QUARTERLY REPORT ON INFLATION
March 2013

MAGYAR NEMZETI BANK

QUARTERLY REPORT ON INFLATION
March 2013

Published by the Magyar Nemzeti Bank

Publisher in charge: dr. András Simon, Head of Communications

8–9 Szabadság tér, H-1850 Budapest

www.mnb.hu

ISSN 1418-8716 (online)

Act CCVIII of 2011 on the Magyar Nemzeti Bank, 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 per cent medium-term objective. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of the expected development of inflation every three months, in order to establish the monetary conditions consistent with achieving the inflation target. The Council's decision is the result of careful consideration of a wide range of factors, including an assessment of prospective economic developments, the inflation outlook, money and capital market trends and risks to stability.

In order to provide the public with clear insight into the operation of monetary policy and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis, as well as the macroeconomic developments underlying these forecasts. The Report is published quarterly. The forecasts of the Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis are based on assumption of endogenous monetary 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 Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis, under the Executive Director Dániel Palotai. The Report was approved for publication by Dr. Ádám Balog, Deputy Governor.

The *Report* incorporates valuable input from the Monetary Council's comments. The projections and policy considerations, however, reflect the views of staff in the Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis, Directorate Financial System Analysis and do not necessarily reflect those of the Monetary Council or the MNB.

The projections are based on information available in the period to 20 March 2013.

Contents

List of boxes

The statement of the Monetary Council about the overview of economic developments and monetary policy assessment

Expecting a strong disinflationary effect from the real side of the economy and a sustained improvement in perceptions of risk, the Monetary Council has started a cautious sequence of interest rate reductions from August 2012. In the period from December 2012 to February 2013, the Monetary Council continued the series of reductions in the central bank base rate that began last August. With these successive reductions in official interest rates, the base rate fell to 5.25 per cent. The Council's decisions reflected the view that, looking forward, weak demand would have a substantial disinflationary impact on the economy, which would increasingly dominate inflation developments as the indirect tax increases keeping inflation high last year dissipated, thereby helping to meet the Bank's inflation target.

In its February press release, the Monetary Council indicated that it would consider a further reduction in interest rates if the medium-term outlook for inflation remained consistent with the Bank's 3 per cent target and the favourable financial market conditions continued to persist.

Due to the reductions in utilities prices and the strong downward pressure stemming from the demand side, inflation fell below the Bank's inflation target at the beginning of this year. There was a general slowdown in global economic activity towards the end of last year. The euro-area recession deepened and the global growth outlook worsened. In developed economies, the expected turning point may be further delayed, with growth only likely to pick up materially in 2014. Measures of inflation in the advanced regions of the world were close to or slightly below central banks' targets, in line with the weakness in demand. Against the background of low inflation and the subdued outlook for growth, central banks of developed economies continued their stimulus programmes, which contributed to the improvement in financial market sentiment while ensuring that strong capital inflows into emerging market economies were maintained. However, the contrast between economic activity and developments in financial markets still remains. The Monetary Council expects that the crisis management efforts by European economies will live up to the expectations and that activity on the Continent will stabilise in the short term, before picking up gradually.

Hungarian economic data for recent months have been weaker than expected and inflation fell sharply in the first months of 2013. The annual consumer price index dropped below the Bank's 3 per cent target by February. External and domestic factors both contributed to the decline in GDP towards the end of last year, and temporary cuts in production for idiosyncratic reasons in some sectors of the economy exacerbated the decline. The slowdown in Hungary's export markets led to a moderation in the pace of export growth, while domestic demand, having key importance in terms of pricing decisions, continued to be subdued. The gradual reduction in debt stocks accumulated during the years prior to the crisis, generally tight credit conditions and uncertainty surrounding the outlook for activity all point to cautious investment and consumption decisions. Reductions in utilities prices at the start of the year led to a material slowdown in consumer price inflation. In the subdued demand environment, companies have limited ability to raise consumer prices. Increases in the prices of non-regulated goods and services were also generally low at the beginning of the year. In the continued benign external market environment, premia on domestic financial assets remained broadly stable until February, before increasing in March.

GDP may grow again in this year, in line with strengthening exports. A pick-up in domestic demand and a more balanced structure of growth is expected from 2014. In the Council's judgment, domestic demand conditions remain weak. Taking into account one-off factors significantly affecting some sectors (agriculture, manufacturing) following the deeper-than-expected recession of 2012, economic activity is likely to pick up gradually in the coming quarters. In the short term, the fading effect of last year's temporary shocks may contribute to the resumption of growth. Exports are likely to remain the most important source of growth. A tangible recovery in domestic demand is unlikely before 2014. Although demand in Hungary's major export markets is only expected to pick up slowly, the country's export market share is expected to increase as production related to new capacities built up in the automobile industry in recent years picks up. In the low inflation environment, household real income growth is expected to resume. However, due to the protracted deleveraging process and increased uncertainty, the household savings rate may remain persistently high, and therefore consumer demand is likely to strengthen mainly from 2014. Tight lending conditions and low capacity utilisation may lead companies to postpone investment. Corporate investment is expected to pick up next year, in line with the improving outlook for growth.

Labour market activity is expected to recover in the coming years. However, in the face of the uncertain outlook for demand, companies have limited ability to absorb additional labour supply, and therefore public work programmes may continue to play a key role in employment growth. Companies may choose to restore their profitability by cutting production costs, and wage costs in particular, rather than by raising consumer prices. Persistent slack in the labour market exerts strong downward pressure on wages. The rate of real wage growth may be slower than the improvement in productivity in the coming years. The job protection action plan, implemented from this year, may lead to a general improvement in the chances of employee groups affected by the programme to find a job. However, the Government's tax measures point to increases in companies' productions costs and a resulting need to adjust.

The consumer price index may remain below the Bank's inflation target over the entire forecast horizon. Despite the recessionary environment, the consumer price index remained above target last year. High inflation mainly reflected the effects of commodity price shocks and increases in indirect taxes; meanwhile the pace of underlying inflation was moderate. Incoming data from the start of the year indicate a turning point in inflation, supporting the Council's view that subdued demand exerted strong downward pressure on prices. Inflation is likely to fall further in the near term, reflecting base effects and reductions in utilities prices by the Government. The upward impact on costs of the increasing the tax burden on certain sectors may pass through to the entire corporate sector along the production chain, which may lead to an increase in core inflation adjusted for indirect taxes. With the output gap remaining negative, the passing on of higher costs into consumer prices may be slow and partial. As a result of these factors, inflation may remain below the 3 per cent target throughout the year and settle close to the target value in 2014.

The net external financing capacity of the Hungarian economy is likely to increase further in the coming years. As a result, the high level of external debt built up before the crisis may decrease further. In the Council's judgment, the net external financing capacity of the Hungarian economy is likely to increase further in the coming years. The improvement in the country's external position reflects the growing surplus on the balance of goods and services, in addition to the steady increase in the amount of EU transfers. Meanwhile, the income account has been deteriorating.

In line with the budget act, the fiscal deficit is likely to be below 3 per cent of GDP both in 2012 and 2013. For the time being, however, there is no accepted budget for 2014. The Government's commitment to keeping the deficit at low levels contributes to the long-term sustainability of the fiscal position.

The outlook for both inflation and the real economy points to a further easing in monetary conditions. Over the previous period, inflation in Hungary typically remained above target and economic output significantly below its potential level. In its press releases, the Monetary Council indicated that it judged the disinflationary impact of weak demand to be significant, which would reduce medium-term inflation risks, and therefore the inflation target could be met as the inflationary effects of costs shocks to the economy faded. However, changes in perceptions of risks materially influenced the room for manoeuvre in monetary policy. Ensuring stability of financial markets required a cautious approach to policy.

The inflation data becoming available around the start of the year underpinned the Council's view that subdued demand exerted strong downward pressure on prices. The outlook for inflation and the real economy point to a further easing in monetary conditions. Therefore, monetary policy can support economic growth consistent with its mandate, without jeopardising the objective of achieving and maintaining price stability. However, volatility in the financial market environment has increased in recent months following the marked improvement last year.

Developments in monetary conditions are surrounded by risks owing to uncertainty related to the level of spare capacity in the economy, developments in bank lending and the global financial market environment. There is considerable uncertainty around the macroeconomic outlook and financial market developments. The Council judges that the most important risks are related to the size of spare capacity in the economy as well as future developments in bank lending and in risk perceptions.

In the Council's judgment, the potential growth rate of the Hungarian economy slowed substantially, reflecting the decline in investment activity and the existing financing constraints; however, there is significant uncertainty about the size of the loss of productive capacity. If productive capacity has been damaged only to a smaller extent, then the cyclical position of the economy may be wider. With a wider cyclical position, the ability of companies to pass on cost shocks into prices is more limited and the inflationary impact of cost shocks to companies is smaller, which, in turn, warrants an additional easing of policy.

Developments in lending will have a strong impact on the speed of recovery from the recession. The Council's past interest rate reductions have led to lower lending rates; however, it is difficult to judge precisely the extent to which this would give a boost to lending. If lower lending rates provide a stimulus to investment activity and bolster household consumption through a pick-up in lending, the recovery of the economy from the crisis may be faster and may not require a further easing of monetary policy overall.

Changes in risk perceptions may materially influence the room for maneuver in monetary policy. In the Council's judgment, a risk is that the dichotomy between benign global financial market conditions and weak real economic performance has not eased. If there is a significant reduction in global risk appetite, risk premia on domestic financial assets may rise significantly.

The Monetary Council voted to reduce the central bank base rate by 25 basis points. In the Council's judgment, there remains a significant degree of spare capacity in the economy, inflationary pressure is likely to remain moderate in the medium term, and therefore the 3 per cent target can be met with looser monetary conditions. Recent financial market tensions have led to fluctuations in Hungarian asset prices, which cannot be justified by fundamental forces, which continues to warrant a cautious approach to policy. Considering these factors, the Monetary Council decided to reduce the base rate by 25 basis points. The Council will consider a further reduction in interest rates if medium-term inflationary pressures remain moderate and the uncertainty surrounding financial market developments diminishes.

Summary table of baseline scenario *(our forecast is based on endogenous monetary policy)*			
	2012	**2013**	**2014**
	Fact	**Projection**	
Inlation (annual average)			
Core inflation[1]	5.1	4.0	3.4
Core inflation without indirect tax effects	2.5	2.4	3.2
Consumer price index	5.7	2.6	2.8
Economic growth			
External demand (GDP based)[2]	0.8	0.5	1.8
Household consumption expenditure	−1.4	−0.4	1.0
Gross fixed capital formation	−3.8	−1.4	2.1
Domestic absorption	−3.7	−0.6	0.8
Export	2.0	2.8	5.4
Import	0.1	1.9	4.9
GDP	−1.7	0.5	1.7
External balance[3]			
Current account balance	1.8	3.3	4.2
External financing capacity	4.4	6.5	6.5
Government balance[3]			
ESA balance (data for 2012 is preliminary data)	−2.1	−2.9	−2.9
Labour market			
Whole-economy gross average earnings[4, 6]	4.4	3.7	6.2
Whole-economy employment	1.7	0.0	0.5
Private sector gross average earnings[5]	7.2	4.2	3.0
Private sector employment	1.4	−0.9	0.6
Unit labour costs in the private sector[6]	7.6	1.4	1.6
Household real income[7]	−3.3	0.1	0.6

[1] *From May 2009 on, calculated according to the joint methodology of the CSO and MNB.*
[2] *In line with the changes in Hungarian export structure by destination countries we revised the weights in our external demand indicator.*
[3] *As a percentage of GDP.*
[4] *Calculated on a cash-flow basis.*
[5] *According to the original CSO data for full-time employees.*
[6] *Private sector unit labour costs calculated with a wage indicator excluding the effect of whitening and the changed seasonality of bonuses.*
[7] *MNB estimate.*

1 Inflation and real economy outlook

In recent months, macroeconomic processes have been characterised by weaker-than-expected economic activity and by sharp declines in inflation figures during the first months of the year. Both external and domestic factors contributed to the downturn in GDP at the end of the year, with the recession deepened by a temporary fall in some sectors' production due to sector-specific reasons. The slowdown in Hungary's external markets resulted in a fall in the pace of export growth. Household consumption, a determinant in terms of pricing decisions, remained subdued. The cut in utility prices at the beginning of the year reduced consumer price inflation sharply. The annual price index sank below the 3 per cent central bank target by February. In the subdued demand environment, companies have limited possibilities to increase consumer prices. The strong disinflationary effect of demand was perceived in a wide range of market-priced products and services, resulting in low price increases at the beginning of the year. In the corporate sector, the weakening in business activity, last year's increase in raw material costs and the limited possibilities of repricing all resulted in a decline in profitability.

Over our forecast horizon, macroeconomic conditions may be characterised by a postponed shift in growth in Hungary's most important export markets, an expansion in households' real income, the generally tight credit conditions and a slow fading of precautionary considerations.

Although the probability of extreme risk scenarios has declined considerably, deleveraging in developed economies may be a protracted process and thus no major growth in Hungary's external markets is expected before 2014. However, a pick-up in the production of the new capacities developed in manufacturing may improve Hungary's export market share already from this year. Nominal wages and budgetary transfers, which are expected to expand at a rate exceeding the low rate of inflation, will result in an increase in the purchasing power of household incomes. However, the reduction in accumulated debts, the tight credit environment and the increasingly uncertain prospects for economic activity may result in the continuance of the strong precautionary considerations. In line with that, households' high financial saving rate may decline only slightly.

Corporate behaviour may be determined by the normalisation of low profitability. The subdued demand environment only provides limited possibilities for consumer price increases; therefore, the greater portion of adjustment may be reflected in productivity improvement and moderate growth in real wages. Against the background of tight credit conditions and the uncertain demand environment, over the short run companies may decide to reduce their labour demand and further postpone investment decisions. With a continued increase in activity, the wage-reducing effect of the loose labour market conditions may primarily be reflected in the income categories above the average wage. In line with that, expanding labour supply may mostly appear in public employment programmes over the short run. Employment in the private sector is only expected to increase from 2014, with a strengthening in business activity.

We expect a gradual acceleration in economic growth over the forecast horizon. In the near term, the recovery in economic growth may also be facilitated by the correction of temporary effects related to the previous year. Exports will remain the main source of growth; a tangible turnaround in the depressed domestic demand may be seen in 2014. The considerable output gap may close gradually, but economic output may remain below the potential level until 2015. Consequently, the demand environment may continue to have a disinflationary effect.

Government measures may ensure the achievement of the fiscal deficit targets by major increases in the tax burden on certain sectors. The cost-increasing impact of the measures that affect specific sectors may appear in the corporate sector as a whole through the production chain. In the subdued demand environment, the pass-through into consumer prices may only be a limited and protracted process. Partial pass-through of higher production costs may primarily be reflected in core inflation. The impact of the slow rise in the core inflation price index may be cushioned by the low price increase of non-core inflation items. This effect may primarily be caused by the further decline in utility costs and by food price inflation, which is low due to base effects. Consumer price inflation may continue to decline in the quarters ahead; accordingly, below-target inflation is expected for this year and inflation close to the 3 per cent target for next year.

The macroeconomic factors determining the interest rate path consistent with the baseline projection point in one direction in terms of the interest rate response. Inflation below the 3 per cent target and the steadily negative output gap both allow for looser monetary conditions than the present ones. The increase in risk indicators observed in recent weeks may limit the room for manoeuvre in monetary policy, thus it is justified to maintain caution in reaching a lower interest rate level.

1.1 Inflation forecast

Over the short run, the consumer price index is expected to continue declining as a result of falling household energy prices and food inflation, which is decelerating due to base effects. As it feeds through the production chain, the increase in corporate tax burdens may gradually appear in consumer prices as well, although in the subdued demand environment this pass-through may only be partial. The direct impact of government measures on inflation (via administrative prices and indirect taxes) may remain historically low over the entire forecast horizon. Overall, the consumer price index may be below the 3 per cent target value this year and close to the target value next year.

Chart 1-1
Fan chart of the inflation forecast

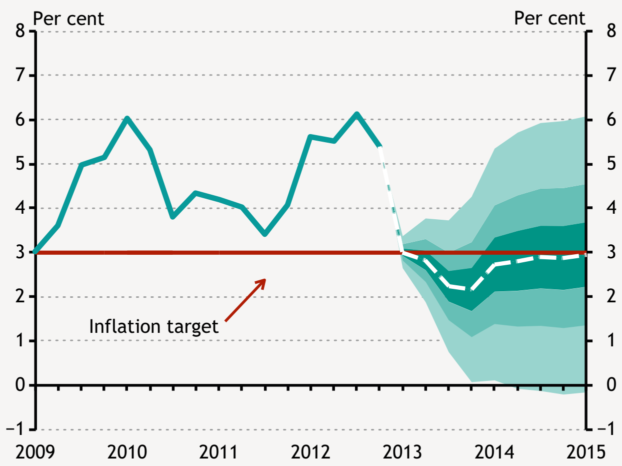
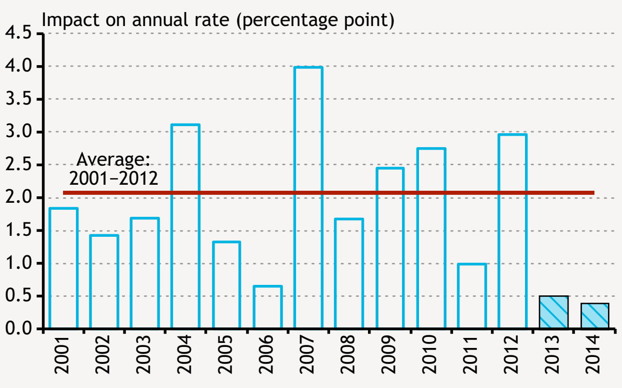


Chart 1-2
Direct effect of government measures on inflation*



** Direct inflation effects: the combined effect of indirect tax measures and regulated price increases.*

Our inflation forecast is determined by the output gap, which is negative over the entire forecast horizon, the declining administrative energy prices and the production cost-increasing effect of government tax measures. Compared with our December forecast, we expect considerably lower inflation over the entire forecast horizon (Chart 1-1).

The annual inflation rate may continue to decline over the short run. Of the non-core inflation items, it is primarily the decline in administrative energy prices and the decrease in unprocessed food inflation that may contribute to the deceleration in the rate of price increases. Most of the inflationary effect of the rise in agricultural commodity prices in the second half of last year has already appeared in unprocessed food prices. Starting from the spring months, as this year's harvest comes to the market, raw food prices are expected to normalise. Accordingly, due to base effects, unprocessed food inflation will steadily pull down the overall price index. The reduction in administrative energy prices early in the year will result in a material decline in the direct inflationary effect of government measures over the entire forecast horizon.[1] In the case of services with regulated prices – in addition to the announced utility price cuts – we anticipate generally low price dynamics. Over the entire forecast horizon, the direct inflationary effect of government measures will be significantly lower than the historical average (Chart 1-2). These disinflationary effects are somewhat offset by the depreciation of the exchange rate of the forint in recent months. Due to the fuel price increases, the weaker forint exchange rate results in the strengthening of the cost-side inflationary pressure.

[1] The 10% reduction of retail gas and electricity prices early in the year affects consumption prices by 0.9 percentage points in total. The major part (0.8 percentage points) reduces this year's inflation, while a smaller part (0.1 percentage points) reduces next year's inflation as an overlapping effect. In our forecast we also take into account a 10% price-reduction of water charges, and sewerage and refuse disposal which will be expected from the beginning of July. These measures affect this and next year's consumption prices equally, 0.25 percentage points in total.

Table 1-1
Details of the inflation forecast

		2011	2012	2013	2014
Core inflation		2.7	5.1	4.0	3.4
Non-core inflation	Unprocessed food	4.3	6.8	6.0	3.5
	Gasoline and market energy	13.8	11.9	1.8	1.8
	Regulated prices	4.0	4.7	–2.8	1.2
	Total	6.4	6.8	–0.2	1.7
Consumer price index		**3.9**	**5.7**	**2.6**	**2.8**

Chart 1-3
CPI with and without indirect taxes and subsidies
(January 2001–January 2015)

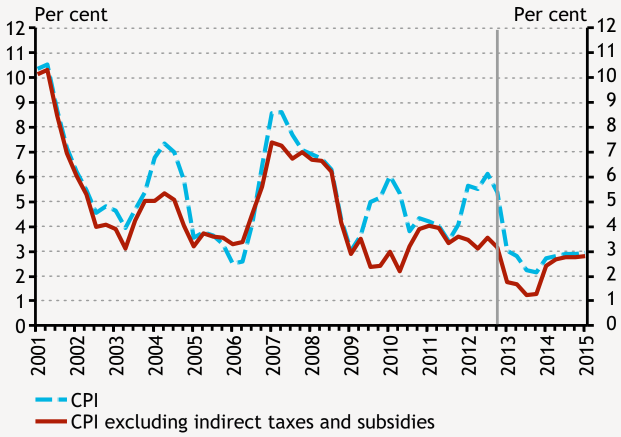
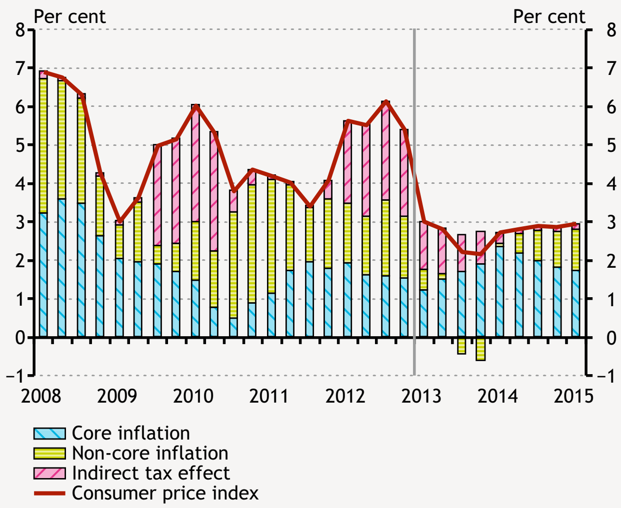


Chart 1-4
Decomposition of the inflation forecast
(2008 Q1–2015 Q1)



In line with data received early in the year, the price increases of market-priced items may continue to be moderate. Companies' possibilities to raise prices are limited in the subdued demand environment. The cost-increasing effect of fiscal measures that add to the tax burden on specific sectors may gradually appear in the corporate sector as a whole through the production chain. With the negative output gap, feed-through into consumer prices may be slow and only partial. Production costs, which are increasing due to the weaker forint exchange rate and tax measures, may result in a temporary rise in core inflation as consumption picks up gradually (Chart 1-3). Instead of repricing, companies may normalise their profitability mostly by reducing other production costs. Over our forecast horizon, the output gap will gradually close, although the disinflationary effect of surplus capacity in the economy will prevail for the entire period.

As a result of all of these factors, inflation may remain below the 3 per cent target throughout this year and be close to the target value in 2014 (Chart 1-4 and Table 1-1).

1.2 Real economy forecast

According to our forecast, the economy may embark on a growth path again this year following the decline last year. Over the short run, an increase in export sales may be the source of growth. Although no material pick-up in demand in Hungary's most important export markets is expected before 2014, the new capacities created in the automotive industry in recent years will improve the global market share of Hungary's exports starting from this year already. In the low inflation environment, real income of households will grow again, due to government transfers and wage increases above inflation, which will strengthen households' consumption possibilities. At the same time, the continued tight lending environment, the gradual reduction in debts accumulated prior to the crisis and uncertainty surrounding the medium-term prospects still justify cautious spending by households over the short run. In line with that, domestic demand is expected to pick up from 2014, in parallel with an expansion in private sector employment.

Despite the slow pick-up in economic output, the output gap is expected to remain negative over the entire forecast horizon. The functioning of the economy may continue to be characterised by significant surplus capacities.

Chart 1-5
Fan chart of the GDP forecast
(based on seasonally adjusted and reconciled data)

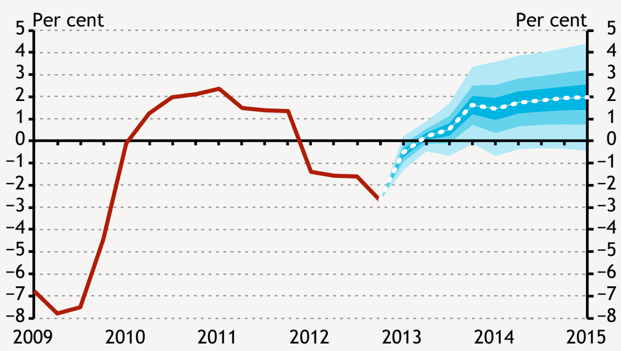
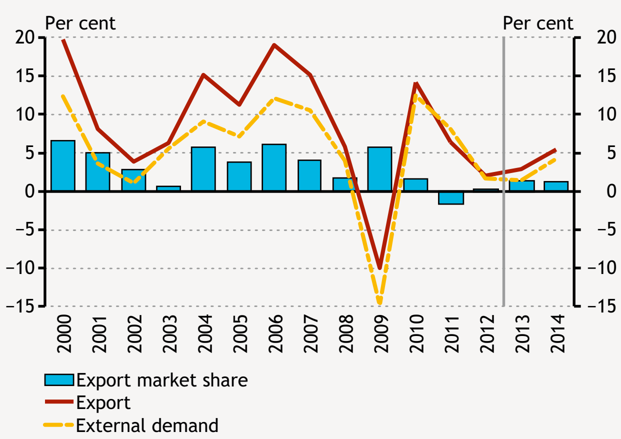


Chart 1-6
Changes in export market share

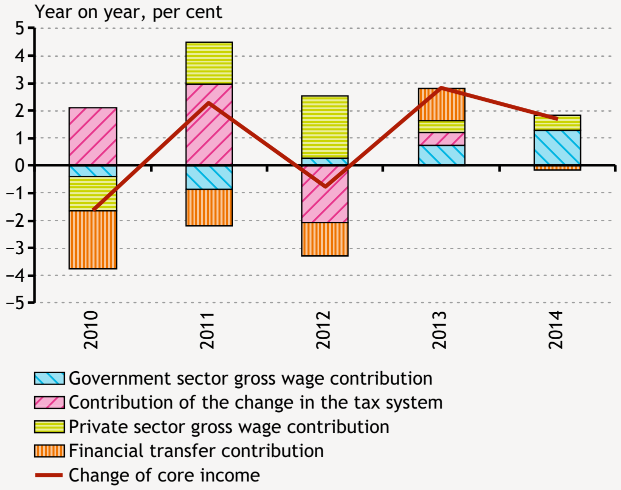


The decline in GDP last year reflected the slowdown in both external and domestic economic activity. In addition, significant one-off effects affecting the output of some sectors (such as agricultural crop failure and year-end factory stoppages in industry) also considerably exacerbated the downturn in Hungary.

Over the short run, the macroeconomic environment is expected to slowly normalise. The recession in the euro area may end by the second half of the year, and thus we expect a pick-up in demand in Hungary's export markets from the middle of the year. As for domestic demand, protracted balance sheet adjustment, tight credit conditions and medium-term prospects, which are becoming more uncertain during the crisis, continue to warrant cautious consumption and investment decisions, whilst households' real income, which is expanding again in the low inflation environment, points to a gradual turnaround in domestic demand.

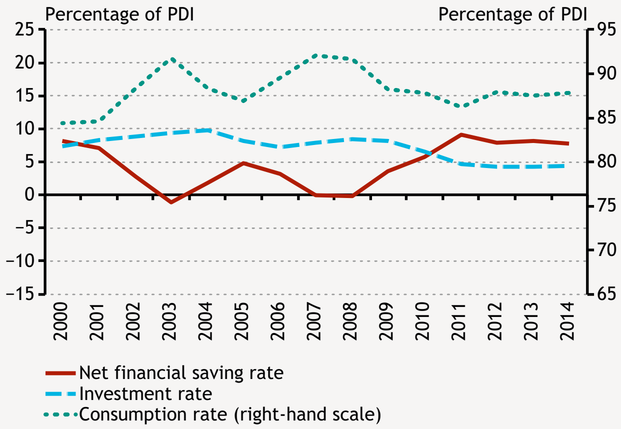
In the first half of the horizon, growth may be driven by exports. The adjustment of one-off effects observed last year and the new capacities starting production in the automotive industry may boost growth in economic output in the coming quarters. We also expect a pick-up in demand in Hungary's export markets from the middle of the year. Euro-area growth may gather strength only gradually; demand for Hungarian export products on the part of Central and Eastern European countries and other developing (mainly Asian) economies with more vigorous growth may strengthen considerably. The role of intensive supplier

Chart 1-7
The development of core income*



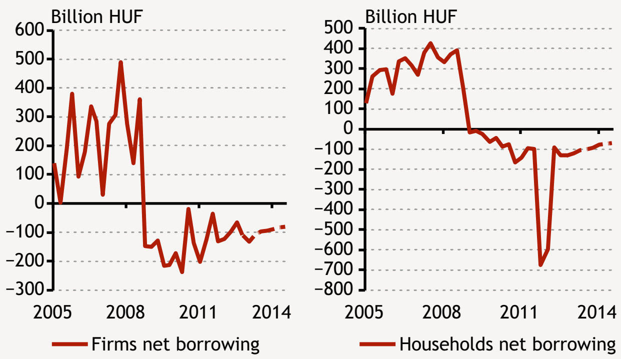
** Core income (wages and financial transfers) historically show higher correlation with consumption than personal disposable income which also contains other (e.g. entepreneurial) incomes.*

Chart 1-8
The use of household income



Note: As percentage of disposable income. Net financial savings of households exclude mandatory contributions payable to the private pension funds.

Chart 1-9
Our forecast for household and corporate lending



relationships established with German exporting companies will remain a determinant factor in Hungary's exports and in reaching the more rapidly developing regions. With a gradual increase in the production by the new automotive capacities, Hungary's export market share, which has been declining in recent years, may grow again, facilitated by the effect of the depreciation of the real exchange rate seen since the end of 2012 (Chart 1-6).

Following last year's decline, real household income may increase this year. In addition to the continued reduction in income taxes, the increase in government transfers and of nominal wages above inflation may be the drivers behind expansion (Chart 1-7). The growth in real income may be stronger in social groups with higher propensity to consume and incomes below the average wage. In parallel with increasing real incomes, households may continue to be characterised by cautious consumption and investment behaviour. Repayment of debts borrowed prior to the crisis may be a protracted process for years to come, reducing the consumption propensity of households with high debt burdens. The depreciation of the exchange rate in the last months may slow down the balance sheet adjustment process, but a higher participation in exchange rate cap scheme may improve affected households' liquidity positions. The unemployment rate, which has been rising since the crisis, may decline only slowly, providing further support to precautionary considerations. Finally, credit conditions for households may remain tight, also resulting in higher propensity to save. Overall, only a slow change is expected in consumption demand; any material increase may only take place with the strengthening of employment in the private sector in 2014. The financial saving rate may remain at the high levels observed in recent years, and may decline only in the second half of the horizon. In line with that, a portion of the increasing incomes may be used for reducing accumulated debts and for adding to financial reserves. With the spread of loans with state interest rate subsidy, the decline in household investment, which has been ongoing since 2006, may stop this year. However, due to cautious household behaviour, no major change is expected in the coming years (Chart 1-8).

Over the forecast horizon, the behaviour of the corporate sector may be determined by the adjustment to production costs, which are increasing due to the normalisation of profitability (which sank to a low level last year) and due to the fiscal tax measures. Operation of the sector is characterised by historically low capacity utilisation and persistently tight credit conditions (Chart 1-9). In line with that, the investment activity of companies producing for domestic demand may continue to be characterised by postponed investment. Capacity increases may continue to

Chart 1-10
Changes in GDP growth

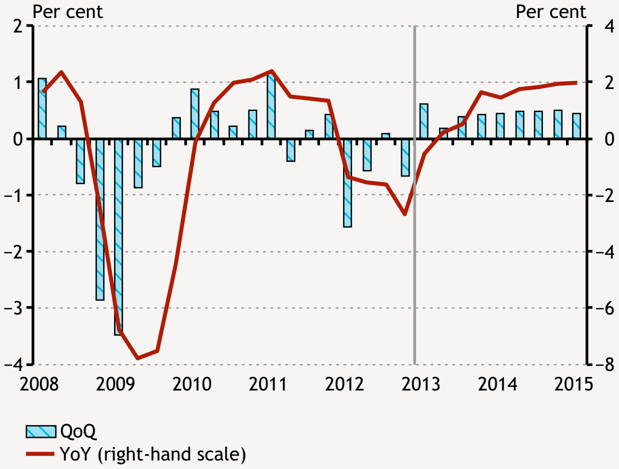
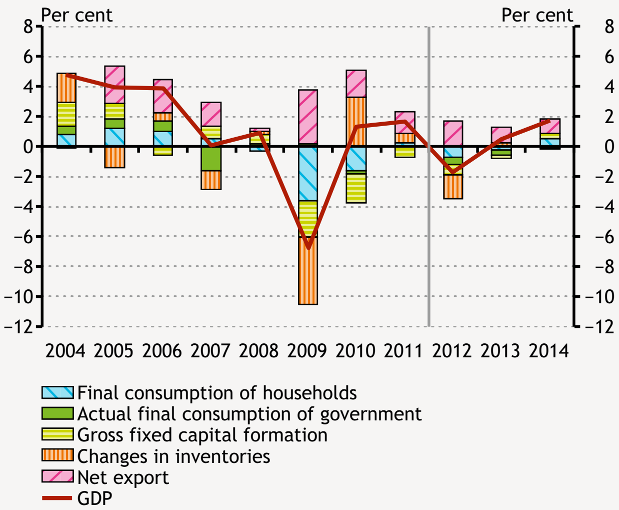


Chart 1-11
Changes in GDP growth



be mainly typical of manufacturing. Overall, corporate investment may be subdued this year. It may increase from 2014, with an easing of credit conditions and a strengthening of business activity.

The impact of subdued corporate investment may be attenuated by strengthening public investment. This year, the EU funds that are still available in the 2007–2013 budget cycle are expected to be drawn and used more efficiently than in previous years. This year, (mainly infrastructure) projects implemented from EU funds may represent a significant majority within the volume of public investment, and, as a result of the possibility of the t+2 accounting, they are expected to have a stimulating effect in 2014 as well.

In line with increasing exports and more subdued domestic demand, the effect of net exports may continue to determine the structure of growth. A more balanced growth path is expected from 2014, with a pick-up in domestic absorption (Chart 1-10 and Chart 1-11).

The operation of the economy may continue to be characterised by significant surplus capacity. Output is expected to only gradually approach its potential level and consequently, the output gap may remain negative over the entire forecast horizon. Our view of potential output has remained unchanged since the previous Report. Subdued domestic demand points to persistently moderate underlying inflation.

Box 1-1
The role of the carry-over effect in this year's GDP developments

Last year a steady decline in the level of GDP was observed, which (owing to the so-called carry-over effect) may statistically have a negative impact on the 2013 growth index as well. However, due to various reasons, this effect can be measured with uncertainty, which may partly explain the considerable differences across the forecasts given for this year's growth. Our box presents that these statistical effects are closely related to growth expectations in 2013 Q1. This is followed by an overview of one-off factors at the turn of 2012-2013 that may influence our GDP forecast and the assessment of the carry-over effect.

The changes in GDP between calendar years depend not only on the changes that take place in the year under review, but also on the developments in the variable in the previous, i.e. the base year. This may be illustrated with the following formula:

$$\frac{Y_t}{Y_{t-1}} = \frac{\sum_{i=1}^{4} Y_t^{(i)}}{\sum_{i=1}^{4} Y_{t-1}^{(i)}} = \frac{Y_{t-1}^{(4)}}{\sum_{i=1}^{4} Y_{t-1}^{(i)}/4} \cdot \frac{\sum_{i=1}^{4} Y_t^{(i)}/4}{Y_{t-1}^{(4)}}$$

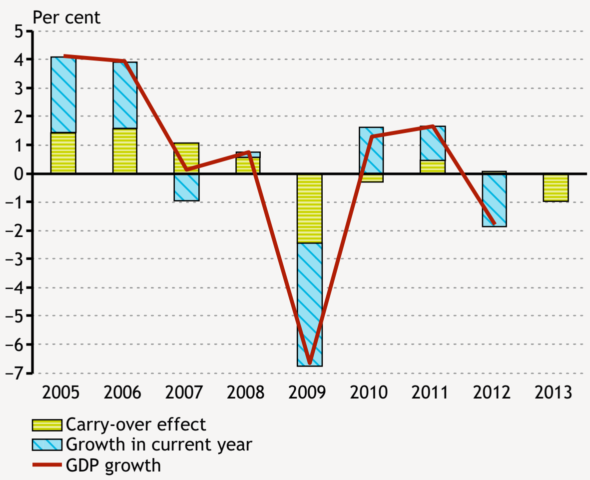
where *Y* means the seasonally adjusted GDP level of quarter *(i)* of calendar year *t*. The annual index of GDP may be decomposed into two terms. The first term, the so-called carry-over effect shows how much higher the last quarter of the base year was than the average of the base year. The second term indicates how much the GDP level increased on average in the year under review compared to the last quarter of the base year.

In the past years the carry-over effect contributed to the annual change in GDP to a small extent, but its contribution may be significant in 2013. The underlying reason is that in 2012 Q4 the level of GDP declined considerably, thus output starts the year 2013 from a low level. Based on the Q4 GDP figures published by the CSO, the carry-over effect may be -1 percentage point in 2013.

However, the carry-over effect can be measured with uncertainty: the last data points of the seasonally adjusted GDP time series used for the calculation may be revised considerably around business cycle turning points.[2] To demonstrate the revision of the carry-over effect, various assumptions were made concerning the developments in GDP in 2013 Q1, and the extended time series were seasonally adjusted with the CSO's model to calculate the extent of the carry-over effect. The negative carry-over effect may decline with the incoming Q1 data even if only a slowdown in the rate of downturn is experienced compared to end-2012. If growth is observed on a quarterly basis, the carry-over effect may fall considerably, adding automatically to the growth index of 2013.

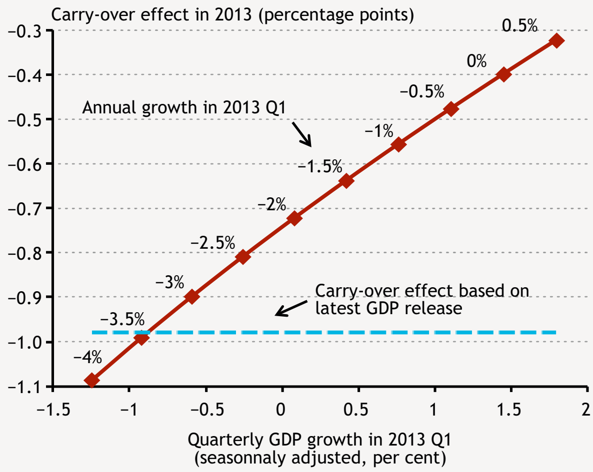
In our opinion, the level of GDP may increase on a quarterly basis at the beginning of 2013. One of the underlying reasons is that one-off effects also played a role in the downturn in GDP at end-2012, and they may unwind already in the subsequent quarter. Industrial production fell considerably in December, mainly as a result of a decline in output in vehicle manufacturing. However, this decline was corrected in full in January. Similar phenomena were observed in other countries of the region as well. It is possible that – in view of the moderate demand and the higher than usual number of non-working days in December – production stopped at the end of the year for longer than usual. According to our estimate, the shortfall in industrial production in December may have contributed to the decline in GDP in 2012 Q4 by 0.1–0.2 percentage points. Based on January production data, this effect may become corrected in 2013 Q1, adding the same value to GDP growth. Similar effects may have been experienced in other sectors as well (e.g. transport of goods). The expected quarter-on quarter growth of GDP is also supported by recent developments in monthly production indicators.

Chart 1-12
Role of the carry-over effect in the developments in GDP



Note: Based on the 2012 Q4 GDP data release.

Chart 1-13
Revision of the 2013 carry-over effect of GDP



Note: For the analysis, the seasonal adjustment model used by the CSO was rerun applying various assumptions concerning the 2013 Q1 GDP.

[2] For more details on the end-point uncertainty of seasonal adjustment see, e.g. Koroknai P. and Pellényi G. (2010): Szezonális kiigazítás a válságban – felhasználói szemmel, [Seasonal adjustment in the crisis – a user's view], *Statisztikai Szemle*, 88. évf. 7–8. sz. (július–augusztus), pp. 874–885.

Further one-off effects may support economic activity in early 2013. According to press information, the production of the new capacities in the automotive industry in the GM and Mercedes plants is continuing to pick-up, and the Suzuki factory is also increasing its production. In addition, our forecast is based on the assumption that the significant capacity reduction observed in the electronics sector in 2012 would not continue in 2013. Finally, if agricultural output returns to its average level, based on past experiences, agriculture may provide a significantly positive (as high as 0.4–0.5 per cent) contribution already in Q1.

In addition to favourable one-off effects, underlying growth factors may also improve during 2013, thanks to a rise in households' real income, the increased utilisation of funds at the end of the 2007–2013 budget cycle of the EU, as well as the stabilisation of global economic prospects. At the same time, uncertainties surrounding underlying growth drivers include the cautious consumption-savings behaviour of households, tight credit conditions and the growth risks of the euro area.

Overall, there are several factors behind our 2013 growth expectation. Firstly, underlying economic developments may stabilize, and slow improvement may commence in the course of the year. Secondly, several one-off effects may increase the dynamics of GDP in early 2013. Finally, a change in the seasonally adjusted profile of GDP is expected as the business cycle passes its trough, which may considerably reduce the negative carry-over effect from 2012.

Chart 1-14
Developments in vehicle manufacturing and in the production of the electronics sector

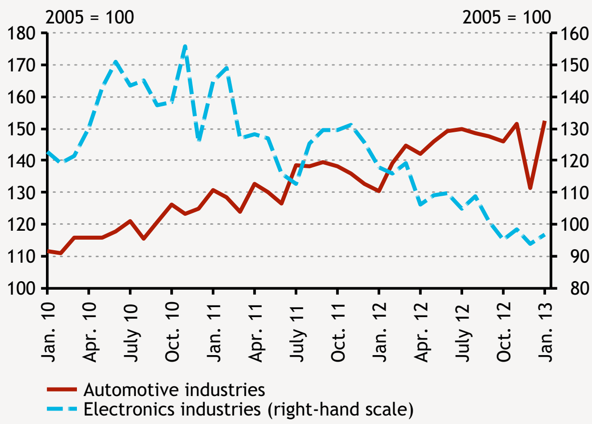
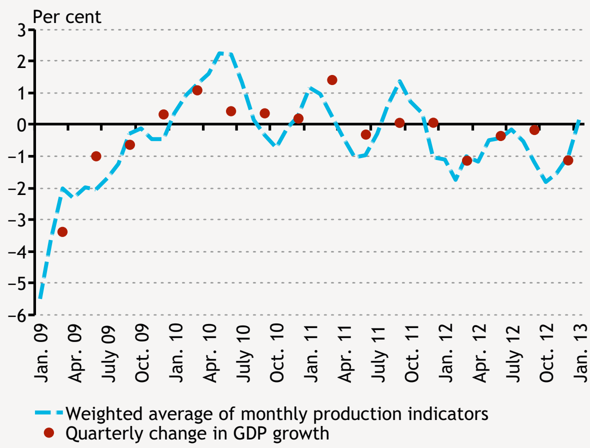


Chart 1-15
Monthly production indicators and quarterly changes in GDP

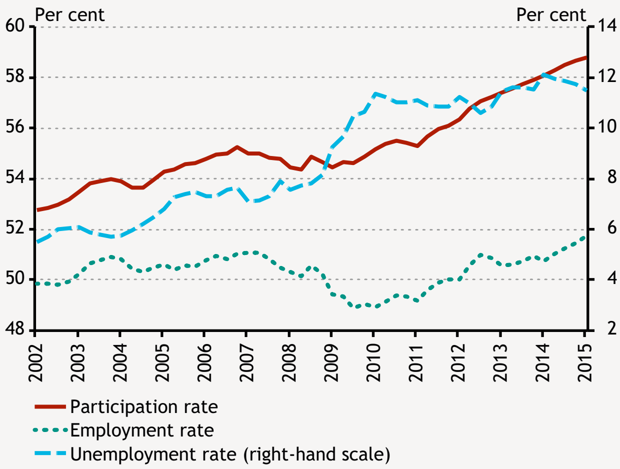


Note: The monthly indicator is the three-month change in the weighted, three-month moving average of industrial production, construction production and retail sales. The weights originate from a regression in which the sectoral indicators explain the change in GDP.

1.3 Labour market forecast

The activity rate in the labour market is expected to continue increasing. Instead of the increase in consumer prices, subdued developments in production costs (and in wage costs in particular) may continue to determine the recovery in low corporate profitability. In line with that, the private sector's demand for labour may decline over the short run; therefore, this year the increasing labour supply may mostly appear in the public employment programmes. Expansion in employment in the private sector is expected only from 2014, as business activity strengthens. Loose labour market conditions have a strong wage-reducing effect over the entire forecast horizon. Minimum wages will increase at a rate exceeding expected inflation, thus the more restrained dynamics may primarily appear in the wage categories that are above the average wage.

Chart 1-16
Employment and unemployment, total economy
(2002 Q1–2015 Q1)



Our labour market forecast is determined by the continued increase in activity, the expanding public work programmes and corporate behaviour aiming at the improvement in profitability (Chart 1-16).

In line with the government measures since the outbreak of the crisis, labour market supply may continue to expand. The activity rate may reach 59 per cent by the end of the forecast horizon.

Over the short run, increasing activity will probably mostly be reflected in public employment programmes. The current profitability of the private sector is low due to last year's recession and the increase in production costs. Companies may be characterised by the normalisation of profitability over the forecast horizon.

In the subdued demand environment, the possibility of adjustment through consumer prices may be limited, while fiscal tax measures may result in an increase in production costs at various levels of the production chain. In line with this, the slowing increase in other production costs (wage costs in particular) may be a determining factor in terms of corporate adjustment. Based on historical experience, this may result in a decline in demand for labour over the short run. The decline in demand may be reflected in a reduction in hours worked or in restraining employment. Government measures that reduce the cost of employment (the so-called job protection action plan) and may help the affected employees to retain employment, work against this process. With acceleration in economic activity, employment in the private sector may expand again in 2014.

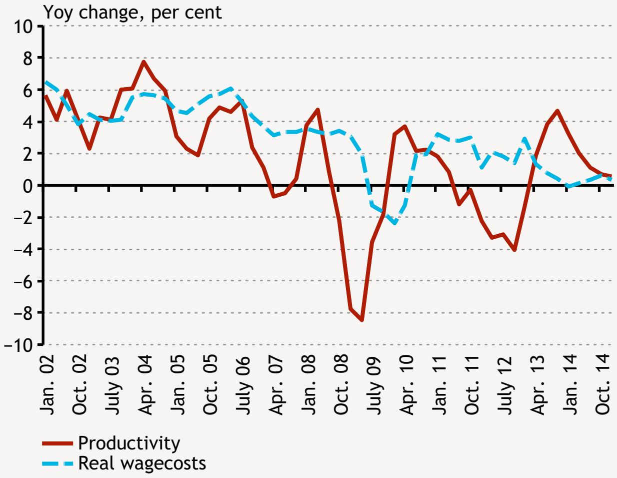
As a result of increasing labour supply and only slowly expanding employment, the unemployment rate may rise slightly over the short run, before showing a gradual, slow decline. Labour market conditions remain loose over the entire forecast horizon, with a strong wage-reducing effect for the entire period.

In line with this, over the medium term, adjustment through real wages may also take place in addition to productivity improvement. In the low inflation environment, adjustment through real wages may be a protracted process to various degrees at the different levels of the wage scale. In salary categories below the average wage, the announced minimum wage increase may result in a considerable increase in real wages; accordingly, the restraining of wage dynamics may primarily affect payments above the average wage and regular fringe benefits. In categories above the average wage, this process may be facilitated by a further reduction of personal income taxes.

Overall, as a result of corporate adjustment, the increase in productivity may exceed the dynamics of gross real wages over the entire forecast horizon (Chart 1-17). The modest increase in real wages may support to maintain and improve employment situation. The effects of the activity-increasing government measures, the personal income tax rate reductions in recent years and the job protection action plan reduce the relative price of labour, which points to a shift in the direction of more labour intensive production over the long term. In line with this, the corporate profit rate may remain at a level below the historical average even at the end of our forecast horizon.

Chart 1-17
Evolution of productivity and real wagecosts

(2002 Q1–2015 Q1)



Box 1-2
Corporate adjustment – expected developments in the profitability of the corporate sector

In 2012, domestic GDP declined by 1.7 per cent, entailing a decrease in the demand for the products and services of the private sector. The downturn and last year's rise in production costs considerably impaired the profitability in the private sector, which may increase the adjustment need of enterprises over our forecast horizon. The weak profitability may be improved by the increasing of sales revenues or by the restraining of production costs (and labour costs in particular). Both domestic and external demands are subdued; therefore, through the increasing of sales and/or consumer prices companies may only have limited room for manoeuvre in the improvement of profitability. Accordingly, we believe that companies may improve their profitability by rationalising their production costs.

We have little domestic experience regarding the expected channels of adjustment. In the past 20 years, similar profit losses affected Hungarian companies only at the time of the downturn in 2008 and 2009; therefore, lessons can be drawn only from this episode with respect to the current situation. Then, corporate profitability[3] may have hit the bottom in 2009 Q2. This meant an approximately 6 percentage point fall in profit on labour as a proportion of the value added. As demand recovered only slowly, and growth prospects were also unfavourable, companies started their adjustment already in 2009, by restraining their labour costs. Profit restoration

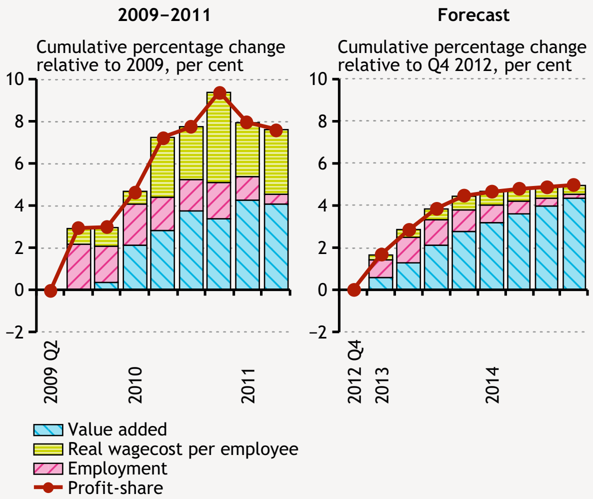
[3] Profits earned on labour is the difference of the value added and total labour costs of the business sector. This is the equivalent of the gross operating surplus indicator of the national accounts by definition, however it is different of that by content, because it is calculated using the labour market variables of the MPM model.

stemming from a decline in employment and a reduction of the hours worked started soon. This phenomenon was especially strong among exporting companies, which are sensitive to external demand. Corporate demand for labour started to strengthen as of early 2011. By contrast, adjustment through real wages began late. However, inflation, which was typically around 5 per cent in 2010 and 2011, allowed more significant real wage adjustment, which was also facilitated by government measures that eased the taxes and contributions on labour.[4]

The profit deterioration caused by the recession in 2012 corresponded approximately to half of the 2009 episode, amounting to nearly 3 percentage points as a proportion of value added. In our forecast, mainly due to the more favourable prospects of firms producing for exports, compared to the 2009 dynamics we expect a faster recovery of the corporate sector's value added. Although the profit situation is less stretched than in mid-2009, companies are still compelled to implement major adjustments. Although the restraining of employment may be less pronounced, similarly to the earlier episode, it may be protracted until the end of the forecast period. The cost-reducing effects of the job protection action plan may play a role in the slighter reduction of employment.

The pattern of wage adjustment may be different from the ones observed before. In the low inflation environment, adjustment through real wages may be slower and protracted. In addition to low inflation, this is a result of the downward nominal wage rigidity, which is in line with international experiences. In the wage categories below the average wage, this year's minimum wage increase ensures an increase in wages exceeding inflation; accordingly, the wage adjustment may mainly concern employees with higher earnings. For them, even the nominal wage increases, which are lower because of the decline in the personal income tax, may result in an increase in net wages. Overall, the slowdown in wage dynamics may be weaker in 2013, and wage adjustment may be a generally smaller possibility for adjustment than in 2009.[5]

Chart 1-18
Profit restoration in the corporate sector following recessions



It is important to note that in the medium term the government measures that reduce the taxes on labour income may permanently change the distribution of income-shares. As a result of the changes in the taxes on capital and labour, the relative prices of capital and labour have changed. The relative price of labour has declined. Looking ahead, compared to the proportions typical earlier, this may result in a shift in the income shares of the factors of production in favour of the labour input. Consequently, according to our expectations, the income proportion of the profit on labour may not return to the levels observed in the pre-crisis years even over the longer term.

[4] Corporate adjustments along alternative channels (e.g. converting full-time employment into part-time, reducing working hours) could have contributed to the rapid correction of the profit-share. These channels are captured by the composition of the average wagecost, hence they appear as part of the wage adjustment. Because of the fast recovery of the value added these kind of adjustments are less probable in 2013.

[5] See Kátay, Gábor (2011), "Downward Wage Rigidity in Hungary", *MNB Working Papers*, 2011/9.

Table 1-2
Changes in our projections compared to the previous Inflation report

	2012	2013		2014	
	Fact	Projection			
		December	Current	December	Current
Inflation (annual average)					
Core inflation[1]	**5.1**	5.2	**4.0**	3.7	**3.4**
Core inflation without indirect tax effects	**2.5**	3.5	**2.4**	3.4	**3.2**
Consumer price index	**5.7**	3.5	**2.6**	3.2	**2.8**
Economic growth					
External demand (GDP-based)[2]	**0.8**	0.8	**0.5**	2.1	**1.8**
Household consumer expenditure	**−1.4**	−0.2	**−0.4**	0.6	**1.0**
Government final consumption expenditure	**−2.3**	−2.7	**−1.4**	−0.1	**−0.5**
Fixed capital formation	**−3.8**	−0.2	**−1.4**	−1.0	**2.1**
Domestic absorption	**−3.7**	−0.8	**−0.6**	0.2	**0.8**
Export	**2.0**	2.4	**2.8**	4.8	**5.4**
Import	**0.1**	1.2	**1.9**	3.8	**4.9**
GDP	**−1.7**	0.5	**0.5**	1.5	**1.7**
External balance[3]					
Current account balance	**1.8**	3.7	**3.3**	4.3	**4.2**
External financing capacity	**4.4**	6.8	**6.5**	6.9	**6.5**
Government balance[3]					
ESA balance (data for 2012 is preliminary data)	**−2.1**	−3.0	**−2.9**	−3.8	**−2.9**
Labour market					
Whole-economy gross average earnings[4, 6]	**4.4**	3.6	**3.7**	6.1	**6.2**
Whole-economy employment	**1.7**	0.3	**0.0**	0.5	**0.5**
Private sector gross average earnings[5]	**7.2**	4.9	**4.2**	3.0	**3.0**
Private sector employment	**1.4**	−0.3	**−0.9**	0.4	**0.6**
Private sector unit labour cost[6]	**7.6**	2.8	**1.4**	1.5	**1.6**
Household real income[7]	**−3.3**	0.2	**0.1**	0.3	**0.6**

[1] *From May 2009 on, calculated according to the joint methodology of the CSO and MNB.*
[2] *In line with the changes in Hungarian export structure by destination countries we revised the weights in our external demand indicator.*
[3] *As a percentage of GDP.*
[4] *Calculated on a cash-flow basis.*
[5] *According to the original CSO data for full-time employees.*
[6] *Private sector unit labour costs calculated with a wage indicator excluding the effect of whitening and the changed seasonality of bonuses.*
[7] *MNB estimate.*

Table 1-3
MNB baseline forecast compared to other forecasts

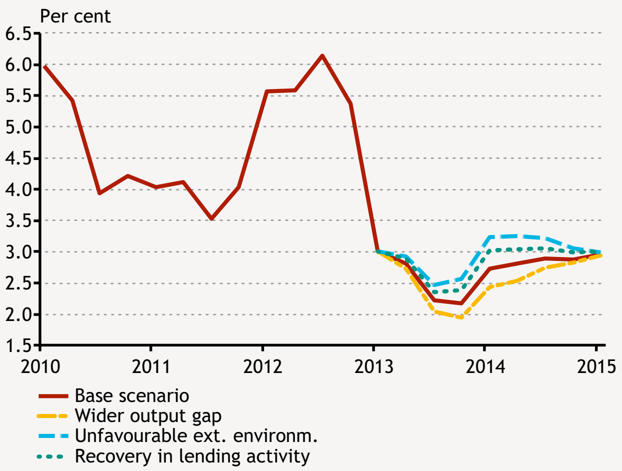
	2012	2013	2014
Consumer Price Index (annual average growth rate, %)			
MNB (March 2013)	5.7	2.6	2.8
Consensus Economics (March 2013)[1]	5.7	2.2– 3.3 – 4.5	1.8 – 3.1 – 3.7
European Commission (February 2013)	5.7	3.6	3.3
IMF (October 2012)	5.6	3.5	3.0
OECD (November 2012)	5.8	4.8	3.9
Reuters survey (March 2013)[1]	5.7	2.3 – 2.9 – 3.6	2.0 – 3.1 – 3.7
GDP (annual growth rate, %)			
MNB (March 2013)	−1.7	0.5	1.7
Consensus Economics (March 2013)[1]	−1.7	−0.5 – −0.1 – 1.0	0.9 – 1.3 – 1.7
European Commission (February 2013)	−1.7	−0.1	1.3
IMF (October 2012)	−1.0	0.8	1.6
OECD (November 2012)	−1.6	−0.1	1.2
Reuters survey (March 2013)[1]	−1.7	−0.5 – 0.1 – 1.0	0.9 – 1.4 – 1.8
Current account balance[3]			
MNB (March 2013)	1.8	3.3	4.2
European Commission (February 2013)	2.3	3.3	3.6
IMF (October 2012)	2.6	2.7	0.7
OECD (November 2012)	1.7	3.4	4.4
Budget deficit (ESA-95 method)[3]			
MNB (March 2013)	−2.1	−2.9	−2.9
Consensus Economics (March 2013)[1]	2.6 – 2.9 – 3.4	2.6 – 3.0 – 3.5	2.5 – 3.2 – 4.0
European Commission (February 2013)	2.4	3.4	3.4
IMF (October 2012)	2.9	3.7	3.8
OECD (November 2012)	3.0	2.7	2.7
Reuters survey (March 2013)[1]	2.1 – 2.5 – 2.9	2.7 – 3.0 – 3.5	2.7 – 3.1 – 4.0
Forecasts on the size of Hungary's export markets (annual growth rate, %)			
MNB (March 2013)	1.7	1.5	4.2
European Commission (February 2013)[2]	1.0	2.4	5.2
IMF (October 2012)[2]	1.8	3.5	4.5
OECD (November 2012)[2]	1.1	3.2	5.5
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (March 2013)	0.8	0.5	1.8
European Commission (February 2013)[2]	0.5	0.7	2.1
IMF (October 2012 and January 2013)[2]	0.8	1.3	2.1
OECD (November 2012)[2]	0.7	0.9	2.1

[1] For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the medium value), we also indicate the lowest and the highest values to illustrate the distribution of the data.
[2] Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.
[3] As a percentage of GDP.
Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. [London], March 2013); European Commission Economic Forecasts (February 2013); IMF World Economic Outlook Database (October 2012 and January 2013); Reuters survey (March 2013); OECD Economic Outlook, No. 91 (November 2012).

2 Effects of alternative scenarios on our forecast

The Monetary Council selected three scenarios, which – in their opinion – can best capture the relevant risks in terms of conducting monetary policy in the future. The alternative scenarios depict the uncertainty related to the size of the output gap as well as to the developments in lending and risk perception. There is considerable uncertainty about the potential output estimate, and accordingly it is possible that the decline in production capacities was lower than the assumption in the baseline scenario. In this case, the disinflationary effect of the weak demand is stronger, and the more favourable developments in inflation allow looser monetary conditions. For the time being, it is difficult to assess the size of the longer-term effect that stimulates lending as a result of interest rate cuts in the recent period. In the case of stronger lending activity, recovery from the economic crisis may be faster, although the greater aggregate demand is consistent with a smaller easing of monetary policy. The discrepancy of optimistic investor sentiment experienced in financial markets and weak real economy performance continue to pose an unfavourable external risk in the developments in the risk premium. A scenario characterised by higher global risk aversion on the part of investors and greater external economic downturn is consistent with tighter interest rate conditions and a worse growth path.

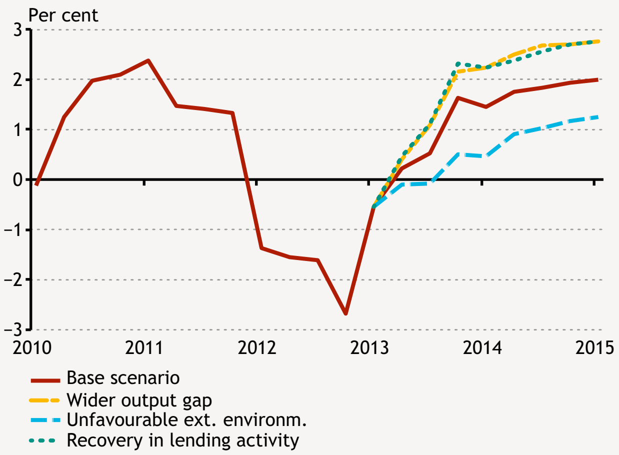
Chart 2-1
The impact of the risk scenarios on our inflation forecast
(2010 Q1–2015 Q1)



In the past period, the weak domestic demand helped mitigate inflation. Long-term supply side of the economy is determined by the production capacities existing in the economy. Accordingly, the disinflationary effect of domestic demand depends on unused capacities, i.e. on the output gap. However, the potential growth rate estimate, which is necessary for determining the output gap, is highly uncertain, which was only exacerbated by the measurement difficulties related to estimating the negative effect of the crisis on growth potential. Although the potential output path assumed in our model appears plausible on the basis of our estimations carried out using several methods and on the basis of international comparison, it cannot be ruled out that we have overestimated the capacity-reducing effect of the crisis in the baseline scenario. In this case, the level of potential output may be higher, and the cyclical position of the economy may be more open.

In the case of a more negative cyclical position, the possibilities of the inclusion of cost shocks in pricing are limited, and the corporate sector is able to adjust to cost shocks through price increases to a lesser extent. The inflationary effects of cost shocks are smaller, whereas their wage-reducing effect may be stronger than in the baseline scenario. Restrained pricing in a wide range of products may indicate a strong disinflationary effect stemming from the more open negative cyclical position, which is also reflected in the favourable underlying inflation numbers. Under such conditions, the price-reducing effect

Chart 2-2
The impact of the risk scenarios on our GDP forecast
(2010 Q1–2015 Q1)



of weak demand is stronger, and the labour market is looser, resulting in lower inflation on the whole. The more favourable developments in inflation allow a lower interest rate path, while medium-term inflationary prospects continue to be in line with the target. In this scenario, the economy may grow faster than it is depicted in the baseline scenario.

The speed of recovery from the crisis is significantly influenced by the developments in lending. The recent interest rate cuts entailed declines in credit spreads. However, due to the required time of the monetary transmission, the full effect may not have appeared yet, and it may be assumed that the monetary easing implemented so far will exert its effect within a shorter time related to pricing mechanism and over the longer term in flows related to lending activity. Therefore, it is difficult to assess the overall size of the pick-up in lending.

In the case of a scenario with higher lending activity, the effects appear more strongly in the area of corporate lending: besides an increase in credit supply, declining lending rates may stimulate corporate demand for loans, and thus the constraint experienced so far on the demand side may also ease. All this entails a faster closing of the investment gap. The more favourable investment dynamics may result in an improvement in income prospects, which may launch positive developments in household lending as well. All this may also considerably support household consumption. In this case the recovery of the economy from the crisis may be faster, whereas the disinflationary effect of the less negative output gap may be smaller. Overall, this is consistent with a smaller monetary policy easing.

Notwithstanding the fact that the period since the previous Quarterly Report on Inflation has essentially been characterised by the remaining of a supportive external financial market environment, the discrepancy between the high willingness to take risks stemming from the optimistic investor sentiment and the weak real economy performance has not dissolved, and no major improvement has taken place in the area of economic fundamentals. A further increase in risks is resulting from the fact that following the relative tranquility of the previous period, political risks have strengthened in several euro area countries. Stronger conflicts are seen across approaches in terms of prioritising between fiscal consolidation and economic growth, which may hinder crisis management in the EU.

Realisation of risks surrounding growth prospects, delay in elaborating and implementing solution proposals or even money market adjustment to fundamental factors in itself may result in a deterioration in investor sentiment, money market tensions and/or a further deepening of real economy problems. In view of all the above, an alternative scenario characterised by higher risk aversion on the part of investors and a greater economic downturn seems to be relevant.

In this scenario, the risk premium increases due to the deteriorating global investor sentiment. Through a rise in the costs of funds, the increase in risk premium restrains bank lending as well. Due to the deterioration in external demand and to the impact of the risk premium on the exchange rate and on lending, growth in this scenario is lower than the one outlined in the baseline scenario. In terms of the developments in inflation, the effect of the weakening exchange rate is only partly offset by the wider output gap. Rising inflation due to the weak forint and the increase in the risk premia on domestic financial assets may even result in a temporary increase of the base rate (Chart 2-1 and 2-2).

3 Macroeconomic overview

3.1 International environment

Although the probabilities of extreme risk scenarios jeopardising economic growth have declined, global economic activity slowed further in the final months of 2012. In developed economies, economic growth generally decelerated, while the euro-area recession deepened further. Growth in countries in emerging regions with stronger growth rates picked up slightly. In developed economies, demand-side inflationary pressure eased, with central banks of major economies maintaining or further easing the already loose monetary conditions in response to recession fears.

The contrast between the continuous improvement in sentiment on the capital markets and the modest outcomes for indicators of real economic activity over the past six months remained in the early part of this year. Developments in the European debt crisis, expectations about the liquidity-providing measures of developed country central banks and the fiscal consolidation process in the US remain the major factors influencing sentiment in international financial markets.

3.1.1 DEVELOPMENTS IN GLOBAL ECONOMIC ACTIVITY

Continuing the trend started in early 2012, the global economy slowed further in the fourth quarter. In the developed world, the euro-area recession deepened by the end of the year, while economic growth in the US and Japan weakened (Chart 3-1). Growth in emerging countries with close trade relationships with developed economies gained

Chart 3-1
GDP growth in major economies
(quarterly changes in seasonally adjusted data)

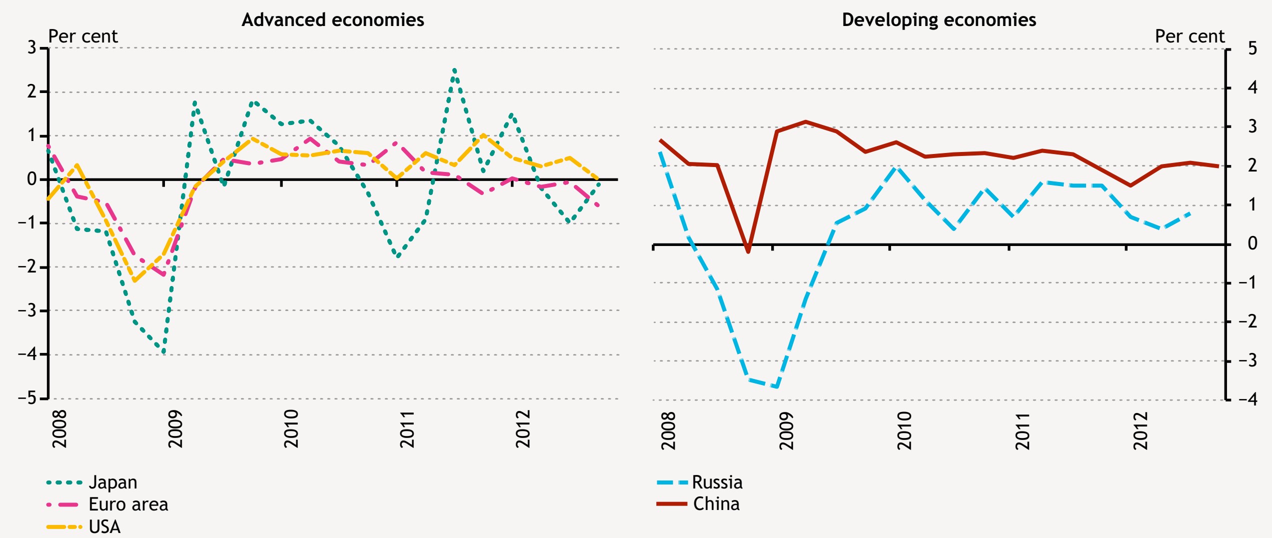


Chart 3-2
Business climate indices for the euro area and Germany
(EABCI, IFO, January 2010–January 2013)

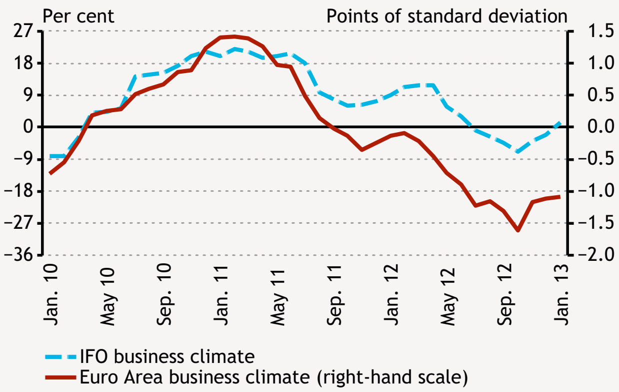


Chart 3-3
Growth and unemployment rates in the largest European economies

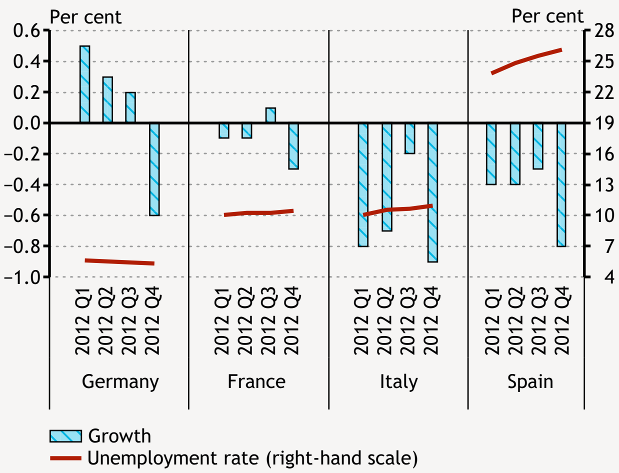
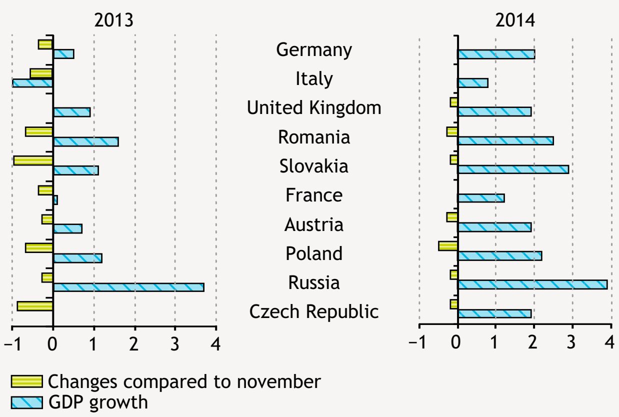


Chart 3-4
The growth forecast revisions of the European Commission regarding our main export partners



some momentum, mainly reflecting the pick-up in domestic demand. The measures required to sustain the fiscal debt in the US, the management of the euro-area crisis and the maintenance of liquidity-providing programmes by the world's major central banks represent the most important downside risks to the medium-term outlook for global economic growth.

The pace of US economic growth slowed in the fourth quarter. GDP grew by 1.6 per cent relative to a year earlier, expanding by just 0.1 per cent relative to the previous quarter, which was below expectations. Weakening global demand and protracted deleveraging by households are acting as a steady drag on the economic recovery, while the damage caused by Hurricane Sandy and the reduction in defence spending also led to a temporary decline in output. In response to the weak economic environment, the Fed has been supporting a sustained improvement in growth and employment by maintaining liquidity providing measures and reaffirming its commitment to keeping interest rates low. In early January 2013, the US Congress passed the budget bill, which helped avoid a recession potentially caused by a sharp tightening, known as the 'fiscal cliff'. Further fiscal consolidation is expected to address the debt ceiling in the longer term, the size and structure of which may significantly influence global growth and the risk appetite of investors. Short-term forward-looking indicators point to a further rebound in activity and consumption.

Possible developments in the euro-area crisis continue to pose a downside risk to the global growth outlook. Euro-area economic output fell by 0.9 per cent in the fourth quarter, indicating that the recession had deepened further by the end of 2012. Fiscal tightening in periphery countries led to a sharp reduction in demand, the effects of which passed through to the core countries, which had been in a relatively better position until recently. The output of Germany and France also fell in the final months of 2012. There are no signs yet that the periphery countries have stated to recover from recession, and unemployment rates have surged to record highs in almost all of these countries (Chart 3-3).

New export orders and forward-looking indicators have passed their low points, but except for the February Ifo indicator they remained in negative territory and thus do not clearly suggest that the recession has ended (Chart 3-2). The global slowdown in activity and ongoing deleveraging are expected to remain a drag on growth in the region in the next couple of years, and therefore the recovery from recession is set to remain modest over the entire forecast horizon (Chart 3-4).

Chart 3-5
Changes in major commodity prices
(USD, January 2005–January 2013)

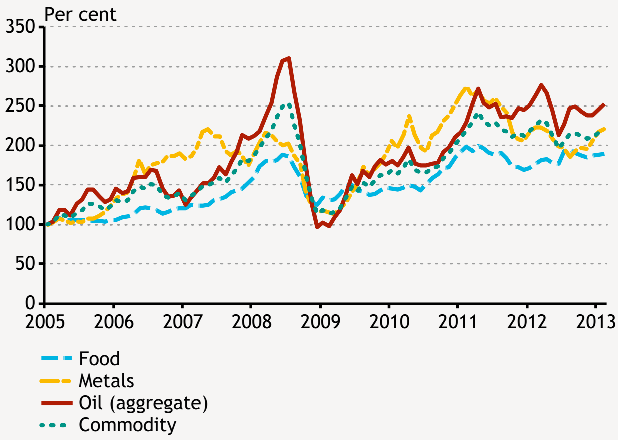


Chart 3-6
Brent spot and futures prices in various currencies
(January 2005–December 2015)

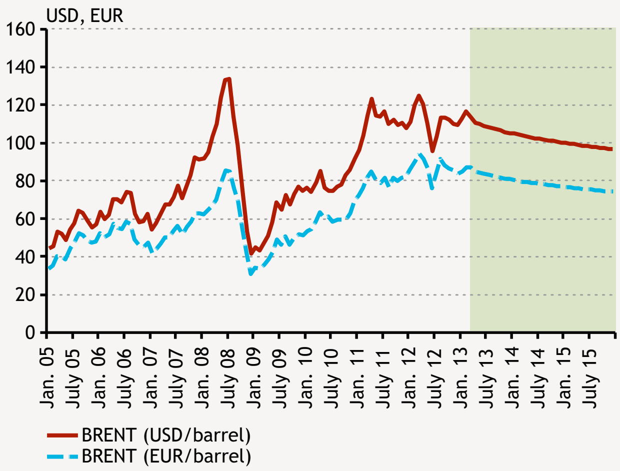
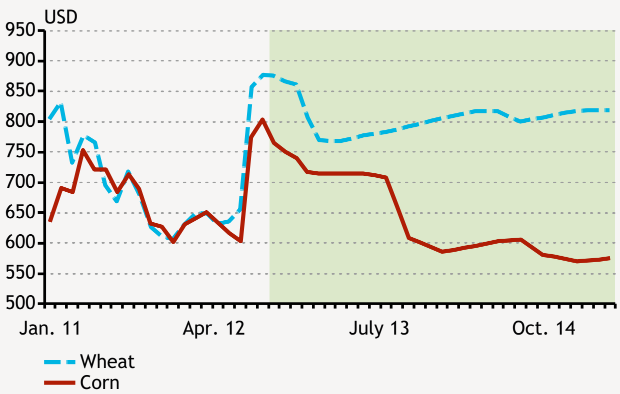


Chart 3-7
Corn and wheat spot and futures prices
(January 2011–December 2014)



The majority of the largest emerging countries experienced a pick-up in growth in the fourth quarter. Growth in China rose to 7.9 per cent in the fourth quarter, mainly reflecting a recovery in investment. The increase in fiscal spending last year, coupled with an improvement in the position of the real estate market, contributed to this investment growth. Due to weak external demand, manufacturing investment remained below the level of previous years, but further large-scale infrastructure investment projects by the public sector (e.g. construction of railroads connecting large cities) may continue to offset the impact of weak global demand in 2013. The development of new asset price bubbles due to actions by developed-country central banks continue to pose a downside risk to domestic demand in emerging regions.

The average growth rate of Central and Eastern Europe also slowed in the fourth quarter of 2012. Poland's economy remained on a growth path, and output growth in Romania resumed, despite the strict fiscal measures. Output in the Czech Republic and Hungary fell at nearly comparable rates. The temporary suspension of production at manufacturing companies may have contributed significantly to the slowdown in the region's output at the end of the year. The restart of production in January, however, may offset this effect, which may be reflected in a resumption of growth. There are tentative signs of this starting to have some of the expected effects in the January industrial production data for the region. The uninterrupted rise in the German Ifo index in recent months may also improve the outlook for growth in the region.

To summarise, the economic outlook in Hungary's major export markets deteriorated in the final months of 2012. German industrial production declined sharply in the fourth quarter and continued to fall in January. By contrast, the major forward-looking indicators for German industry, including the outcomes for both new industrial orders and the Ifo index, point to an increase in activity during the period ahead. The euro-area economy is expected to remain in recession in 2013, and the subsequent recovery may be prolonged. Growth in Hungary's main export markets may contribute slightly to domestic growth this year.

3.1.2 GLOBAL TRENDS IN INFLATION

In line with the relatively weak outlook for growth, the upward trends on the global commodity markets seen last year came to an end (Chart 3-5). The world market price of oil stabilised close to USD 110. Improving global risk appetite contributed to the strength of the euro, leading to a slight drop in the price of oil in euro terms (Chart 3-6).

Chart 3-8
Inflation in the major economies
(in per cent; year-on-year; January 2006–January 2013)

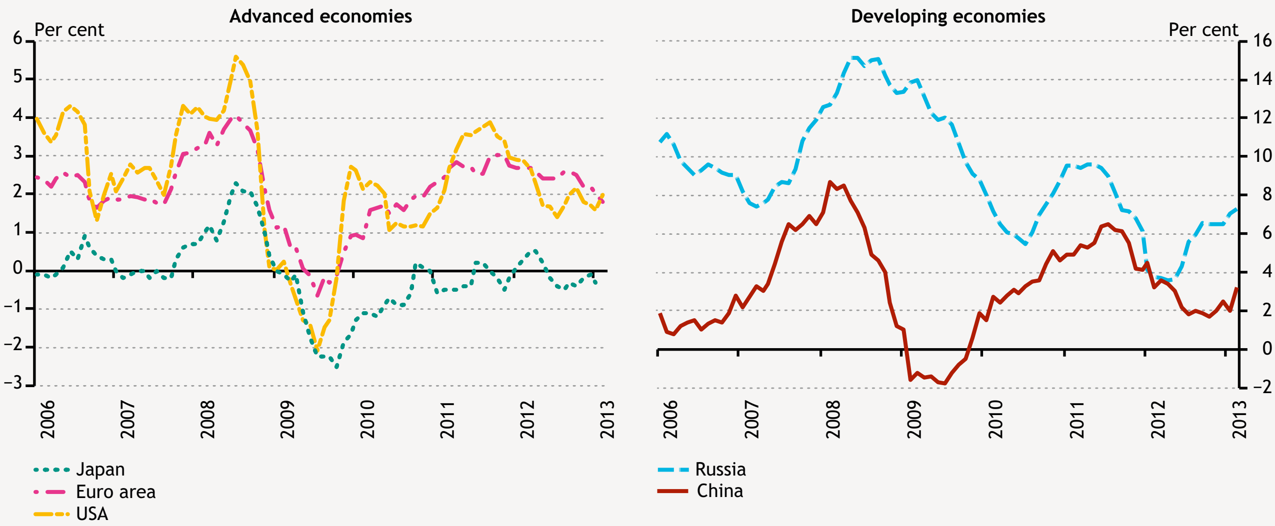
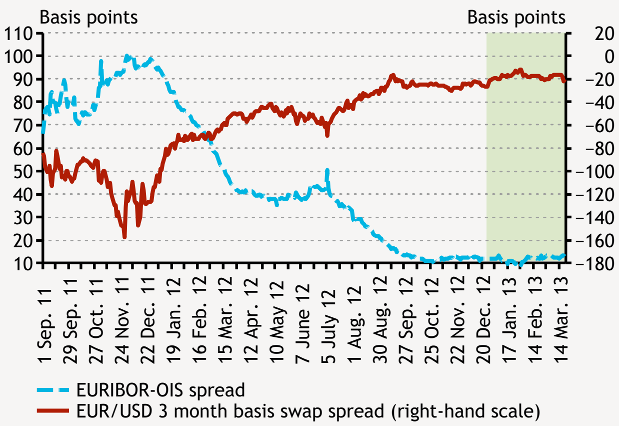


Chart 3-9
Changes in interbank and swap market spreads



Demand for oil is unlikely to fall materially, due to relatively stronger growth in the US and emerging economies, but investment in shale oil production in the US may result in easing supply constraints over the medium term. Prices of industrial commodities (iron ore and coal) increased, mainly reflecting the pick-up in growth and the improved outlook for the Chinese economy. Unprocessed food prices (wheat) fell, and corn futures prices show a decline from the middle of 2013, when the new crop will reach markets (Chart 3-7).

Inflation rates have fallen in most countries in recent months, reflecting subdued inflationary pressure from the demand side (Chart 3-8). Inflation declined below 2 per cent in the euro area, with the base effect of commodity prices and the wearing off of indirect taxes playing a role. In the US, inflation remained close to the 2 per cent target announced last year, and long-term inflation expectations were in line with the target. There continues to be deflation in Japan, with monetary conditions expected to be eased further in an attempt to meet the new 2 per cent inflation target announced in January of this year. In developed economies, the low inflation environment continue to create room for maintaining loose monetary conditions over a sustained period. Supply-side inflationary pressure in emerging countries has increased recently, with inflation rising slightly.

In Central and Eastern European region, inflation fell sharply, except in Romania. Inflation in the Czech Republic and Poland edged down to around target by the end of the year, with consumer price indices falling further in early 2013. In Romania, inflation rose, but it is anticipated to fall

Chart 3-10
Changes in risk indices
(January 2012–February 2013)

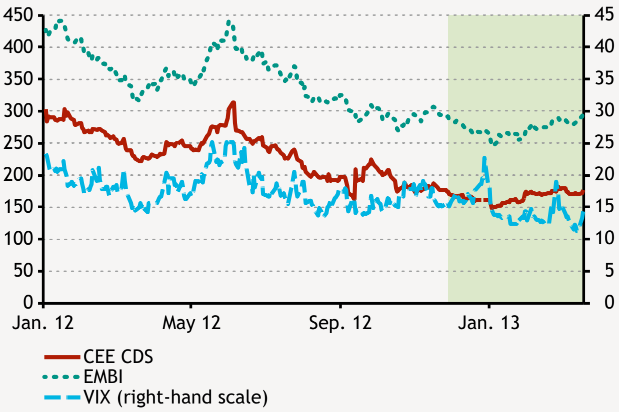


Chart 3-11
Developments in major stock market indices
(September 2011–February 2013)

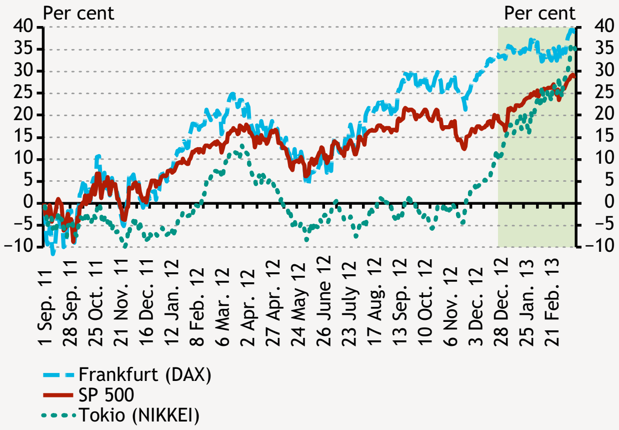
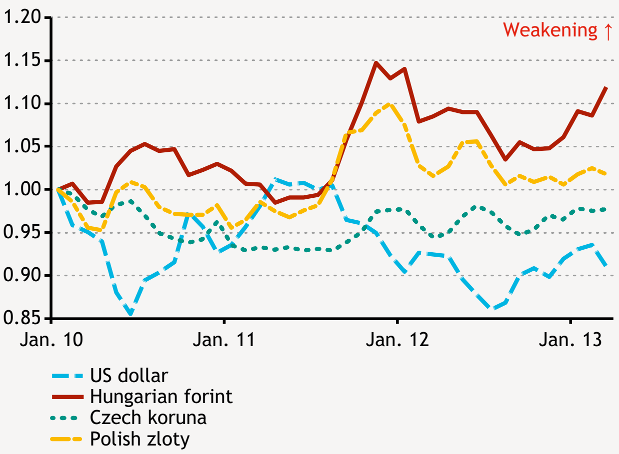


Chart 3-12
Relative exchange rates versus the euro
(January 2010–February 2013)



back to the target range in the second half of the year as one-off upward effects on prices fade away. Inflation in Hungary remained above target throughout 2012, but after the sharp drop early in the year it declined below the target in February. The monetary policy relevant price indices filtered for the effects of commodity price shocks and indirect tax increases, do not signal any material inflationary pressure up to the short-term horizon.

3.1.3 MONETARY POLICY AND FINANCIAL MARKET DEVELOPMENTS

Developed economies have recently maintained loose monetary conditions in the face of the current economic outlook and low underlying inflation. In emerging economies, the recovery in risk tolerance and moderate inflation risks provided an opportunity for central banks to cut key policy rates. In Central and Eastern Europe, the National Bank of Poland and the Magyar Nemzeti Bank reduced interest rates further. The Czech National Bank has maintained interest rates at close to zero and is attempting to meet the inflation target temporarily by intervening in the foreign exchange market, if necessary. The National Bank of Poland continuously reduced the key policy rate by 25 basis points from November to February, before the rate was cut by 50 basis points in March.

Sentiment in global financial markets has remained strong in recent months. The positive impact on economic activity of liquidity-providing and/or crisis management efforts by major central banks was sustained. Emerging markets benefited considerably from the ample liquidity: capital inflows to those markets increased sharply, putting downward pressure on the asset risk premia of the countries affected (Chart 3-10). Exchange rate depreciation in several developed and emerging economies, in particular in Japan, raised the possibility of competitive devaluation; however, the countries affected denied having intervened in foreign exchange markets directly. Appetite for risk increased significantly in international financial markets, as reflected in higher demand for riskier assets. Several equity indices advanced close to their historical highs (Chart 3-11).

There were contrasting developments related to crisis management in Europe in the fourth quarter. The bond repurchase programme in Greece, developments on the Spanish bank bailout programme, moderate yield levels in periphery countries and higher-than-expected LTRO repayments were considered as successful. These factors combined to reduce uncertainty about the euro-area economy. However, the bank crisis in Cyprus, the high French government deficit and Italian political risks may raise further concerns in the future. There has been no material progress on setting up a euro-area banking union in Europe.

During the past weeks new developments of the eurozone crisis caused a little lurch in the global sentiment. In early March investor sentiment worsened temporarily due to the results of the Italian elections. Fears were raised over the recoil of the fiscal consolidation as a result of the political deadlock. In mid March the situation in Cyprus caused market tensions. After the ECB had announced the future stoppage Emergency Liquidity Assistance (ELA) eurozone financial ministers managed to agree about the bailout package, thus preventing the collapse of the Cyprus banking system and keeping the country in the eurozone. Investors tensely follow information about the details of the package and its market effects.

Box 3-1

The latest liquidity expansion plans of major central banks and exit plans

The Fed continued its monetary easing policy in recent months. As a result of the quantitative easing programme, its balance sheet total increased steadily, expanding by USD 260 billion (to USD 3,110 billion) in one quarter. There are a number of uncertainties about the continuation of asset purchases even over a one-year time horizon, although changing the quantitative easing would presumably not reduce the Fed's balance sheet in the short run. According to the Fed staff's forecast corroborated by calculations and a strategy, the phasing out of unconventional policy instruments and thus the tightening of monetary conditions is expected to occur from early 2015 (i.e. the earliest point in time when unemployment may decline below 6.5 per cent). The phasing out took account of holding certain securities to maturity and selling other ones continuously as of 2015. Assuming a third quantitative easing package amounting to USD 1,000 billion, the size of the Fed's portfolio may decline to its pre-crisis level by 2019, and it is expected that in 2020 it will be possible to return its composition as well similar to the pre-crisis one. The Fed's balance sheet is expected to increase by 16–30 per cent this year.

The balance sheet of the European Central Bank declined by EUR 365 billion in the past quarter. The decline in the balance sheet total was mainly attributable to the repayment of three-year LTRO funds; the other unconventional tools will remain in use without any change. The ECB's covered bond purchase programmes and its Securities Markets Programme have not expanded recently; asset group holdings declined by the value of the maturing securities. There is no information on the introduction of new facilities, so changes in the ECB's balance sheet total may primarily be influenced by the LTRO repayments, and a further modest decline is likely.

The Bank of Japan announced new plans to enhance liquidity and stimulate lending. In this programme, further high-value government bond purchases and a scheme to stimulate lending will be introduced. In addition, the new central bank management taking office in March is examining the possibility of purchasing other securities as well. According to announcements at the beginning of the year, the Bank of Japan's total balance sheet may expand by more than 30 per cent this year.

No major change is expected in the current sets of instruments of major central banks; therefore, abundant global liquidity is expected to remain over the short run. Ample liquidity has a favourable effect on financial market sentiment, which is not expected to change considerably for some time. Global liquidity is expected to change significantly in the case of announcements related to the launch of additional central bank instruments or the phasing out of earlier programmes.

3.2 Aggregate demand

In the last quarter of 2012, domestic GDP declined in line with the general slowdown in external and domestic economic activity. At the end of last year, the fall in demand was deepened considerably by some temporary factors as well. The protracted reduction in debts accumulated prior to the crisis, measures to improve the fiscal balance, and weak lending activity as well as the uncertainty related to the medium-term prospects all contributed to the decline in demand in Hungary's external and domestic markets.

Household consumption, which is a determinant in terms of domestic price developments, developed moderately over the last half year. Subdued domestic demand continues to have a significant disinflationary effect, and thus demand conditions only allow limited opportunities to include the rising production costs in consumer prices.

Chart 3-13
Structure of annual change in domestic GDP
(2005 Q1–2012 Q4)

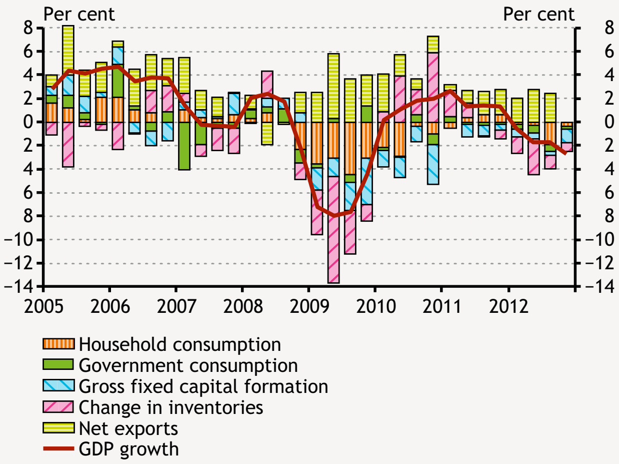
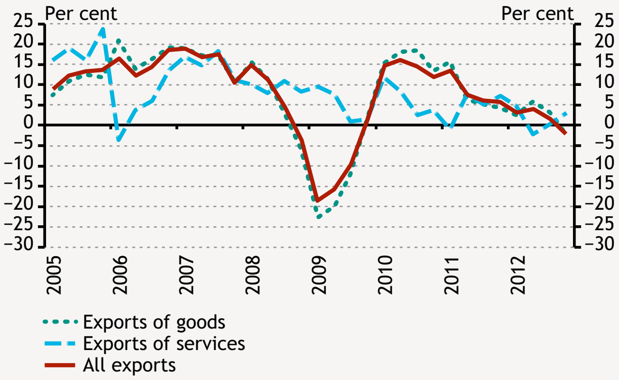


Chart 3-14
Changes in the volumes of goods and services exports
(2005 Q1–2012 Q4)



In line with the generally weakening external and domestic demand, in a quarterly comparison, domestic GDP contracted by 0.9 per cent in the last quarter of 2012 (Chart 3-13). The decrease in demand amounted to 1.7 per cent for the year as a whole. The protracted reduction in debts accumulated prior to the crisis, measures to improve the fiscal balance, and weak lending activity as well as the uncertainty related to the medium-term prospects all contributed to the decline in demand in Hungary's external and domestic markets. At the end of last year, the fall in demand was exacerbated considerably by some temporary factors as well. On the demand side, the effect of the steep drop in agricultural production and the stoppages experienced at the end of the year in industry may have primarily been reflected in the decline in the level of inventories and the level of export at the end of last year.

3.2.1 FOREIGN TRADE

Although a decline was observed in the balance of trade in Q4 due to temporary plant shutdowns, throughout the year net exports continue to generate a considerable positive contribution to changes in domestic GDP (the annual contribution to growth was 1.8 per cent). In line with the deterioration in the economic activity of Hungary's most important export markets, the volume of exports also declined at end-2012. In terms of import demand the observed correction was smaller than in the export demand, which implies active inventory management by exporting companies and thus a transitory decline in exports. The downturn in the electronics and telecommunication sector, which had been a key factor in terms of Hungary's export sales prior to the crisis, continued in the past quarters as well. As a result, Hungary's export market share may have stagnated in the last months of the year as well, similarly to 2012 as a whole (Chart 3-14).

Over the short run, confidence indicators point to an upswing in the international environment, but the upturn in external demand may be a slow and protracted process. Industrial exports of Germany, which is Hungary's main export market, may be more favourable than economic activity in general, which may result in a strengthening of export sales with an increase in the production from the new capacities of the domestic automotive industry. This picture is corroborated by the strong increase in new export orders seen in the past months. No material change in domestic demand is expected in the near term, and thus, on the whole, net exports may continue to provide strong support to domestic growth.

Chart 3-15
Changes in retail sales, earnings and the consumer confidence index

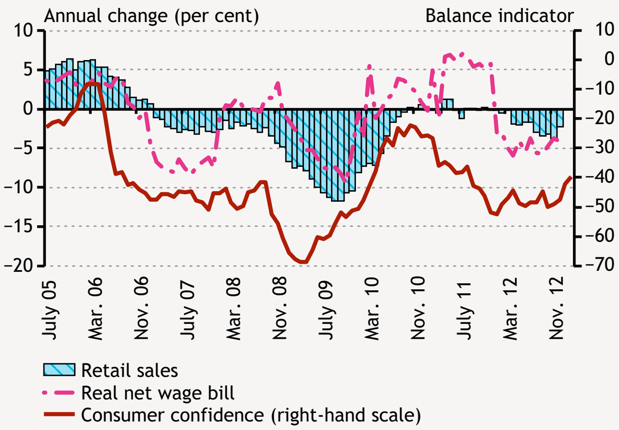
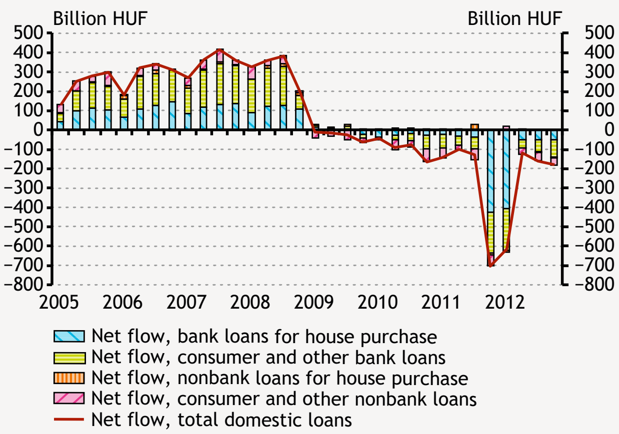


Chart 3-16
Quarterly net increase in loans to households from domestic financial intermediaries by credit purpose

(2005 Q1–2012 Q4)



Note: Loans granted by banks (without specialized institutions), foreign branches, cooperative credit institutions and other financial intermediaries. Seasonally unadjusted change in outstanding amounts, with rolling exchange rate adjustment.

3.2.2 HOUSEHOLD CONSUMPTION

Following the sharp decline observed in Q3, household consumption increased slightly in the remaining part of the year. For last year as a whole, consumption demand was down by some 1.5 per cent. At the end of the year, no material shift was observed in the main macroeconomic factors that determine consumption decisions. The reduction of the taxes on labour improved households' income position, although inflation, which remained high for the whole year, eroded the purchasing power of incomes (Chart 3-15). The real net wage bill showed a decline in an annual comparison. Tight credit conditions and increasingly uncertain prospects for economic activity resulted in a strengthening of precautionary considerations, which was reflected in a rise in financial savings. Mounting uncertainty about the expected income position and persistently strict household credit conditions reduced demand for consumer durables the most. From the first months of the year, the sharp decrease in inflation may generally improve the purchasing power of households income.

Households' balance sheet adjustment continued, and thus households continued to be net repayers (Chart 3-16). Loans outstanding declined in all loan categories in Q4. In spite of the introduction of the interest rate subsidy scheme, no significant change was observed in the volume of new lending compared to the previous quarter. Accordingly, the restrained demand side may continue to be a hard constraint in the development of lending to households.

As a result of an increase in minimum wages and pension benefits exceeding expected inflation, the purchasing power of households' wage and transfer type incomes may expand this year, possibly resulting in the stabilisation of

Chart 3-17
Whole-economy investment
(2001 Q1–2012 Q4; year-on-year)

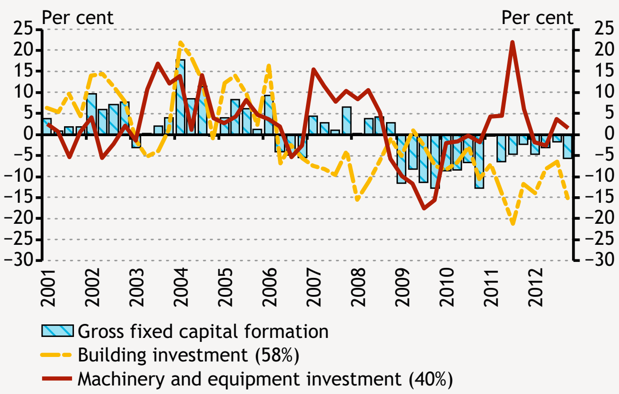
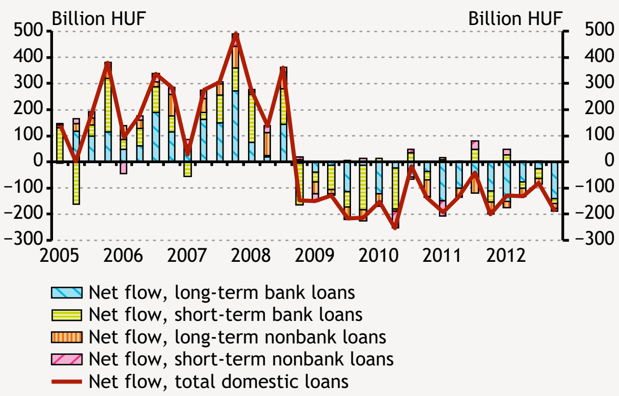
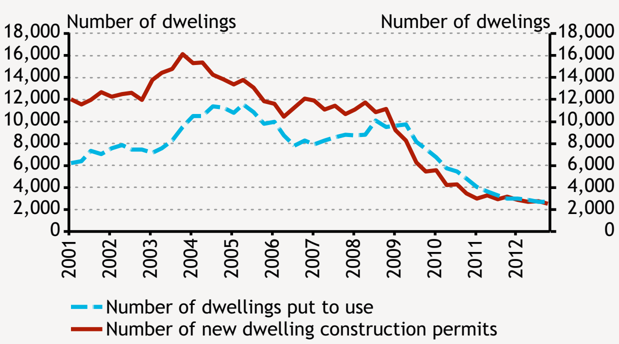


Chart 3-18
Net quarterly change in outstanding domestic loans to corporations; breakdown by maturity
(2005 Q1–2012 Q4)



Notes: Loans granted by banks (without specialized institutions), foreign branches, cooperative credit institutions and other financial intermediaries. Seasonally unadjusted change in outstanding amounts, with rolling exchange rate adjustment.

Chart 3-19
Construction of new housing and number of building permits issued quarterly
(2001 Q1–2012 Q4)



households' consumption demand. This is also indicated by the improvement in the household confidence indicator in recent months. However, against the background of a unemployment rate higher than the pre-crisis levels and slowly declining debts, consumption-savings decisions may continue to be characterised by precaution, so the effect of demand-stimulating measures appearing in the case of households may strengthen consumption only slowly.

3.2.3 PRIVATE INVESTMENT

Private investment continued to decline in Q4, which is still explained by the uncertain sales prospects, the strict conditions of corporate lending and weak corporate profitability (Chart 3-17).

Corporate investment continued to be characterised by the dual trends of the past period. In sectors producing for export markets – especially in the automotive industry – large individual projects resulted in considerable investment activity in Q4 as well. At the same time, underlying investment developments proved to be subdued in the majority of sectors producing for the domestic market.

In 2012 Q4, corporate lending activity of the domestic financial intermediary system continued to decline (Chart 3-18). Short- and long-term loans outstanding were also down, which is explained by both demand and supply factors. On the one hand, the tight lending conditions that had emerged earlier continued to dominate banks' loan supply,[6] while corporate loan demand may also have remained subdued in the uncertain economic environment. With the moderate developments in investment activity, demand for long-term loans is slack, and the transitory decline in industrial production restrained short-term borrowing as well.

Household investment continued to decline in Q4, explained by households' uncertain income prospects, the protracted reduction of outstanding debt accumulated prior to the crisis and the tight lending conditions. Based on home-building indicators, the construction of new homes may have bottomed out at end-2012, but for the time being there are no signs of a perceptible change (Chart 3-19). New building permits were also at a historically low level. The housing subsidy scheme, which was expanded as of this year, may make a positive contribution to household investment over the medium term.

[6] Based on the February 2013 Lending Survey conducted by the MNB.

Chart 3-20
Changes in inventories at current prices and according to GDP, and inventory level as a proportion of nominal GDP
(2005 Q1–2012 Q4)

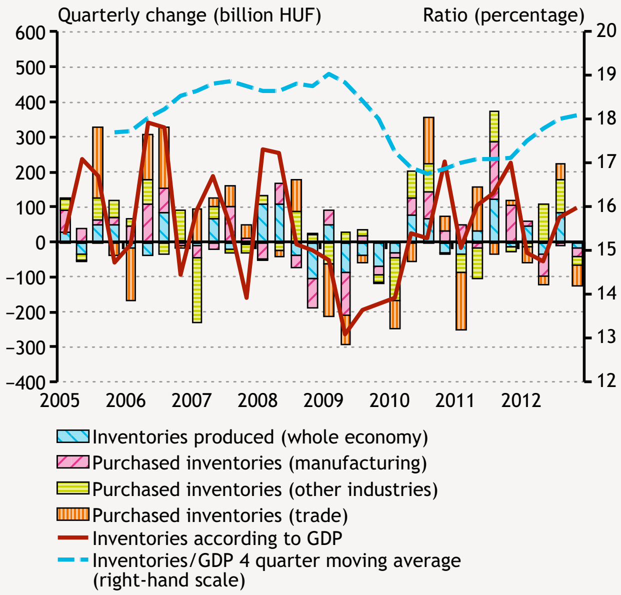
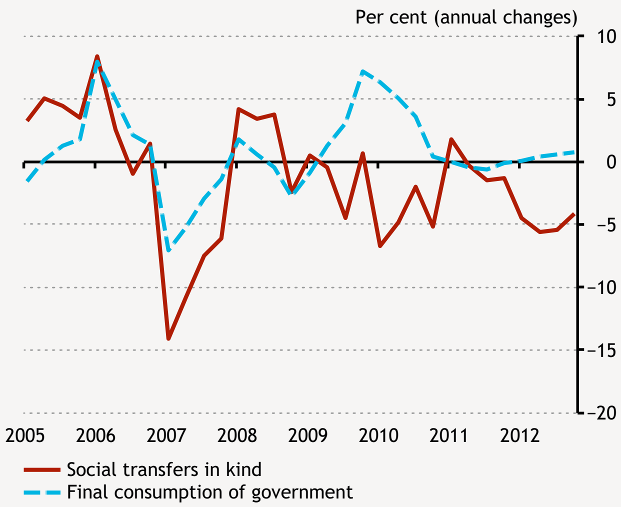


Chart 3-21
Changes in government expenditures
(2005 Q1–2012 Q4)



3.2.4 INVENTORIES

The uncertain economic prospects and tight corporate lending conditions continue to justify the maintenance of tight inventory management in the private sector (Chart 3-20). Last year's weak agricultural performance and the stoppages experienced in industry at the end of the year may have caused a decline in whole-economy inventories, resulting in a negative contribution to the changes in GDP on the demand side. Looking ahead, due to an expected increase in industrial capacities and the anticipated recovery in agricultural performance, the level of inventories may rise over the short run.

3.2.5 GOVERNMENT DEMAND

Government consumption demand was primarily determined by fiscal balance-improving measures all throughout last year. The funding of government investment continued to be characterised by strong duality. Due to fiscal saving, the weight of investment implemented from the state's own funds may have continued to decline, which was offset by an increase in projects that can be carried out using EU funds. This is indicated by the fact that in construction it was mainly non-building type investment related to the state that made a positive contribution to the performance of the sector. In the near term, this duality may remain permanent in the financing of government investment. Fiscal balance-improving measures may continue to limit government demand. However, investment in infrastructure that can be implemented through a more efficient utilisation of EU funds may stimulate government investment (Chart 3-21).

3.3 Production and potential output

Domestic economic output declined in 2012 Q4. Gross domestic product fell by 1.7 per cent last year as a whole. In addition to the generally weakening external and domestic economic activity, significant one-off impacts that affect the performance of some sectors also contributed to the contraction in production. The fall in agricultural production due to unfavourable weather conditions was especially strong and may have explained nearly half of the economic downturn.

The subdued investment activity and the persistently high rate of unemployment indicate a permanent slowdown in the potential growth rate of the economy. A correction of the factors that temporarily impair economic output may result in a strengthening of production over the short run.

Chart 3-22
Structure of annual change in domestic GDP

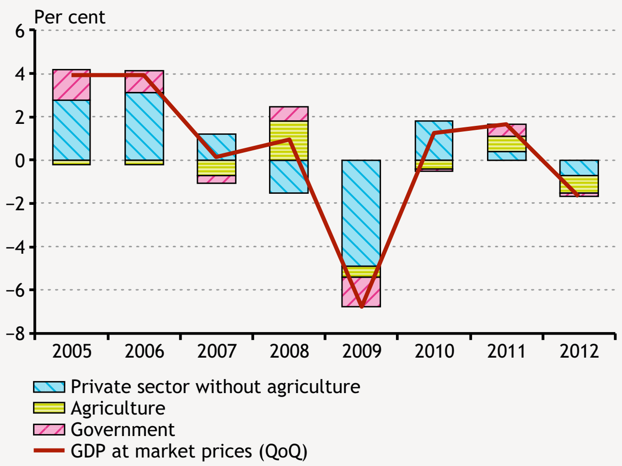
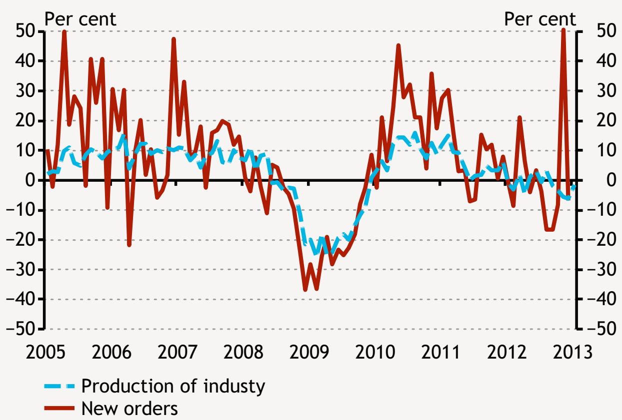


Chart 3-23
Industrial production and new orders
(January 2005–January 2013)



Following a slighter decline in the previous two quarters, compared to Q3, economic output decreased by 0.9 per cent at the end of the year. In addition to the extremely unfavourable weather, a slowdown in industrial production (partly as a result of one-off effects) as well as the gradually weakening external and domestic business activity played a role in the downturn. The slowdown in Hungary's export markets resulted in a fall in output even in the export-oriented production sectors, which had shown better performance during the crisis. The performance of sectors producing for the domestic market continued to be generally weak. Value added in agriculture declined considerably due to the drought conditions, explaining nearly half of the fall in whole-economy output, despite the low weight of the sector (Chart 3-22).

Industrial production increased significantly by 2.9 per cent in January 2013. This is mainly attributable to the correction of one-off factors (temporary shift reduction, sending employees on leave, etc.) (Chart 3-23). The deceleration in Q4 played a significant role in the decline in GDP, due to the weight of the sector. Hence, the favourable data in January also points to a correction in the value added of the industry in Q1. Along with the automotive industry, production growth was common in most of the branches of manufacturing at the beginning of the year. By contrast, the underlying developments – in line with the subdued growth in Hungary's export markets – have been subdued in recent months. As a result of the capacity decrease at some large export-oriented companies, a severe decline in production was observed (Chart 3-24). This fall was so strong that it offset the upturn in vehicle manufacturing, and as a result, a slight decline was observed in the machine industry as a whole.

Chart 3-24
Production of the main branches of the machine industry
(January 2010–January 2013)

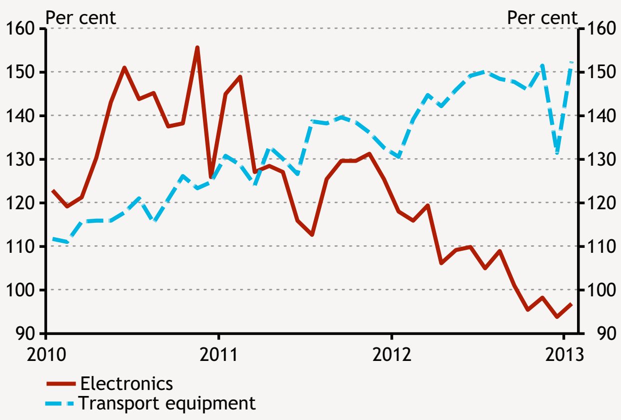


Chart 3-25
Changes in construction output, contracts and building-type investment
(2005 Q1–2012 Q4)

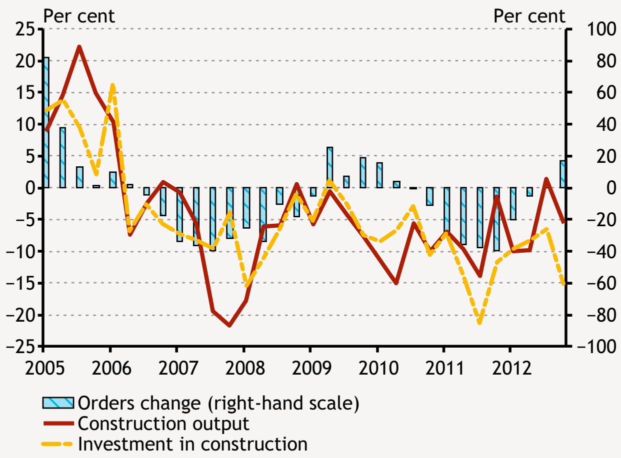
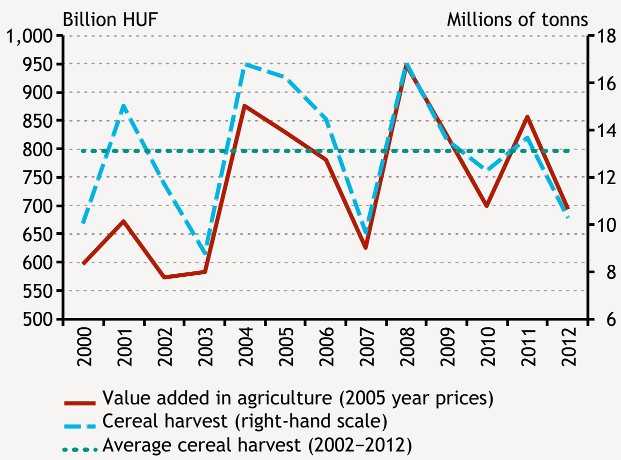


Chart 3-26
Value added in agriculture and cereal harvest



Due to the protracted reduction of debt and fiscal adjustment, a gradual decline in external demand was registered. Balance sheet adjustment in the public and private sectors may continue for a longer period of time, and thus only slow improvement can be expected in Hungary's export markets. By contrast, the expectations for growth in Germany, which is the largest trading partner of Hungary, may have a positive effect on the prospects of the domestic industry as well. According to press information, it can further enhance the production of the industry that the Suzuki factory has been working in two shifts again since January, and the production of a new model will also be launched in the Esztergom plant. Moreover, expansion of the General Motors plants was completed last year, and in February the newly implemented capacities also added to the production. The increase in new industrial export orders in the end of last year, and the January trade and production data indicate that Hungarian production may accelerate again this year.

Construction output has been steadily declining since the outbreak of the crisis (Chart 3-25). This process remained typical in the last quarter of last year as well, but forward-looking indicators suggest a slow stabilisation in production. The output of the sector continues to be characterised by a strong dual trend. Construction works related mainly to the private sector remained subdued, while building investment primarily related to the public sector expanded considerably. Based on the total amount of orders of the sector, the situation therein may be characterised by a slow increase in production in the coming quarters. The dual trend can be observed in changes in new orders as well. One favourable development is that – mainly in the case of public investment in infrastructure – the expansion of contracts for other structures continued, while building-type production is expected to continue contracting in the months ahead.

As a result of the special accounting of value added in *agriculture*, the performance of the sector fell considerably in Q4, despite the fact that only a fraction of production and harvesting falls in this period. Based on yields of major crops, due to the extreme weather conditions, the sector recorded one of the weakest results in the last 10 years. The most striking fall was recorded in corn, whereas the shortfalls were less significant in the case of wheat and other major crops (Chart 3-26).

The total volume of *retail trade* reflected an increasingly sharp downturn during the quarter. The decrease in sales was observed in a wide range of products. The most significant downturn in sales continues to be typical of consumer durables, while food sales fell only to a lesser

Chart 3-27
Decomposition of retail sales
(January 2005–December 2012)

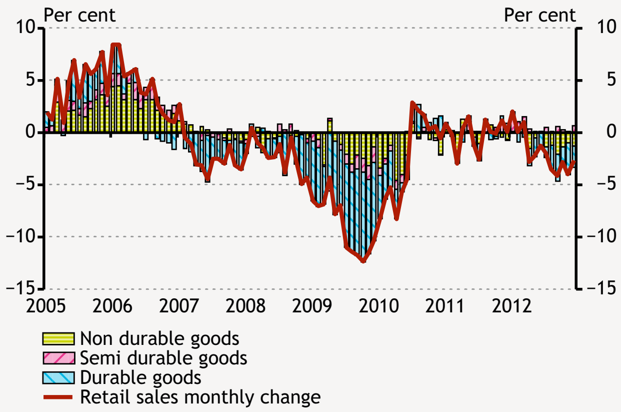


Chart 3-28
Decomposition of the number of tourism nights in accommodation establishments
(January 2009–January 2013)

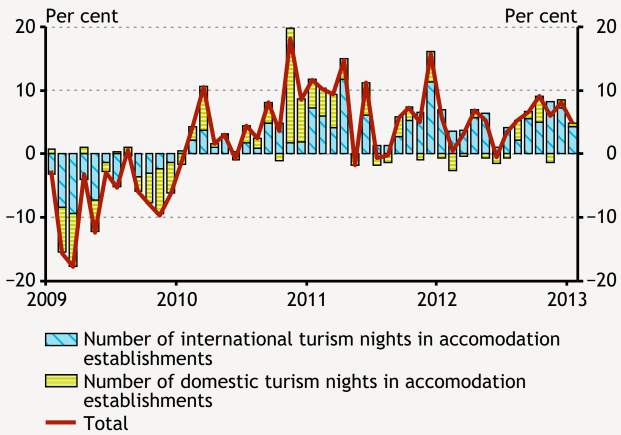
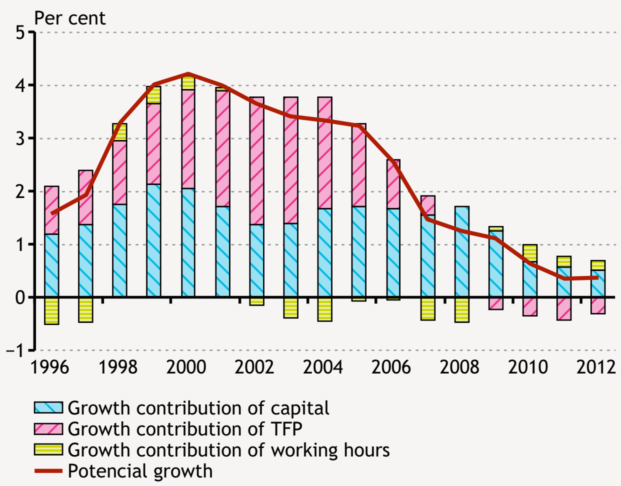


Chart 3-29
Developments in potential growth

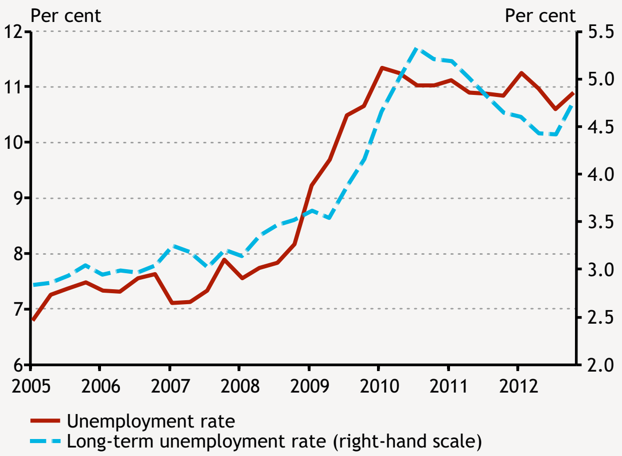


extent (Chart 3-27). In the *catering* sector, the increase in turnover typical of the whole year continued in January as well. On an annual basis, the number of guest nights spent at various places of accommodation increased by almost 5 per cent in January (Chart 3-28). This growth was observed in the case of both domestic and foreign guests. The improving performance of this sector was supported by the weaker forint exchange rate in earlier years, as well as developments implemented in the sector (mainly from EU funds).

The performance of the *financial services* sectors declined markedly. Output from the traditional financial operations of both banks and insurance corporations was low. Lending activity remained subdued, and insurance companies' income from insurance premiums typically declined.

Our view of the *potential level of output* remained unchanged compared to the situation described in the December issue of the Quarterly Report on Inflation (Chart 3-29). The new capacity-increasing investment projects implemented in the automotive industry were still unable to fully offset the broad-based decline observed in investment. Accordingly, the growth rate of the capital stock may have continued to decline to some extent this year. So far, the pick-up in labour supply observed in recent years has mainly been reflected in the increase in public employment, which is characterised by lower productivity. The unemployment rate declined this year, but remains at a high level, which may pose a risk in terms of the rise in permanent unemployment (Chart 3-30). Overall, the developments observed both in the labour market and capital accumulation suggest a subdued development in potential growth.

Chart 3-30
Unemployment rates
(2005 Q1–2012 Q4)



3.4 Employment and labour market

The expansion in activity and employment came to a halt in the domestic labour market in Q4. Public employment programmes led to an increase in employment in the past quarters as well, but, in the deteriorating economic environment, the labour demand of the private sector declined, which was also reflected in the slight drop in employment figures. Labour market conditions can still be considered loose. The loose labour market environment continues to point to more cautious wage developments, creating an opportunity for the improvement of corporate profitability.

Chart 3-31
Changes in the decomposition of activity compared to 1996

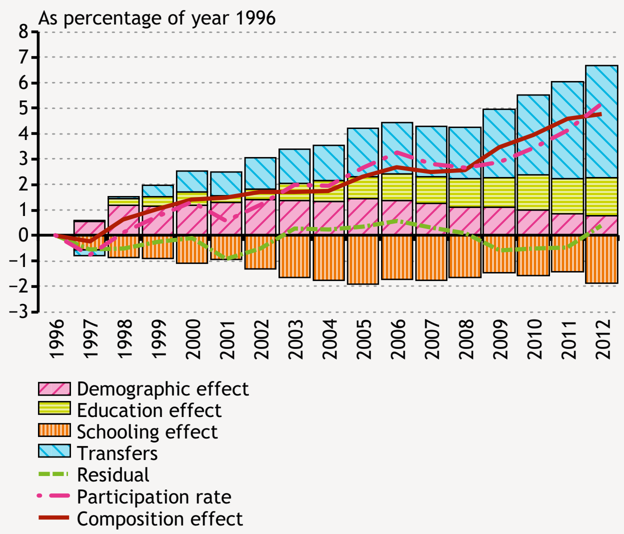
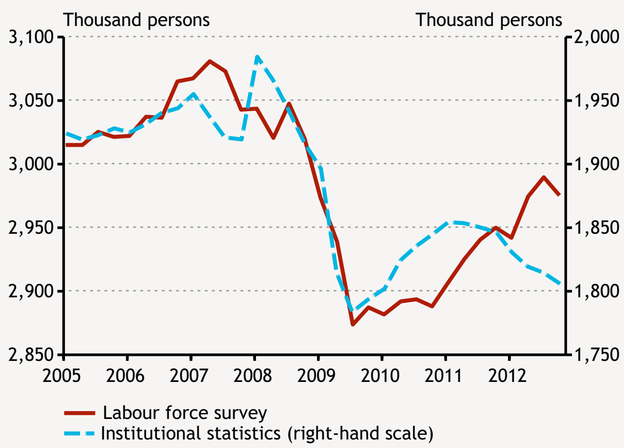


Chart 3-32
Number of employed in the private sector calculated on the basis of institutional statistics and the labour force survey
(2005 Q1–2012 Q4)

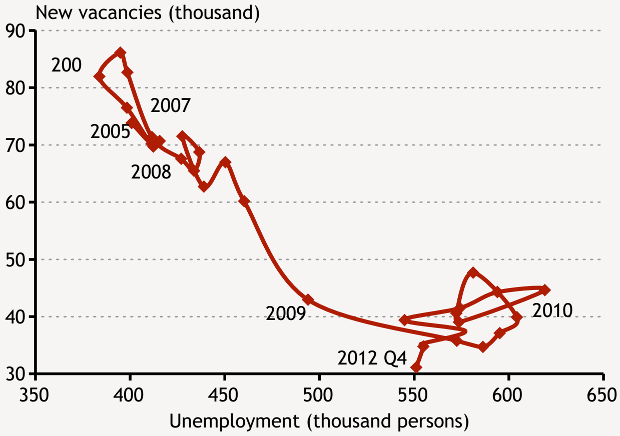


Although the expansion in activity came to a halt in 2012 Q4, Similarly to the preceding years labour market supply increased considerably last year. Rising by around 2 percentage points compared to the pre-crisis level, the activity rate reached 57 per cent (Chart 3-31). Government stimulus measures, in particular the changes to the conditions of old-age and disability retirement as well as the tightening of unemployment benefits, played a significant role in this trend.

At the end of the year, the growth in employment which had been observed in the recent quarters did not continue. Public work programmes continue to support the improvement in employment, but the deteriorating economic environment reduced the labour demand of the private sector. The statistics available on employment developments in the private sector have been quite varied in recent quarters. According to the labour force survey data, the number of people employed in the private sector increased considerably by the end of the year, whereas the institutional labour force figures indicated a downturn for the whole of last year. The difference between statistics seems to be dissolving in the past quarter: both statistics suggest a decline in employment (Chart 3-32).

Due to the parallel shifts in labour supply and labour demand in recent quarters, the unemployment rate has not shown any material shift; the indicator continues to fluctuate around the level that evolved during the crisis.

Chart 3-33
The Beveridge curve



Note: The Beveridge curve shows the number of new (unsubsidized) private sector vacancies relative to registered unemployment.

Companies' demand for new labour force sank to a historically low level. In line with that, no major shift in the Beveridge curve was observed in the past quarter, and thus the labour market can still be considered loose (Chart 3-33).

3.5 Cyclical position of the economy

The economy continues to be characterised by a significant amount of free capacities. The output gap, which was gradually closing until end-2011, may have widened again as a result of last year's recession. In line with that, the disinflationary effect of weak demand may have continued to strengthen. Both domestic and external factors contributed to the expansion in excess capacities. In particular, the steep decline in household consumption may have a restraining influence on pricing decisions. The weakening economic environment and the increase in production costs impaired corporate profitability, adding to the sector's need to adjust.

Chart 3-34
Overtime in the private sector

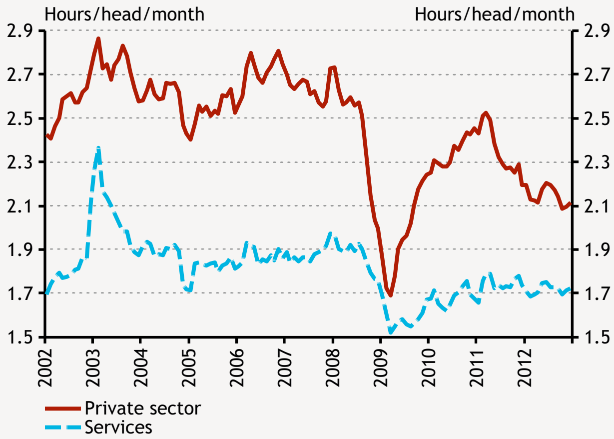
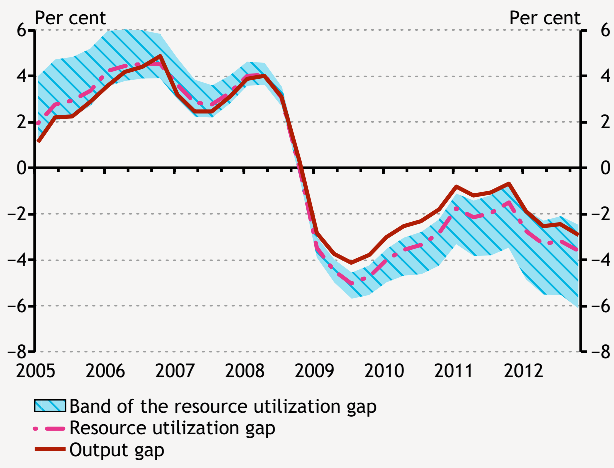


Chart 3-35
Evolution of capacity utilisation
(2005 Q1–2012 Q4)



Note: The band of output gap estimates is derived from various methodologies for measuring the output gap. The resource utilization gap is derived from data indicating capacity utilization in the private sector.

The dual trends of recession in the real economy and high price and wage dynamics faded considerably in recent months. In line with the weakening demand environment, the utilisation of production capacities has gradually declined. In all sectors, lower utilisation is observed in the lower intensity of the use of both capital and labour factors (Chart 3-34).

According to our current estimates, the output gap which has been opening since 2011 continued to open up last year as well. At present, the negative output gap may be around 2-3 per cent (Chart 3-35). In terms of domestic pricing decisions, not only the size of the gap, but also its composition is a key factor. The slowdown in the demand environment affected all the components, but in the second half of last year the decline in household consumption became particularly strong. This weak consumption demand may limit the pass-through of elevated production costs into consumer prices.

In line with the deteriorating cyclical position, the profitability of the corporate sector also fell in recent quarters. In addition to deteriorating productivity, rising production costs also contributed to the deterioration in profitability.

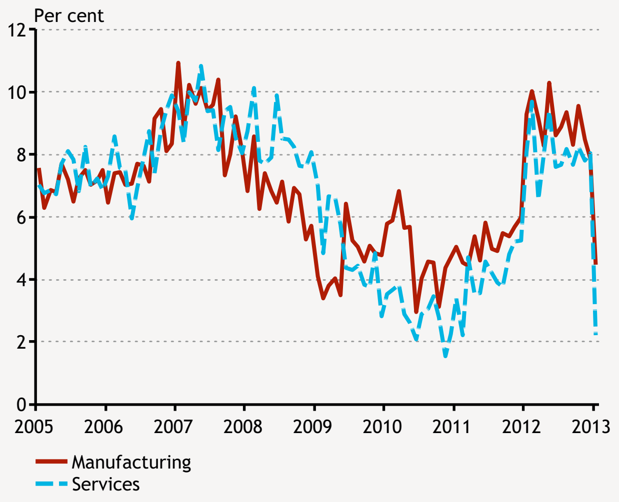
3.6 Costs and inflation

From a level of around 5 per cent at the end of last year, inflation declined to below 3 per cent in early 2013. The lower consumer price index was mainly the result of the drop out of the January 2012 VAT increase from the base and the reduction of regulated energy prices by 10 per cent, but favourable underlying developments also contributed. The latter indicates that domestic demand, which remained subdued, had a disinflationary effect. The decline in inflation was attenuated by rising fuel prices and the price increasing effects of certain tax measures.

Following a significant acceleration early in the year, the slight deceleration in the wage index of the private sector continued in the last months of 2012. Looking at the year as a whole, bonus payments and non-wage benefits were typically cut back in the private sector, in line with the deterioration in corporate profitability. The wage index may decline in the coming months, mainly because the minimum wage was increased considerably less than last year. The recovery in corporate profit also points to restrained increases in wages, which may be supported by the loose labour market conditions.

Overall, incoming data point to lower nominal developments. There is small room for price hikes in the weak demand environment, so companies manage to restore their profitability mainly through reductions of labour costs.

Chart 3-36
Changes in regular gross monthly average wages in the private sector
(January 2005–December 2012)



3.6.1 WAGES

In 2012, gross average wages in the private sector increased by 7.2 per cent, whereas regular wages were 8 per cent up compared to the previous year. Following a significant acceleration early in the year, a slight slowdown in the wage index was observed. This suggests that the strong increase in wages last year is primarily attributable to the administrative pay rises (Chart 3-36).

Companies offset the rise in regular wage costs by adjusting non-regular wage elements (Chart 3-37). The bonuses paid in the last two months of the year were at levels similar to those typical in 2011. However, looking at the year as a whole, restrained bonus payments were observed in the private sector. The ratio of non-wage benefits to the gross wage bill was below the levels seen in previous years. The decline was observed in both manufacturing and market services.

Starting from mid-2010, a gradual increase in unit labour cost was observed, caused initially by an accelerating increase in wages. Later, worsening labour productivity also contributed to this trend. In 2012 Q4, labour productivity continued to deteriorate due to a decline in the value added of the private sector. Accordingly, unit labour cost dynamics increased close to the rate measured in pre-crisis years, which may result in cost-side inflationary

Chart 3-37
Bonuses and non-wage benefits as a percentage of the gross wage bill

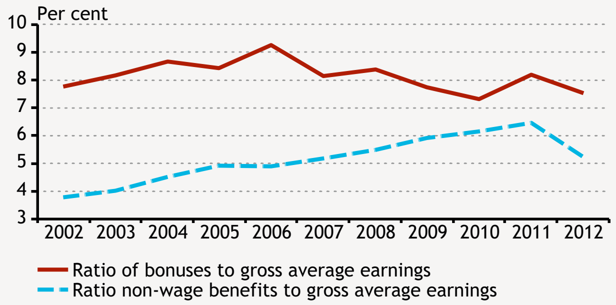


Chart 3-38
Changes and components of unit labour cost in the private sector

(2005 Q1–2012 Q4)

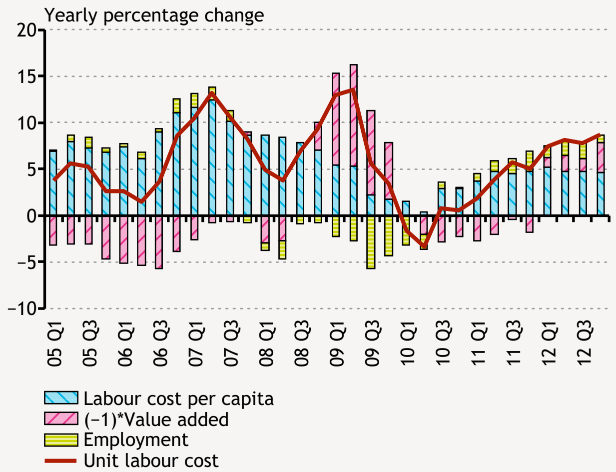
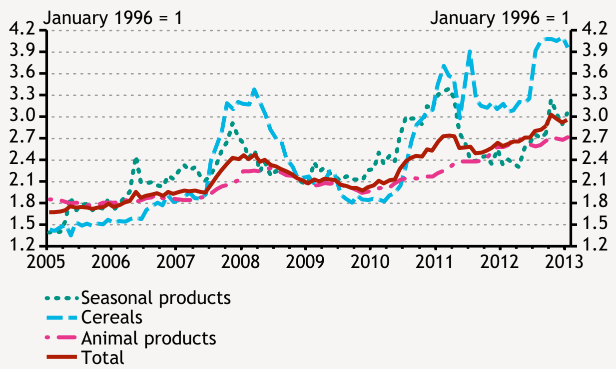


Chart 3-39
Agricultural producer prices

(January 2005–January 2013)



Note: Seasonal products: fruits, vegetables, potatoes; cereals: wheat, oil seeds; products of animal origin: pork, poultry meat, egg, milk. Weighting was based on the estimated size of the effects on the consumer price index.

pressure especially in labour intensive services sectors (Chart 3-38).

At the same time, the wage index may decline in the coming months, mainly due to a base effect (lower minimum wage increase than in January last year). Loose labour market conditions may also facilitate a recovery in corporate profit through wage moderation; consequently, adjustment through price hikes may be limited.

3.6.2 PRODUCER PRICES

In 2012, unfavourable weather conditions affected developments in agricultural production not only in Hungary, but globally as well. Therefore, rapid increases in producer prices were observed. However, as a result of more favourable harvests in the southern hemisphere, grains were traded at lower prices at the commodity exchange late last year and early this year.

In line with that, increases in the prices of domestic agricultural products also came to a halt. The prices of cereals and meat products did not show any further increases, while seasonal food (vegetables, fruits) prices declined (Chart 3-39).

At the beginning of the year, despite a weaker forint and renewed rises in oil prices, the producer prices of energy producing sectors continued to decrease, which is primarily attributable to the effect of the utility cost reduction appearing in producer prices as well.[7] The decline in the producer price index of the sectors that produce consumer goods is in conformity with the weak domestic demand (Chart 3-40).

3.6.3 CONSUMER PRICES

From around 5 per cent at the end of last year, inflation declined below 4 per cent in January, and decreased below the 3 per cent inflation target in February (Chart 3-41). The decline is mainly attributable to the fact that the effect of the January 2012 VAT increase is not included in the price index any longer, and that regulated energy prices were reduced by 10 per cent. In addition, however, favourable underlying inflation trends also contributed to the decline in the consumer price index. Demand sensitive inflation, which excludes the effect of indirect taxes and volatile commodity prices, declined considerably at the beginning of this year (Chart 3-42). In recent months, the inflation figures have been more favourable than the expectations of the Central Bank, which may be related to the weaker-than-

[7] The producer prices of the energy producing sector also include the price of energy sold to households.

Chart 3-40
Industrial producer prices
(January 2005–January 2013)

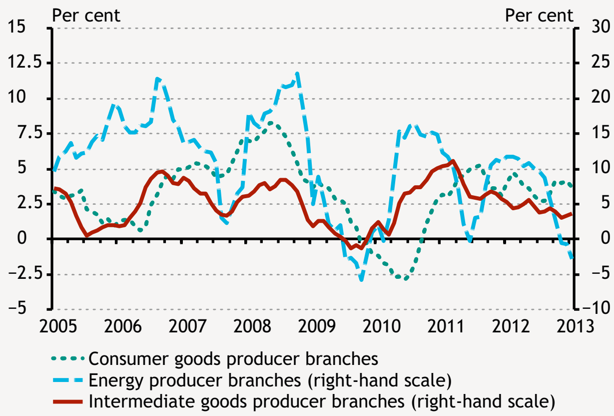


Chart 3-41
Decomposition of the consumer price index
(January 2005–February 2013)

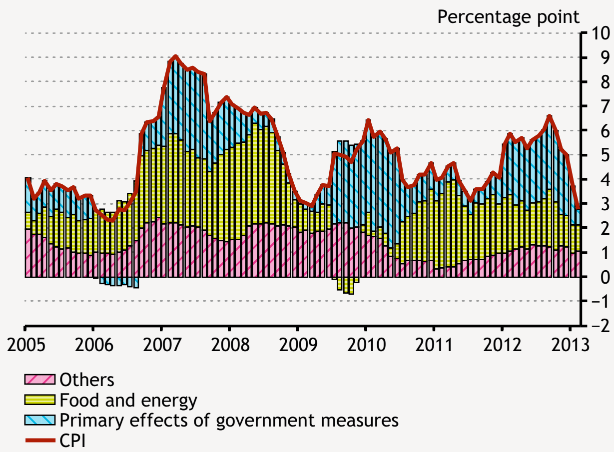
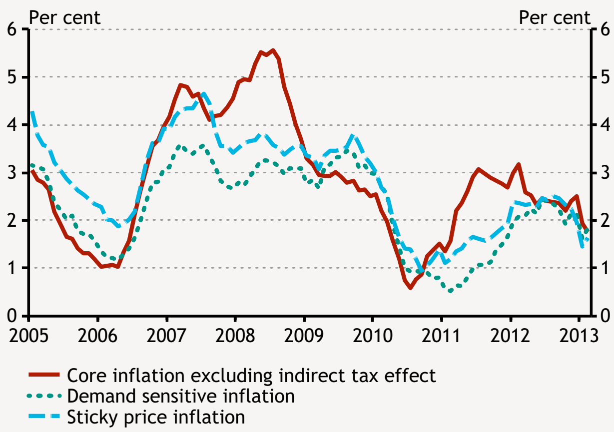


Chart 3-42
Development of core inflation excluding tax changes, inflation of demand sensitive products and sticky price inflation
(January 2005–February 2013)



expected domestic demand indicated by the Q4 GDP and retail trade turnover figures.

The decline in inflation was attenuated by the increase in fuel prices in January and February, and the appearance of certain tax measures in the consumer price index. Accordingly, the excise tax added to the prices of alcohol and tobacco products, whereas the transaction levy increased the prices of financial services.

Inflation of *industrial goods* has been subdued in recent months, which may be explained by the stronger exchange rate in the second half of last year and the weak demand conditions. Durable goods prices continue to decline. A decline in non-durable goods inflation has been observed since the middle of last year, as long as we disregard the effect of volatile one-off factors (significant fluctuations in airfares). The effect of the currently weaker exchange rate may only gradually pass through into prices of industrial goods, although the extent of the pass-through may be limited by the subdued domestic economic activity.

The price increase in early in the year in *market services* excluding tax changes was favourable even compared to the usual values observed since the crisis (Chart 3-43). As a result, the annual index of this product group excluding indirect taxes sank to a historically low level. Repricing at the beginning of the year is typical of market services, so incoming data suggest a low level of inflation of this product group for the whole year. Market services price developments confirm that, against the background of weak demand conditions, companies are primarily improving their profitability by cutting wage costs and not by increasing their prices.

Food price increases have decelerated in recent months, which is partly explained by the developments in producer prices. As a result of unfavourable weather conditions, *unprocessed food* prices increased sharply during the summer, but the price hikes slowed in the autumn. *Processed food* prices have grown only slightly in recent months. The weaker-than-expected feed-through of cost shocks indicates that the decline in household demand may constrain retailers' pricing decisions in the food market as well. On the other hand, the size of shocks may be smaller than previously expected, which is also indicated by the declining market prices of cereals. As a result, the subdued price increase of processed food may continue in the months ahead.

Fuel prices were up in January and February, due to the depreciation of the forint and oil price increases. The increase in *regulated prices* in January and February was lower than usual; accordingly, the annual index of this

Chart 3-43
Market services and industrial goods inflation
(data excluding indirect taxes, January 2005–February 2013)

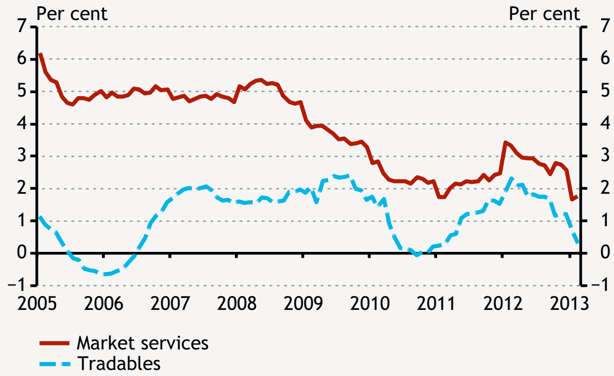
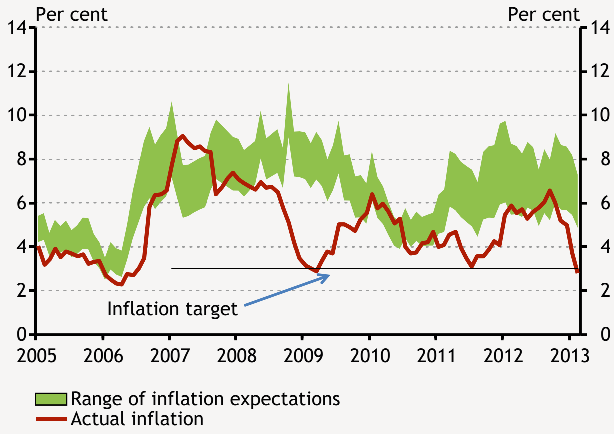
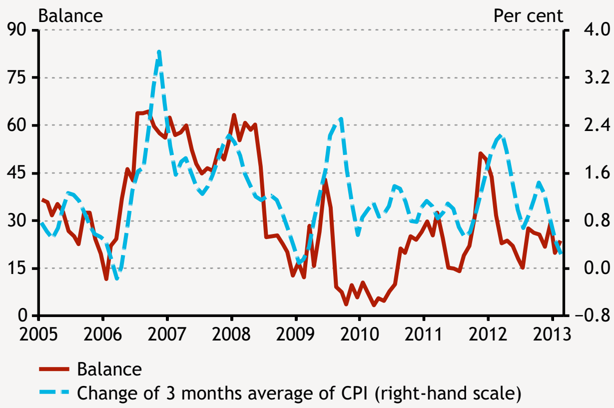


Chart 3-44
Households' inflation expectations
(January 2005–February 2013)



Source: MNB calculations based on data from the EU Commission.

Chart 3-45
Expected changes in retail sales prices in the next 3 months* and actual inflation
(January 2005–February 2013)



** The balance is the difference between the proportions of corporations expecting price increase and price decrease.*

category, which was already low last year as well, continued to decline. The main reason is that regulated energy prices were decreased by 10 per cent by the government, while on the other hand, other administrative prices also increased only slightly.

Overall, moderate price increases were observed in a wide range of products early this year. In the near term, inflation will be further reduced by the 10 per cent decrease of the prices of water, sewerage and refuse disposal entering into effect from July. In the medium term, tax measures that add to corporate costs will point to a gradual increase in core inflation, but the pass-through will be limited by subdued domestic demand. Therefore, corporate adjustment can primarily be implemented through wage cost reductions.

3.6.4 INFLATION EXPECTATIONS

Following a rise at the end of last year, households' inflation expectations decreased. This decrease is in line with the developments in actual inflation. The decline in utility costs may have considerably influenced the changes in households' inflation perception (Chart 3-44).

In terms of short-term prospective developments in consumer prices, the expectations of the retail trade sector regarding sales prices are a key factor. Expectations declined at the beginning of the year, which may indicate that the disinflationary effects of weak demand may continue to act as a strong constraint in the pricing decisions of the sector (Chart 3-45).

Box 3-2

Causes of the lower increases in processed food prices

In 2012, agriculture was affected by unfavourable weather, causing considerable losses in crop yields at the global level as well. As a result, a surge in the market price of wheat was observed in the middle of last year. In the summer months, futures prices pointed to sustained high grain prices looking forward. In line with increase in international stock market prices, prices of domestic agricultural products also increased; the prices of seasonal products (vegetables, fruits, potatoes) increased particularly sharply.

Based on earlier experiences, a commodity price shock appears almost immediately in the prices of unprocessed products (in parallel with being reflected in agricultural producer prices), and then, following the autumn months, the price level of this product group typically stagnates. As a result of the longer production chain, the pass-through usually takes a few months in the case of processed food, and following the pass-through the considerable price increase of this product group may remain until the next harvest.

Incoming data show that unprocessed food prices rose sharply in the summer months. Subsequently, the rate of increase slowed, which is in line with the experiences of earlier food price shocks. By contrast, processed food was characterised by contained price dynamics in the past months. In our opinion, the lower inflation of this product group is the result of two effects:

- After December, a considerable decline was observed in the market price of wheat, reflecting the better harvest results typical in the southern hemisphere. This may indicate a smaller size of the food price shock.

- In addition, it points to lower inflation that the increase in raw food prices was reflected to a lesser extent in processed food prices. Compared with the experiences of the food price shocks of 2007–2008 and 2010–2011, the increase in the prices of the product group was lower than the increase in the price of wheat. This may indicate that weak demand may also have constrained the price increase of the product group.

Overall, both the smaller size of the food price shock and weaker demand may have contributed to the favourable price dynamics of processed food.

Chart 3-46
Market prices of wheat, agricultural producer prices, consumer prices of processed and unprocessed food in 2007/08, 2010/11, 2012/13

(seasonally adjusted, excluding VAT changes)

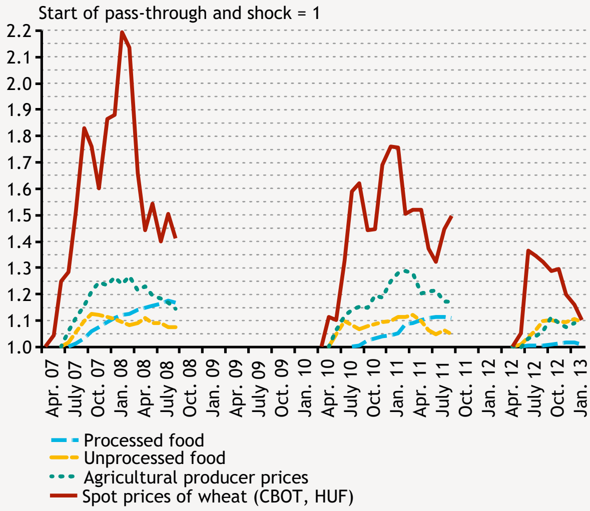
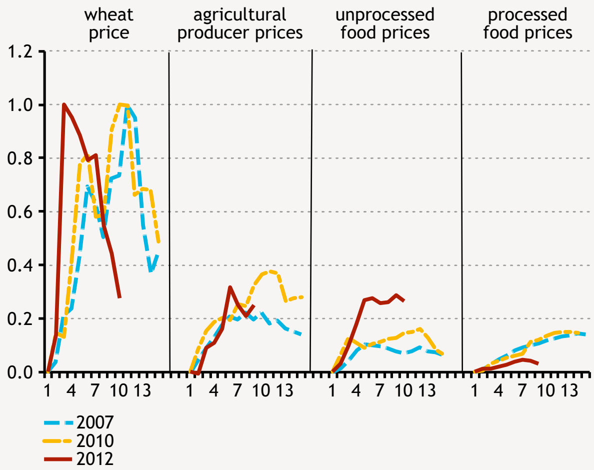


Chart 3-47
Pass through of the food price shock during 2007/08, 2010/11, 2012/13

(seasonally adjusted, excluding VAT changes)



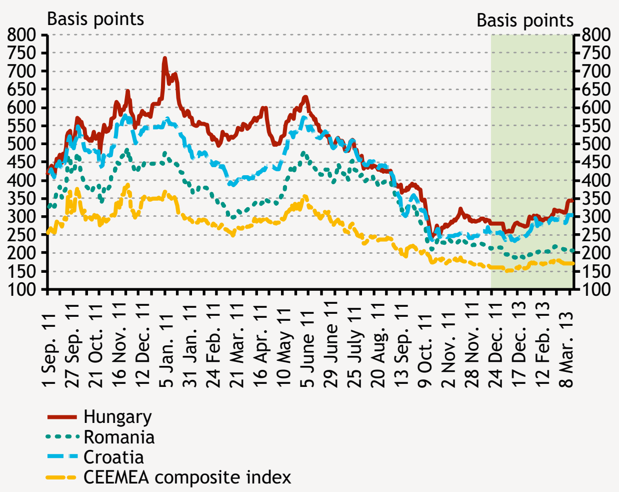
Note: The chart shows the changes in other food prices as a proportion of the wheat price increase. The horizontal axis depicts the number of months that elapsed since the onset of the shock.

4 Financial markets and lending

4.1 Domestic financial market developments

The indicators of Hungary's risk assessment increased since December 2012, which is partly attributable to the less favourable assessment of the emerging European region and partly to country-specific factors. In most of the period, the domestic FX swap market was characterised by a trading with no market tension, whereas the temporarily market turbulence experienced at the end of the year eased rapidly, partly as a result of the MNB's euro liquidity providing FX swap instruments. With a successful foreign currency bond issue in February, the ÁKK (Government Debt Management Agency) fulfilled nearly three quarters of the foreign exchange borrowing planned for this year, and thus considerably reduced the pressure on the forint government securities market. The movements in the EUR/HUF exchange rate were determined by the uncertainty of the market participants concerning the domestic fiscal and monetary policy. Reference yields of forint government securities continued to decline, but the yield curve became steeper.

Chart 4-1
5-year sovereign CDS spreads in the region



4.1.1 RISK ASSESSMENT OF HUNGARY

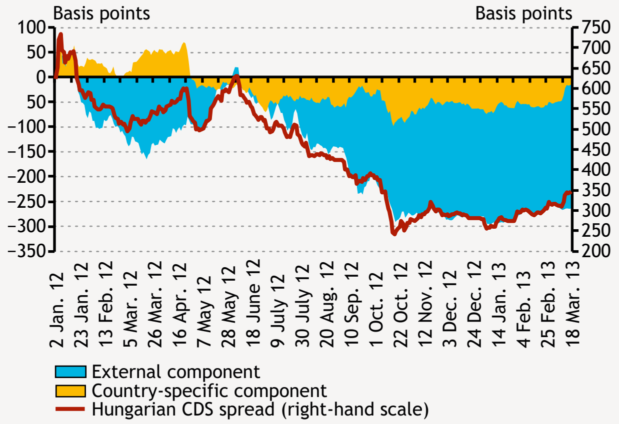
Over the past three months, short-term money market yields declined to historically low levels whereas longer term risk premia increased. The deteriorating of the Hungarian risk indicators was partly attributable to the less favourable assessment of the emerging European region and partly to country-specific factors. Global risk appetite remained elevated.

Even the tensions surrounding the US fiscal adjustment and the uncertainty related to the forming of government in Italy could only temporarily break the gradual improvement in the international environment. At the end of the period, the Cyprus rescue package worsened the market sentiment to some extent, but looking at the three months as a whole, the international money market environment can still be considered favourable (Chart 4-1).

Global risk indices sank to local lows of several years, whereas the prices of risky assets typically increased. Several major stock exchange price indices equalled historical records. Since the beginning of the year, emerging regions have rather been underperforming compared with developed ones; the relatively less favourable assessment of the countries belonging to the developing region is indicated by the slight increase in the emerging market sovereign bond spreads.

The five-year Hungarian CDS spread increased from 290 basis points early in the period close to the level of 350

Chart 4-2
Factors of the domestic 5-year sovereign CDS spread



Note: For the methodological description of the decomposition applied, see the following MNB Bulletin article: Kocsis and Nagy (2011): Variance decomposition of sovereign CDS spreads.

Chart 4-3
Changes in 5-year CDS spreads in the region

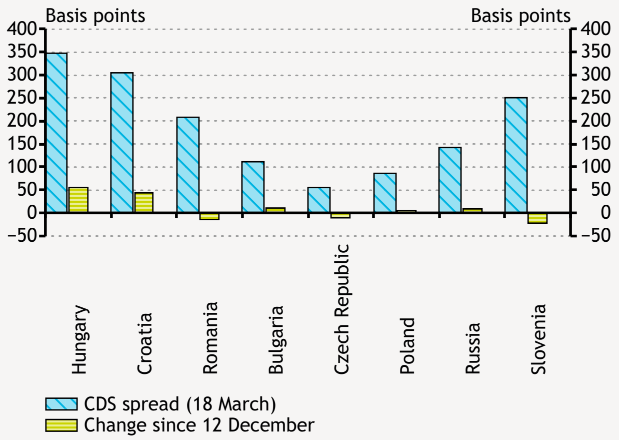
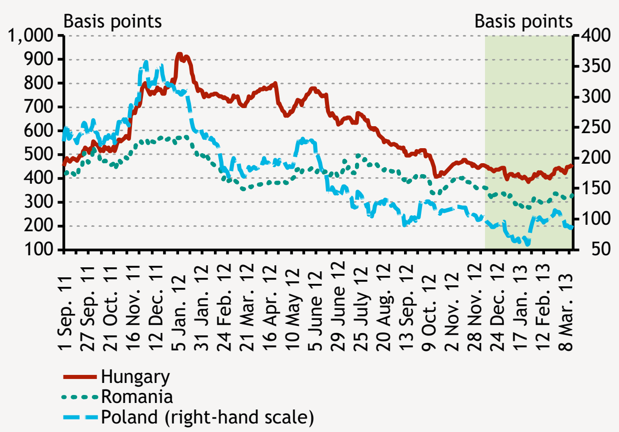


Chart 4-4
5-year euro-denominated currency bond spreads in the region



basis points by the end of the period. This was an uneven process; the indicator declined slightly until the first week of January, then a gradual, steady rise could be observed (Chart 4-2). In the Central and Eastern European Region, an increase in spread similar to that in Hungary was observed in Croatia, which was rated as non-investment grade by S&P, followed by Moody's as well. There was no material change in spreads in other countries of the region (Chart 4-3).

Of the events in Hungary, the successful foreign currency bond issue carried out in February had a positive effect. However, the uncertainty related to future monetary policy and to the evolving programme for foreign currency debtors that might trigger a decline in foreign exchange reserves was reflected not only in the weakening of the forint, but also in an increase in risk premia (Chart 4-4).

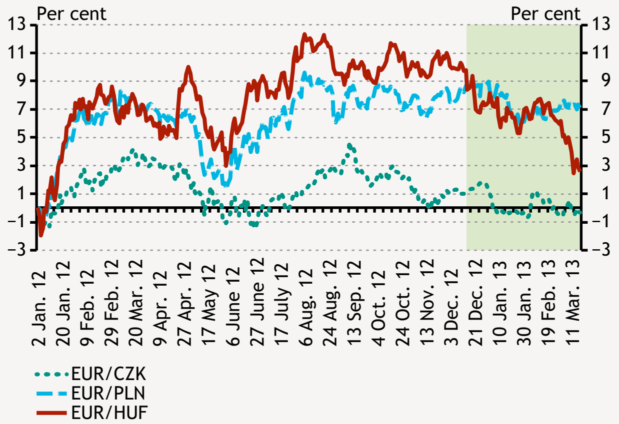
4.1.2 DEVELOPMENTS IN FOREIGN EXCHANGE MARKETS

In two greater waves, the EUR/HUF exchange rate weakened from 282 at the beginning of the period to the level of 305. With the nearly 8 per cent depreciation, the forint was an underperformer in the region. In the meantime, the Polish zloty, which is similarly sensitive, lost some 1.5 per cent of its value, and the performance of the Czech crown was also alike. The movements in the forint were fundamentally determined by the uncertainty of the market participants concerning the future of monetary policy and the expectations regarding a possible shift in the government's comfort zone related to the exchange rate, but the release of some macro data also contributed to the weakening (Chart 4-5).

The forward-looking risk indicators calculated from FX market option prices started to rise at the end of the period under review (Chart 4-6). Although the levels of the indicators are not in a critical range, the fact that the increase took place in a period of intensive forint weakening provides a good reflection of market participants' uncertainty concerning short-term exchange rate movements.

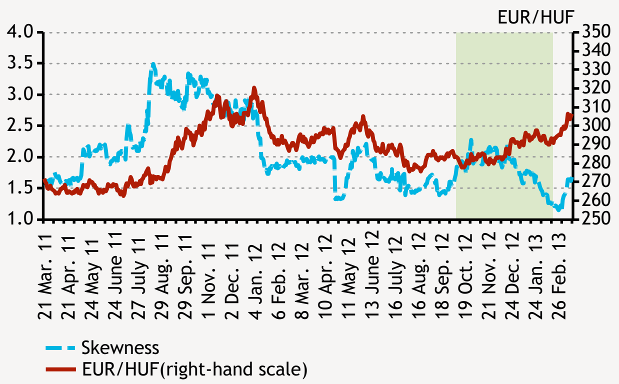
The tension arising regularly at the end of the previous years was observed again in the FX swap market, which may be related to non-residents' temporary balance sheet optimisation. Towards the end of the year, some non-resident players sold their short-term forint assets, and exchanged a portion of the resulting forint liquidity for euro in the FX swap market. At the same time, the banking sector's external foreign exchange liabilities also declined to a greater extent temporarily. In view of the increasing demand for foreign exchange as a result of the above

Chart 4-5
Foreign-exchange rates in the region



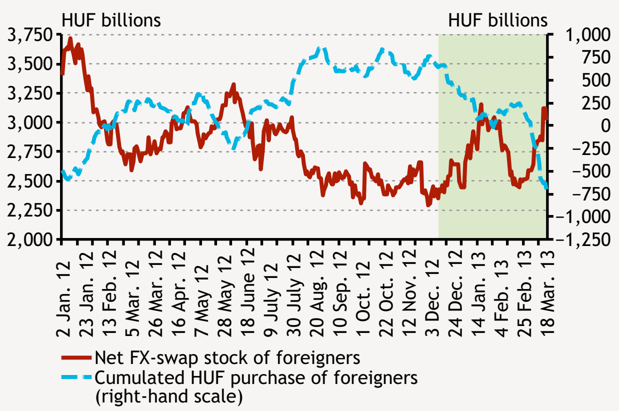
Note: Change compared to the beginning of the year. Positive values indicate the appreciation of the regional currency.

Chart 4-6
Changes in the level of the EUR/HUF exchange rate and one-month negative skewness in the distribution of the exchange rate



*Note: Skewness = Risk reversal/Volatility*10.*

Chart 4-7
Non-residents' net forint-foreign-exchange swap holdings and cumulated forint purchases



Note: Non-residents' cumulated forint purchases: 4 January 2010 = 0.

developments, FX swap spreads increased markedly for some days. The market settled relatively quickly in the new year, and the FX swap market tension did not feed through into the spot market. In order to offset possible tensions, the MNB announced a one-week FX swap tender to provide euro liquidity. Recourse to this tender and the overnight standing facility may have significantly contributed to the relatively fast consolidation of the market.

4.1.3 GOVERNMENT SECURITIES MARKET AND CHANGES IN YIELDS

The Government Debt Management Agency (ÁKK) issued 5- and 10-year dollar-denominated foreign currency bonds with 19 February as value date. The spread of the securities, sold in an amount of USD 1.25 and 2 billion, on the U.S. benchmark security was 335 and 345 basis points, respectively. The pricing was in line with the mid-February risk assessment of the country. With the successful issue, the ÁKK fulfilled nearly three quarters of the foreign exchange borrowing from the market planned for this year, and thus the pressure on the forint government securities market eased considerably.

In the field of the renewal of foreign exchange liabilities, the room for manoeuvre of the ÁKK is further expanded by the strong demand for euro-denominated government bonds intended for household investors, which is also indicated by the increasing of the overall amount on several occasions and the sales equalling nearly EUR 1.5 billion until end-February.

In parallel with that, in the forint government securities market the extremely strong interest on the part of investors observed in the primary market continued in existence. As a result of the multiple oversubscriptions and declining yield offers, the ÁKK raised the issuance on several occasions. Consequently, in the first quarter the amount the Debt Management Agency was able to borrow exceeded the plan.

Since mid-December, non-residents' forint-denominated government securities holdings declined from HUF 5,050 billion to HUF 4,800 billion (Chart 4-8). The fall in non-residents' exposure is partly attributable to a bond redemption in mid-February and partly to sales in the secondary market. Accordingly, the share of non-residents' forint-denominated government securities holdings within total holdings sank by nearly 1 percentage point and stood close to 44 per cent. At the same time, as a result of the foreign currency bond issue in February, the total amount of Hungarian government securities held by non-residents increased.

Chart 4-8
Non-residents' government securities holdings

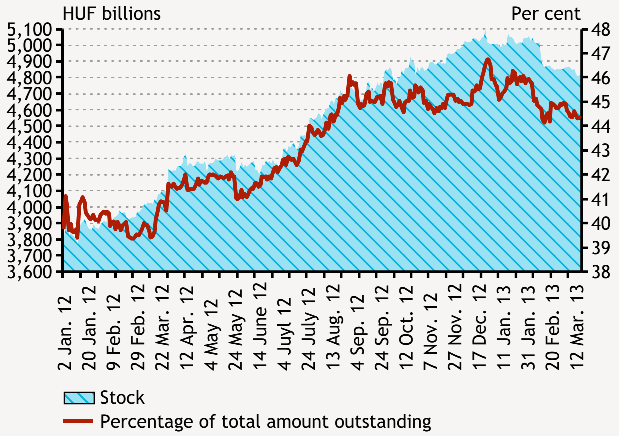
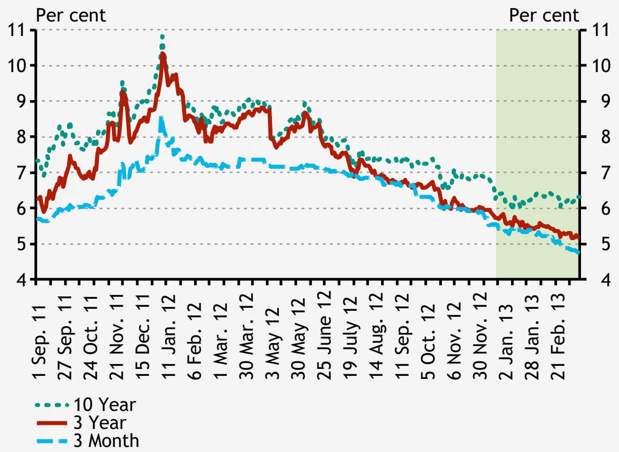


Chart 4-9
Changes in government securities market reference yields

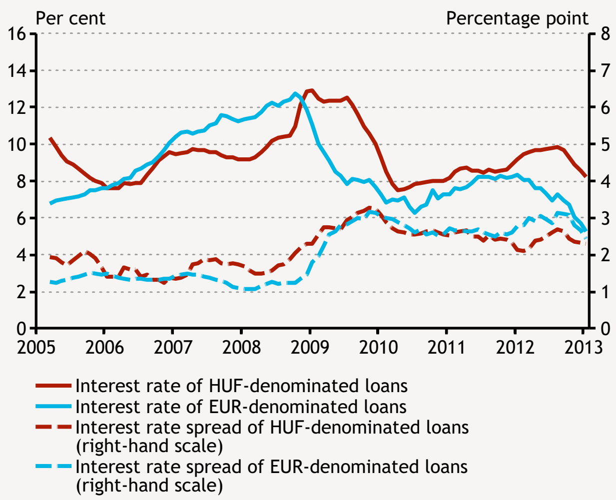


In the past three-month period, a decline in yields was observed at all maturities in the developments in government securities market reference yields. In parallel with the central bank base rate cut expectations, the short end of the yield curve moved downwards by 75 basis points, but long-term yields declined at a slower rate, by nearly 30 basis points, resulting in a steepening of the yield curve (Chart 4-9).

4.2 Credit conditions in the financial intermediary system

Credit conditions eased in both the corporate and household segments between October 2012 and January 2013. Interest rate conditions were eased in the corporate segment, whereas banks stopped further tightening in non-price credit conditions, according to the Bank's Lending Survey.[8] At the same time, in view of the previous steady tightening, the lower, favourable interest rates are available only for a limited range of companies. Looking ahead, banks expected easing in non-price corporate credit conditions over the coming six months. In the household segment, based on the interest rate conditions of actual transactions and the Lending Survey, credit conditions on both housing and consumer loans were eased. The one-year real interest rate increased slightly, although historically it is still considered low. The increase in the real interest rate is attributable to the fact that analysts' one-year inflation expectations dropped to a greater extent than government securities yields and deposit rates.

Chart 4-10
Interest rates and spreads on corporate loans by denomination



Note: Interest rates smoothed by the 3-month moving average. The spread on the moving average of the 3-month BUBOR and EURIBOR, respectively.

4.2.1 CREDIT CONDITIONS OF CORPORATE LOANS

Based on transactions, the interest rate on corporate forint loans smoothed by the three-month moving average dropped from 9.3 per cent in October to 8.2 per cent in January. This decrease was greater than the decline seen in the reference rate (three-month BUBOR); accordingly, interest rate spreads also fell, from 2.5 percentage points to 2.3 percentage points. In the case of euro-denominated loans, the lending rate fell from 3.4 per cent to 2.7 per cent. As a result of the broadly unchanged reference rate (three-month EURIBOR) in the period under review, the interest rate spread also dropped to a similar extent, from 3.1 percentage points to approximately 2.4 percentage points (Chart 4-10).

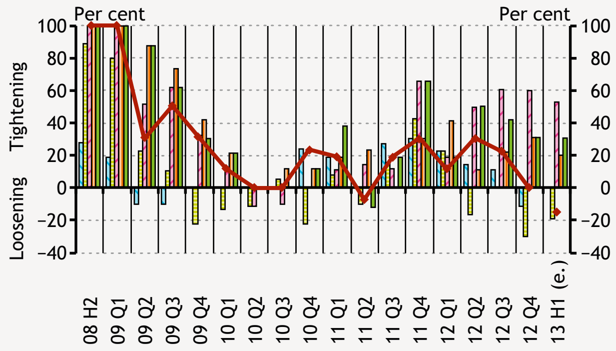
Banks reported in the Lending survey that they had stopped further tightening in corporate credit conditions in Q4. Conditions remained unchanged as a result of two offsetting effects: the economic and sectoral outlook as well as risk tolerance pointed to a tightening, while banks' capital and liquidity positions called for an easing.

A net 11 per cent of banks[9] are planning to ease their conditions over the coming half year. Easing occurred last in 2011 Q2. However, any considerable change in credit supply requires a steady and material easing. Overall, due to the marked tightening in the previous periods, the lower

[8] http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Penzugyi_stabilitas/hitelezesi_felmeres/201302/SLO_201302_en.pdf

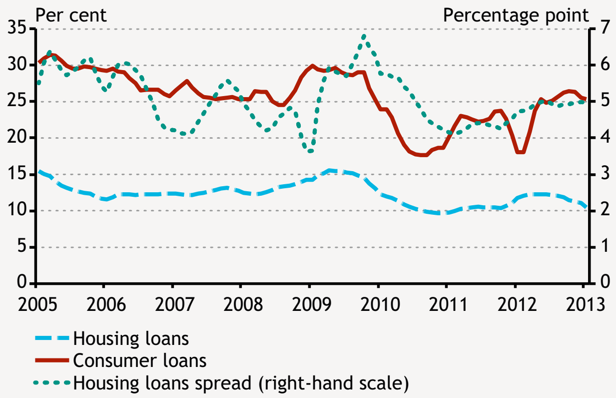
[9] The difference between tightening and easing banks weighted by market share. The ratio does not show the magnitude of tightening/easing.

Chart 4-11
Changes in credit conditions and factors contributing to changes in the corporate segment



Note: Net percentage balance of respondents reporting tightening/easing credit conditions weighted by market share.
Source: MNB Lending Survey, based on banks' responses.

Chart 4-12
Annual percentage rate (APR) and spread on HUF-denominated housing and consumer loans



Note: Interest rates and spread smoothed by the 3-month moving average. Prior to 2009 HUF denominated mortgage lending was marginal.

interest rate is available only for a limited range of companies (Chart 4-11).

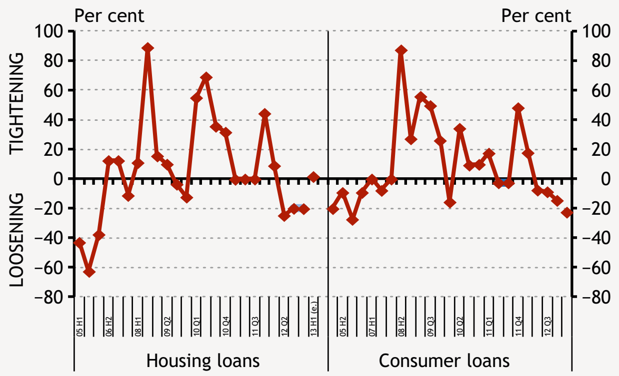
4.2.2 CREDIT CONDITIONS OF HOUSEHOLD LOANS

In the case of housing mortgage loan transactions, the annual percentage rate of charge (APR) smoothed by the three-month moving average decreased from 11.5 per cent in October to 10.5 per cent in January. This drop tracked the decrease in the reference rate (three-month BUBOR), thus the spread remained around 5 percentage points (Chart 4-12).

In the case of consumer loans, the annual percentage rate of charge (APR) smoothed by the three-month moving average dropped from 26.4 per cent in October to 25.4 per cent in January. Both the APR of home equity loans and unsecured consumer loans dropped: from 15.1 per cent to 14.4 per cent, and from 29 per cent to 27.9 per cent, respectively.

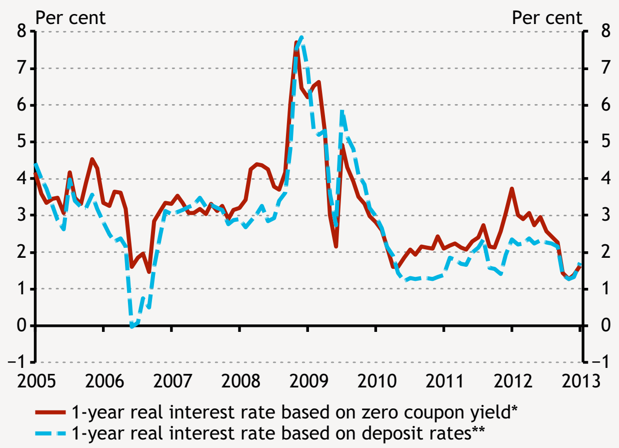
In the Lending Survey, a net 20 per cent of banks reported that they had eased conditions on housing loans and 14 per cent in the case of consumer loans in 2012 Q4 (Chart 4-13). The easing was reflected in the price conditions (spread between the lending rate and funding costs, loan origination fees charged). Accordingly, the correction in the broad-based tightening at end-2011 continued.

Chart 4-13
Changes in credit conditions in the household segment



Note: Net percentage balance of respondents reporting tightening/easing credit conditions weighted by market share.
Source: MNB Lending Survey based on banks' responses.

Chart 4-14
Forward-looking real interest rates



** Based on the one-year forward-looking inflation expectations of analysts calculated by the MNB using the one-year zero coupon yields and the Reuters poll.*
*** Based on one-year forward-looking inflation expectations of analysts calculated by the MNB using bank deposit rates with maturity up to one year (corporate and household weighted) and the Reuters poll.*

4.2.3 DEVELOPMENTS IN REAL INTEREST RATES

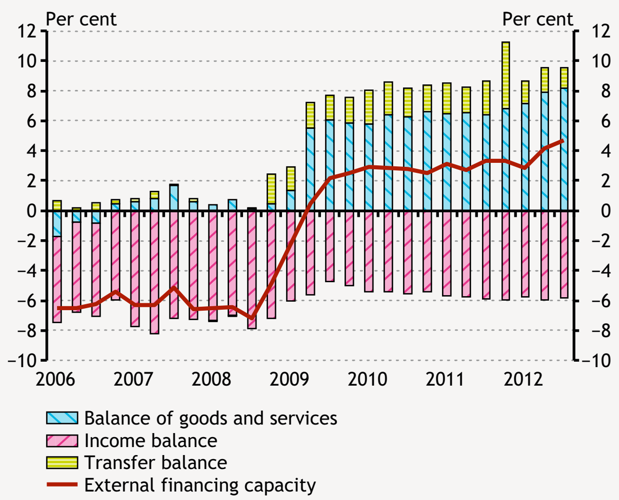
Calculated both on the basis of the one-year government securities yield and banking sector deposit rates with maturities of up to one year, between October 2012 and January 2013 the one-year forward-looking real interest rate rose slightly, from 1.4 per cent to 1.7 per cent. This increase was attributable to the fact that analysts' one-year forward-looking inflation expectations dropped to a greater extent (from 4.7 per cent to 3.7 per cent) than government securities yields and deposit rates. The real interest rate is still considered historically low (Chart 4-14).

5 External position of the economy

5.1 External balance and financing

The external surplus of the Hungarian economy continued to increase in 2012 Q3, amounting to approximately 4.2 per cent of GDP. The improvement in the external position was mainly attributable to an increase in net exports and a decline in the deficit on the income balance, while the surplus on the transfer balance decreased slightly. Financing data also indicated significant external financing capacity, reflecting outflows of debt type liabilities. Hungary's external debt indicators, which are key aspects in terms of the vulnerability of the country, continued to decline, and the gross external debt of the economy sank below 100 per cent of GDP for the first time since the outbreak of the crisis. Based on partially available Q4 data, a further increase in the external surplus is expected. In parallel with that, the outflow of debt type liabilities and thus the adjustment of debt indicators may also have continued.

Chart 5-1
Changes in external financing capacity
(seasonally adjusted values; as a proportion of GDP)



5.1.1 CHANGES IN THE EXTERNAL BALANCE OF HUNGARY

The net savings position of the Hungarian economy increased slightly in Q3. The combined current and capital account surplus was around 4.2 per cent of GDP (Chart 5-1). Based on the data available, we expect that the external balance may have continued to improve in Q4 as well, which was also reflected in the increase in households' savings and in the decline in the financing requirement of the general government.

The real economy balance continues to contribute considerably to the external surplus of the economy, but at the same time – based on foreign trade data – net exports are expected to have declined in Q4, which may have primarily reflected a downturn in exports.

The surplus on the transfer balance decreased somewhat in Q3. In the first three quarters of 2012 the magnitude of EU funds utilised by domestic agents was below that observed in the same period of the previous year. However, available data suggest that this may have been corrected in the last quarter, and the utilisation of EU transfers in the year as a whole may exceed the value observed in 2011. At the same time, the decline in the balance of transfers was partly offset by the slight decline in the deficit on the income balance.

Chart 5-2
Structure of external financing
(transactions as a proportion of GDP)

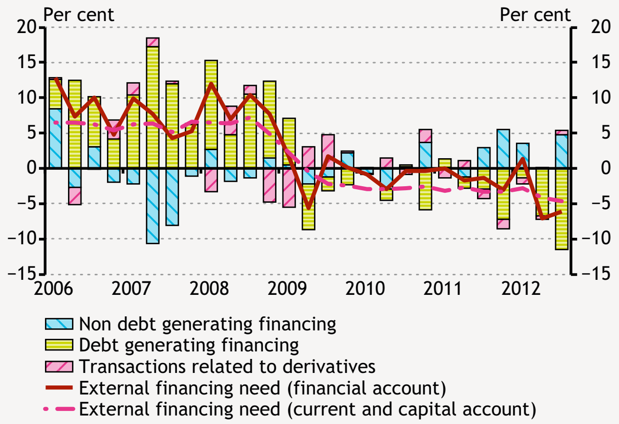
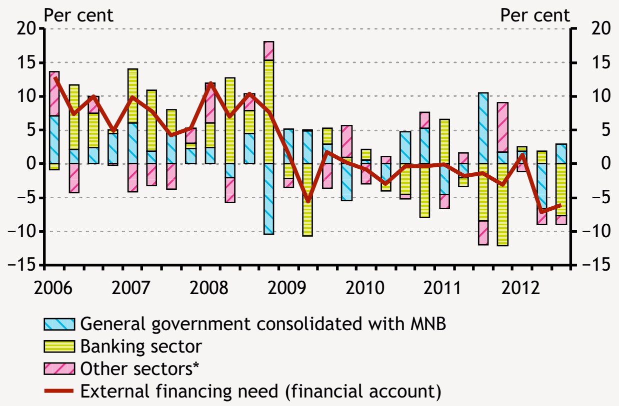
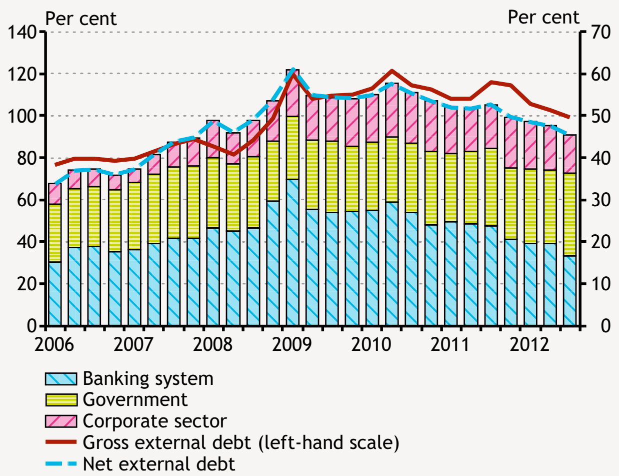


Chart 5-3
External financing by sectors
(transactions as a proportion of GDP)



* *Non-financial corporations, other financial corporations, households.*

Chart 5-4
Breakdown of net external debt by sectors
(values as a proportion of GDP)



5.1.2 DEVELOPMENTS IN FINANCING

The developments in financing that are key in terms of the external debt indicators also suggest further balance improvement. In terms of the structure of external financing, the outflow of debt type liabilities accelerated in Q3, which was partly offset by the inflow of non-debt type funds. The increase in non-debt type funds is mainly related to net foreign direct investment (Chart 5-2).

Banks' foreign debt type liabilities (loans, bonds) declined considerably, by some 2.4 billion euros in Q3. However, a part of the significant fund withdrawal can also be considered a correction following the inflow of funds in the previous quarter. In parallel with an increase in the private sector's savings and the repayment of their loans, the banking sector's freely available liquidity increased, and it was used for the repayment of foreign liabilities. Accordingly, the decline in the external liabilities of the banking sector is related to the weak lending activity as well, and also supports the moderation of the external debt of the country.

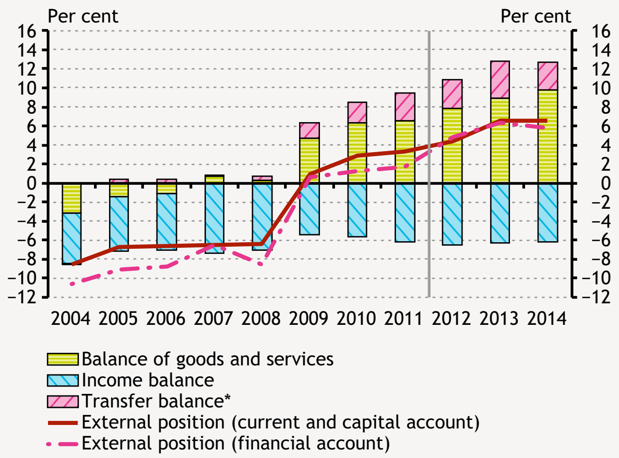
Meanwhile, following the considerable fund outflows in the previous quarter, external liabilities of the consolidated general government increased, which can mainly be explained with non-residents' higher government securities and MNB bill holdings (Chart 5-3).

As a result of the above developments, the decline in Hungary's external debt indicators – which are important in terms of the country's risk assessment – continued in Q3, primarily reflecting the outflow of debt type liabilities. The gross external debt-to-GDP ratio declined below 100 per cent for the first time since the outbreak of the crisis, whereas the country's net external debt was around 45 per cent of GDP. However, the correction was restrained by the revaluation of the debt: the market value of government securities owned by non-residents increased due to the declining yields. The decline in debt type liabilities appeared not only in the total external debt, but also in the short-term external debt: short-term external debt by remaining maturity also declined considerably, to approximately 32 billion euros. Hungary's external debt indicators may have decreased in the last quarter as well due to the reduction of debt type liabilities. However, this effect may have been attenuated to some extent by the depreciation of the forint (Chart 5-4).

5.2 Forecast for Hungary's external balance position

The external surplus of the Hungarian economy may continue to increase this year and may stabilise at a high level in 2014. The improvement is attributable to a further gradual increase in net exports as well the dynamic use of EU transfers. In addition to subdued domestic absorption (consumption, investment), the slow pick-up in external demand may also contribute to the high trade surplus. Looking at the saving positions of individual sectors, it can be concluded that the improvement in the external balance is accounted for by the increase in the net savings of the private sector. In parallel with the exclusion of one-off items, households' net financial savings may remain at a high level, which may be attributable to the income increasing effect of government measures as well as a strengthening of precautionary motives. In parallel with a further improvement in the external balance, external debt and liabilities may continue to decline, which can certainly be considered advantageous in terms of Hungary's external vulnerability.

Chart 5-5
Changes in external financing capacity
(as a proportion of GDP)



** The sum of balance of current transfers and the capital account balance.*

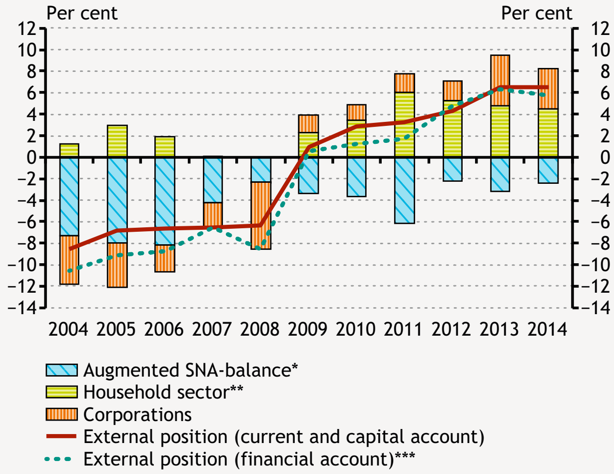
The external surplus of the Hungarian economy may continue to grow in the coming years, mainly as a result of an improvement in the trade balance. The net external financing capacity of the country may have been around 4.5 per cent of GDP in 2012. This year it may exceed 6 per cent of GDP, mainly reflecting a further improvement in the balance of goods and services.

The trade balance may keep the external surplus high over the entire forecast horizon. In addition to the subdued domestic demand of the economy, net exports may also be supported by the expected pick-up in external demand next year (Chart 5-5).

EU funds, which constitute most of the transfer balance, may contribute significantly to the high net financing capacity of the country in the coming years as well. The favourable developments may continue until the end of the EU budget planning period that lasts until 2013. Thereafter, at the beginning of the new planning period, funds are expected to be temporarily used in a more restrained fashion. Accordingly, over the forecast horizon, the surplus of the transfer balance may add 3–4 per cent of GDP to Hungary's external financing capacity, which means some increase compared with our earlier assumption.

The improvement in Hungary's external balance position may be moderated by the income account deficit possibly stabilising at a high level in the coming years. Although the declining external debt points to a fall in the deficit on the income balance, this effect may be offset by an increase in

Chart 5-6
Changes in the financing capacities of sectors
(as a proportion of GDP)



** In addition to the central government, 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 but formally implemented under PPP schemes. The augmented SNA deficit takes into account private pension savings.*
*** Net financing capacity of households consistent with the SNA deficit does not contain the pension savings of those who return to the public pension system. The official financing capacity (shown in the financial account) is different from the data in the chart.*
**** We expect that 'Net emissions and errors' (NEO) returns to historical average.*

the profit of foreign-owned companies and by the higher income outflows expected accordingly.

Improvement in the external balance may primarily be supported by the private sector's rising savings. Within the private sector, households' net financial savings may stabilise at a high level in the coming years. This is attributable to the increase in income as a result of government measures (pension and minimum wage increases, complete phasing out of the half super gross income tax scheme) as well as to the precautionary motive strengthening and also to the continued balance sheet adjustment. Accordingly, no material changes in households' fundamental savings are expected to take place this year. At the same time, as a result of the exclusion of the one-off effect related to the early repayment scheme, the indicator consistent with the SNA deficit may decline to some extent.

In the case of the corporate sector, the net saving position may continue to increase this year, as a result of the recovery in profits, still subdued investment activity and strongly rising EU transfers. Corporate savings may be moderated in 2014 by the temporary decline in EU transfers and by the expected recovery in investments surpassing GDP growth, while the gradual recovery in profitability would continue to boost savings onward (Chart 5-6).

In parallel with the high saving position of the country, external debt and liabilities, which are of key importance in terms of the assessment Hungary's vulnerability, may continue to decline.

5.3 Fiscal developments

In our baseline scenario, the accrual-based deficit of the government sector may remain below 3 per cent of GDP in 2013 and 2014. Meeting the Maastricht deficit criterion requires a tight fiscal policy and a significant improvement in the efficiency of tax collection in both years. Our forecast builds on the assumption that measures will be taken in the near future in order to ensure the collection of financial transaction levy payable by the Treasury. In addition, we assumed that as a consequence of steps aiming at improving the efficiency of tax collection, the effective tax rate will gradually increase. For the abrogation of the excessive deficit procedure it is important that the 3 per cent deficit criterion is met in a credible manner for 2014 as well. To achieve this, it may be necessary to present measures in the convergence programme in preparation that prove the government's longer-term commitment to the deficit targets.

5.3.1 DEVELOPMENTS IN GENERAL GOVERNMENT BALANCE INDICATORS

Based on preliminary financial accounts data, the 2012 accrual-based deficit of the government sector is estimated to amount to 2.1 per cent of GDP. The preliminary data suggest that, compared with the 2.7 per cent deficit indicated in our December forecast, the balance is more favourable, by more than half per cent of GDP. The better-than-expected position is attributable to the tighter expenditure control observed in the case of local governments and the general government as a whole. At the same time, a decisive role was played by temporary effects that primarily concerned the statistical corrections of the 2012 cash-based accounting and have no direct impact on fiscal developments of the coming years. Of the corrections, the telecommunications concession revenue amounting to 0.1 per cent of GDP is prominent. Contrary to our previous expectations, it has to be accounted for the year 2012 instead of 2013.[10] Based on experiences of earlier years, there is still high uncertainty in the case of statistical corrections, as significant revision may take place until the final notification is prepared. Overall, the more favourable accrual-based balance of 2012 has a partial positive impact on fiscal developments in 2013.

In 2013, the ESA deficit is expected to amount to 2.9 per cent of GDP (Table 5-1). The following factors resulted in a total 0.3 percent improvement in our balance expectation:

[10] In our forecast, the accounting for the telecommunications concession is treated in the same manner as the published financial accounts. Concerning the settlement, no final agreement has been reached by the CSO, the MNB and the Ministry of National Economy. There may be a solution where the total revenue has to be taken into account in the 2013 budget. In this case the 2012 balance will worsen, while the 2013 balance will improve.

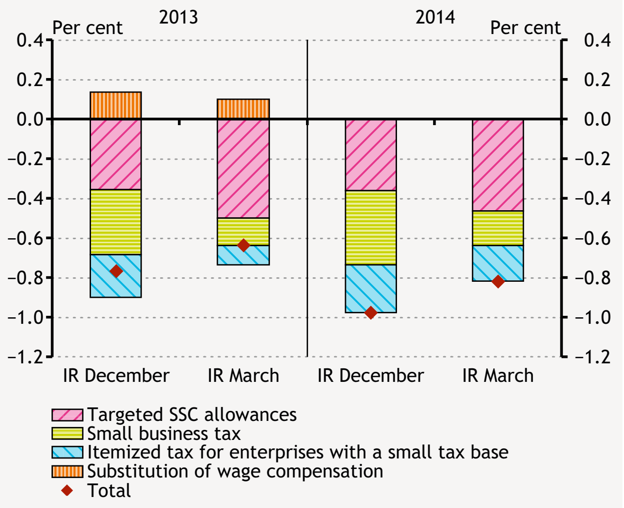
Table 5-1
General government balance indicators
(as a percentage of GDP)

	2012	2013	2014
ESA-deficit*	−2.1	−2.9	−2.9
Augmented (SNA) balance*	−2.3	−3.1	−2.5
Cyclical component (MNB)	−0.3	−0.7	−0.4
Cyclically-adjusted augmented (SNA) balance*	−1.9	−2.5	−2.0
Fiscal impulse**	−4.2	0.4	−0.1

** Complete cancellation of the available free reserves was assumed upon the calculation of the balance indicators.*
*** Change in the SNA primary balance.*

on the one hand, the effect of the job protection action plan is unfolding more slowly than assumed earlier, and on the other hand, according to 2012 data the local government sub-sector adjusted its budget balance faster and more strongly than expected. Further 0.2 balance improvement compared to the December issue of the Quarterly Report on Inflation is brought about by our expectation of around HUF 60 billion additional revenue from the financial transaction levy payable by the Treasury. To realize this, however, fiscal measures are required. By contrast, the macroeconomic path (e.g. consumption) and changes in debt financing together added some 0.4 per cent of GDP to net expenditures.

Chart 5-7
Change in the estimated balance effect of the job protection action plan
(as a percentage of GDP)



In 2014, the deficit may remain at the level of 2013. Our conditional forecast for 2014 was improved by the strict financial management observed in the local government sector, as well as by a decline in the expected compensation for losses of the MNB.[11] In contrast with the assumptions in the December issue of the report, we reckon also for the year 2014 that the financial transaction levy payable by the Treasury and the improvement in efficiency of tax collection yield considerable additional revenue. The two items together may improve the balance by 0.5 per cent of GDP.

According to our new estimate, the effect of the job protection action plan will unfold in three years. Available information suggests that, recourse to the newly introduced types of taxes for small enterprises (KIVA – small business tax; KATA – itemized tax for enterprises with a small tax base) is lower; accordingly, a gradual increase in entries during 2013 and 2014 is expected. Therefore, the impact of

[11] The compensation for the MNB's loss in 2013 has to be booked at the date of the transaction, in 2014. Our current forecast expects that the amount of the compensation for the loss will not reach 0.4 per cent of GDP, which is a significant change compared to the 0.7 per cent indicated in the December projection. The lower loss is attributable to the lower interest rate path as well as to the weaker exchange rate. In parallel with the declining trend of the interest rate path, the interest rate paid on forint funds also declined. This effect was somewhat reduced by the fact that according to actual incoming data the yield realised on the foreign exchange reserves may be lower than expected earlier. In addition, the higher realised exchange rate income may also result in a lower central bank loss. The Central Bank provides liquidity primarily to the state. Exchange gain is produced for the MNB on these conversions if the current exchange rate is higher than the average cost rate of the foreign exchange reserves. As the exchange rate observed early in the year is weaker, the Central Bank may have higher profit on these operations than what was outlined in our previous projection. It may also result in a more favourable balance that we expect a higher conversion amount for the year as a whole.

the measure will appear in full only in 2015; the expected impact for the previous two years somewhat declined (Chart 5-7).

5.3.2 FISCAL DEMAND EFFECT

Following the significant contraction in demand in 2012, fiscal policy in 2013 may already ease aggregate demand slightly. As a result of the measures (reduction in social security contributions and the personal income tax, pension increase), the fiscal impulse to households is estimated to amount to 0.9 per cent of GDP, while for other sectors an 0.5 percentage point demand reduction is expected. As a result, our indicator representing the fiscal demand effect shows an income expansion corresponding to 0.4 per cent of GDP for 2013. Overall, fiscal policy will cause demand contraction in 2014, but within that a further 0.2 percentage point easing is expected for households.

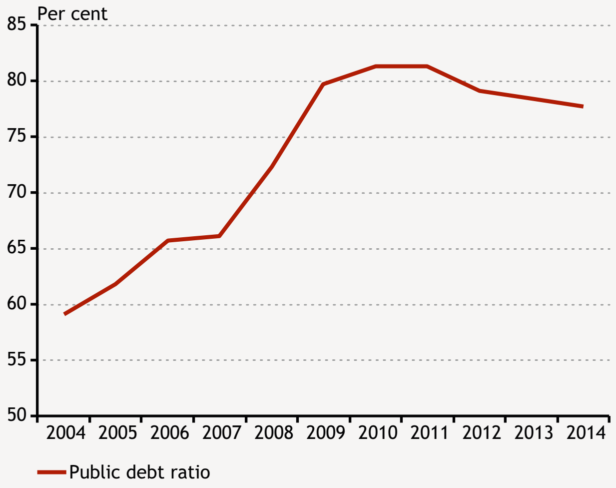
The cyclically adjusted fiscal position (augmented SNA balance) takes into account how large balance improving effect it may be if tax revenues were not diverted from their trend by the economic cycle, and it also reflects the fiscal costs currently included in the accounting of state-owned companies (e.g. public transport). The cyclical downturn in the economy is considered to be larger compared to the December 2012 forecast, which increased the level of cyclical component in the deficit. If the economy catches up its potential level, tax revenues corresponding to 0.7-0.4 per cent of GDP will improve the balance of the government sector relative to 2013 and 2014.

5.3.3 RISKS SURROUNDING THE BASELINE SCENARIO

According to the available information on the revenue side of the budget – in addition to the uncertainties of the macroeconomic path – the delay in the introduction of the electronic road toll, the uncertainty around the planned financial transaction levy payable by the Treasury and the improvement in efficiency of tax collection also may pose a risk. On these areas the consistent implementation of planned measures are necessary to eliminate the risks concerning the revenues.

On the expenditure side, in addition to the risks of debt financing cost stemming from the volatile financial environment, a further risk could arise if the favourable trends seen in 2012 in the financial management of the local government sub-sector proves to be temporary. However, the central government has its means for intervention during the course of the year.

Chart 5-8
Gross public debt at constant, end-2012 exchange rate
(as a percentage of GDP)



5.3.4 EXPECTED DEVELOPMENTS IN PUBLIC DEBT

In 2012, according to the preliminary data of the financial accounts, the government debt-to-GDP ratio was 79 per cent, i.e. it declined by some 2.5 percentage points relative to 81.4 per cent a year earlier. Most of the decline in debt was a result of the appreciation of the forint exchange rate compared with its end-2011 value, but one-off factors also played a role. The Pension Reform and Debt Reduction Fund contributed to the reduction in debt by 1.3 per cent of GDP through the sales of its assets and the contribution of citizens. Furthermore the central budget prepaid a portion (corresponding to 0.3 per cent of GDP) of the outstanding debt of local governments. The primary surplus also pointed to a decrease in the debt ratio, but it was offset by a decline in real GDP and by interest expenditures.

Assuming a constant exchange rate, the debt ratio may decline to 78.5 per cent of GDP in 2013, provided that deficit remains below 3 per cent. The weak economic growth makes public debt reduction much more difficult, but the Debt Reduction Fund is expected to support the process.[12] In 2014 the pick-up in economic growth will facilitate the reduction in the debt ratio, thus the debt rate may drop slightly below 78 per cent, provided a deficit less than 3 percent (Chart 5-8).

The conditional debt projection may be influenced by several factors. A constant, end-2012 exchange rate was assumed throughout our forecast; however, if the current exchange rate level remains persistent, it would significantly increase the forint value of foreign currency denominated debt. On the other hand, the FX deposits of the government and the Pension Reform and Debt Reduction Fund may accelerate the debt reduction.

[12] Nominal GDP growth is moderated not only be the modest real GDP growth but also by the slowing inflation.

6 Evaluation of the Bank's forecasts for inflation and GDP in 2012

The aim of our analysis is to present the accuracy of our forecasts prepared for the previous year. In addition, we also compare the Bank's forecasting performance with that of market analysts.

Chart 6-1
MNB and market forecasts for 2012 inflation

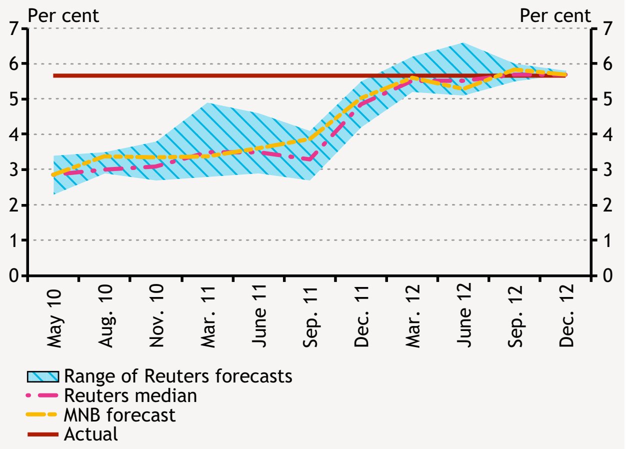
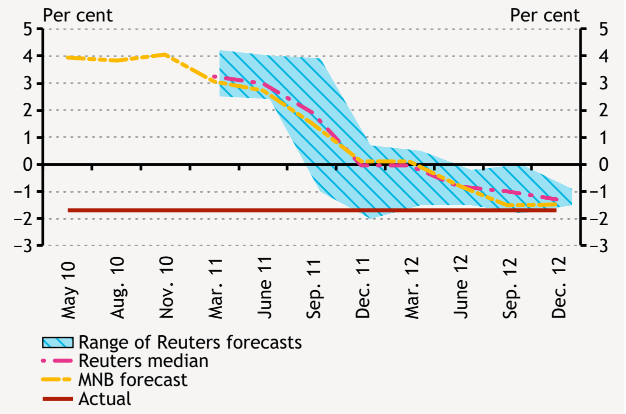


Chart 6-2
MNB and market forecasts for GDP growth in 2012



Inflation forecasts

We prepared our first forecast for the 2012 consumer price index in May 2010. Until mid-2011 we expected that the level of inflation would be broadly consistent with the target. From September 2011, our forecast increased due primarily to the announcements of indirect tax increases. Accordingly, the raising of excise taxes in several steps was first included in our forecast in September 2011. In the December 2011 issue of the Quarterly Report on Inflation we first took into account the increase of the VAT rate from 25 per cent to 27 per cent in January 2012. From the beginning of 2012 our forecast was already close to the actual figure measured later. Compared to our earlier assumptions, the inflationary impact of the VAT increase was larger, whereas the increase in regulated prices was lower. Food prices, which rose due to the globally weak agricultural harvest results, also added to inflation in 2012.

Developments in the median of the expectations of the market analysts participating in the Reuters survey were similar to the inflation forecast of the MNB. The mean absolute error of the Bank's forecasts was 1.4 per cent, which is slightly more favourable than the 1.5 per cent error of market expectations.

Projections for economic growth

In the last three years, the central bank and market forecasts for economic growth in 2012 considerably exceeded actual outcomes for GDP. The average forecast error of the MNB staff was 2.2 percentage points, as opposed to the 2.3 percentage point forecast error of the median of market analysts. Growth expectations started to decline in the spring of 2011, in view of the contractionary effect of the announced fiscal consolidation measures. From the second half of 2011, the international economic environment also deteriorated markedly, and the euro area slipped into recession again. As a result, a material decline took place in the forecasts, first projecting stagnation, then recession instead of the growth projected earlier. Finally, during 2012, agricultural harvest results, which declined significantly due to the drought conditions, also contributed to the revision of projections. Overall, a considerable portion of the forecast errors is explained by unforeseen demand shocks, whereas a smaller portion is explained by supply shocks related to agricultural output.

7 Technical annex: Decomposition of the 2013 average inflation

Table 7-1
Decomposition of the inflation to overlapping and incoming effect
(2013)

	Effect on CPI in 2013		
	Overlapping effect	Incoming effect	Yearly index
Administered prices	0.1	−0.7	−0.5
Market prices	0.4	1.7	2.1
Indirect taxes and government measures	0.3	0.8	1.0
CPI	**0.7**	**1.8**	**2.6**

Note: The table shows the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so called overlapping and incoming effects. The overlapping effect is the part of the yearly index, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index; and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects).

Table 7-2
Detailed decomposition of our inflation forecast to overlapping and incoming
(2013)

	2013				
	Average overlapping effect	Overlapping indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	1.4	0.0	2.4	0.0	3.8
non-processed	1.7	0.0	4.2	0.0	6.1
processed	1.2	0.0	1.6	0.0	2.7
Traded goods	0.4	0.0	1.1	0.0	1.5
durables	−0.9	0.0	1.3	0.0	0.4
non-durables	1.0	0.0	0.9	0.0	2.0
Market services	0.6	0.3	1.3	1.9	4.3
Market energy	3.7	0.0	0.7	0.0	4.4
Alcohol and tobacco	1.9	1.9	3.3	3.9	11.4
Fuel	−4.4	0.0	5.7	0.0	1.0
Administered prices	0.6	0.1	−3.5	0.0	−2.8
Consumer Price Index	0.5	0.3	1.0	0.8	2.6
Core inflation	0.8	0.4	1.5	1.2	3.9

Note: The table shows the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so called overlapping and incoming effects. The overlapping effect is the part of the yearly index, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index; and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects).

QUARTERLY REPORT ON INFLATION
March 2013

Print: D-plus
H–1037 Budapest, Csillaghegyi út 19–21.