17] In terms of interest expenditures, it would be a risk if the Government Debt Management Agency (ÁKK) changed its foreign currency deposits to forints not through conversion, but through swap transactions with the MNB. In the case of swap transactions, the MNB pays foreign currency interest to the ÁKK, while the latter pays forint interest to the MNB: The net interest expenditures paid by ÁKK on these swaps stems from the relatively high interest rate differential. According to our calculations the ÁKK's current swap holdings vis-à-vis the MNB increase the net interest expenditure of the government by 0.2-0.3% of GDP in 2009 and by 0.3% in 2010. There is a significant uncertainty about the future amount of swaps holding. It is important to note, that at the level of the consolidated general government the effect is 0, because the same amount improves the MNB's result. However, in terms of the fiscal balance the effect is asymmetrical because, as opposed to interest expenditures, the MNB's possible positive result is not shown in the ESA statistics, as it does not have to be paid.

trend in 2011. In Scenario I, the debt ratio will peak around 83.5% in 2009, before stagnating in 2010, while in Scenario II ratios of 82% and 83% are expected for 2009 and 2010, respectively. As a result of a gradual decline in foreign currency deposits, in 2011 the values of the two types of debt ratios converge at around 80.5%.

Box 4-1: Are Hungarian debt dynamics sustainable?

In addition to our debt projection covering the time horizon of the inflation forecast, we also prepared a simulation of the expected longer-term developments in the government debt-to-GDP ratio after 2012 and until 2020. Regarding the real economic and fiscal variables which determine debt dynamics, the following assumptions were used in our simulation:

1. Output gap closes gradually: we expect a negative gap until 2018. Following a somewhat larger decline in 2009-2010 compared to the path without the measures, the fiscal adjustment package results in faster GDP growth.

2. From 2012 on, we assumed 3% for domestic inflation and % for foreign inflation.

3. We assumed a stable EUR/HUF exchange rate in nominal terms (fixed at its current level), i.e. due to the inflation differential this represents mild real appreciation.

4. We examine two possible paths regarding the implicit real interest rate[18] on government debt. Firstly we assume that the implicit interest rate will return to its historic level of around 2% from 2012 on. Additionally, we examined an alternative path, in which we assumed a higher (4.5%) real interest rate over the longer term.

5. The cyclically adjusted primary balance of the general government will remain at an unchanged level from 2012 on, i.e. we assume that following the series of measures in 2009 there will be no changes in fiscal policy. Accordingly, the assumed closure of the output gap will result in a significant improvement in the fiscal balance.[19]

6. In our simulation, we attempted to take into account the quasi-fiscal activity of the government as well as the gradual transformation of the implicit debt in the pension system into explicit debt. Within this framework we attempted, for example, to quantify the expected losses of public transport companies (MÁV, BKV), the expected profit of MVM and the higher pension payments resulting from demographic developments. These effects were taken into account starting from 2012. Overall, as a result of the above effects, by the end of the period the debt ratio will increase only slightly, by approximately 2% of GDP.

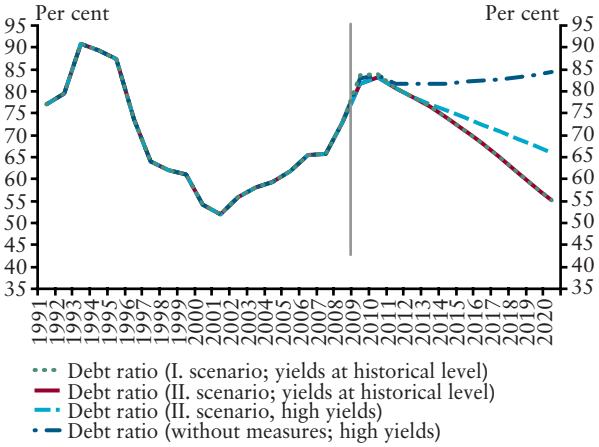
7. In 2011-2012, repayment of government loans extended to commercial banks (OTP, MFB, FHB, Eximbank) in 2009 will also mean additional financing source for the government. It contributes to the debt decrease.

8. Neither the measures announced last April, nor the ones announced in February were taken into account in the scenario excluding the measures.

Based on our simulation, mainly due to the favourable starting level of the primary balance and economic growth characterised by gradually increasing strength, the adjustment package announced in April will result in a much lower debt ratio by the end of the period under review than what would have evolved without the measures. As a result of the announced measures and the improving macroeconomic environment, a 55% debt ratio is likely to evolve by the end of the period.[20] In our

Chart 4-4

Projected developments in government debt-to-GDP ratio under various scenarios*



** The simulation performed for a persistently high level of yields assumed the second scenario for the method of drawing down the committed international line of credit.*

[18] Implicit real interest rate means the percentage value of real interest expenditures on the debt projected to the debt.

[19] In our simulation, we assumed that after 2012 the fiscal balance will improve similarly to the extent as the output gap approaches its potential level, i.e. the extent of the change in the deficit will be identical with that of the cyclical component.

[20] In the scenario without these measures (both current and potential), economic growth is lower and, in parallel with this, the size of the primary balance is also less favourable. In addition, of course it may also happen that without adjustment the yield level may also be higher. Therefore, in the scenario without measures, we assumed that real interest rates remain at a high level of 4.5% and do not return to the historical average. In that case the debt ratio will not decline in the scenario without measures, but will stagnate first, and over the medium term it may increase again, reaching about 85% by the end of the period under review.

simulation, we examined how the debt path change, if we assume a higher (4.5%) real interest rate. In this case, the debt ratio decreases less strongly, declining to just around 65% at the end of the period.

The approximately 30 percentage point improvement in the debt ratio between 2011 and 2020 is almost completely attributable to the effect of the primary balance, while the effect of real economic developments also contribute to the decline to a limited degree as well. Although real growth improves the debt ratio by more than 20 percentage points, the real interest rate component offsets it by 17 percentage points. In our simulation, the effect of the real exchange rate may be considered as insignificant, although it is important to note that this basically stems from our stable nominal exchange rate assumption.[21]

There are two more important issues to emphasize. In our calculations, the starting point for the deficit in 2011 was around 4%. If there are further measures to lower the deficit and to achieve the 3% Maastricht criterion, then the resulting more favourable starting point could improve the debt path. By contrast, if the risk perception on Hungary does not improve over the longer term and yields remain at a higher level (4.5%), then the development of the debt ratio could be more unfavourable.

[21] Currently, more than 40 per cent of the public debt is denominated in foreign currency (more than 30% of GDP), meaning that a 1-percentage point change in the exchange rate modifies the debt ratio by 0.3 per cent of the GDP.

4.2 External balance

In 2008, the external financing requirement – the sum of the current and the capital account – amounted to 7.4% of GDP, representing a nearly 2 percentage point increase compared to the previous year.[22] The deterioration in the balance, which is surprising considering the weak performance of the Hungarian economy, is attributable partly to the significant deterioration of the external environment and partly to the one-off effect relating to the timing of EU transfers.

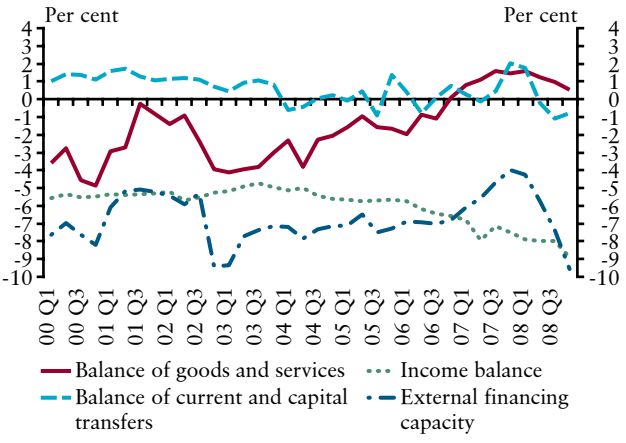
Among the external factors, the economic slowdown of Hungary's main export markets and the increase in the costs of funding are worth emphasising. On the one hand, as a result of the recession which has affected Hungary's external markets as well, the country's export performance started to decelerate from the middle of the year, showing a drastic slump in the last quarter. At the same time, shrinking domestic demand had a strongly perceptible effect on import demand as well, although until end-2008 the decline in exports dominated the developments in the trade balance. Consequently, the balance of goods and services as a proportion of GDP, which is key in terms of equilibrium, gradually declined in the course of 2008. On the other hand, the fact that obtaining external funds became more difficult was also reflected in the developments in the income balance via the increase in the costs of funding. The increase in net income outflow in 2008 is mainly attributable to the growing interest burdens on debt-type liabilities. Balance of payments data indicate that, as a result of the financial crisis, domestic economic agents were only able to roll over their maturing debts at shorter maturities and higher interest rates.

The fact that EU funds, which are recorded among current and capital transfers, declined considerably compared to the previous year exacerbated the deterioration in external balance indicators in 2008. However, it is important to stress that EU grants appear in the balance of payments at the moment of their respective transfer (cash basis), which may be significantly different from the time when the funds are actually used. One result of this accounting method is that the timing of a high-amount transfer may cause significant fluctuations in the financing requirement. In 2008, for example, despite an increase in the use of EU transfers, the value of transferred EU-funds declined, thus adding to the external financing requirement. However, this decline in inflows of funds proved to be temporary, as the value of EU transfers received in the first months of 2009 already significantly exceed the amount received last year as a whole.

Chart 4-5

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 unusual manner, a large Hungarian company voted for a significant amount of dividend in July, which upset the typical seasonality of the income balance. In the time series shown, this item was corrected back to Q2.*

In analysing developments in external equilibrium in 2008, it is also important to take into account that a technical estimation is applied in the statistics for income on foreign direct investments, and the deficit may be overestimated when the economic environment is marked by recessionary conditions. Nearly three quarters of the deficit of the income balance is related to net income outflows relating to FDI, which is estimated on the basis of historical profitability in the first publication. As a result of deteriorating corporate profitability, this historical relationship may overestimate the income from foreign investment and thus the external financing requirement as well.[23]

The forced adjustment of the private sector's consumption-investment behaviour already started at the end of last year. Consequently, an unusually strong improvement in external equilibrium is expected in 2009. The fall in net bank borrowing suggests a substantial increase in the financial savings of the household sector, in spite of the decline in the sector's real income. The information available up to 2009

[22] The CSO carried out significant revisions to the 2008 foreign trade figures in March. This revision almost completely explains the difference between the external financing requirement estimated for 2008 in the February inflation report (6.8%) and the actual data.

[23] The estimate for 2008 will be replaced by the reported data in September 2009.

Table 4-2

GDP-proportionate net financing capacity of individual sectors

(in per cent of GDP, unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009	2010	2011
	Estimation						Forecast		
I. Consolidated general government*	-8.3	-8.4	-9.4	-9.6	-5.9	-3.9	-5.4	-5.8	-4.5
II. Households	0.2	2.4	4.4	3.3	1.7	1.2	5.1	5.4	4.7
Corporate sector and "error" (= A - I.- II.)	*0.1*	*-2.3*	*-1.7*	*-0.7*	*-1.2*	*-4.3*	*-1.7*	*-1.0*	*-0.4*
A) External financing capacity, "from above" (=B+C)	-8.0	-8.3	-6.7	-6.9	-5.4	-7.4	-2.0	-1.4	-0.2
B) Current account balance	-8.0	-8.6	-7.5	-7.5	-6.5	-8.4	-4.1	-4.0	-3.3
– in EUR billions	*-5.9*	*-7.1*	*-6.7*	*-6.8*	*-6.6*	*-8.9*	*-3.6*	*-3.5*	*-3.1*
C) Capital account balance	0.0	0.3	0.8	0.6	1.1	1.1	2.2	2.7	3.2
D) Net errors and omissions (NEO)**	0.3	-1.4	-1.8	-2.3	-1.6	-2.0	-2.4	-2.4	-2.2
External financing capacity "from below" (=A+D)	-7.7	-9.7	-8.6	-9.3	-7.0	-9.4	-4.4	-3.7	-2.4

** 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.*

Q1 already confirm the sharp turn in the trend of households' savings. At the same time, a pronounced decline is also expected in the financing requirement of the corporate sector, which may be justified by the postponement of investment, increasing EU transfers and the reduction of contributions to be paid to the state. The SNA deficit of the general government may significantly increase,[24] despite the substantial expenditure cutting measures, but the country's external financing requirement as a proportion of GDP may still decline by more than 5 percentage points compared to the previous year.

The improvement in external balance accompanying the real economy adjustment may appear as a considerable increase in the surplus of the goods and services balance, mainly due to the decline in import demand. The latest monthly trade data already clearly reflect the improvement in the trade balance. No major change is expected in the income balance, although this may be a result of contradictory effects. As a result of the recession, income from direct investment in Hungary may decline considerably, while the repricing of expiring debt and the weaker exchange rate suggest a further increase in the interest burdens of external debt. Current and capital

Table 4-3

Structure of the GDP-proportionate current account

(in per cent of GDP, unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009	2010	2011
	Fact/Preliminary fact						Forecast		
1. Balance of goods and services	-3.8	-2.9	-1.2	-0.9	1.4	0.9	4.5	4.6	4.9
2. Income balance	-4.9	-5.2	-5.7	-6.2	-7.4	-8.1	-8.1	-7.9	-7.8
3. Balance of current transfers	0.8	-0.5	-0.6	-0.5	-0.5	-1.2	-0.6	-0.6	-0.3
I. Current account balance (1+2+3)	*-8.0*	*-8.6*	*-7.5*	*-7.5*	*-6.5*	*-8.4*	*-4.1*	*-4.0*	*-3.3*
Current account balance in EUR billions	*-5.9*	*-7.1*	*-6.7*	*-6.8*	*-6.6*	*-8.9*	*-3.6*	*-3.5*	*-3.1*
II. Capital account balance	*0.0*	*0.3*	*0.8*	*0.6*	*1.1*	*1.1*	*2.1*	*2.6*	*3.1*
External financing capacity (I+II)	**-8.0**	**-8.3**	**-6.7**	**-6.9**	**-5.4**	**-7.4**	**-2.0**	**-1.4**	**-0.2**

[24] The expenditures of the M6 motorway, which is being built in a PPP scheme, play an important role in the increase in the SNA deficit. These expenditures will not appear in the official ESA figures in 2009.

transfers from the EU may increase considerably in 2009, which may also contribute significantly to the decline in the external financing requirement.

Further gradual improvement of the external equilibrium is forecasted for 2010 and 2011. The reduction in taxes on labour strengthens the country's export competitiveness, which may result in a continuation of the increase in the trade surplus even during a period of rising domestic absorption. The increase in the funds from the EU shown in the transfer items of the balance of payments also facilitates the reduction of the dependency on foreign funding.

4.2.1 FINANCING THE CURRENT ACCOUNT DEFICIT

Regarding 2008 as a whole, the developments in the financing structure of the balance of payments were rather unfavourable from an investor point of view. In 2008, the 'bottom-up' *external financing requirement* increased to EUR 9.9 billion, which corresponds to 9.4% of GDP. Net non-debt generating items amounted to less than one tenth of external fund raising. As a result of the high debt-generating financing and exchange rate depreciation in the last quarter, the country's net external debt reached 54% of GDP at end-2008.

The wave of the international financial crisis that reached Hungary in October 2008 left a visible mark on the financing side of the balance of payments as well. The inevitable adjustment to the scarcity of external funds was partly implemented on the assets side over the short run, i.e. through a reduction in the private sector's external assets. In recent years, for example, substantial non-debt creating capital outflows were observed, in which the portfolio-type stock purchases by domestic institutional investors played a significant role. However, in the final quarter of 2008 capital outflows in this form declined considerably. Regarding debt instruments, a decline in assets, i.e. capital withdrawal was also typical of both the domestic banking sector and non-financial firms. However, it is important to emphasise that the banking sector – while its external assets were declining – was also able to obtain significant amounts of new funds from abroad.

It is also worth noting that in Q4 the liquidity needs of the banking sector were boosted considerably by transactions related to financial derivatives with non-residents. Most of them are HUF/FX swaps; accordingly, during periods of significant fluctuations in the HUF exchange rate a co-movement of net derivative financing and exchange rate changes is usually experienced. In the last quarter of 2008, in the period of money market tensions, the HUF depreciated significantly against major currencies, which considerably reduced the balance of the financial account through the closed transactions and *margin calls*.

Chart 4-6

The private sector's external debt-type liabilities and assets

(cumulated flow data)

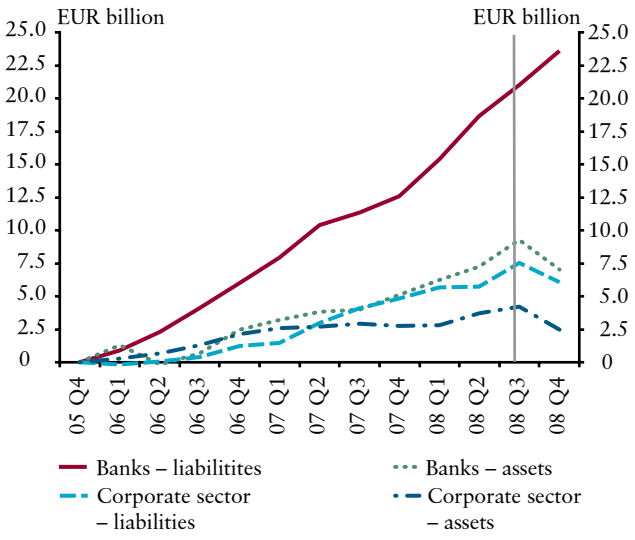
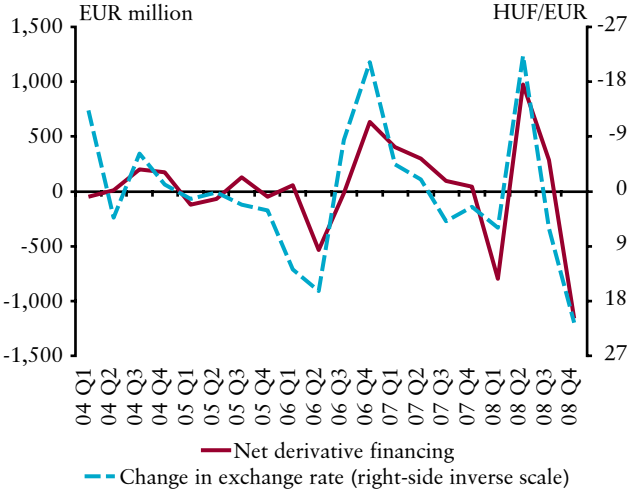


Chart 4-7

Net financial derivatives flow and exchange rate changes



Boxes and Special topics in the Report, 1998–2009

* Recurring analyses are not listed here.

August 2005

November 2005

May 2006

November 2006

February 2007

May 2009

Appendix

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MNB Occasional Papers include empirical (applied) researches of central bank areas, summarize theories on different themes and present international results, in addition they introduce analyses assisting the better understanding of central bank decisions.

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Occasional Papers 60. Benk, Szilárd, Zoltán M. Jakab, Mihály András Kovács, Balázs Párkányi, Zoltán Reppa and Gábor Vadas (2007): The Hungarian Quarterly Projection Model (NEM)

Occasional Papers 61. P. Kiss, Gábor (2007): Pain or Gain? Short-term Budgetary Effects of Surprise Inflation – the Case of Hungary

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Occasional Papers 63. Tanai, Eszter (2008): Management of FX settlement risk in Hungary (Report II)

Occasional Papers 64. Csávás, Csaba, Lóránt Varga and Csaba Balogh (2008): The forint interest rate swap market and the main drivers of swap spreads

Occasional Papers 66. Eppich, Győző and Szabolcs Lőrincz (2007): Three methods to estimate the whitening-related distortion of the wage statistics

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WP 2007/3. Vonnák, Balázs: The Hungarian Monetary Transmission Mechanism: an Assessment

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Print: D-Plus
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