



## 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 Report is published biannually, with partial updates to the forecasts also prepared twice a year. The forecasts of the Monetary Strategy and Economic Analysis and Financial Analysis Departments are based on certain assumptions. Hence, in producing its forecasts, the Directorate assumes an unchanged monetary and fiscal policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this *Report* were prepared by staff in the MNB's Monetary Strategy and Economic Analysis and Financial Analysis Departments and Financial Stability Departments under the general direction of Ágnes Csermely, Director. The project was managed by Barnabás Virág, Senior Economist of Monetary Strategy and Economic Analysis, with the help of Viktor Várpalotai. 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 9th August and 23 th August 2010. 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**

Domestic economic recovery may continue in a favourable global environment The growth prospects of the Hungarian economy continue to be shaped by the dual impact of strengthening international economic activity and weak domestic demand. Assuming a central bank base rate (5.25 %) and forinteuro rate (EUR/HUF 283) measured as the average rate of July, domestic GDP may show moderate growth in 2010, as a result of growing exports boosted by brisk external economic activity, expanding corporate stockbuilding and weakening consumption. We project growth of approximately 3 per cent in 2011 and a higher rate in 2012, supported by growing domestic demand. Despite rapid growth in capacity utilisation, the output gap will remain negative over the entire forecast horizon, meaning that the performance of the economy will fall short of its potential level over the entire period.

It is important to emphasize that our current forecast is characterized by greater-than-usual uncertainties. In addition to the typical uncertainty factors (our basic technical assumptions, the international financial market and economic environment), our current forecast is also marked by a significant degree of uncertainty in relation the future path of fiscal trends. For lack of detailed information, from 2011 we modelled the fiscal trends partly with the aid of technical projections based on already adopted legislation and correlations characterising the previous years. Our projection will be refined only after the submission of the budget act bill. Deviation of the actual development of budgetary policy from the path we assume could cause substantial shifts in the forecast trends as well.

Even though weak domestic demand will exert continuous downward pressure on prices (albeit at a steadily decreasing rate from 2011), with unchanged monetary conditions inflation is expected to be above target over the entire forecast horizon. The higher inflation path is principally the result of the repeated cost shocks in previous quarters and the weaker EUR/HUF exchange rate in recent months, which is included in our forecast as a basic assumption.

With demand picking up from next year, companies will also be able to pass on a rising portion of their costs in pricing their products. The effect of higher inflation may also emerge in wage agreements, producing indirect inflationary pressure through rising wage costs. Along with acceleration in wage growth, rising domestic demand may also limit disinflation in 2012, as reflected by the upward path for core inflation. The disinflationary impact of the output gap over the entire forecast horizon may be limited by the fact that, according to surveys, economic participants' inflation expectations continue to remain at levels above the medium-term inflation target.

Due to rapid export growth and more subdued import growth, the foreign trade balance may continue to be significantly more favourable than the figure recorded in the previous years. A substantial surplus has also been seen on the capital balance, thanks to the large inflows of EU transfers. At the same time, we project gradual deterioration of the income balance. As a result

Inflation may remain above target over the entire forecast horizon

Hungary's external financing capacity will remain stable over the long term

A revival in lending activity may lag behind the real economic recovery

International investor sentiment has been unsteady; risk perception of forint assets was mainly undermined by country-specific factors

Domestic exports are being driven by dynamically expanding external demand, which is expected to slow down over the medium term however of these factors, Hungary's external financing capacity may stabilise at a steadily high level over the entire forecast horizon.

Lending in the private sector remains subdued. Corporate lending has continued to fall, and a recovery here will likely lag behind the real economic upturn. On the supply side, corporate lending is limited by banks' low risk tolerance. The household sector is increasingly a net repayer of debt, and thus the decline in lending to households may continue for a longer period of time. The weak lending activity in this sector is partly explained by the banking system restricting loan supply (in part due to the stricter legal regulations on lending), and partly by subdued household demand for loans, due to precautionary aspects. One positive development, however, is that the ratio of forint loans is rising among newly disbursed loans.

The vast majority of banks tightened their credit standards in reaction to the measures to curb foreign currency lending. We expect the measures to have a limiting effect over the medium term primarily, when economic growth and household loan demand pick up again. The tax on financial institutions is essentially expected to worsen the profitability and capital position of the sector this year, but we consider it unlikely that it will be passed on to customers this year. With the improvement of the economic cycle in 2011, the pass-through of the tax burdens to customers may be more pronounced, which in turn may impede consumption demand and investments due to the decline in household income and corporate profits. The deterioration of the capital position in this period may also slow new loan disbursements.

The international financial markets were recently characterised by volatile investor sentiment, as concerns early on shifted to cautious optimism by the end of the period. The renewed faltering of interbank confidence contributed to growing risk aversion in early June, primarily through the indirect effect of concerns surrounding the sustainability of European countries' debt and fiscal problems.

In the second half of the period, the optimism emerging from early July was fostered by the declining sovereign risks of the Mediterranean euro area countries, improving quarterly reports in the American corporate sector and the reassuring results of the European bank stress tests.

The risk perception of Hungary during this period was determined by international and country-specific factors. International sentiment improved the risk perception, while the breakdown of talks held with the IMF and EU delegations and the negative steps taken by the credit rating institutions had an adverse effect. On the whole, the risk perception of the country worsened in the recent period, whereas a moderate improvement was observed in the region and other emerging countries.

The deterioration in risk perception contributed to weakening of the EUR/ HUF exchange rate.

The recession in the Hungarian economy has come to an end. Although the recovery remains fragile over the short run, GDP may increase at a tangible rate in 2010. Brisk external economic activity remains the engine of the recovery. The domestic export sector is partly boosted directly by the strong

import demand of Asian countries and partly by the exports of our main European trade partners, particularly Germany. These effects may be further strengthened by the lower EUR exchange rate vis-à-vis the euro area's main foreign trade partners, as well as the weaker forint rate against the euro. From 2011, with a view to returning to a sustainable budget path, several of Hungary's key foreign trade partners are expected to implement fiscal adjustment measures, potentially leading to the slowdown of the dynamic rise in external demand, and in conjunction with this, growth in domestic exports.

Data for the recent period suggest a less favourable consumption path over substantially rise from 2011 the short term compared to what was expected earlier; the consumption expenditures of households may continuously decrease over the entire year. This is partly the consequence of the rising instalments of foreign currencydenominated loans caused by the weaker exchange rate and partly the steadily strong propensity to accumulate pre-cautionary savings, motivated by the persistently high rate of unemployment.

> Household consumption is expected to increase only from 2011, partly in response to the anticipated rise in employment and partly as a result of the tax measures adopted earlier, set out in the personal income tax laws relating to the year 2011. The growth rate of consumption expenditures may be limited by the contractionary effect of the tax imposed on financial institutions on loan supply and the extra burdens which may possibly passed on to households.

> Investments in the national economy may also follow a less favourable trend than previously anticipated. The amendment of regulations on the payment of corporate tax may positively affect corporate investments, but this is offset by the partial pass-through of the bank tax to companies. Over the longer term, investments may grow as economic growth accelerates. Household investments may be hindered by the measures aimed at limiting mortgage lending and the tax imposed on financial institutions - if the institutions concerned are able to pass it on. With respect to general government, the bringing forward of EU funded investments from 2011 to 2010 is the main factor, leading to a probable stagnation in government investment from 2011.

A substantial fall in unemployment will During the downturn, companies retained a larger workforce relative to the prevailing demand, to minimise costs related to layoffs and recruiting. For this reason and due also to the rise in labour productivity, the economic upturn is unlikely to initially be accompanied by employment growth on a similar order of magnitude. The number of private sector employees is only expected to start rising slowly in 2011, with unemployment likely to remain high over the entire forecast period.

> The 15% wage bill cut of state-owned companies classified in the private sector for statistical reasons results in a lower wage index in the short term. The higher inflation rate, however, will be manifested in higher wages from 2011, thus despite the loose labour market conditions, we are anticipating a higher wage path than estimated earlier. The gap between trends in external and domestic demand also causes sectoral differences on the labour market: rising wage inflation and higher employment is expected to occur sooner in the manufacturing sector than in the service sectors.

Domestic demand is expected to

not accompany economic growth

With our current basic assumptions, the disinflationary effect of persistently weak domestic demand is not sufficient for achieving the inflation target Our conditional inflationary forecast is determined by the dual effect of persistently weak domestic demand and recovering global economic activity. With our current basic assumptions, the disinflationary effect of the negative output gap is insufficient to reduce the inflation path to approximately the medium term target.

The negative output gap will primarily exert a strong effect in the core inflation items in 2010, potentially leading to a historically low of core inflation. Following this, however, a turning point may be reached as early as the end of this year. From 2011, the weaker exchange rate and increasing food prices will have a direct impact on core inflation and the rise in wages and unit labour costs will have an indirect impact. In reaction to the above factors, core inflation may rise earlier than previously assumed and on a steeper path.

With regard to non-core inflation items, the fiscal measures relating to regulated prices moderate the rate of inflation in 2010, as the government has frozen administrative gas and electricity prices until the end of this year and extended the effect of the household gas price aid system. From 2011, however, winding up these measures will raise our forecast relating to regulated prices.

Upward risks to inflation and downward risks to growth In relation to our real economic forecast, there is a risk that the deficit target of below 3 per cent, defined by the Hungarian convergence program, can only be realised in 2011 with further adjustment measures. The measures to achieve the deficit target may result in a GDP path less favourable than outlined in the baseline scenario and moderately lower inflation, due to weaker demand. The less favourable development of the lending environment may also produce a similar effect. Changes in regulatory conditions, the effects of the government measures and the autonomous decisions of households may also affect lending activity less favourably than we expected.

> The currently high level of inflation expectations continues to pose a risk with respect to the inflation prospects. Owing to the slow adjustment of expectations to the recessionary environment, when growth accelerates economic participants may make their pricing and wage decisions on the basis of an expected inflation path which is higher than the MNB target. With regard to inflationary trends, an additional risk stems from the weak forecasting capability of our oil price assumption, which generally distorts towards lower inflation. In view of these factors, on the whole, there are downward risks to growth and upward risks to inflation compared to our baseline scenario.

Weaker-than-expected domestic demand may put pressure on the budget from the revenue side We prepared our fiscal forecast for this year on the basis of the budget act in force and with the aid of technical projections in relation to the subsequent years. According to our conditional forecast, this year and in the next two years, the path of the budget deficit may exceed the deficit targets set in the current convergence program. With weak domestic demand, recovering economic growth based on the dynamic expansion of exports is unfavourable in relation to budget revenues. Growth in revenues may lag behind the pace of GDP growth over the entire forecast horizon, while GDP-proportionate budget expenditures in 2011 and 2012 will decrease on the basis of the adopted measures and our technical assumptions. The structural deficit may substantially improve in 2010, but without further measures the fall in the deficit will come to a halt from 2011.

The structural tensions existing in the budget, partly related to quasi-fiscal activities, continue to pose considerable risks. GDP-proportionate public debt is expected to rise moderately in 2010, followed by a slow decrease.



### Inflation projection fan chart



## Summary table of baseline scenario

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

	2009	2010	2011	2012		
	Actual	Projection				
Inlation (annual average)						
Core inflation <sup>1</sup>	4.1	3.0	2.5	2.9		
Consumer price index	4.2	4.7	3.5	3.4		
Economic growth						
External demand (GDP based)	-4.2	1.7	1.8	2.0		
Household consumption expenditure	-7.6	-3.5	2.2	3.6		
Gross fixed capital formation	-6.5	1.0	2.8	5.3		
Domestic absorption	-11.5	-0.9	2.2	3.4		
Export	-9.1	11.6	7.5	9.5		
Import	-15.4	10.4	7.2	9.7		
GDP*	-6.3	0.9	2.8	3.8		
External balance <sup>2</sup>						
Current account balance	0.2	0.7	0.9	0.1		
External financing capacity	1.5	2.9	3.3	2.3		
Government balance <sup>2</sup>						
ESA balance <sup>3</sup>	-4.0	-4.3	-4.1	-3.7		
Labour market						
Whole-economy gross average earnings <sup>4</sup>	0.5	2.7	4.4	5.4		
Whole-economy employment⁵	-2.5	-0.3	0.4	0.6		
Private sector gross average earnings <sup>6</sup>	4.4	4.2	4.6	5.6		
Private sector employment <sup>5</sup>	-3.8	-1.5	0.3	0.8		
Unit labour costs in the private sector <sup>5,7</sup>	8.2	-1.9	1.7	2.7		
Household real income**	-4.7	-3.1	1.4	2.8		

<sup>1</sup> From May 2009 on, calculated according to the joint methodology of the CSO and MNB.

<sup>2</sup> As a percentage of GDP.

<sup>3</sup> In our forecast we have not taken into consideration any risk from debt assumptions.

<sup>4</sup> Calculated on a cash-flow basis.

<sup>5</sup> According to the CSO LFS data.

<sup>6</sup> According to the original CSO data for full-time employees.

<sup>7</sup> Private sector unit labour cost calculated with a wage index excluding the effect of whitening and the changed seasonality of bonuses.

\* Data are not adjusted for calendar effects.

\*\* MNB estimate.

## 1 Evaluation of macroeconomic data





### Economic recovery in Hungary may continue on a fragile path

The nearly two-year recession ended at the end of 2009, and Hungarian GDP showed tangible growth early this year. The positive data on the first quarter was followed by faltering growth in the second quarter, underlining the fragile nature of the domestic recovery. For the time being, a renewed pick-up in growth has only been observed in the export sector, while the key components of domestic demand still fail to show any signs of a turnaround.

The weak domestic demand is exerting tangible downward pressure in a growing portion of the consumer basket, resulting in an all-time low in short-term inflationary pressure indicators, despite the fact that the headline CPI came in at over 5 per cent year-on-year last quarter.

As the duality characterising domestic economic activity increases, labour market processes are also showing increasing differences. Employment in the private sector probably reached a low at the middle of this year, and a slow rise in employment may commence in the middle of 2010, lagging somewhat behind the turnaround in output. Production growth in the export oriented manufacturing sector was accompanied by strengthening wage dynamics and a rise in employment observed in recent months. By contrast, wage increases in sectors producing for the domestic market remain at historical lows, and there are no prospects for improving employment as level of profitability remains weak. With regard to employment in the national economy, in addition to the developments in the manufacturing sector, the turnaround witnessed in the first half of this year is also attributed to the continuation and expansion of the public employment programmes.

### Chart 1-1

**Euro area growth and the IFO confidence index** (seasonally adjusted data)



Domestic inflation declined significantly in July as the base effect of indirect tax increases introduced last year came to an end. Core inflation declined, despite being at its lowest level since 2006, while the full consumer price index remained above levels recorded before the tax measures. With the exchange rate stabilising in recent quarters, the downward pressure exerted by weak demand on prices for an increasingly wide range of products in the CPI basket acted as a substantial price-reducing factor, and thus significant price pressure was not measured in domestic inflation processes in the middle of this year. At the same time, however, the substantial depreciation of the forint exchange rate observed in recent months and the rise in the price of unprocessed food may lead to a break in the disinflationary trend even in the short run.

## 1.1 Hungary's export markets continue to expand dynamically, owing to the rapid growth of Asian economies

Even though domestic demand in developed economies still fails to show a tangible turnaround, the export opportunities of the Hungarian economy continue to show dynamic growth. The expansion of our external markets is primarily boosted by growing demand in the Asian economies, and along with a weaker EUR/USD exchange rate, Hungarian exporters are benefiting more and more from this. Notwithstanding the weak demand in our most important export markets, the replenishment of inventories and the continuous strengthening of export activity generates mounting demand for Hungarian exports as well. The external environment - favourable from a growth point of view - may remain a key feature in the coming quarters. This is suggested by the sustained rise in international economic activity indices and the renewed rise in new industrial orders in Germany, which is our most important export market.

It should be noted, however, that important temporary factors may also play a role in the currently dynamic external demand growth. The two most important such factors may be the sharp rise in the replenishment of inventories following the crisis and the significant depreciation of the EUR/USD exchange rate at the beginning of the year. The stimulating effects of these factors on demand may fade even over the short run, and thus we expect a more moderate growth of international economic activity from the end of the year.

In most developed countries, budget deficits and debt have risen significantly as a result of the economic stimulus

### Chart 1-2





measures of recent years. Consequently, returning to a sustainable debt path has become a high priority in the economic policy of most of Hungary's export partners. In the May issue of the Report on Inflation, we only took into account the risks of these effects possibly reducing demand, but considering that several countries have since announced fiscal restrictions, we have integrated the expected effects into our baseline scenario.

Box 1-1: Projected effects of European fiscal consolidation measures on growth in Hungary's trading partners

Several European countries reacted to the global crisis which erupted in 2008 with anti-cyclical fiscal policies to sustain the proper functioning of the financial system and dampen the economic downturn. Fiscal expansion above and beyond automatic stabilisers amounted to 1.5 per cent of GDP in the EU in 2009 and 2010.<sup>1</sup> Government demand stimulation helped stabilise demand, but the rising budget deficits

foreshadowed worsening debt dynamics. Government guarantees to protect the financial system added to the risks associated with government debt.

Investor concerns related to the sustainability of European countries' government debts have grown since the May issue of the Report on

<sup>1</sup> See Public Finances in EMU 2010, European Economy, 4/2010, European Commission, Directorate-General for Economic and Financial Affairs.

### Chart 1-3





\* Based on the May 2010 forecast of the European Commission and in consideration of the estimated effect of measures announced since then. The brackets below the country names indicate their share of Hungarian exports in 2009.

Inflation. In reaction to the above, in recent months several European governments announced fiscal consolidation plans which may substantially reduce the size of the budget deficits from 2011, primarily through cuts in government expenditures. The deficits in 2011 may decline by 0.7-2 per cent of the GDP for our main export partners, compared to levels expected in May (Chart 1).

Fiscal consolidation leads to decelerating economic growth in the short term, as the government curbs its demand and absorbs income from the private sector through taxes and transfers. The size of growth effects depend on numerous factors:

- •The permanent adjustment of the budget balance restrains government debt over the long run, potentially reducing the financing cost of debt over the short run and enabling cuts in distorting taxes over the medium run. This can also stimulate the potential growth rate. If economic participants see rises in their future income levels in advance, they are less inclined to curb their current consumption. This may moderate the short-term growth effect of the adjustment.
- If the liquidity constraints of consumers bind, they will not be able to resolve a short-term decline in income with borrowing. Thus, adjustments may be more costly during financial crises.
- Fiscal adjustment widens the negative output gap, thereby producing a disinflationary effect. Monetary policy may react to this with interest

### Chart 1-4

## Effect of an illustrative budget expenditure reduction scenario on the GDP growth rate of the euro area\*



\* Expenditures are reduced for 3 years by 1 per cent of GDP in each year. See Wieland et al. (2009) for a description of models used for simulation.

rate cuts which may moderate the growth effects. But as long as European interest rate levels are low, monetary policy has little room to manoeuvre in this regard.

 Different multiplier effects are related to each fiscal tool. According to empirical evidence and model simulations, over the short term cuts in government expenditures may lead to greater growth sacrifices than a tax increase. Moreover, the increase of distorting income taxes may slow down the potential growth rate, and thus the longer-term effects may be less favourable.

We performed simulations to illustrate the medium-term effects of the expected European fiscal adjustments. In our example, government expenditures are curtailed by 1 per cent of GDP for three years in the euro area, while monetary policy adjusts to the economic trends, as required by the logic of the inflation targeting. For the simulations, we used the Area Wide Model (AWM) used earlier by the ECB and several dynamic, general equilibrium (DSGE) models. While the expectations of the economic participants in the AWM model are mostly retrospective, they are forward looking in the DSGE models. Thus, the beneficial effects of a more sustainable debt path come to the fore in the DSGE models. By contrast, the AWM model illustrates the extent to which the growth effects may differ under tight liquidity constraints and not genuine adjustments.<sup>2</sup>

The austerity measures mainly curb growth in the first year (Chart 1-2). With genuine adjustment, the effect may be much less severe in the

<sup>2</sup> For a description of the models used, see Wieland, V. et al. (2009): A New Comparative Approach to Macroeconomic Modeling and Policy Analysis, Working Paper, Goethe University of Frankfurt, (August).

subsequent years. With little credibility and prolonged weakness of the financial system, however, the growth sacrifice may still be substantial in the second and third year.

Our simulations represent the upper estimation of the expected effect of European adjustments. Firstly, in our example, we quantified the entire adjustment as expenditure cuts, which involves the largest growth sacrifice. Secondly, the cuts in expenditures are temporary, and thus the favourable effects of long-term debt reduction are only limited in scope. Considering the timing, amount and structure of recently announced adjustments, the growth rate in the euro area may decline

Uncertainties related to the sustainability of the global economic growth interrupted the year-long uptrend in international commodity prices. The prices of the key commodities have corrected slightly since May, but the weakening of the euro against the dollar somewhat offsets the beneficial disinflationary effects. We project considerable inflationary risks on the commodity markets due to rising food prices. Due to adverse weather conditions, crop yields are expected to fall short of the typical values of previous years in relation to basic unprocessed foods at the domestic, regional and global level as well. Weak yield prospects and growing Asian demand have already caused a rise in commodity exchange prices and this increase may continue throughout the entire year. by 0.2-0.4 percentage points in 2011 compared to our May assumptions. There is greater uncertainty surrounding growth effects in 2012.

Finally, although fiscal adjustments in themselves slow down the growth in Hungary's external markets, other factors point in the direction of an upturn. The robust import demand in developing countries (particularly in Asia) and depreciation of the euro has a positive effect on euro area exports. Since most Hungarian exporters are the suppliers of Western European export-oriented companies, this effect can dampen the loss of exports resulting from a slowdown in the domestic demand of developed economies.

### Chart 1-5





# 1.2 End of the recession only perceptible in the export sector at present

In a regional comparison, the Hungarian economy grew at a strong rate in 2010 Q1, which was followed by a correction in the second quarter, in line with our expectations. Nonetheless, the economic recovery remains fragile, as it is driven exclusively by stronger-than-expected external economic activity, while there are still no signs of a turnaround in domestic demand. The duality characterising the structure of growth proved to be more prominent in the first quarter than we expected.

### Chart 1-6



This duality is clearly visible, on both the production and the final use side of GDP. On the production side, the value added of sectors sensitive to external demand increased the most. Export sales continue to function as the engine of economic activity, but the pick-up in production was also felt in sectors producing for the domestic market, by way of supplier relations. The strong relationship between the Hungarian and German industry is confirmed by the fact that the growth of Hungarian industrial production are especially strong in that branches where the German production outperforms the average performance of other Eurozone countries. The favourable economic activity characterising the sector, in line with processes in external demand, is likely to remain over the short run, thus the growth in industrial production may continue to provide robust support for the recovery of the Hungarian economy.

### Chart 1-7

Production growth in the major subsectors of western European and Hungarian manufacturing sub-sections between January and June 2010



In contrast to industry, the performance of the service sector continues to weaken. Exceptions to this trend are transportation, which is closely linked to exporting activity, and communications, which is less exposed to the volatility of economic activity. The other branches of the service sector (predominantly trade, tourism), however, continue to decline at a slowing rate, and a decrease in value added may have even occurred in the financial services sector which was able to sustain good profitability even during the recession. The output of these sectors is still limited by weak domestic demand. In view of the fact that domestic – primarily household – demand is unlikely to expand over the short term, the prospects of these sectors will remain bleak this year.

The smaller sectors may significantly dampened the development of Hungarian GDP in 2010 H1. The value added of agriculture continues to decline, and due to the adverse weather conditions, the crop yields expected for this year may significantly fall short of the above-average values realised in the last two years. The inflationary effect of the above was already observed in the inflation data for June, and the mounting decline in the sector's value added

### Chart 1-8

Annual growth of value added in market services (on the basis of seasonally adjusted CSO data)



may have an increasingly negative effect on GDP from the second quarter.

The performance of construction dropped further from the previously measured low level. This was probably mainly caused by the ongoing downturn on the housing market, while projects financed by EU funds are the only source of new orders. In addition to weak demand prospects, the performance of the sector is also adversely affected by the increasingly severe financing problems faced in the sector. In recent months, the volume of new contracts and the number of building permits both declined considerably, and thus a turnaround in the sector's performance is not expected in the near future.



The value added of public services fell in the first quarter, mainly attributed to the declining performance of public health institutions. The rise in the number of employed in the framework of the "Road To Work" program, however, somewhat slowed down the fall in public value added.

In the first quarter of this year, only net exports and changes in inventories had a measurable positive effect on the final use side of GDP. Government consumption also mildly strengthened the economic recovery, but in a positive direction, as a result of the aforementioned expansion of public employment programmes. The key domestic demand items show no sign of a reversal, and consequently their contribution to growth remains negative.

The growth contribution of net exports continues to be substantial. The expansion of imports has picked up pace in parallel with the increase in export sales. The increase in imports is primarily due to rising supplier exports and the renewed replenishment of inventories required for production, while imports for consumption remained weak. Although the export-import gap may gradually narrow in the quarters ahead, net exports will probably continue to make a positive contribution to growth, as a result of the currently high external trade surplus.

Household consumption expenditures declined further in 2010 Q1, but in line with our expectations the rate of decline moderated. The slowing decline in household

### Chart 1-10





Note: We adjusted goods exports due to the special delay between months and missing items, and with the activity of VAT residents. We adjusted goods imports with early purchases made at around the date of EU accession, the public warehouse effect also occurring in 2004, the effects of the Gripen and Combino purchases and the activity of VAT residents.

### Chart 1-11

Debt burden of households and the CHF/HUF exchange rate

(MNB estimate)



expenditures may have been attributed to the strong wage growth observed early in the year and the changes to personal income tax regulations. The effects stimulating consumption and savings resulting from the temporary rise in real wages, however, were offset by the persistently tight lending conditions, rising instalment payments caused by the weaker exchange rate and the contractionary effect of continuing high unemployment on demand. Last month's data on retail sales also confirm that a slow decline in consumption is still expected over the short run. A turnaround is expected only from the end of the year. Contrary to the the weak consumption data expected in the second half, the year-on-year index may show a markedly improvement after the third quarter. This phenomenon can be explained by timing effects due to indirect tax changes in the middle of last year.<sup>3</sup>

The decline in gross fixed capital formation continued in 2010 Q1, albeit at a slow rate. The slower decline of investments is predominantly attributed to machinery investments; the upturn in these investments early in the year was primarily caused by one-off effects in the government sector (power plant development and large-scale military vehicle procurements). Building-type

Chart 1-12





investments continue to drop, in line with the weak economic activity on the housing market. The picture is bleaker owing to the fact that the Q2 indicators on housing investments indicated an accelerating rate of decline, and thus a further substantial fall in construction investments is expected over the short run. Capacity utilisation in the corporate sector remains below the historical average and consequently no upturn is expected in the development of investments in the near future. Substantial new investment is linked only to the continuation of a few major projects announced earlier (Mercedes investment in Kecskemét) and investments financed with EU funds.

In parallel with growing external economic activity, the growth contribution of changes in inventories was also positive. This effect, however, is only attributed to the slowing rate of decline in inventories at the level of the national economy. On the basis of inventory statistics measured in current prices, it is likely that inventories are undergoing replenishment again in export-oriented sectors (manufacturing), while moderate demand in retail sales and weak yields in agriculture may causes further reduction of inventories. The contribution of government consumption expenditures was mildly positive, in accordance with the performance of the sector's production side.

<sup>3</sup> This is supported by the fact that new car registrations rose by almost 20 percent in July 2010 compared to a year earlier.

## 1.3 Significant growth in domestic savings

In 2010 Q1, the Hungarian economy retained its net saving financial position and the country's external financing capacity was near the high level measured at the end of last year. Similarly to the previous three quarters, a surplus was registered on the current account balance and the capital account balance (Chart 1-13). The latest information suggests higher-than-expected use of EU transfers and a more favourable real economic balance.

### Chart 1-13

Components of external financing capacity



\* Adjusted by the difference caused by imports brought forward on account of EU accession and by the increasing impact on import generated by termination of customs warehouses following EU accession, and by the Gripen purchases.

The income balance deficit increased at a moderate rate, primarily due to the estimated rise in the profits of foreignowned companies.<sup>4</sup> Beyond the above, the decline in average interest rates paid on external debt seen over the last five quarters has come to a halt, and thus this factor was unable to further improve the income balance.

The real economic surplus and transfers received from abroad continued to contribute substantially to Hungary's external financing capacity. The improvement in the transfer balance was essentially the result of the use of EU transfers being significantly higher than the level observed in the same periods in previous years. On the basis of seasonally adjusted data, in the first quarter of this year the domestic economy used nearly twice as much EU funds than in the first three months of last year.

The external financing capacity stabilised at a high level, with the growing financing requirement of the general government largely offset by the rising net savings of the private sector. The higher budget deficit is attributed partly to temporary factors and partly to long-term measures which increase income in the private sector and hence indirectly point in the direction of higher financing capacity in this sector. Income in the private sector also rose as a result of the reduction of contributions, which eases burdens on employers and thus increases the disposable income of companies, the widening of the tax benefit bracket, which raises the income of households, and the growing use of EU transfers. At the same time, the increase in private sector financial savings is also linked to the ongoing decline in investments. The rise in the net savings of companies was significantly supported by the further increase in the financing capacity of financial enterprises in Q1. The settlement of pension fund transfers also considerably affected the development of savings in the household sector in Q1 (see Box 1-3 in the May issue of the Report on Inflation); correcting for this one-off effect, however, the financing capacity of the sector still improved in Q1, and the preliminary data suggest a further strong rise in households' financial savings in the second quarter.

### **1.3.1 FINANCING TRENDS**

The net outflow of intra-group funds continued in 2010 Q1; to a great degree this accounted for the significant, nearly EUR 700 million decline in non-debt generating funds. At the same time, the influx of "fresh" working capital was positive in this period as well, although it fell mildly from the levels recorded in the quarters prior to  $2009.^{5}$ 

In the first three months of 2010, however, the outflow of debt-type funds observed for the last three quarters did not continue. The net inflow of funds amounted to approximately

Note: the seasonal adjusted time series are directly adjusted, that is why the sum of the components of the external financing capacity is not equal to the adjusted financing capacity itself.

<sup>&</sup>lt;sup>4</sup> Data on income flows related to direct investment in the balance of payments statistics are based on estimates. The estimate will be replaced with data based on company reports in September of next year.

<sup>&</sup>lt;sup>5</sup> This, however, is primarily attributed to the management of losses, that is, the top-up of profit reserves, and not to new investments.



\* Financing requirement is calculated "bottom-up" and is equal to the sum of the external financing requirement and the error and omission item of the balance of payments statistics.

0.4 per cent of GDP. The net external debt of both the general government and the private sector increased at a moderate rate. The bulk of the inflow of funds was primarily linked to the external borrowing of companies (EUR 200 million) with longer maturities.

After three quarters of decline in GDP-proportionate net external debt, the figure rose again, reaching 55.3 per cent of GDP. The rise of the debt ratio, however, was largely attributed to the revaluation effect – the weakening of the forint against non-euro currencies. In parallel with the above, the gross external debt of the country rose by nearly 3 per cent of GDP, to exceed 110 per cent of GDP by the end of the quarter. In addition to the aforementioned exchange rate effect, the rise is chiefly attributed to the inflow of foreign funds to domestic banks and the MNB bond and government securities purchases of foreign investors.

# 1.4 The turnaround in employment at the beginning of the year is mainly due to the manufacturing sector, which is benefiting directly from the favourable external economic activity

In the first half of 2010, the profitability of the private sector improved further, broadening companies' scope of action on the labour market. The profitability of the sectors, however, still falls short of the pre-crisis levels. Accordingly, following an acceleration in average wages in the national economy early in the year, a major correction was seen in wage dynamics in the second quarter. In accordance with the duality characterising economic activity, the marked differences observed earlier in the wages of the two key branches of the private sector became more pronounced. The reversal in the employment trends currently only affects the branches of manufacturing.

The higher rate of wage increases in the national economy early in the year tapered off significantly on the basis of

### Chart 1-15

Comparison of profitability proportionate to output and capital stock in the private sector

(seasonally adjusted, quarterly data)





second-quarter data. The temporary upturn in wage dynamics is partly attributed to the public sector and partly to the manufacturing sector which is more sensitive to the pick-up in external economic activity. These shifts are essentially linked to the adjustment of drastic wage cuts from last year.<sup>6</sup> This adjustment, however, had a wage-increasing effect mostly in the first quarter and in the second quarter, wage dynamics slowed considerably in all sectors.

Disregarding the temporary wage increase effects from last year, there are marked differences between wage developments in the two main private sectors. In line with the favourable development of productivity in the manufacturing sector, wage growth in this sector remains higher than in the service sectors. With regard to market services, the slack domestic demand offers more limited opportunities for the companies in the sector, which continues to be reflected in subdued wage growth.

<sup>6</sup>The marked slowdown in the previous year was caused by the elimination of 13th month salaries in the public sector and major bonus cuts in the manufacturing sector linked to adjustment to the crisis.

### Box 1-2: What was behind the acceleration of wages in manufacturing at the beginning of the year?

Significant acceleration has been observed in the wage growth of the competitive sector since the beginning of the year. This phenomenon is mainly attributable to wage developments in manufacturing. Wage growth in manufacturing, which was typically around 5 per cent in the second half of 2009, accelerated to a rate exceeding 8 per cent at the beginning of this year. In parallel with this, no major increase in the number of employed was observed in manufacturing in the first three months of the year. There may be several underlying explanations for the strong wage acceleration and near-stagnation in employment:

- One of the possible explanations is that tightness<sup>7</sup> in the labour market of the branch is higher than the average of the competitive sector, and therefore, labour supply constraints may hinder the increase in the workforce, and, in parallel with this, they also add to the wages of those currently employed.
- According to another approach, there may be demand-side factors behind the shifts observed. On the one hand, the improving market environment may still be marked by significant uncertainty, and on the other hand, hiring and setting new workforce to work probably takes more time, which results in a delay in the developments in the number of employed compared to economic activity. Consequently, over the short run, the companies in the sector adjust to the favourable shifts in demand by a more intensive utilisation of the available workforce.

The first explanation presumes that – following the large-scale layoffs observed in manufacturing last year – the unemployed persons related

### Chart 1-17

Changes in the number of registered jobseekers between December 2008 and December 2009

(based on the Uniform Classification System of Occupations [FEOR] of the occupation sought)



to the sector either left the labour market or looked for jobs in other professions during the last year. Following the outbreak of the crisis, more than 85,000 people were dismissed from companies in the sector. In parallel with this, no major increase was observed in the number of new vacancies advertised until the beginning of this year. According to data from the Public Employment Service, the ratio of jobseekers in professions related to industry and construction continues to be high compared to other groups of professions. Based on this, a significant number of those dismissed from the sector presumably continue to be active jobseekers. Accordingly, there are probably no labour supply constraints to an eventual increase in the number of employed.

This picture is confirmed by the indicator used in the survey on economic conditions conducted by GKI and measuring labour as the most important production-limiting factor. Based on the aforementioned indicator, similarly to last year, in the first half of the year the ratio of those companies that indicate insufficiencies of labour supply as the primary production-limiting factor continues to be far below the historically typical values.

According to the second approach, the developments in wages and staff in the first quarter were broadly determined by demand factors. The economic environment, which showed the signs of improvement in

### Chart 1-18

## Decomposition of average gross earnings in manufacturing\*

(based on seasonally adjusted, monthly data)



<sup>7</sup> Labour market tightness is usually defined as the quotient of the number of unemployed and the number of vacancies. The fewer unemployed apply for the same vacancy advertised, the tighter the labour market is considered to be. Based on the labour market theories, a stronger increase in wages can be observed in a tighter labour market than in a less tight one.

the first months of the year, provided a wider scope for action for domestic companies. However, considering that there is still significant uncertainty in relation to the longer-term demand prospects, domestic companies tend to adjust to the favourable shift in demand by more intensive utilisation of their available workforce, instead of by increasing their staff levels.

This explanation is supported by the fact that the acceleration of average gross earnings in manufacturing at the beginning of the year resulted mainly from the restoration of bonus payments following the crisis, in addition to the statistical effects. This is also indicated by the return, starting from the beginning of the year, of the historically low per capita working hour and overtime data observed in the previous year to the levels typical before the crisis. Moreover, they even slightly exceeded these pre-crisis levels. In addition, part-time employment, which had increased markedly during the crisis, practically ceased to exist in the sector in the first half of the year. Accordingly, most of the wage growth observed early in the year is explained by the correction in hours worked, while the growth in average earnings per working hour was below the values observed in previous years.

Consequently, if the expected slowdown in external demand occurs, with a decline in working hours, wages may also show weaker dynamics. A further decline may be caused by the fact that the fading of base effects from June on may result in a considerable fall in the annual indices. However, taking account of the latest working hour and labour force data, the involvement of new labour may become necessary in the sector in order to satisfy demand, which continues to be strong over the short run.

According to the data of the Labour Force Survey, employment at the level of the national economy probably reached its low in 2010 Q1. We can expect a moderate rise in employment in the second quarter, primarily attributed to public work programmes and the manufacturing sector. Unemployment, however, will remain at high levels. This is related to the fact that there has been a gradual rise in activity from the beginning of the year.

Other indicators for employment in the private sector also suggest that the recession is over in the Hungarian economy. At the beginning of the downturn in the real economy, there was a substantial decline in the per capita number of hours worked and overtime, in addition to the marked employment adjustment in the private sector. At

### Chart 1-19

## Employment and unemployment in the national economy

(on the basis of seasonally adjusted, monthly data)



the same time, part-time employment became widespread at companies. In conjunction with the renewed growth of production, the number of hours worked in the manufacturing sector rose to a historical high at the beginning of this year, while part-time employment has gradually decreased. Accordingly, a further rise in demand in the sector can only be satisfied with newly hired labour, as indicated by data relating to the second quarter. The reversal characterising the sector may remain characteristic in the next quarters. The decline in employment has also halted in relation to market services, attributed to labour hoarding that continues to be an attribute of the sector. A turnaround is not expected in the near term in this sector, due to the weak demand environment and considerable labour hoarding.

### Chart 1-20



Number of working hours and part-time workers in the manufacturing sector

# 1.5 Annual inflation exceeds the target, amidst weak demand conditions

Following the over 6 per cent rise in prices recorded at the beginning of the year, domestic inflation has slowed significantly in recent months. Following the 5.3 per cent value for the second quarter, which was slightly below our expectations, domestic inflation fell to 4.0 per cent as the base effect of last year's indirect tax measures came to an end. Although the 1.3 per cent value for core inflation in July is considered low even by historical standards, the overall price index remained above typical levels preceding the government measures taken in July of last year, despite the persistently weak demand environment.

### Chart 1-21

Changes in the consumer price index and core inflation





The disinflation trend remained stable in the core inflation segment. With a stable exchange rate observed in recent quarters, the downward pressure of weak demand on prices persisted in a growing portion of the consumer basket, and thus our indicators measuring short-term inflationary pressure in the economy fell to nearly zero per cent by the end of H1. In recent months, deviation from the disinflationary trend only appeared in the price index of unprocessed food, which is included in the non-core inflation.

### Chart 1-22

Trend inflation indicators

(seasonally adjusted, annualised one-month changes)



Core inflation was slightly lower than expected in the second quarter. The lower-than-expected inflation is essentially due to core inflation items, particularly the decline of the price index of traded goods.8 Contrary to the usual seasonality, prices of a wide range of industrial traded goods declined significantly in May-June. The trend is likely attributed to the downward pressure of the weak demand environment on prices, producing an increasingly pronounced effect on the pricing of these products, along with a stable exchange rate path since the beginning of the year. Pricing in May and June – similarly to the end of last year - may be determined by significant one-off effects, as well. These effects may be particularly strong in relation to seasonal products where owing to weak demand, discounts commonly applied in the past from August have been introduced as early as May of this year. Accordingly, the disinflationary effect of insufficient demand is obvious in relation to these products, although its magnitude may have been exaggerated in recent months by effects resulting from the timing of discounts. As confirmation of the above, the price of traded goods showed a moderate rise in July, diverging from the trends of the past two years. In addition to the termination of the timing effects, inflation in this product group over the short run may also rise in

<sup>&</sup>lt;sup>8</sup> It is worth noting that the volatility of the trend inflation of traded goods has increased significantly since the outbreak of the crisis, possibly due in part to the re-pricing of certain products and the uncommon seasonal nature of price discounts. It is therefore difficult to assess the extent in which temporary effects account for the observed disinflation.

Inflation of traded goods

### Chart 1-23



(seasonally non-adjusted month-on-month change, excluding VAT)

reaction to a weaker exchange rate, possibly reflected in retail prices upon the replenishment of inventories in the autumn.

Disinflation remains unchanged in relation to market services; the price index of these products is low even on a historical level. Due to the adverse weather conditions, among non-core items of inflation, the steep rise of the price of unprocessed food was already visible in the price index for June. This process is likely to further strengthen over the short term, potentially also contributing to the gradual rise of processed food prices through an increase of the price of raw materials.







\* MNB estimate.

Domestic prices - subject to regulation - did not reveal an inflationary effect, despite the rise in global energy prices observed in the first half of the year. This is attributed to the fact that the government announced a price moratorium effective as of July 1, which may prevent the pass-through of such rising commodity prices on to consumer prices in the short run. Extension of the gas price subsidy system had a similar effect.

The Hungarian inflationary expectations estimated on the basis of the European Commission survey gradually declined in the first six months of this year, but continue to exceed the inflation target.

## **2** Financial markets and lending





## 2.1 The global financial markets were characterised by strong volatility, followed by growing optimism

The international financial markets were characterised by very volatile investor sentiment in the period under review. In early June, risk aversion rose, primarily due to concerns about the spread and deepening of European sovereign solvency related problems, a renewed decline in interbank confidence through the indirect effect of fiscal problems and the growing risk of negative effects on the real economy. In the first half of the period, the mounting uncertainty was reflected in most market indicators: developed and emerging stock markets showed a steep decline, while risk indicators, volatility indices and the corporate and sovereign CDS spreads rose. Demand for risky instruments generally slumped, while yields on American and German government securities, regarded as safe haven assets, declined.

On the one hand, the intensification of sovereign debt problems was manifested as a sector-level risk for the European financial sector through the high exposure of European banks to government securities, while the mounting uncertainty contributed to the rise in financing costs. As an additional effect of sovereign debt problems, expanding fiscal policy reached its obvious limits in many countries, so as a result of the general revaluation of the role of government stimuli, policy-makers are currently placing greater and greater emphasis on returning to balanced fiscal positions. The necessity of fiscal restrictions may call into question the sustainability of the recovery.

In the second half of the period, from early July, however, numerous factors promoted consolidation on the financial markets and the strengthening of investor confidence. Optimism was fuelled by the decline in the sovereign risks of peripheral euro area countries, the consolidation of interbank money markets in the euro area, the favourable financial statements of the US corporate reporting season and the reassuring results of European banks' stress tests. In addition, according to the conclusions drawn in the July issue of the IMF publication World Economic Outlook, the turbulence on the financial markets had only had a moderate effect on the real economy so far.

In the first half of the period since the last Report, concerns related to the sovereign debt of peripheral countries further escalated, which was reflected in the downgrading of these countries' public debt. The rating of each peripheral member state was downgraded by at least one major credit

### Chart 2-1

Five-year CDS spreads of peripheral countries in the euro area



. . . . . .

rating agency in the May-July period. In the second half of the period, however, the news was more positive in this regard: the Greek fiscal trends in H1 were encouraging, and apart from a few exceptions, the PIGS countries issued government securities under favourable terms. In addition, not only the peripheral countries but also more developed EU member states announced major fiscal adjustments. Although the declining risks were also reflected in the substantial decrease in CDS spreads and government securities yield spreads over German bonds, from the beginning of August risk premium indicators began to increase again.

The maturity of the ECB's first 12-month LTRO (Longer Term Refinancing Operation) instrument in early July was a key event in the period with respect to the assessment of the European banking system's condition. Of the maturing EUR 442 billion, approximately EUR 250 billion was reinvested in other ECB instruments, broadly in line with expectations. The decline of the above figure sent a positive message to the markets, as the reliance of Mediterranean banks on ECB instruments represented the main source of concern. In addition to lower reliance, demand possibly declined owing to the fact that interbank yields decreased over the previous year and the duration of the 3-month ECB instruments, currently available as an alternative, is much shorter, and market financing is available for most participants in this maturity segment. The shrinking non-market liquidity



Changes in interbank money market yields in the euro area



Source: Thomson Reuters.

supply was naturally accompanied by a rise in market yields; the larger share of market funds in the liquidity re-allocation increased the main interbank yields, which in turn approached central bank financing costs.

The stress test results published at the end of July by the Committee of European Banking Supervisors (CEBS) revealed the stability and high capital adequacy and loss tolerance capacity of the European banking system. The capital adequacy ratio calculated for pessimistic scenarios was too low in the case of 7 banks of the participating 91 banks, and moreover the EUR 3.5 billion additional capital requirement of the banks was significantly lower than the expectations of over EUR 50 billion. Although there are views on the market that the stress scenarios were not strict enough, the results had a reassuring effect on the markets.

The majority of the American corporate flash reports provided favourable surprises; the vast majority of companies reported higher than expected profits, although the less positive development of revenues somewhat taints the optimistic picture. The financial sector belonged to the sectors with good performance: in many cases the quality of the loan portfolio improved, although the lending activity of banks continued to lack vigour. So far the European banking sector has also been sending positive flash reports, and the future results are of key relevance for assessing the effects of sovereign debt problems. The recent macroeconomic forecast of the IMF and World Bank is moderately optimistic with respect to the global economic trends, projecting that the growth rate in 2010 may be somewhat higher than previously estimated, while the rate of growth expected in 2011 has not changed considerably. At the same time, the resurfacing of tensions on the financial markets, rising sovereign risks and the resulting global increase in restrictive fiscal policies have given rise risks on the downside. In reaction to macroeconomic data pointing to the fragility of recovery in the USA and to the strengthening of the economic recovery in Europe in the past two months the US dollar significantly weakened against the main currencies; the EUR/USD exchange rate hovered around 1.28, compared to levels under 1.20 recorded in early June.

The major central banks continued to pursue loose monetary policies. The base rate did not change in any of the largest economies; and as a result of central bank communications relating to the maintenance of loose monetary conditions, markets showed strengthening expectations that monetary tightening will not commence before the middle of next year either in the euro area or the USA. Maintaining an expansive monetary policy over the longer run is made possible by the low price dynamics in developed countries and necessary to compensate the negative growth effects of fiscal tightening.

The Fed continued its withdrawal of liquidity expansion and with the introduction of new liquidity-absorbing instruments it is testing the additional possibilities of sterilising the surplus liquidity injected into the banking system. By contrast, in reaction to the concerns related to the euro area banking system, the ECB has again shifted in the direction of tender procedures providing liquidity in a more flexible way, and continued its government bond purchase programme at a slowing rate. The ECB sterilised the liquidity effect of government securities purchases in the euro area, amounting to approximately EUR 60 billion by the end of July, with the help of one-week deposits, at interest rate levels typically 40-50 basis points lower than the base rate. Some countries (Canada, New Zealand, Sweden), however, raised their interest rates. In these cases, due to the fledgling economic recovery central banks regard cautious removal of monetary stimuli as appropriate, but according to indications by central bankers the tightening will be gradual and slow in each case.

## 2.2 Differentiation between the regions strengthened in the emerging markets, and the relative position of the Central Eastern European region worsened

There are significant differences in the market's perception of the various emerging market regions. This is partly attributed to varying economic activity prospects and partly to the higher exposure of the Central Eastern European region to the European sovereign debt crisis. According to the recent macroeconomic forecast of the World Bank and the IMF, growth will clearly be led by Asian countries in the near future, with dynamic growth also expected in the Latin American region, while in relative terms the Central Eastern European region is likely to underperform.

Market participants welcomed the news that the Chinese central bank abolished the yuan-dollar peg and announced the adoption of a more flexible exchange rate policy. The expected appreciation of the yuan may promote the moderation of global imbalances in the future. As an additional positive development, the lower-than-expected Chinese growth and inflation data reduced concerns relating to the overheating of the Chinese economy. Nevertheless, measures to cool down the real estate market and tighten monetary conditions are still expected to remain in effect.

Interest rate expectations have not changed on the emerging markets, and thus, in accordance with the trends from the previous period, differentiation between the emerging regions is also seen in relation to interest rate policies. Although the expected starting points of the tightening cycles have been delayed and their expected pace slowed in certain countries (Indonesia, Mexico, Columbia), tighter monetary policy is still applied in general in the Asian and Latin American regions. Since the last Report, interest rates were raised in several South East Asian countries (India, Taiwan, Malaysia, South Korea, Thailand) and Latin American countries (Brazil, Chile, Peru). Interest rates remained constant in the countries of the Central Eastern European region (only Ukraine lowered its base rate), but on the basis of increasing inflation risks the Polish central bank decided not to refer to an informal neutral bias. According to market expectations, interest rate hikes may begin in this region as well, towards the end of the year.

In recent months, investors' perception of the Central and Eastern European emerging countries was mainly determined by global factors, and to a lesser extent region-

### Chart 2-3

Changes in the exchange rates of Central European currencies against the euro



Source: Thomson Reuters.

specific ones. In early June, the marked weakening of the forint also negatively affected the other currencies of the region, but from mid-June exchange rate trends were generally determined by global risk appetite in the region. The depreciation witnessed in the second half of June, followed by the robust wave of appreciation from early July on basically tracked fluctuations in international investor sentiment. In terms of the emerging markets, the Romanian leu and the forint were underperformers, while the appreciation of the koruna and the zloty basically followed the trends of South East Asian and Latin American currencies.

Global investor sentiment was also the decisive factor behind the development of regional risk indicators, and thus the CDS spreads also underwent similar trends in that timeframe. The rate of fluctuations varied significantly, leading to substantial overall differences between the countries. A moderate decline was observed in most cases (Poland, Czech Republic, Slovakia, Estonia, Croatia), while the premium of Romania increased significantly, and the premium of Bulgaria rose slightly over the level in early June. With regard to the development of CDS spreads, the Central Eastern European region clearly performed worse 

### Chart 2-4

Five-year CDS spreads of selected Central Eastern European countries and the Central European composite indicator



Source: Thomson Reuters.

than the other emerging regions: 5-year CDS spreads typically declined by 30-50 basis points in South East Asian

countries and by 20-40 basis points in the Latin American region.

The progress with the IMF programmes represented a favourable country-specific factor for Ukraine and Romania in the region. In June, Ukraine agreed with the Monetary Fund on a new USD 14.9 billion standby credit facility, while Romania received the next tranche of the arrangement following the adoption of measures taken for fiscal adjustment. Partly owing to the above, favourable credit rating decisions were made with respect to the rating of Ukraine's government debt. Both Fitch Ratings and S&P revised the outlook on Czech Republic's foreign currency debt to positive from stable, while the latter even mentioned the possibility of an upgrade. Following positive evaluation of the fulfilment of Maastricht criteria, in June Estonia was officially granted approval by the European Union to introduce the euro in 2011. Both Fitch and S&P improved the debt rating of Estonia in recent months on grounds of the positive effects of the approaching introduction of the euro. By contrast, Bulgaria officially confirmed that it will postpone the target date for ERM-II entry to 2011.
# 2.3 In addition to global sentiment, Hungarian asset prices were also significantly shaped by country-specific factors

In the period since the last Report, both the volatility of international investor sentiment and country-specific events exerted a key impact on the development of domestic asset prices. In respect of country-specific factors, the following should be underlined: the very pessimistic political statements made in early June in connection with the condition of the Hungarian budget, the announcement of the government's action plan, the breakdown of talks between the IMF/EU and the government and the negative steps of the credit rating agencies. The direction, intensity and duration of the events' effects varied, but as an overall result of all these effects, the risk premium expected from Hungarian assets increased considerably.

The Hungarian exchange rate moved in a range of EUR/ HUF 275-290 for most of the period. While there was a plunge on two occasions in reaction to domestic events negatively perceived by the markets, the forint managed to recoup a considerable part of the depreciation in the favourable international environment emerging in July. Nevertheless, the typical trading band shifted in a weaker direction relative to the previous period. In terms of the entire period, the roughly 1 per cent depreciation against the euro indicates substantial underperformance in a regional comparison, particularly vis-à-vis the koruna and the zloty which strengthened significantly. The forint weakened against the Swiss franc by an even higher rate of over 7 per cent, with the exchange rate also reaching a historical low. Foreign investors significantly reduced their forint positions in parallel with the weakening of the exchange rate.

Indicators reflecting the risk perception of the country generally indicated a deterioration in both absolute and relative terms. Following the political statements made in early June, the five-year CDS spread climbed over 400 basis points, jumping by 150 basis points in two days. This was followed by a gradual consolidation of the spread, chiefly in line with the development of international sentiment, interrupted by the breakdown of talks between the IMF/EU delegation and the government. The rise of the spread in this case was more moderate, and most of it was subsequently adjusted, but in view of the regional trends, the roughly 80 basis point increase in the CDS spread from early June indicated a substantial deterioration in relative terms. The trend was similar in relation to five-year FX-denominated bond yield premia over the German Bund: the Hungarian premium rose almost by 100 basis points, while Czech, Polish, and Romanian premia declined by 30-50 basis points.

The changing perception of the risk of forint assets was less intense on the government bond market. The yield increase affected the short and middle-term section of the yield curve. The reference yields with maturity of up to one year rose by an overall 30-50 basis points to 5.4-5.6 per cent, compared to levels measured at the end of May, while the 3-year yield again climbed 50 basis points close to 7 per cent. Although the longest maturities were not immune to the yield fluctuations, either, 5-, 10- and 15-year benchmark yields declined by 10-30 basis points on the whole. In relation to the yield curve of both the government securities market and the interbank money market, the forward yields rose to a 2-3 year period, and declined over the longer horizon of the yield curve.

### Chart 2-5

Selected Hungarian asset prices and risk indicators



The liquidity of the government securities market worsened considerably during the premium shock in early June; in relative terms, the liquidity indicators broadly recovered to their long-term average values afterwards. The jump in interest rate swap spreads seen in early June was partly corrected subsequently, and on the whole the spread indicators showed mixed trends, depending on their maturity. In the first half of the period, liquidity tensions surfaced on the FX swap market, reflected by the decline in implied forint yields and growing recourse to the 3-month central bank FX swap instrument. By mid-August, the one-day FX swap implied forint yield returned to the bottom of the interest rate corridor, and tensions also eased in relation to longer maturities.

Government securities auctions showed very mixed results. Although most government securities auctions were accompanied by adequate demand in the period, in some cases the Government Debt Management Agency (ÁKK) sold smaller-than-planned quantities due to low demand, particularly in relation to shorter maturities (3- and 12-month treasury bills, 3-year bond). By contrast, longerterm bond auctions attracted very strong demand in the second part of the period. As a result of the varied demand, the average auction yields were quite volatile in the period under review. According to the recent financing plan of ÁKK, considerable negative net issue is expected in the period August-October. Overall, the debt manager is planning to auction government securities in an amount nearly HUF 300 billion less than the maturing portfolio, thus the contracting supply may affect issuing terms.

As a consequence of mixed trends since the end of May, the government securities portfolio held by non-residents broadly remained at the same level. In the adverse environment in June, non-residents sold a considerable amount of Hungarian government securities, while in July and especially in August their portfolio increased significantly. As a characteristic trend since the middle of June, non-residents are increasing the duration of their portfolio, particularly their portfolio of shorter-term securities is shrinking, and they are opting for longer maturities, especially in auctions. The central bank bill portfolio of non-residents showed strong fluctuations: it reached a historical high in the middle of July, followed by a decline of over HUF 200 billion. The increasing duration of the government securities portfolio and the volatility of the central bank bill portfolio held by non-residents is presumably due to the behaviour of different investor groups. The prior is presumably caused by participants who regard Hungarian government securities as a long-term investment, while the behaviour of hesitating investors may result in the volatility of the central bank bill portfolio owned by non-residents.

The central bank did not change the base rate during the period, while communication has taken on a more strict tone as a result of worsening risk perception. This has affected interest rate expectations on the market as further loosening was priced out on a gradual basis, and the possibility of an interest rate increase steadily strengthened in the yield curve. The current money market yields are consistent with a gradually rising interest rate path.

### Chart 2-6



Interest rate path implied by money market yields

Source: MNB, Thomson Reuters.

# 2.4 Mutually opposing trends in monetary conditions

In relation to monetary conditions, although the real interest rate increased, it still remained at a moderate level, while the real exchange rate has declined since May. The development of the real interest rate is generally attributed to higher nominal yields. Although inflationary expectations also rose moderately, this was not enough to offset the effect of increasing yields. In contrast with the appreciation trend of the last one-year period, the real exchange rate showed depreciation since the last Report, chiefly attributed to the fact that the nominal exchange rate weakened by approximately 6 per cent in May-June. Since the rate of domestic inflation was higher than in the euro area, the positive inflationary difference continued to point in the direction of real appreciation, but the depreciation of the exchange rate had a substantially larger effect on the development of the real exchange rate.

### Chart 2-7

**Development of monetary conditions** 



\* Based on the one-year forward-looking inflation expectations of analysts calculated by the MNB using the 1-year zero coupon yield and the Reuters poll.

\*\* Monthly depreciation of the exchange rate against the euro (monthly rate of devaluation until April 2001), adjusted for the given domestic inflation indicator and the harmonised inflation of the EU (1 January 1997 = 100%; an increase means appreciation).

# 2.5 Lending will lag behind the pace of real economic recovery

Corporate lending has been consistently falling short of our expectations for some time, and it is becoming increasingly clear that an upturn in corporate lending will follow real economic recovery only with a delay. While demand for loans has started to rise slowly due to the rise in production, the stringent loan supply constraints are impeding and slowing down recovery.

In 2010 Q2, the corporate loan portfolio declined by roughly HUF 189 billion which significantly surpassed our expectations. The decrease in bank lending in the household segment confirmed our expectations, falling by the seasonally adjusted amount of HUF 45 billion. However, the decline of loans granted by financial corporations to households was much higher than expected. The weak lending activity in this segment is related to the change of regulations (mainly in case of leasing companies), low risk appetite of banks, and weak loan demand (mainly in case of households).

### 2.5.1 CORPORATE BORROWING TRENDS

At the end of last year a slow recovery started. Even though the growth is still fragile, there are still no signs of a turnaround in corporate lending (Chart 2-7). An upturn in corporate lending would be important for a fast recovery from the crisis, but the loan supply constraints are still strong and impede recovery.

The banks continue to apply stringent credit standards despite their earlier plans to expand their portfolios, and are failing to provide assistance on the loan supply side to companies in need of improved financing for activities. Indeed, in the August 2010 issue of the Lending Survey, banks indicated that they are not planning to ease their credit standards in 2010, and thus these supply constraints are likely to remain in place over the long run (Chart 2-8). Loan supply constraints are not only seen in non-price factors but in prices as well, as loan interest rates continue to exceed financing costs by a much larger rate than was the case before the crisis (Chart 2-9). Loan supply constraints are also evidenced by the fact that in the small and medium-sized company segment, where loan supply constraints are tightest, nearly 22 per cent of the loans outstanding at the end of 2010 Q1 were provided under

### Chart 2-8

Quarterly net increase of loans to non-financial enterprises from the domestic banking sector and the quarterly real GDP growth



Note: Credit institutions and the Hungarian branches of non-resident credit institutions. Net increase, seasonally unadjusted and adjusted for the rolled-over exchange rate impact of the loan portfolio.

### Chart 2-9





Note: Net difference between the ratio of banks tightening and easing. For 3rd and 4th quarter of 2010 expectations of interviewed banks.

some form of credit guarantee, while in early 2008, only roughly 9 per cent of the loan portfolio of SMEs were linked to a credit guarantee.

### Chart 2-10

Average annualised interest rate of bank loans to non-financial corporations



Note: Weighted by end-of-month stock.

Despite the slow recovery, loan demand may also be lower than its pre-crisis level. With the currently scarce loan supply, the financing of the recovery is possible if on account of a substantial rise in external demand, exporting companies are enabled to finance some of their production with revenues. Since capacity utilisation continues to lag behind levels measured before the crisis, there is no need for capacity expanding investments and hence for investment loans. This is also evidenced by the fact that while production increased in 2010 Q1 on a quarterly basis, the rate of investment continued to decline.

According to our expectations, corporate lending will not start growing in the second half of 2010, the turnaround in lending will lag behind real economic turning point by at least one year. Firstly, we base this projection on the fact that we do not see any major signs of an approaching turnaround in the data, and secondly, the prolonged risk aversion and bank tax may also encourage banks to restrain lending.

### 2.5.2 HOUSEHOLD BORROWING TRENDS

In the household segment, lending is developing in line with the real economic trends. Both household lending and household consumption and investment are continuously declining (Chart 2-11). Besides the supply side factors, plummeting demand may also play a role in the moderation of household lending. Because of the weak labour market, the ongoing depreciation of the exchange rate, and the tighter conditions on new fx-loans, households choose to pay the monthly instalments from their income rather than taking out new loans.

In 2010 Q2, the seasonally adjusted value of the household loan portfolio granted by banks decreased by HUF 45 billion, in line with our expectations. In the process, the foreign currency-denominated loan portfolio shrunk, while the forint loan portfolio has been on the rise for the second quarter running. Primarily consumer loans increased among HUF-denominated loans; housing loans grew only moderately. In relation to foreign currency-denominated loans, however, consumer loans declined faster than housing loans. Thus, the household portfolio has been undergoing a constant and even decline for almost a year. Turning to loans granted by financial enterprises to households, the preliminary financial accounts for the 2010 Q2 indicate a decline significantly exceeding our expectations. This can be explained by the change in the regulatory environment, low risk appetite of banks, and the low level of loan demand.

### Chart 2-11





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

Growth in HUF-denominated new loans was quite striking in recent months. In June, 84 per cent of all new loans were extended in forints (Chart 2-12). This change is due to several factors. Firstly, the difference in the APRC of new foreign currency-denominated loans and HUF-denominated mortgage loans has fallen to approximately 2 percentage points, possibly already offset on the forint side by the aversion of the exchange rate risk (Chart 2-13). Secondly, the government decree on prudent lending also sets out stricter conditions for foreign currency-denominated loans Chart 2-12



(right-hand scale) (right-hand scale) Note: Credit institutions and the Hungarian branches of non-resident

### Chart 2-13



than for HUF-denominated loans, prompting borrowers to turn to forint loans. As a result of these factors, in June foreign currency-denominated loans were provided only in an amount equivalent to HUF 7 billion in the form of mortgage loans, and HUF 2 billion for other purposes, while the total value of new loans amounted to HUF 60 billion. In light of the above, the de facto prohibition of foreign currency-denominated lending basically "codified" the existing situation on the market.

As expected, banks tightened their household lending conditions in accordance with the regulations on prudent lending. The Lending Survey suggests that the vast majority of banks tightened their credit standards upon the entry into force of the first section in March and the second section in June. This is also supported by the fact that no further tightening is planned in the second half of the year (Chart 2-14).

Despite the tightening of credit standards, we did not observe any further decline in the new loan portfolio of banks. We expect that the prohibition of foreign currencydenominated lending will hardly have a tangible effect over the short term. Over the longer term, the upturn in lending will be slower as a result of regulatory changes than without such changes. In addition to the above factors, the lending activity of banks may also be affected by the bank tax; we therefore expect lending to households to recover slower than estimated earlier, in the second half of 2011 at the earliest. Nevertheless, based on the data for the second quarter of 2010, these factors could have a more significant effect on loans granted by financial enterprises.

### Chart 2-14





Note: Net percentage of respondents reporting tightening/easing (weighted by market share).

credit institutions. Seasonally unadjusted data.

# **3** Inflation and real economy outlook





In our current forecast, our outlook on short-term economic activity has not changed significantly. The domestic recovery remains fragile and may proceed slower than expected due to the government measures announced so far. Taking into consideration our technical basic assumptions, inflation over the entire forecast horizon is expected to be above the medium-term target. The alteration of our forecast is principally motivated by the changes in our basic assumptions and the balance-improving measures of the government.

Although the government package of measures points towards a decline in aggregate demand until 2011, favourable external economic activity may support the recovery in the domestic economy over the short term. The deterioration in the short-term inflation outlook is caused by the substantial decline of the exchange rate and the rise of unprocessed food in recent months. The government measures temporarily dampen its primary effects, owing to the introduction of energy price caps, but once these are terminated, the secondary effects – given the higher inflation – emerging via expectations and the labour market, in addition to the primary effects, may play a growing role in determining domestic inflation.

With regard to our fiscal forecast, we consider it important to emphasise that in the absence of a budget adopted for a time horizon extending beyond 2010, we applied technical projections to items that cannot be deduced from economic activity (primarily the expenditures side of the budget). Of the "29 point" package of measures adopted by the government in August, relating to the years 2010-2011, we took into account all of the measures, with the exception of plans relating to the modification of the personal income tax system. We did not have available information on the transformation of the PIT system that are relevant with regard to the key parameters determining the forecast, and therefore we continued to consider the law in force. But in view of the key importance of the measure, we discuss the macroeconomic effects of the introduction of the flat-rate tax system in a box text.

### Box 3-1: Changes in our basic assumptions

Overall, our basic assumptions have shifted in the direction of a higher inflation path compared to the May issue of our Report. The main reason for this was the weakening of the EUR/HUF exchange rate experienced in past months. On average, the EUR/USD cross rate strengthened further in comparison to our assumptions of May. Due to this effect and to the lower oil prices in US dollar the price of oil denominated in EUR has considerably fallen in the period under review. The base rate remains unchanged at 5.25 per cent, as indicated in the previous Report on Inflation.

### Table 3-1

Changes in our basic assumptions compared to May\*

		May 2010		August 2010			Change compared with May (%)		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Central bank base rate (per cent)**	5.25	5.25	5.25	5.25	5.25	5.25	0.00	0.00	0.00
EUR/HUF	266.2	265.4	265.4	277.6	283.8	283.8	4.3	6.9	6.9
EUR/USD (cent)	135.3	134.3	134.3	130.3	127.7	127.7	-3.7	-4.9	-4.9
BRENT oil price (USD/barrel)	84.4	90.4	91.8	76.7	79.7	82.4	-9.1	-11.8	-10.2
BRENT oil price (EUR/barrel)	62.4	67.3	68.4	58.9	62.4	64.5	-5.6	-7.3	-5.6
BRENT oil price (HUF/barrel)	16,616	17,873	18,146	16,370	17,714	18,318	-1.5	-0.9	0.9

\* Annual averages, based on the monthly average exchange rate of July 2010 and the crude oil futures price.

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

# 3.1 Recovery remains fragile over the short term, tangible effects of the government measures on the real economy may materialise in 2011

Over the short term, the performance of the global economy may be more positive than previously assumed. Strong domestic demand in the Asian economies throughout 2010 has had a beneficial effect on the exports and growth of Western European countries, and Hungary may continue to profit from these trends. In addition to a weaker exchange rate, this trend may be further supported over the short term by improving price competitiveness.

Several factors, however, suggest a decline in external demand in 2011. The slowdown in the performance of Asian economies is expected to be much greater than previously forecasted and this may have a direct and indirect impact on Hungarian exports. Beyond the above, the sustainability of the high debt levels in the developed economies has once become a central problem of economic policies. In response to this problem, short-term fiscal consolidation plans were approved by many of Hungary's foreign trade partners. Earlier, we took into account the contraction effect of the above on demand only in relation to the risk paths, but we have integrated this effect into the baseline scenario of our current forecast. As a result, in 2011 and 2012 the country's external demand may increase at a rate lower than before the crisis and measured during this year.

### Chart 3-1



### **Evolution of export market share**

The upturn in domestic demand may be slowed down by government measures. A turnaround in household consumption is still only expected in 2011. Owing to the weakening of the HUF/EUR exchange rate witnessed in recent months, the repayment burdens of household loans remain high, while the prolonged high rate of unemployment points in the direction of cautionary saving intentions. As a result of the above factors, we expect a less favourable consumption path over the short term. We expect a turnaround in household consumer demand in 2011. With a tangible rise in household income in 2011, the consumption expenditures of households may also increase. Initially the rise in income will be attributed to the tax measures implemented through the PIT system, in consideration of the laws currently in force, while the slow growth in employment may also positively affect income prospects over the longer term. The upturn in domestic demand, however, is restrained by the proposed bank tax which - in the event that the costs are passed on - may reduce the disposable income of households and increase the cost of retail loans. Cuts in public wage expenditures may also impede the rise in household consumption. As unemployment is likely to remain high over the longer term, the rate of consumption is only expected to rise in 2012.

### Chart 3-2



### Trends in the use of household income

Our forecast for investments has worsened over the entire forecast horizon. Over the short run, this is due to worsethan-expected economic activity on the housing market. Owing to the accelerating decline in key housing market indicators, particularly the number of new building permits, we expect lower household investments as early as this year. The amendment of regulations relating to the payment of corporate tax may positively affect corporate investments, but this is offset by the partial pass-through of the bank tax to companies, which is primarily manifested in tightened new credit standards. Over the longer term, investments may grow hand in hand with an acceleration in economic growth, albeit at a rate slower than previously assumed. With respect to government investments, the bringing forward of EU-funded investments from 2011 to 2010 may be a determining factor, potentially leading to stagnation in government investment from 2011.

### Box 3-2: Effects of the 29-point government package of measures on our forecast

On June 8, the Prime Minister announced a 29-point action plan, and the parliament has already passed amendments in connection with most of these measures. Some of these measures may also substantially impact the growth and balance path of the Hungarian economy over the monetary policy horizon, in addition to the fiscal balance. Of the 29 measures, we can expect substantial macroeconomic effects in relation to 6 points. These are as follows: introduction of the special tax on financial institutions, extension of the 10 per cent preferential corporate tax rate, a cut in general government expenditures, reduction of the wage bill of state-owned companies, introduction of a moratorium on public utility fees and transformation of the personal income tax system. In view of the fact that we have no information whatsoever available on the key parameters of the last measure (timing, modification of tax credits, scope of tax benefits), for the time being we did not take these into account in preparing our forecast. We prepared estimates relating to the possible macroeconomic effects of the other measures with the aid of our DELPHI macroeconometric model. The table below indicates the direction of the expected effects.

Overall, the measures produce a moderate negative effect in 2010 and a stronger negative impact on economic activity in 2011. In 2010, the fiscal stringency measures, bank tax and the curbing of wages at stateowned companies limit economic growth, primarily through consumption expenditures. The rise in consumption resulting from the omitted increase of public utility fees moderately offsets this effect. These effects, however, moderately affect growth in 2010, as they will typically arise in the last quarter. The above effects, however, will be present throughout the entire year of 2011, thus they may contain currently rising domestic demand, and hence growth, more intensely than is the case this year.

The measures may also produce negative effects (resulting in lower inflation) on inflation in 2010 and 2011. The effect this year is almost exclusively limited to the result of the moratorium on public utility fees, while next year the measure will have a contracting effect on demand. It is worth noting, however, that without prejudice to the continued validity of our current assumptions on global commodity prices and the EUR/HUF exchange rate, after the lifting of the moratorium considerable upward pressure may arise on regulated prices.

The particular measures may affect the various components of our macroeconomic forecast through the following channels:

- The effects of the special bank tax vary over the short and medium term. In 2010, banks will presumably be able to pass on a minimal portion of the special tax to consumers. With rising household loan instalments and the current rate of corporate bankruptcies, the increase of the burdens of households and companies would raise the risk of defaulting loans, further worsening the quality of bank portfolios. It is therefore likely that banks' profits will decline this year as a result of the tax, also contributing to a decrease of savings in the corporate sector – including banks. The pass-through of costs affecting household income is possible only through employee

### Table 3-2

### Effects of government measures on GDP and CPI

	G	GDP		ation
	2010	2011	2010	2011
Special tax on financial institutional	$\downarrow$	$\downarrow\downarrow$	-	$\downarrow$
Preferential corporate tax rate	-	↑ (	-	-
Cut in budgetary expenditures	$\downarrow$	$\downarrow$	-	-
Wage bill reduction of state-owned companies	$\downarrow$	$\downarrow$	-	$\downarrow$
Moratorium on public utility fees	<b>↑</b>	$\downarrow/\uparrow$	$\downarrow$	↓/↑
Total	$\downarrow$	$\downarrow\downarrow$	$\downarrow$	$\downarrow$

wages in the sector (e.g. bonus cuts). From 2011, however, more options may open up for passing on the special tax. The banks may pass on a smaller portion of their burden through the cost of newly disbursed corporate loans, causing a decline in corporate sector savings. The banks may pass on the larger portion of the tax on their existing retail loan and deposit portfolios, leading to a decrease in income available to households. In addition, the costs of new loans may also rise. Overall, the special tax contributes to the decline in household consumption and household and corporate investments through falling income and the higher cost of newly disbursed loans.

- The prohibition of foreign currency-denominated loans may lead to the further tightening of lending activity in addition to the above consequence, potentially causing a further decline particularly in household investments.

- The extension of the preferential corporate tax rate improves the profitability of companies through the reduction of the tax on profits, possibly boosting demand for investment or labour.

– Presently only the amount of cuts in government expenditures is known and not the specific measures. Experience relating to similar measures in the past suggest that wages in the public sector, financial transfers to households and the material expenditures of the state may decline. Household and government consumption may fall as a result

Overall, the economic recovery may continue at a slow pace over the short term. The government measures announced so far are not expected to produce any major effects on growth this year, but the contractionary effects on demand may also gain strength in 2011. In accordance with the above, economic growth may continue at a rate that is slower than our earlier estimate.

So far, the improvement in short-term economic activity has only been characteristic of the exporting sectors, and we still do not expect any reversal in the main domestic items of demand this year. The structure of growth will gradually become more balanced from 2011. Despite the expected slowdown in the growth of external demand, export sales may reveal dynamic growth over our entire forecast horizon, while as a result of the country's improving income position, household consumption and national economic investments may also rise from early next year. In respect of the government measures, the introduction of the preferential corporate tax rate may provide for new investments an environment that is more favourable than in the past over the entire forecast horizon, while cuts in government expenditures and the special bank tax may hamper the recovery in domestic demand. Domestic demand may of the above. Government consumption and investments may also decline as a result of the measure.

– The cuts in the wage bill of state-owned companies primarily reduce the consumption expenditures of households. These companies comprise part of the private sector in statistical terms, and they are predominantly market service providers. According to our assumptions, most of the planned savings will be implemented in 2010 through cuts in the wage payments of the companies concerned, while layoffs may play a larger role in 2011.

– The freezing of gas and district heating prices in 2010 will result in lower inflation and higher household consumption. From 2011 we expect a long-term improvement in efficiency resulting from the renegotiation of the pricing of regulated energy items, and thus the network access fees may remain lower over the long term. However, price increases delayed this year may arise as a price increasing effect in 2011 H2, due to the change in commodity prices.

It is important to note that our forecast did not take into account that if the balance-improving measures of the government prove to be successful and the position of general government substantially improves, this may boost investor confidence in Hungary. This may produce a positive growth effect through a decline in the risk premium and a disinflationary effect through the strengthening of the exchange rate.

further rise with the termination of the special bank tax in 2012, possibly resulting in a nearly 4 per cent increase in GDP.

Output falls short of its potential level over our entire forecast horizon and only gradually approximates that level.

### Chart 3-3 🛛





Considering that over the short term the structure of growth has shifted in the direction of weaker domestic demand and higher net exports, in real economic terms the

negative output gap – similarly to our previous forecast – may currently exert a moderately stronger downward pressure on prices.

### Box 3-3: Expected macroeconomic effect of the flat-rate tax system

Within the framework of the 29-point economic action plan, the Government announced that it will implement the flat-rate family tax system in several steps, where labour income is taxed at a uniform 16% PIT rate. Since we still lack substantive details on the introduction of the new tax system, we did not take into account the effects of the above in our forecast. But due to the key relevance of the step, we deemed it important to review the possible advantages and disadvantages of such a system. The first part of the analysis outlines certain theoretical criteria, while the second part discusses the experiences of countries that have introduced flat-rate tax regimes. The third part contains our evaluation of the Hungarian bill in an international comparison and finally, the last section reviews the expected macroeconomic effects of the new tax system on the basis of research conducted so far in this topic.<sup>9</sup>

### What does a flat-rate tax mean?

In its purest form, a flat-rate tax system means that all income – irrespective of its source – is taxed at the same rate.<sup>10</sup> Introduction of a flat-rate tax system theoretically offers the following advantages:

First, low flat rates, the reduction or abolition of exemptions and benefits reduce tax evasion incentives and the tax advantage of declaring labour income as capital income. Second, with a low flat-tax rate, the substantial reduction of the marginal tax rate in the upper income segment increases labour supply with higher productivity, which in turn has a positive effect on growth. Both effects result in the widening of the tax base which may partially supplement lost tax revenues. Moreover, if the economic participants regard the new tax system credible and sustainable over the long term, the reactions of economic participants to its introduction may be significantly stronger than to changes in their actual income position in the given year, which in the case of tax measures may bring forward the favourable effects of the new tax system on tax revenues. however, this problem is less severe than suggested by theory. As one reason for the above, in practice the flat-rate tax systems set out a tax exemption limit or tax credit in all OECD countries, as a result of which salaries approximating the minimum wage have a zero or very low tax burden.<sup>11</sup> However, particular caution needs to be taken when defining the above exceptions, as the key advantage of the flat-rate tax system lies in its simplicity, and the inclusion of too many exceptions is in contradiction of this advantage.

redistribution function of the tax system is weakened. In practice,

As an additionally important aspect, the effect increasing income inequality is less pronounced if the actual income inequalities are greater than the inequalities between declared income, for those with higher income have various possibilities at their disposal to conceal their income, or declare such income as other income subject to lower tax rates than is applicable to labour income. In such a case, the theoretically progressive tax system loses its actual progressiveness, and thus the adverse redistribution effects of the introduction of the flat-rate tax are much more moderate.

In addition to the above (tax exemption limit, tax credits), other factors also account for the fact that the implemented flat-rate tax systems show less resemblance to the flat-rate system interpreted in its pure, theoretical form.<sup>12</sup>

- Social security contributions continue to be part of a separate system in all countries.
- Capital income is typically still taxed with a separate system and rate even after reforms, although the modifications in all cases also include the transformation of corporate and entrepreneurial taxation.

In general terms, it may be established that although the flat-rate tax system among OECD countries has not been implemented anywhere in its pure form,<sup>13</sup> it has typically contributed to a substantial simplification of the tax system. The flat-rate PIT, however, was just one

However, one of the *theoretical disadvantages* of the flat-rate tax system is that it may increase income inequalities, that is the income

<sup>&</sup>lt;sup>9</sup> We do not discuss aspects of the changes relating to family taxation, due to a lack of information on the details on the tax system.

<sup>&</sup>lt;sup>10</sup> See OECD (2006) "Fundamentals of personal income tax reform"

<sup>&</sup>lt;sup>11</sup> The only exception we know of is Georgia. See Keen et. al. (2006) "The 'Flat Tax(es)': Principles and Evidence" IMF WP/06/18

<sup>&</sup>lt;sup>12</sup> This is presumably attributed to the fact that after taking into account the social security system, in most countries the taxation of labour income is higher than capital income. Thus, in a "theoretical" flat-rate system, either the tax rate of capital income would be necessarily high, resulting in a high degree of dynamic distortion, or the tax rate of labour would be unrealistically low, which does not seem realistic on the budget side.

<sup>&</sup>lt;sup>13</sup> The Slovakian tax system best resembles the genuine flat-rate system where both labour and capital income is subject to a 19% tax which also corresponds to the VAT rate. The social security contributions constitute a separate system in Slovakia as well; the tax on labour income is still higher in consideration of the contributions. In addition, the Slovakian tax system also has a tax exemption limit and provides family allowances, where the tax exemption limit is higher if the salary of the spouse is very low.

source of change; the abolition of benefits and exemptions played a key role in the process everywhere.

## What is the experience of countries introducing the flat-rate tax system?

In countries where the sole PIT rate accounted for a substantial decline in most income categories in the year of introduction, PIT revenues decreased in proportion to GDP, but generally by a lower-thanplanned rate.<sup>14</sup> Thus, an immediate Laffer curve effect was not observed, but the tax base and the willingness to pay tax increased overall. The increase of the tax base was typically stronger from the second year following the introduction of the reform.<sup>15</sup> The loss of PIT tax revenues, with an increase of the PIT tax base, was often dampened already from the first year through the increase of the corporate gains tax and/or VAT base.<sup>16</sup>

Overall, the countries which introduced a flat-rate tax system showed robust growth in the years following introduction, although in many cases the reform of the tax system only constituted part of a wider reform package affecting e.g. the social transfer system, administration, education, etc. Several studies make note of the introduction of the flat-rate tax as having a positive signal effect for foreign investors: it generally implied a commitment to reform and growth-oriented economic policy.<sup>17</sup>

### The Hungarian proposal in light of international experience

According to the proposal defined under the 29 points, by adopting a 16% PIT rate, Hungary would gain a competitive position at least in terms of the PIT rate, as this rate would be the lowest in the region. In relation to competitiveness, however, the entire tax wedge encumbering labour is the relevant criterion, and in this respect, Hungary only approximates the average tax burden of the Visegrád Group in the higher income segments.

On the whole, however, the contemplated tax system significantly reduces both the average and the marginal the tax wedge at levels above the average income and can thereby substantially increase labour supply. Domestic research,<sup>18</sup> namely, suggests that domestic taxable income reacts quite sensitively to changes in the tax rate above the level of average income, while the reaction relating to the

### Chart 3-4

### Tax wedge on labour, compared to the Visegrád-countries\*



\* Data relates to employees. Source: OECD, APEH data.

### Chart 3-5

Total tax wedge on labour at 50% of the average wage in OECD countries\*



<sup>&</sup>lt;sup>14</sup> The only exception is Russia, where PIT revenues in the new tax system rose significantly by over 20%. Most analyses (Keen et al., 2006; Ivanova et al., 2005), however, point out that this is closely related to a general upturn and a rise in oil prices. PIT revenues also increased in Latvia and Lithuania; the tax rate in these countries, however, was set at a high level (33% and 25%), in the upper segment of the range of earlier rates.

<sup>&</sup>lt;sup>15</sup> See e.g. Saavedra, P. (2007) "Flat Income Tax Reforms" Ch. 8. in Fiscal Policy and economic growth, World Bank.

<sup>&</sup>lt;sup>16</sup> In Romania, for example, the higher-than-expected rise in VAT revenues is clearly attributed to the fact that a significant portion of the increased net income of households appeared in consumption. The higher-than-expected rise in corporate tax revenues in Georgia and Latvia may have been caused by the falling price of more skilled labour for companies. It is not clear, however, whether this improvement was attributed to the actual tax cuts, or rather the abolition of benefits and loopholes and the improvement of the efficiency of administration and control.

<sup>&</sup>lt;sup>17</sup> E.g. Keen et al.(2006), Saavedra, P. (2007).

<sup>&</sup>lt;sup>18</sup> See Bakos et. al. (2008) "The elasticity of taxable income" MNB Working Paper, 2008/7.

average tax wedge is considered to be low. In other words, in this respect the new system clearly promotes growth and employment. There is the problem, however, that the abolition of tax allowances significantly increases the average tax burden at income levels below the average wage: the average tax burden of low income employees would be excessively high relative to the OECD countries, constituting a counter-incentive for labour market entry. In view of the fact that in a European comparison, the rather low domestic employment rate reflects a lag particularly in relation to low-skilled labour, it would be safe to assume that the new tax system further undermines the employment intentions and prospects of these groups.

### Expected macroeconomic effects of the new tax system

Thus, when quantifying the macroeconomic effects of the new tax system, an in-depth analysis of the above two channels is warranted: Firstly, the extent to which the change in the tax rates affects entry and exit from the labour market (extensive margin), and secondly, its impact on the currently employed (intensive margin).

According to the estimates of Bakos et. al. (2008), the adjustment within the intensive margin is quite low from the lower income deciles to the average wage, and shows stronger sensitivity above the average wage (not including the top decile), as confirmed by the international literature. Accordingly, a 1 percentage point change in the marginal tax rate increases the amount of declared taxable income by 0.3-0.4 percentage points.<sup>19</sup>

An estimate of similar depth is not available in relation to adjustment to the extensive margin. According to the initial results of Rácz (2010),<sup>20</sup> the one percentage point change in the average tax wedge affects entry and exit from the labour market by nearly 0.1 percentage points, where the effect is minimally stronger on less skilled labour than on skilled labour. It is a problem, however, that the estimates available in international literature show an extremely wide spread between 0.1 and 3.0.

Thus, the two important effects of the planned flat-rate tax system are as follows: Firstly, the marginal tax rates basically decline significantly in the segment where labour intensity reacts sensitively to their change. According to Scharle et. al. (2010), a 4-5% GDP surplus may result over the medium term compared to the 2010 system, through the following channels: the better skilled, higher income labour force works more in the new tax system and the economy is whitening.

We do not have available reliable estimates in relation to the extensive margin, but our optimism is far more subdued with respect to adjustment. Because in the new tax system, *ceteris paribus*, the average tax burden of approximately 75% of the labour force will increase in comparison to the original tax system in force in 2010. In view of the fact that the extensive elasticity of labour supply tends to be higher than average in the lower income segment, this means that employment is likely to decline both in terms of labour demand and labour supply, which might affect GDP prospects unfavourably as well.

When assessing the new tax system, we should ask the following question: To what extent the excess GDP growth from the adjustment on the intensive margin can create new jobs, and compensate the unfavourable effects at wage levels below the average.

On the whole, because the new tax system means a decline of aggregate PIT burden, both compared to the currently valid 2010 and 2011 law, and it rearranges tax burden from more skilled high income to less skilled, low income labour, it seems likely that the new system will ceteris paribus result in surplus GDP growth. However the effect on employment is much more uncertain, where the latter may even mean a drop in employment. This is chiefly attributed to the fact that the new system increases the cost of unskilled labour compared to skilled labour, that is, companies employing a skilled labour force will be in a more favourable position, while labour intensive sectors employing unskilled labour force will be in a less favourable position.<sup>21, 22</sup> Gradual introduction of the new system might mitigate the unfavourable employment effects, but even in this case, the internationally high tax burden of low skilled workers might cause problems over the medium term.

<sup>&</sup>lt;sup>19</sup> It is a separate question as to whether taxable income is increasing because employees actually work more or the economy is whitening. Scharle et. al. (2010) "How to improve the efficiency of the tax system?" *Közpénzügyi füzetek* 26.) gives evidence with various robustness tests that the effect primarily indicates actual labour supply adjustment. The coefficient is roughly in conformity with estimates for other countries.

<sup>&</sup>lt;sup>20</sup> Rácz (2010) "Labor supply effects of tax changes through the extensive margin in Hungary" Manuscript.

<sup>&</sup>lt;sup>21</sup> Minimum wage hikes cannot solve the problem of increasing tax burden of below-average wages. One reason for this is that, while an increase in minimum wage enhances employment, it decreases labour demand. As a result, this measure might cause additional negative employment effects. In addition it is also uncertain, to what extent the increase in the minimum wage has an increasing effect on wages between the minimum and average wage, where the average tax burden also increases.

<sup>&</sup>lt;sup>22</sup> The analysis generally deals with employees, that is, we have not discussed the nearly 250,000 full-time private entrepreneurs subject to the PIT system. As the tax credit could not be effected in their case in the past, the flat 16% rate even on the level of minimum wages may result in eased taxes compared to the current 17% super gross-up, i.e. 21.6% actual tax rate. There is a relatively high degree of uncertainty, however, with regard to the reaction of this group, as no reliable measurements are available in connection with the labour supply reaction. This is not surprising because numerous other tax optimisation factors can be taken into account in relation to this group (to what extent is declared wage actual income, changes in Simplified Business Tax rates, etc.). While the employment reaction is rather uncertain, with the introduction of lower tax rates, the whitening of income may become a realistic prospect in parallel with tighter government inspections.

# **3.2 Unemployment will remain high over the long term even with gradually rising employment**

The behaviour of companies continues to be shaped by restoration of the significantly deteriorated profit position resulting from the crisis. Accordingly, our forecast projects a moderate rise in employment and an increase of real wages lagging behind productivity growth.

Over the short term, the rise in employment may primarily take off in the manufacturing sector in response to improving economic activity. Labour hoarding and a slowdown in employment continues to shape the sectors producing for the domestic market. We expect employment to rise in these sectors only after an upturn in domestic demand in 2011, but growth may be a slow process due to the currently existing, unused labour capacities. Trends in the wages and employment of the service sector may also be constrained by the wage bill cuts of state-owned companies, which are statistically classified among market services. Our technical assumptions suggest that the wage bill cuts defined as part of the government measures may be implemented this year through wage cuts and equal cuts in wages and employment in 2011.

The rate of unemployment may remain consistently high over the entire forecast horizon. Despite growing employment, this is attributed to the fact that the regulatory changes in recent years affecting the labour market – tightening of conditions of early retirement, shortening of maternity leave, raising of the retirement age limit – further increase activity.

The gap in wages between the industrial and service sectors – attributed to the dual nature of trends in economic activity – may remain throughout the entire year of 2010. Wages in the market services sector, showing closer correlation with domestic demand, may remain subdued for the whole year. The annual growth rate of wages in the manufacturing sector is expected to decline from the second half of the year. Despite the acceleration in economic activity, wage growth in the private sector as a whole may remain significantly lower over our entire

### Chart 3-6

Unit labour cost and its components in the private sector



forecast horizon than the rates measured in the years before the crisis. A survey of the Hay Group conducted in August 2010 confirms this picture, as wage growth in the corporate sector will only rise moderately in 2011 compared to this year.<sup>23</sup> This is still attributed to the loose labour market, where the wage-contracting effect is also driven by the aforementioned government plan for wage bill cuts at state-owned companies. The duality characterising wages in the sectors will weaken from 2011, while the effect of the weaker exchange rate and rising commodity prices on inflation will also be reflected in wages. The development of inflation last year continues to have a pronounced effect on wage decisions, and thus from 2011 we expect wage dynamics to be moderately higher than indicated in our previous forecast, due to higher inflation. In addition to persistently high unemployment, the rise in real wages will fall short of growing productivity. The profit position of companies will improve further only at a sluggish rate from 2011, but the profit level may remain below the levels measured before the crisis over the long term.

<sup>23</sup> According to the survey in 2010 the average wage growth in the corporate sector was 3.4% in 2010 and the planed average wage growth in 2011 will be 3.6 %.

# 3.3 With demand conditions improving, more cost shocks may push inflation above the target

Prolonged weak domestic demand and the negative output gap over the entire forecast horizon continue to exert substantial downward pressure on prices. While core inflation may decline further in the second half of the year, we expect prices of non-core items of inflation to rise over the short term. This is attributed to the increase of the price of unprocessed food caused by poor crop yields and the primary effects of the depreciated exchange rate expressed through rising energy prices. The government measures to be implemented in the second half of the year will mitigate this latter trend tangibly. The pressure on prices in the economy is expected to strengthen at the level of core inflation from the middle of this year. We expect the acceleration of the short-term indicators of core inflation to primarily stem from changes in the price of industrial products, potentially followed by rising inflation of processed food and market services. In relation to industrial products, the renewed rise in prices is partly attributed to the termination of the timing effects observed in the second quarter. In addition, the inflating effect of the depreciated exchange rate on prices is reflected earliest in this product group.

The inflationary trends characterising the quarters ahead are significantly determined by our assumptions in relation to the development of the price of unprocessed food and regulated energy. We are of the view that the drastic price increases observed in recent months in connection with the price of certain unprocessed food may also be driven by speculative factors. We accordingly expect a correction in the rise in global prices in the short term; the price of these products may then increase along a more moderate path over the longer term. The government measures affecting regulated prices will moderate the pace of inflation in 2010, due to the cap on gas and district heating prices and

### Chart 3-7

**Trend Inflation developments** 

(seasonally adjusted, annualized, quarterly growth)



maintaining the gas price subsidy system. In the forecast, we assume that as a result of negotiations conducted with the service providers, the government can achieve a long-term reduction of certain fee items of regulated prices (e.g. network access fees), but the price pressure resulting from changes in commodity prices may still mount from 2011 in relation to the above items. We have therefore increased our overall forecast for increases in regulated prices from 2011.

According to our current forecast, the disinflationary trend affecting the overall consumer price index will be interrupted in 2011. Although the direct effects of the commodity price shocks causing a rise in inflation will gradually fade over the short term, with demand conditions improving, the growing production costs attributed to the weaker exchange rate and rising commodity prices may increasingly pass through to consumer prices. The output gap, which is forecast to

### **Details of our inflation forecast** Weight 10 Q1 10 Q2 10 Q3 10 Q4 11 Q1 11 Q2 11 Q3 11 Q4 12 Q1 12 Q2 12 Q3 12 Q4 -1.1 Unprocessed food 5.8 1.1 -2.7 9.9 9.5 5.8 5.7 1.7 3.1 4.1 3.9 3.8 Vehicle fuel and market energy 7.6 21.3 20.8 14.2 13.8 2.3 2.6 3.5 3.6 3.3 6.9 3.1 3.0 **Regulated** prices 16.7 6.5 8.0 5.8 5.3 7.6 7.3 7.3 8.2 6.2 5.3 4.9 4.8 Core inflation 70.0 4.8 3.9 1.5 1.6 1.6 2.4 2.9 3.1 3.1 3.0 2.9 2.8 Consumer price index 100.0 6.0 5.3 3.7 3.6 3.3 3.4 3.4 3.9 3.7 3.4 3.3 3.2

Table 3-3

### MAGYAR NEMZETI BANK

remain negative over the entire forecast horizon, may continue to buffer this trend, but owing to inflation expectations still hovering above the medium-term inflation target, wage decisions are increasingly expected to reflect the higher inflation. Accordingly, in addition to affecting non-core items of inflation, the renewed acceleration of inflation is also expected to produce stronger effects on core inflation items as well. As a consequence of the trend, core inflation may rise to roughly 3 per cent in 2012. Since the inflation of non-core items of inflation, similarly to trends in previous years, is expected to exceed the rate of core inflation in the coming years, the consumer price index may exceed the medium-term inflation target over the entire forecast horizon.

# 3.4 Inflation and growth risks

In addition to the baseline scenario, we quantified the effects of three risk paths which may have a major impact on our forecast.

The issue of the sustainability of government debt has recently become a centre of focus around the world. Fulfilling deficit targets and ensuring the sustainability of the debt path have now become fundamental conditions for securing macroeconomic stability over the short term as well. If the basic trends suggest a budget deficit path that is higher than the targeted figures, Hungary too would be well advised to manage the differences with further balance improving measures. Although there is no information available on the structure of these measures, calculations based on historical experiences suggests that such an action plan would lead to a less favourable GDP path in the coming years as compared to what is outlined in the baseline scenario and lower inflation via weaker demand.

A persistently tighter-than-expected credit environment – in spite of the economic recovery – might have similar effects. Change in regulatory conditions (e.g. the "decree on prudent lending", the prohibition of foreign currency-based mortgage lending) and the lower risk tolerance of the banking system may result in a permanently weak credit activity even if accompanied by slow improvement in demand. These risks may be further exacerbated by the additional tax on the financial intermediation system. If lending conditions improve less or more slowly than indicated by our expectations, the anticipated turnaround in domestic demand might be also slowed down or delayed. In turn, weaker domestic demand would represent a negative risk both for the development of growth and inflation.

Although our indicators for estimating inflationary expectations have gradually decreased, they still remain higher than the comparable indicators in countries in the region which record steadily low inflation rates. This phenomenon may be attributed to Hungary's adverse history of inflation and one-off shocks that continue to keep the country's inflation at currently high levels. Although our indicators measuring short-term inflationary pressure show a gradual decline in the recessionary economic environment, the current annual rate of inflation continues to significantly exceed the medium-term inflation target due to the indirect tax measures, increases in regulated prices and the rise in global energy prices. In view of the fact that since the economic transition, Hungarian inflation has not hovered around the 3% inflation target for a longer period of time, it is difficult to assess the degree in which the set inflation target can shape the price- and wage-setting decisions of economic participants in an economy which is returning to a phase of growth. This risk path identifies substantial upward risks in the baseline scenario for inflation, its effect, however, on the GDP path is roughly neutral.

Our fourth risk scenario is necessitated by the significant error of our technical basic assumption in the past, in relation to the projected trend of oil prices. Over the last 20 years, futures prices were distorted forecasters of actual price trends (see in detail Box 3-4 of the May issue of the Report on Inflation). This distortion seemed particularly strong over the time horizon of monetary policy. International literature offers numerous possibilities for the improvement of the forecasting ability of futures prices, the

### Chart 3-9





### Chart 3-10

### Fan chart of the GDP forecast

(based on seasonally adjusted and reconciled data)



application of which may be particularly warranted under the assumption of dynamically growing external demand. In our alternative scenario, we considered the easiest quantifiable alternative, adjusted with past average forecasting errors. In this scenario, the slope of the expected oil price path is positive over the entire forecast horizon, indicating significantly escalating risks relating to inflation, particularly upon approaching 2012, while the distribution of risk points in the direction of lower growth in relation to the GDP path.

Overall, we have identified upward risks in relation to inflation, due to the slow adjustment of expectations and our assumption applied to oil prices distorting towards lower inflation, while the risk distribution of growth is biased towards lower GDP dynamics from 2011.

# **3.5 We expect external financing capacity to be sustained over the long term**

The latest actual data and the change in our macroeconomic forecast suggest that the domestic economy may progress on an equilibrium path which is more favourable than previously expected. We expect the external financing capacity of Hungary to remain consistently high over the entire forecast horizon. In the next three years, the balance of the real economy will close with a substantial surplus: this is partly linked to the rise in exports driven by external demand, and partly to the moderation of the import dynamics caused by the slower-than-expected growth in domestic consumption. Following the massive deterioration in 2008-2009, we expect the profitability of companies to gradually improve from 2010, which will substantially worsen the income balance only from 2012. This is caused by the fact, that this year and next year the bank tax will significantly reduce the profits of foreign-owned banks. The negative effect of corporate profits on the balance can still be offset in 2010 by the substantial improvement in the interest balance, but from 2011, the current euro and forint interest rate paths imply a slow rise in net interest expenditures on debt-generating instruments. The capital account balance surplus

### Table 3-4

Structure of external financing requirement

(as a proportion of GDP, in per cent, unless otherwise indicated)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
	Fact/Preliminary fact				Forecast				
1. Balance of goods and services	-2.9	-1.2	-0.9	1.2	0.8	5.9	6.6	7.1	6.8
2. Income balance	-5.2	-5.7	-5.9	-7.3	-7.3	-6.1	-5.6	-5.9	-6.4
3. Balance of current transfers	-0.2	-0.3	-0.3	-0.5	-0.7	0.3	-0.3	-0.3	-0.3
<i>I. Current account balance (1+2+3)</i>	-8.3	-7.2	-7.1	-6.5	-7.1	0.2	0.7	0.9	0.1
Current account balance in EUR billions	-6.8	-6.4	-6.4	-6.6	-7.5	0.2	0.7	0.9	0.1
II. Capital account balance	0.1	0.7	0.7	0.7	1.0	1.4	2.3	2.3	2.2
External financing capacity (I+II)	-8.2	-6.5	-6.4	-5.8	-6.1	1.5	2.9	3.3	2.3

### Table 3-5

GDP-proportionate net financing capacity of individual sectors

	2004	2005	2006	2007	2008	2009	2010	2011	2012
			Fact/Prelin	ninary fact	:			Forecast	
I. Augmented general goverment*	-8.3	-9.3	-9.5	-5.8	-3.7	-4.6	-5.1	-4.4	-4.0
II. Households	2.3	4.3	3.3	1.5	1.2	3.3	4.5	4.5	4.1
Corporate sector and "error" (= A - I II. )	-2.2	-1.5	-0.2	-1.6	-3.7	2.9	3.6	3.2	2.2
A. External financing capacity, "from above"(=B+C )	-8.2	-6.5	-6.4	-5.8	-6.1	1.5	2.9	3.3	2.3
B. Current account balance	-8.3	-7.2	-7.1	-6.5	-7.1	0.2	0.7	0.9	0.1
– in EUR billions	-6.8	-6.4	-6.4	-6.6	-7.5	0.2	0.7	0.9	0.1
C. Capital account balance	0.1	0.7	0.7	0.7	1.0	1.4	2.3	2.3	2.2
D. Net errors and omissions (NEO)**	-1.4	-1.9	-2.3	-1.6	-2.8	-1.0	-1.1	-1.0	-1.0
External financing capacity "from below" (=A+D)	-9.6	-8.4	-8.8	-7.5	-8.9	0.5	1.9	2.2	1.3

\* In addition to the fiscal budget, the augmented general government includes local governments, ÁPV Ltd., institutions discharging quasi-fiscal duties (MÁV, BKV), the MNB and authorities implementing capital projects initiated and controlled by the government and formally implemented under PPP schemes. \*\* In our forecast for the 'errors and omissions' item of the balance of payments we assumed that the cumulated figure for the last four quarters would remain unchanged. will continue to significantly contribute to sustaining the external financing capacity in the coming years, which is still chiefly attributed to the inflow of EU transfers.

Over our forecast horizon, financial savings in the private sector provide an ample offset to the financing requirement of the general government. The delayed rise in household consumption points to a further increase in the financial savings of the sector in 2010. In relation to the corporate sector, the financing capacity may be sustained at a high level through the reduction of the corporate tax burden, an upturn in external demand and the growing use of EU transfers. Introduction of the bank tax, however, may contribute to sustaining the high level of financial savings in the private sector through the assumed curbing of lending. From 2012, the substantial growth in consumption and investment may lead to decreased financial savings in the private sector which can only partially be offset by a shrinking budget deficit, thus the external financing capacity of the country may decline to a greater extent.

### Table 3-6

Changes in our projections compared to May 2010

	2009	2009 2010 2011		2012			
	Astural			Proje	ection		
	Actual	May	Current	May	Current	May	Current
Inflation (annual average)							
Core inflation <sup>1</sup>	4.1	3.0	3.0	1.6	2.5	2.5	2.9
Consumer price index	4.2	4.9	4.7	3.0	3.5	2.9	3.4
Economic growth							
External demand (GDP-based)	-4.2	1.5	1.7	2.0	1.8	2.3	2.0
Household consumer expenditure	-7.6	-2.6	-3.5	3.0	2.2	4.3	3.6
Fixed capital formation	-6.5	1.4	1.0	5.5	2.8	6.0	5.3
Domestic absorption	-11.5	-0.2	-0.9	3.1	2.2	3.9	3.4
Export	-9.1	8.8	11.6	8.1	7.5	10.1	9.5
Import	-15.4	8.1	10.4	8.4	7.2	10.7	9.7
GDP*	-6.3	0.9	0.9	3.2	2.8	3.9	3.8
External balance <sup>2</sup>		•					•
Current account balance	0.2	-0.6	0.7	-0.9	0.9	-1.4	0.1
External financing capacity	1.5	1.4	2.9	1.4	3.3	0.8	2.3
Government balance <sup>2</sup>				• •			•
ESA balance <sup>3</sup>	-4.0	-4.5 (-4.3)	-4.3	-3.9	-4.1	-2.9	-3.7
Labour market				• •			•
Whole-economy gross average earnings <sup>4</sup>	0.5	2.7	2.7	4.4	4.4	5.4	5.4
	-2.5	-0.8	-0.3	0.3	0.4	0.7	0.6
Private sector gross average earnings <sup>6</sup>	4.4	4.2	4.2	4.4	4.6	5.4	5.6
Private sector employment <sup>5</sup>	-3.8	-1.6	-1.5	0.4	0.3	0.9	0.8
Private sector unit labour cost <sup>5,7</sup>	8.2	-1.4	-1.9	1.2	1.7	2.0	2.7
Household real income**	-4.7	-2.9	-3.1	2.5	1.4	3.0	2.8

 $^{\rm 1}$  From May 2009 on, calculated according to the joint methodology of the CSO and MNB.

<sup>2</sup> As a percentage of GDP.

<sup>3</sup> The numbers in brackets refer to the deficit achievable in case of total blocking of budgetary reserves. In our forecast we have not taken into consideration any risk from debt assumptions.

<sup>4</sup> Calculated on a cash-flow basis.

<sup>5</sup> According to the CSO LFS data.

<sup>6</sup> According to the original CSO data for full-time employees.

<sup>7</sup> Private sector unit labour costs calculated with a wage indicator excluding the effect of whitening and the changed seasonality of bonuses.

\* The table contains data excluding calendar effects.

\*\* MNB estimate.

### Table 3-7

### MNB basic forecast compared to other forecasts

	2010	2011	2012
Consumer Price Index (annual average growth rate, %)			
MNB (August 2010)	4.7	3.5	3.4
Consensus Economics (June 2010) <sup>1</sup>	4.3 - 4.7 - 5.0	2.8 - 3.0 - 3.5	-
European Commission (May 2010)	4.6	2.8	-
IMF (April 2010)	4.3	2.5	2.6
OECD (May 2010)	4.5	2.3	-
Reuters survey (July 2010) <sup>1</sup>	4.4 - 4.7 - 5.2	2.7 - 3.2 - 4.6	2.4 - 3.0 - 4.0
GDP (annual growth rate, %)			
MNB (August 2010) <sup>4</sup>	0.9	2.8	3.8
Consensus Economics (July 2010) <sup>1</sup>	(-0.5) - 0.4 - 1.5	1.5 – 2.6 – 3.2	-
European Commission (May 2010)	0.0	2.8	-
IMF (April 2010)	-0.2	3.2	4.5
OECD (May 2010)	1.2	3.1	-
Reuters survey (July 2010) <sup>1</sup>	(-1.9) - 0.6 - 1.8	1.5 – 2.7 – 3.2	-
Current account balance (percent of GDP)			
MNB (August 2010)	0.7	0.9	0.1
European Commission (May 2010)	-0.2	-0.3	-
IMF (April 2010)	-0.4	-1.0	-2.1
OECD (May 2010)	0.8	-0.4	-
Budget Balance (ESA-95 method, percent of GDP)			
MNB (August 2010) <sup>6</sup>	-4.3	-4.1	-3.7
Consensus Economics (July 2010) <sup>1</sup>	(-3.8) - (-4.1) - (-5.0)	(-2.8) - (-3.6) - (-4.4)	-
European Commission (May 2010)	-4.1	-4.0	-
IMF (March 2010)	-3.8	-2.8	-
OECD (May 2010)	-4.5	-4.3	-
Reuters survey (July 2010) <sup>1</sup>	(-3.8) - (-4.1) - (-5.0)	(-2.8) - (-3.5) - (-4.5)	-
Forecasts on the size of Hungary's export markets (ann	ual growth rate, %)		
MNB (August 2010)	5.5	4.3	5.2
European Commission (May 2010) <sup>2</sup>	4.5	5.1	-
IMF (April 2010)	3.0	3.2	-
OECD (May 2010) <sup>2,3</sup>	6.7	6.9	-
Forecasts on the GDP growth rate of Hungary's trade p	artners (annual growth rate, %)		
MNB (August 2010)	1.7	1.8	2.0
European Commission (May 2010) <sup>2</sup>	1.4	2.0	-
IMF (July 2010) <sup>2</sup>	1.6	2.1	2.5
OECD (May 2010) <sup>2,3</sup>	1.9	2.4	-
Forecasts on the GDP growth rate of euro area (annual	growth rate, %)		
MNB (August 2010) <sup>5</sup>	1.4	1.4	1.5
European Commission (May 2009)	0.9	1.5	-
IMF (April 2010)	1.0	1.3	-
OECD (May 2010)	1.2	1.8	-

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

<sup>1</sup> 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.

<sup>2</sup> 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. <sup>3</sup> OECD did not publish any information about Romania, therefore Romania is not included in our OECD forecast.

<sup>4</sup> Data not adjusted for calendar-day variations.

<sup>5</sup> Aggregate based on Euro area members included in our external demand indices.

<sup>6</sup> In our forecast we have not taken into consideration any risks from debt assumptions.

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. (London), July 2010); European Commission Economic Forecasts (May 2010); IMF World Economic Outlook Database (April 2010), World Economic Outlook Update (July 2010); IMF Country Report No. 10/80 (March 2010); Reuters survey (Július 2010); OECD Economic Outlook No. 87 (May 2010).

# **3.6 Developments in the general government balance**

# Following considerable improvement in 2010, the structural deficit may fluctuate around 2 per cent

Our fiscal forecast also involves higher-than-usual uncertainty, because a part of the government package is not known in detail, and we do not have any information on the main appropriations of the 2011 and 2012 Budgetary act. We only take into account in our forecast the measures already adopted in law or which have been sufficiently detailed and are highly likely to be accepted. In respect of expenditures that are primarily determined by the decisions of the government we apply technical rules, the methodology of which is presented in a box text.

Our forecast based on these conditions suggests that without further measures the 3 per cent GDP-proportionate Maastricht deficit target relating to the budget deficit cannot be fulfilled over the time horizon of the inflation forecast, and the deficit will likely also exceed the deficit target set out in the convergence programme in each of the years. According to our forecast, the ESA deficit will rise to 4.3 per cent in 2010 and then decrease to 4.1 % in 2011 and 3.7 % in 2012. This basically means that, with minor differences between 2008 and 2012, the average budget deficit will amount to approximately 4 per cent.

The structural deficit that better reflects the long-run measures of the government will significantly improve in 2010, as a result of the expenditure-reducing measures adopted by the former and new governments. In 2011, it will further improve primarily driven by declining expenditures. In 2012, however, we do not expect any further improvement in the structural deficit in the absence of additional deficit-reducing measures.

We expect the ESA deficit to rise in 2010 and the deficit may begin to decrease significantly only in 2012

As a result of the economic downturn, the reduction in the budget deficit came to a halt in 2009; the ESA deficit may rise to 4.3 per cent in 2010 which is 0.5 percentage points higher than the government's deficit target. The rise in the ESA deficit is chiefly attributed to significantly worse-thanexpected trends on the revenue side, which are only partially offset by the balance-improving measures of the economic action plan. Beyond the particular aspects of the structure of economic growth, the decline in revenues is also attributed to the fact that trends in 2009 were less favourable than expected, primarily reflected in the high level of corporate tax refunds linked to payments made in 2009. In 2010 H1, budget revenues fell short of and expenditures exceeded government expectations. Although the measures adopted by the new government substantially improve the budget balance relative to the non-adjusted position, according to our forecast, the ESA deficit still exceeds the government's deficit target even in consideration of such measures.

We expect the ESA deficit to decline somewhat in 2011. A further GDP-proportionate decrease in the main tax revenues of central government points towards a higher deficit. This is offset by a similar decline in GDP-proportionate expenditures. Therefore, the improvement in the ESA balance can be linked primarily to the declining deficit of the local governments. The decreasing deficit of the local governments is a result of the cyclical decline in investment activity and in case of the highly-indebted local governments also of the accommodation to the financing constraints. The balance-

### Table 3-8

Developments in the balance indicators of the general government

(as a percentage of GDP)

	2009	2010	2011	2012
I. ESA balance	-4.0	-4.3	-4.1	-3.7
II. Gap between the ESA and SNA balance	-0.6	-0.8	-0.3	-0.3
III. Cyclical component	-1.1	-2.6	-2.3	-1.8
IV. (I.+IIIII.) Cyclically adjusted augmented SNA balance	-3.5	-2.5	-2.1	-2.2
memo: ESA primary balance	0.4	-0.4	-0.3	-0.1

improving measures of the new government adopted in 2010 will not improve the balance further in 2011.

The decline of budget deficit may accelerate in 2012 because in that year, in parallel with the narrowing output gap, the dynamics of tax revenues exceed the rise in expenditures and the balance of local governments improves further. The decline of the deficit, however, is slowed in 2012 when the exact rate of the special tax on financial institutions is not defined and therefore we do not incorporate it into our forecast.

The structural deficit will improve substantially in 2010, and the improvement may decelerate in 2011 and end in 2012 without further measures

The development of the structural deficit presented through the changes in the cyclically-adjusted SNA balance reveals the extent to which the measures contribute to changes in the position of general government over the longer term. As the increasing 2010 ESA deficit and the decreasing 2012 deficit can be closely linked to the change in the cyclical component, the dynamics of the structural deficit differs significantly from the ESA deficit.

In 2010, the structural deficit may fall by 1 per cent of GDP to 2.5 per cent. The most important components of this

improvement are the adoption of the special tax on financial institutions, increasing net EU support, the cut in PPP motorway construction, and the shrinking GDPproportionate public wage bill. The decreasing revenues, related to the structure of economic growth, are not reflected in the structural deficit.

Our projections point to further modest improvement in the structural deficit in 2011. The fall in quasi-fiscal investment activity, the decreasing GDP proportionate pension and public wage expenditures, the net EU support all contribute to the decline in the deficit; furthermore, in 2011 the fall in local government investment also points toward a lower deficit. The lower personal income tax and corporate tax burden, however, offset most of these improvements.

In 2012, we do not project a considerable change in the structural deficit. The declining GDP-proportionate pension, wage and local government expenditures would still decrease the deficit, but in 2012 we forecast a moderate rise in quasi-fiscal investment activity to partially offset the termination of investments implemented under PPP schemes. In addition, we do not incorporate the special tax on financial institutions in our forecast, which also has a negative effect on the structural balance.<sup>24</sup>

Box 3-4: Settlement of the government package of measures, forecasting rules

### **Government measures**

In accordance with our earlier practice, our budget forecast takes into account only the effects of government measures adopted or very likely to be adopted into law or detailed in sufficient depth.

- In respect of the measures adopted by the new government, the introduction of the special tax on financial institutions and savings related to the operation of the public sector have a significant balance-improving effect, while the extension of the preferential corporate tax rate reduces revenues.
- 2. The net effect of the measures falls short of the total gross effect, as a result of the lost direct and indirect tax revenues. The introduction of

the special tax on financial institutions reduces the corporate tax base, while the savings related to the operation of the public sector decrease tax and social contribution revenues linked to wages, consumption and investment.

- 3.The decline in the wage bill to be implemented at state-owned companies does not have a direct balance-improving effect, as most of these companies are not classified in the public sector according to the ESA methodology, but they do produce an indirect effect on the budget.
- 4. The planned modifications relating to the personal income tax system, the details of which remain unknown, are not taken into account in our baseline scenario; the possible macroeconomic effects are described in a Box.<sup>25</sup>

<sup>&</sup>lt;sup>24</sup> Changes in state-initiated investment activity have a significant impact on the difference in the dynamics of the ESA deficit and the cyclically-adjusted SNA balance over the entire forecast horizon. From 2006, cuts in government investments constituted one element of the significant deficit-reducing measures, and thus the investment level has dropped to a historical low in 2010. As a technical rule, in the course of forecasting the ESA deficit, we expected the investments of both budgetary units and the health care system to increase with potential GDP. As a result of the above, however, the level of GDP-proportionate investments declines further over the entire forecast horizon, accompanied by the expected termination of PPP investments. In calculating the structural deficit, however, we assumed that the decline in investments is not sustainable over the longer term. Although the inflow of EU funds reduces the expenditures of self-financed government investments, but even in consideration of the above, we expect a moderate rise in quasi-fiscal investments from 2012.

<sup>&</sup>lt;sup>25</sup> Our projection is still based on the scenario that the PIT's lower band limit will be HUF 15 million from 2011.

5. Our forecast applies the assumption that since the corporate taxrelated tax cut was introduced during 2010, the full effect of the tax measure will only unfold in 2011. By contrast, the special tax on financial institutions will be paid in full in both 2010 and 2011, but this source of budget revenue is not accounted for in 2012. The savings affecting the public sector that are realistically acceptable are included in the basis for our baseline scenario, and thus the effects thereof are present over the entire forecast horizon.

### **Rules relating to budget expenditures**

A budget act has not been passed for the years 2011–2012 and the intentions of the government are not known as to the precise development of certain expenditures. Therefore, we applied technical assumptions to the one-third of the expenditures for which the MNB does not calculate an independent forecast.

6. According to our basic assumption, fiscal policy will remain neutral over the long term, and therefore, as a general rule, the real value of

these expenditures is increased along with potential GDP. Over the entire time horizon of the inflation forecast, the GDP-proportionate level of expenditure calculated for these items decreases by a total of 0.4 percentage points as a result of the contraction in the output gap, in other words the expected nominal GDP growth will exceed the potential growth rate.

- 7. We diverged from the indexing rules in relation to items where we had extra information available on the basis of the historical development of earlier government measures or time series.<sup>26</sup> In consideration of such extra information, expenditures are reduced by an additional 0.3 per cent of gross domestic product over the forecast horizon.
- 8. We continue to prepare independent forecasts for most of the expenditures, such as pension expenditures, interest expenditures, passive expenditures of the labour market fund and the vast majority of revenues.

# We expect a rise in the ESA deficit in 2010, despite further fiscal adjustments

On the basis of available cash-flow based data, in 2010 H1 the budget deficit significantly exceeded the figure for 2009, mainly due to the decline in the main tax revenues. The revenue-boosting effect of the fiscal measures adopted in the framework of the economic action plan can only partly offset the decline in revenues, and thus we expect a decline in GDP-proportionate revenues for the year as a whole.

In comparison with the previous year, all major tax and social contribution revenues decreased in nominal terms as well, with the exception of VAT revenues, primarily as a result of tax cuts, but in some cases the decline was even greater. The decline in tax revenues is mainly attributed to the fact that corporate tax revenues fell significantly as a result of the exceptionally high level of reclaimed corporate tax paid in 2009. This implies that the profitability of companies is likely to have declined to a greater extent in 2009 than previously estimated. In relation to wage-linked tax and social contribution revenues, the decline is chiefly due to a lower tax burden, but there was also a high number of tax reclaims following the annual tax declaration. Excise tax revenues decreased despite the higher tax rates, owing to a decline in domestic fuel sales and the partial early introduction of the tax on tobacco products in 2009.

With respect to basic revenue trends, we do not expect a favourable turnaround in 2010 H2, as the tax refunds relating to 2009 will have an effect over the entire time horizon via the lower base. Fiscal measures adopted in accordance with the economic action plan may increase revenues by 0.3 per cent of the GDP<sup>27</sup> compared to the underlying trend. In connection with the above, the introduction of the special tax on financial institutions substantially increases revenues, while the extension of the preferential corporate tax rate produces the opposite effect.

In the first six months of 2010, in addition to the unfavourable trend in revenues, the decline in the timeadjusted cash flow balance is also attributed to the rise of expenditures primarily caused by the increase over the previous year of the net expenditures of budgetary institutions, subsidies provided to transport companies and health expenditures. In the absence of measures for cuts in expenditures, in the May issue of the Report on Inflation we estimated that the net expenditures of budgetary institutions will be higher than the figure set out in the budget act. On the basis of expenditure-related data and

<sup>&</sup>lt;sup>26</sup> Such items include e.g. housing, family and medication subsidies and consumer price subsidies.

<sup>&</sup>lt;sup>27</sup> The gross revenue-increasing effect is higher, but the special bank tax reduces the corporate tax base.

other information published since the May issue of the Report on Inflation, the gap has further widened between our expectations relating to the net expenditures of budgetary institutions and the passed budget act. Although the measures announced in relation to the public sector substantially reduce expenditures<sup>28</sup>, the savings fall short of reaching the legislative target related to the net expenditures of budgetary institutions. Only a small portion of the remaining difference is explained by the fact that we did not take into account in our forecast the portion of expenditure cuts not supported with specific measures. Our forecast also took into account savings related to state assets and to the expenditures of Extrabudgetary Funds and the abolition of the interest rate risk reserve.

# GDP-proportionate revenues will continue to decline in 2011 and 2012

According to our macroeconomic forecast, the economy will be on a growth path in 2010, although the structure of this growth is not supportive of budget revenues, as economic growth is principally the result of improving net exports. In 2011, the increase in nominal GDP will significantly exceed growth in the main tax bases, and be only moderately higher in 2012. In addition to the structure of growth, one-off effects also contribute to the decline in GDP-proportionate revenues in relation to several types of tax.

In the first years of the economic recovery, growth in corporate tax revenues will fall short of the level warranted by economic growth as a result of the accrual of previous years' losses, and thus the GDP-proportionate level of revenues will decline until 2012. The extension of the preferential corporate tax rate after 2010 will cause a further loss of revenue in 2011 as a whole. The rate of the special tax on financial institutions introduced in 2010 is not regulated in relation to 2012, and thus the GDPproportionate payments of business organisations will decrease in this year, as well.

Wage-linked tax and social contribution revenues will decline significantly in 2011, mainly as a result of raising the lower bracket limit of personal income tax to HUF 15 million. The decline is also attributed to the fact that the wage bill increase falls short of the nominal GDP growth by nearly 2 percentage points. In 2012, the increase of the wage bill will approximate nominal GDP growth, and thus wage-linked tax and social contribution revenues will no longer decline. The rise in household purchased and government consumption in 2011 will approximate nominal GDP growth and moderately exceed the rate in 2012, and accordingly the GDP-proportionate level of VAT and excise tax revenues linked to consumption will not change substantially in 2011 and 2012.

# GDP-proportionate general government expenditures may also decline in 2011 and 2012

The GDP-proportionate amount of pension expenditures – one of the largest expenditure items – will decline over the entire inflation forecast horizon. The measures adopted in 2009 play a key role in the decline of expenditures. The decrease of expenditures in 2010 is primarily attributed to the complete abolition of the 13th month pension, while the GDP-proportionate expenditures will decline from 2011 as a result of the pension indexing rules. As a result of the pension indexing formula, also determined by the rate of economic growth, the real value of pensions will not rise in 2010 and 2011, and only by 20 per cent of the real wage increase in 2012.

We do not have specific information in relation to the other key expenditure item, the expenditures of budgetary institutions in 2011 and 2012, as no budget act has been adopted. In our forecast, the expenditure cuts in 2010 will be integrated into the base and the gas price subsidies will be gradually abolished in 2011. Pursuant to our forecasting rules, over the medium term the wage expenditures of the budgetary institutions will increase in line with wage growth in the private sector, while the purchase of goods and services and investment expenditures will rise at a rate equivalent to potential GDP growth. Overall, the increase in expenditures will fall short of the rise in gross domestic product in both years. Depending on the actual decisions adopted by the government, the development of expenditures may substantially vary from the expenditure scenario defined by the forecasting rules. In recent years, there have been no structural changes backing up some of the savings, which calls in to question the sustainability of the expenditure cuts. The rise of carry-over balance to a historical high is one consequence of the lacking structural measures. If a portion of such carry-over balance is absorbed, the expenditure level may be higher than in the baseline scenario. This effect may be offset if the rise in wages falls short of the wage increase in the private sector.

In relation to the local government subsystem, due to the limits of financing the deficit, the forecast is principally

<sup>&</sup>lt;sup>28</sup> The effect of the measures could already be verified in the July data.

prepared for the balance and we derive the expenditures from this. On the basis of historical data, we assume that the investment cycle linked to the elections will have a significant impact on the subsystem's deficit. We also take into account gradual adjustment to cuts in government subsidies. Similarly to previous election cycles, the balance of the subsystem, consolidated with government subsidies, will decline from 2011. However, as a result of tighter financing conditions, in connection with the withdrawal of budgetary funds implemented in 2009-2010 and local governments with high debts, the rate of the deficit cut may be minimally higher than observed in previous cycles.

GDP-proportionate accrual-based net interest expenditures will fall significantly in 2010 compared to 2009 and then decline moderately in the next two years. The shift in levels is caused by the changing debt structure during the past one and a half years, as the IMF-EU loans, some with variable interest, subject to the prevailing yield curve and the technical assumption related to the HUF exchange rate, constitute funds with lower costs than the HUF government bonds.

In 2010, we project symmetrical risks, while the risks imply a slightly higher deficit from 2011

The risks to the baseline scenario are nearly symmetrical, although in 2011 and 2012 the risks imply a slightly higher deficit. The slight upward asymmetry in 2011 is primarily linked to the macroeconomic variables, while the risks from

### Chart 3-10



the lower economic growth are only partly offset by the inflationary risks deemed favourable from the point of view of the budget. In 2012, the macroeconomic path is surrounded by symmetrical risks, while the expert items implies a higher deficit. The uncertainty stemming from the expert items is on an upward trend in all three years, primarily as a result of risks relating to the implementation of the fiscal measures and the sustainability of cuts in GDPproportionate health expenditures.

Our view on stock-type risks (transport companies, local government debt, high level of carry-overs, indebtedness of health care system) has not changed significantly compared to the situation assessment in the May issue of the Report on Inflation, as these risks are still present.

### Box 3-5: Comparison of our current forecast with the 2010 Budgetary Act and the May 2010 forecast

## Comparison of our 2010 ESA deficit forecast to the deficit target in the Budgetary Act

In 2010, we expect the ESA deficit to exceed the 3.8 per cent deficit target by 0.5 per cent of GDP, as a result of revenues falling short of budgeted figures, the higher-than-planned local government balance and expenditure overruns by budgetary institutions. Owing to the decline in corporate tax payments, payments made by business organisations approximate the budgeted level (Chart 3-11) only through the introduction of the special tax on financial institutions; without the tax, these would fall short of such level by a large margin. Wage-linked tax and social contribution revenues and other payments by households will be substantially lower than provided for in the budget primarily as a result of personal income tax losses and the abolition of the property tax by the Constitutional Court. The shortfall in excise and registration tax revenues was caused by declining fuel sales - linked to higher prices and advance payment of tax on tobacco products in 2009. On the expenditure side, particularly the net expenditures of budgetary institutions and subsidies provided to local governments exceed significantly the values set out in the budget act. According to the budget act, the net expenditures of budgetary institutions will decrease by approximately 0.7 per cent of GDP compared to the year 2009, but most of the planned cuts in expenditures will not be implemented despite the adopted measures (Chart 3-11). The substantial overrun of subsidies provided to local governments is partly related to the expansion of the "Road to Work" programme and partly to surplus subsidies provided to BKV; these amounts are therefore spent by the local governments, leading to the increase of the deficit also on a consolidated level. The effects of higher expenditures is largely offset by the freezing of reserves and the lower-than-expected pension expenditures.

### Chart 3-11

Deviation from budget law in case of the revenue and the expenditure item mostly influenced by the recent budgetary measures (in % of GDP\*)



\* A positive value means a less favourable forecast than the budget appropriation

Comparison of our current forecast with the forecast of the May Inflation report

With regard to budget revenues, the macroeconomic path, with a less favourable structure than assumed earlier,<sup>29</sup> and budget data for recent months would cause our deficit expectations to rise over the entire

### Table 3-9

Components explaining the difference between the fiscal act and our projection for the 2010 ESA deficit

```
(as a % of GDP)
```

I. Projecti	. Projection of the budgetary law	
II. Deficit i	increasing components	2.3
in which	Effects of the released intra-year data*	2.0
	Decisions of the Constitutional Courts (tax on property, family allowances)	0.3
III. Deficit	increasing components	-1.8
in which	Deletion of reserves	-0.6
	Effects of members returning from the private pension funds	-0.2
	Interest payments	-0.2
	Measures	-0.8
	II ) Expected deficit (MNB august)	43

<sup>29</sup> The budgetary measures have also contributed to the change of the structure of the macroeconomic path.

forecast horizon. The measures of the new government set out by law basically neutralise these effects in 2010 and 2011, and therefore our forecast did not change significantly for these two years. In 2012, however, the new measures (particularly termination of the special bank tax) also imply a higher deficit, and consequently our deficit expectations rose by nearly 1 percentage point over our forecast of May.

Our deficit expectations for 2010 were raised considerably by our worsening assessment of the 2009 trends, due to the high level of tax refunds and the lower base. Our forecast was downscaled to the largest degree in relation to corporate tax. Beyond the above, owing to economic growth with a structure less favourable for revenues and in light of the latest data, our revenue expectations also declined in relation to the other main types of tax. In addition to revenues, our assessment of expenditures also deteriorated, as the net expenditures of budgetary institutions significantly surpassed our expectations in the second quarter. However, the package of measures adopted by the new government fully offset the worse-than-expected trends on the revenue and expenditure side, and thus, also in consideration of the abolition of the interest rate reserve, our deficit expectations declined by 0.2 per cent of GDP.<sup>30</sup>

With regard to 2011 and 2012, our assessment of the trends on the revenue side – adjusted for the effects of the measures – also worsened in a degree similar to the change in 2010. The balance-improving effect of the measures is more moderate in 2011, as the corporate tax measure has an impact over the entire year, and therefore our deficit forecast increased by 0.2 per cent of GDP. In 2012, the effect of the new measures also increases the deficit through the termination of the special tax on financial institutions, and consequently our deficit expectations are 0.9 per cent higher than in May.

<sup>30</sup> Compared to the forecast, which assumed to spend the interest payment risk reserve.

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