INFLATION REPORT

MARCH

2015

'... wise is the man who can put purpose to his desires.'

Miklós Zrínyi: The Life of Matthias Corvinus

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Pursuant to Act CXXXIX of 2013 on the Magyar Nemzeti Bank, the primary objective of Hungary's central bank is to achieve and maintain price stability. Low inflation ensures higher long-term economic growth and a more predictable economic environment, and moderates the cyclical fluctuations that impact both households and companies.

In the inflation targeting system in use since August 2005, the Bank has sought to attain price stability by ensuring an inflation rate near the 3 per cent medium-term target. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of expected developments in 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, financial and capital market trends and risks to stability.

In order to provide the public with a clear insight into how monetary policy works 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 Economic Forecast and Analysis, the Directorate Monetary Policy and Financial Market Analysis, the Directorate Fiscal Analysis and the Directorate Financial System Analysis, as well as the macroeconomic developments underlying these forecasts. The forecast is based on the 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 under the direction of Dániel Palotai, Executive Director of the Directorate Monetary Policy. The Report was prepared by staff at the MNB's Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate Fiscal Analysis and Directorate Financial System Analysis. The Report was approved for publication by Dr. Ádám Balog, Deputy Governor.

The Report incorporates valuable input from other areas of the MNB and the Monetary Council's comments.

The projections are based on information available for the period ending 18 March 2015.

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In the Monetary Council's judgement, persistently loose monetary conditions are consistent with the achievement of price stability.

In the Council's judgement, maintaining loose monetary conditions for an extended period is warranted by the medium-term achievement of the Bank's inflation target and a corresponding degree of support to the real economy. In addition to the primary goal of meeting the inflation target, the Council also takes into account the condition of the real economy and incorporates financial stability considerations into its decisions.

Growth prospects of the global economy have improved in recent months. The low inflation environment is likely to persist for a sustained period.

Differences remain across the individual regions in terms of economic growth. Of the world's developed regions, the recovery in the euro-area economy has been stronger than expected but modest, while growth in the US has been robust. Growth has been stable or slowing in most of the major emerging market economies. Global inflation remains moderate, in line with the decline in commodity prices, particularly persistently low crude oil prices and subdued demand, and inflationary pressure in the global economy is likely to remain moderate for a sustained period looking ahead. There have been differences in the monetary policy stance of globally influential central banks in recent months: the ECB has extended its quantitative easing programme while the Fed has maintained its monetary policy instruments. Monetary conditions remain loose overall and, consequently, global interest rate and liquidity conditions continue to be supportive.

In the Council's judgement, inflation is likely to be significantly below the inflation target this year, and is expected to rise to levels around 3 per cent only towards the end of the forecast period.

The Council expects inflation to be significantly below the inflation target over the short term. At the beginning of the year, inflation turned out to be below the projection in the December 2014 issue of the *Inflation Report*, mainly reflecting the decline in commodity prices. Domestic inflation is likely to be substantially below the target in the first half of the forecast period, mainly reflecting strong cost shocks. With the pick-up in domestic demand and reflecting the increase in wages, core inflation is likely to rise gradually; however, this process may slow due to the second-round effects of declining commodity prices. Overall, more moderate underlying inflation developments point in the direction of a low inflation environment, and therefore inflation is expected to approach levels around 3 per cent towards the end of the forecast period. The stabilisation of expectations over the recent period is likely to ensure that price and wage-setting will be consistent with the inflation target over the medium term as domestic demand recovers.

Domestic economic growth may continue to be robust, with domestic demand remaining the main engine.

Growth in the domestic economy has continued over the past quarter. In the coming quarters, domestic demand is still likely to be the main engine behind growth. Rising household real income as a result of low inflation and increasing employment are expected to contribute to the increase in household consumption. The measures taken in the wake of the uniformity decision by the Supreme Court are likely to contribute significantly to an improvement in the wealth and income position of households, thereby supporting the deleveraging process. In addition, the conversion of foreign currency loans into forints reduces households' exchange rate exposure, which in turn may lead to a gradual reduction in precautionary savings. Investment is likely to grow gradually due to the pick-up in activity and the extension of the Funding for Growth Scheme. In line with the improvement in income positions, household investment activity is expected to rise steadily over the forecast period. In addition, the rate of export growth is likely to remain robust, reflecting higher growth in Hungary's export markets. The negative output gap is expected to close at the end of the forecast period, and therefore the real economic environment is likely to continue to have a disinflationary impact in the coming quarters. Disinflationary effects from the global economy remain strong, while the price depressing effect of domestic demand is likely to diminish gradually.

Hungary's financing capacity remains high and external debt is decreasing.

As seen in previous periods, the four-quarter value of the economy's external position continued to be high in the third quarter of 2014. Over the coming quarters, the current account surplus and the external financing capacity of the economy are expected to stabilise at a high level, reflecting two opposing effects. The trade surplus is likely to grow in the coming quarters despite rising consumption and a modest pick-up in investment, mainly reflecting the improvements in the terms of trade and rising external demand. This effect is likely to be reduced by the end of the budget period of European Union funding, which may lead to a significant reduction in the transfer account balance in 2016. The country's external debt ratios, key in terms of the country's vulnerability, are likely to continue to decline, reflecting its high external financing capacity. The Bank's self-financing programme and the expected fall in banks' external debt due to the conversion of foreign currency loans into forint will contribute to the reduction in gross debt.

The Hungarian risk premium has fallen in the past quarter and sentiment has been generally favourable in financial markets.

International investor sentiment has been generally favourable in the past quarter. Global risk appetite was volatile at the beginning of the year, before improving from the end of January. The deterioration in sentiment due to the political events in Greece, the abandonment of the exchange rate cap by the Swiss National Bank and the escalation of the conflict between Ukraine and Russia were offset by announcements related to the ECB's asset purchase programme and favourable economic news from the US. Of the domestic risk indicators, the CDS spread has fallen sharply over the past quarter. Long-term yields on forint-denominated bonds have remained broadly unchanged since publication of the December *Inflation Report*. The forint has appreciated against the euro in the past quarter, due mainly to international factors. Hungary's persistently high external financing capacity and the resulting decline in external debt have contributed to the reduction in its vulnerability. The upgrade by Standard & Poor's in March also reflects the improvement in perceptions of the risks associated with the Hungarian economy. In the Council's judgement, however, a cautious approach to monetary policy is still warranted due to uncertainty in the global financial environment.

The macroeconomic outlook is surrounded by both upside and downside risks. Downside risks to inflation increased.

Overall, downside risks to inflation increased relative to the December *Report* assessment. The Monetary Council considered three alternative scenarios around the baseline projection in the March *Report*, which might influence significantly the future conduct of monetary policy. The alternative scenario assuming persistent deflation in the euro area poses downside risks to inflation and growth, and therefore looser monetary conditions than assumed in the baseline projection ensure the achievement of the inflation target. Lasting geopolitical tensions could lead to a decline in external demand associated with a rise in the risk premium. The resulting exchange rate depreciation might raise inflationary pressures, and therefore a tighter monetary policy stance ensures that the inflation target is met at the forecast horizon. In case the alternative scenario assuming more considerable second-round effects of the cost shocks, inflation expectations might move away from the target, resulting in a significantly lower path for nominal wage growth. All this could lead to lower inflationary pressure in the medium term, which calls for looser monetary conditions than assumed in the baseline projection during the period.

In the Council's judgement, there is a degree of unused capacity in the economy and inflationary pressures are likely to remain moderate for a sustained period. The real economy is likely to have a disinflationary impact at the policy horizon and the negative output gap is expected to close only gradually. Based on data becoming available previously, the probability of second-round effects taking hold in the wake of the change in inflation expectations has increased. The Council judges that, after reviewing the March Inflation Report, the outlook for inflation and the cyclical position of the real economy point in the direction of a reduction in the policy rate and loose monetary conditions for an extended period. Cautious easing of monetary conditions may continue as long as it supports the achievement of the medium-term inflation target.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Forecast based on endogenous monetary policy)

	2014	2015	2016
	Actual	Projection	
Inflation (annual average)			
Core inflation	2.2	1.6	3.0
Core inflation without indirect tax effects	1.4	1.4	2.5
Inflation	–0.2	0.0	2.6
Economic growth			
External demand (GDP based)	1.5	1.7	2.5
Household consumption expenditure	1.7	3.2	2.7
Government final consumption expenditure	2.1	0.7	0.2
Gross fixed capital formation	11.7	5.2	–1.2
Domestic absorption	4.3	3.0	1.2
Export	8.7	7.3	7.6
Import	10.0	7.4	6.8
GDP	3.6	3.2	2.5
External balance[1]			
Current account balance	4.4	5.3	6.3
External financing capacity	8.0	8.8	7.8
Government balance[1,5]			
ESA balance	–2.3	–2.4	–2.2
Labour market			
Whole-economy gross average earnings	2.5	3.4	3.6
Whole-economy employment	5.3	1.7	2.2
Private sector gross average earnings[2]	4.3	3.5	4.6
Private sector employment	4.6	1.0	1.1
Unemployment rate	7.7	6.9	5.9
Unit labour cost in the private sector[3]	4.3	0.5	2.6
Household real income[4]	3.1	3.1	2.2

[1] As a percentage of GDP.

[2] According to the original HCSO data for full-time employees.

[3] Private sector unit labour cost calculated with full time equivalent domestic employment.

[4] MNB estimate.

[5] With complete cancellation of free reserves.

1. INFLATION AND REAL ECONOMY OUTLOOK

In the past period, the Hungarian economy continued to expand dynamically, while inflation remained steadily low. In line with vigorous output growth, employment increased, while private sector wage dynamics remained subdued. At the beginning of 2015, inflation was weaker than expected in the December forecast, mainly due to subdued dynamics in food and fuel prices. Despite the continuing recovery in domestic demand, underlying inflation indicators have not increased.

Over the forecast horizon, inflation can be characterised by the dual trends of low cost-side inflationary pressure and a gradual recovery in domestic demand. In 2015, inflation may remain substantially below the target, mainly as a result of extremely moderate dynamics in global commodity prices. Owing to the pick-up in household consumption and stronger wage dynamics, we expect core inflation to rise gradually. However, the rise of core inflation may be tempered by the second-round effects of subdued inflation on expectations and wage developments. On the whole, moderate underlying price developments point to an environment of low inflation, and thus inflation adjusted for indirect taxes will only approach its target value towards the end of the forecast horizon. The recent stabilisation in inflation expectations may contribute to bringing pricing and wages in line with the inflation target over the medium term, in parallel with the recovery in domestic demand.

Economic growth remains robust over the forecast horizon, facilitated by rising real incomes thanks to low inflation, improving financing conditions and a revival on Hungary's main trading markets. Domestic demand may remain the main driving force behind economic growth in the years ahead. Along with the steadily expansive monetary policy, households' improving income and wealth position should support a gradual recovery in domestic demand. Significant increases in real incomes in the context of low inflation may contribute to a dynamic upswing in consumption. Household indebtedness has decreased gradually in recent years, and the settlement with banks following the legal uniformity decision of the Curia may continue to reduce debts further. With the gradual decrease in the volume of debts, debt burdens may restrict consumption less and less. The conversion of foreign currency loans may also reduce households' sensitivity to the exchange rate, which could facilitate the easing of precautionary considerations. Private sector investment activity may continue to rise. Along with the stronger economic activity, extension of the Funding for Growth Scheme also supports the expansion of corporate investment. With financial yields steadily low and households' real income position improving, investment activity by households may gradually increase. Public investment may decrease next year after the utilisation of EU funds passes its peak. As a result of growing corporate investment and moderate public investment activity, the investment rate may remain stable. Lower oil prices and the ECB's asset purchase programme support growth in the euro area, but this may be slightly dampened by effects of the conflict between Ukraine and Russia. Demand in Hungary's export markets is expected to accelerate in the coming quarters, and the contribution of net exports to growth may increase again.

Boosted by increased private sector employment and the expansion of public work schemes, employment in the national economy will increase further over the forecast horizon. The upturn in corporate labour demand can be attributed to continued economic growth. In line with improving labour market trends, the unemployment rate may decline further. The decreasing labour market slack, improved productivity and corporate profitability are expected to facilitate a dynamic increase in real wages. At the same time, the effect of low inflation may be reflected in a moderate rise of nominal wages as well.

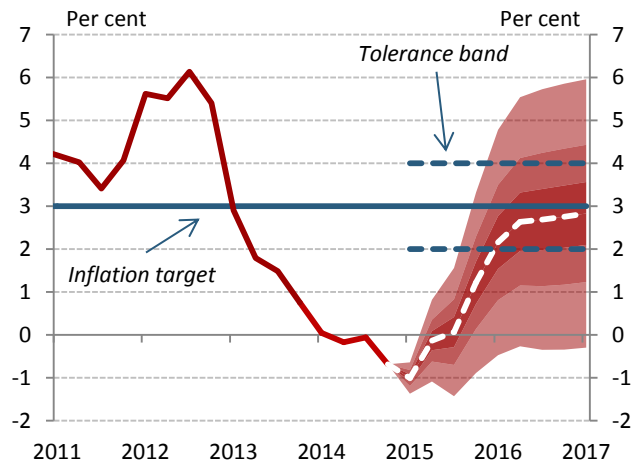
The external financing capacity of the Hungarian economy may remain considerable in the coming years, which will contribute to the continued reduction of net external debt. The budget deficit may remain below 3 per cent of GDP this year and next year, and with consistently disciplined fiscal policy the government's deficit target is likely to be achieved.

On the whole, the disinflationary effects of the real economy may continue subside gradually, as a result of two opposing developments. On the one hand, the output of Hungary's trading partners may fall short of its potential level for a protracted period, which will reduce capacity utilisation in the domestic export sector and lead to low imported inflation. By contrast, domestic demand is set to expand over the forecast horizon, offsetting the disinflationary impact of the external environment. According to our forecast, the output gap may close by the end of 2016.

1.1. Inflation forecast

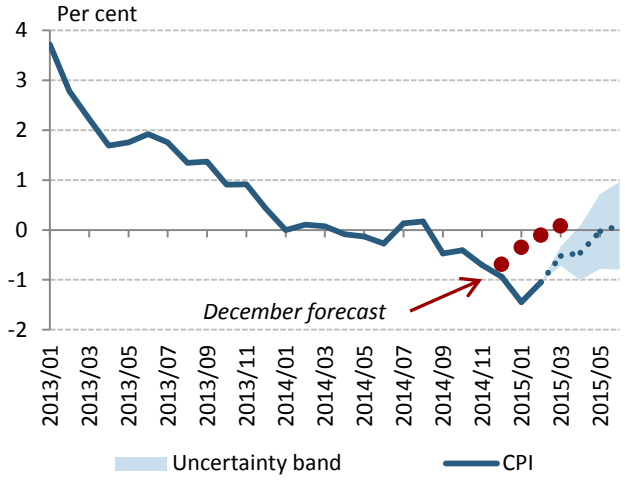
In our forecast, inflation may remain low in the coming quarters, primarily as the result of very subdued price developments in commodities. The consumer price index is only expected to approach the medium-term target at the end of the forecast horizon, after the first-round effects of cost shocks wear off. In parallel with the recovery in household consumption and the increase in wage dynamics, core inflation will gradually increase in the coming quarters. At the same time, the second-round effects of low inflation through wage setting and expectations may mitigate the rise in core inflation.

Chart 1-1: Fan chart of the inflation forecast



Source: MNB

Chart 1-2: Monthly evolution of the near-term inflation forecast



Note: Annual change. The uncertainty band shows the root mean squared error of previous years' near-term forecasts.
Source: MNB

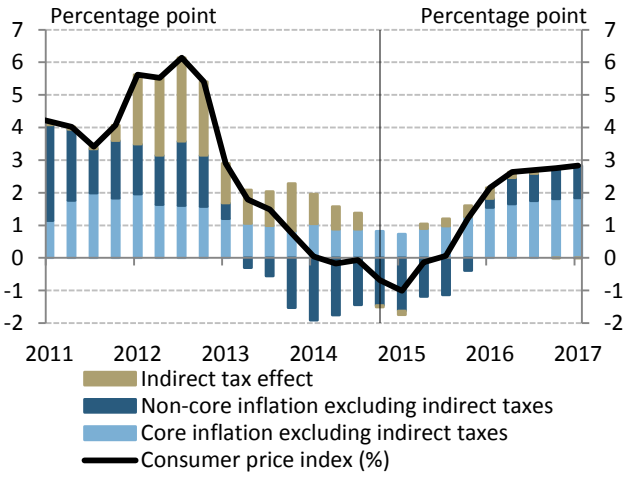
In 2015, inflation is likely to remain substantially below the target, and only towards the end of the forecast horizon will the consumer price index gradually approach the target value of 3 per cent. Inflation continues to be marked by the dual trends of subdued cost side pressures and gradually increasing demand. The decline in commodity prices may contribute to below-target inflation primarily in the first half of the forecast horizon. Dynamic growth in domestic demand may generate a gradual increase in core inflation over the forecast horizon. At the same time, the second-round effects of low inflation through wage setting and expectations may mitigate the rise in core inflation. Due to the low underlying inflation, inflation adjusted for indirect taxes may only approach the medium-term target at the end of the forecast horizon (Chart 1-1).

According to our near-term projection, although inflation should rise gradually over the next few months, it will remain in negative territory in the first half of the year (Chart 1-2). The low base effect from the decrease in fuel prices starting at the end of 2014 contributes significantly to the rise of inflation at the turn of 2015 and 2016. Inflation in 2015 is expected to be around zero on average and around 2.6 per cent in 2016.

Muted cost-side price developments continue to exert a significant impact on the path of inflation. Oil prices have fallen even further since the December forecast and accordingly, imported price pressures may remain subdued. Inflation in the euro area, Hungary's main trading partner, may continue to be restrained over the entire forecast horizon. As a result, external inflationary pressures in both processed and unprocessed products may remain subdued.

From the current moderate levels, core inflation adjusted for indirect taxes is expected to rise gradually, driven by the upturn in demand and wages. This process, however, may be mitigated by the pass-through of cost shocks to core inflation (Chart 1-3, Table 1-1). The negative output gap is gradually closing over the forecast horizon and accordingly, the disinflationary impact from the real economy is decreasing. With the revival in demand, the

Chart 1-3: Decomposition of the inflation forecast



Source: MNB

Table 1-1: Details of the inflation forecast

		2014	2015	2016
Core inflation		2.2	1.6	3.0
Contribution to inflation		*1.4*	*1.1*	*2.0*
Non-core inflation	Unprocessed food	–3.7	1.2	3.6
	Fuel and market energy	–2.1	–10.9	2.5
	Regulated prices	–6.6	–0.4	1.5
	Total	–4.9	–3.3	2.1
Contribution to inflation		*–1.7*	*–1.1*	*0.5*
Inflation		–0.2	0.0	2.6

Note: The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

pricing power of the retail sector increases. This increases the scope to partially pass on the rising tax burden of the retail sector to consumers. By contrast, the sharp fall in oil prices may feed into core inflation via production costs, retarding the increase in core inflation. From moderate levels, unit labour cost growth in the private sector may accelerate, in line with the reduction of free capacities. However, persistently low inflation may also influence wage-setting in the corporate sector. The alignment of inflation expectations with the central bank's target, may help maintain wage and price dynamics at levels consistent with the inflation target.

The price index of non-core items may remain at historically low levels. Weak growth in regulated prices and the recent significant decline in EUR-denominated oil prices are both factors which may exert downward pressure on non-core inflation (Chart 1-3, Table 1-1). At the same time, owing to base effects, we expect a sharp increase in the price of fuels at the turn of 2015 and 2016, which may raise the consumer price index significantly.

The impact of government measures on inflation may remain moderate even with this year's new tax measures. Tax changes gradually coming into force this year, primarily affecting tobacco products, point to rising inflation, in particular at the turn of 2015 and 2016 (Chart 1-3). Our forecast is based on the assumption that regulated energy prices remain unchanged over the entire forecast horizon. Non-energy regulated prices may develop in line with the subdued inflation environment (Table 1-1).

Box 1-1: Main external assumptions behind the projections

Hungary is a small, open economy, and as such our forecasts for the most important macroeconomic variables are fundamentally influenced by the development of external factors and the changes in the assumptions based on those. The purpose of this brief presentation of the changes in the external assumptions published in the chapter on forecasts is to make the central bank's forecasts more transparent (Table 1-2).

Table 1-2: Main external assumptions of the projections

Technical Assumptions	2015		2016		Change	
	December	March	December	March	2014	2015
USD/EUR	1.237	1.125	1.237	1.121	–9.1%	–9.4%
Oil (USD/barrel)	78.4	61.3	82.5	68.8	–21.8%	–16.6%
Food prices						
Wheat (USD/bushel)	5.73	5.26	6.02	5.54	–8.2%	–8%
Maize (USD/bushel)	3.98	3.98	4.26	4.26	0.0%	0.0%
Euro area inflation (%)	0.7	-0.2	1.4	1.1	–0.9 pp.	–0.3 pp.
GDP growth of our main trading partners* (%)	1.6	1.7	2.3	2.5	0.1 pp.	0.2 pp.

Note: * GDP growth of Hungary's 21 main export partner countries, weighted by export shares.
Source: CBT, Bloomberg, OECD, Consensus Economics, MNB calculations

The world market price of oil has continued to decrease significantly since our December forecast. Demand factors may act as major underlying factors of the decrease. Production by the most important oil exporter countries remained high, also boosted by the further increase in US shale oil production. At the same time, in parallel with the price decrease, uncertainties with regard to future oil prices also increased considerably. The dispersion of oil option prices and economists' expectations have both risen since December. In compiling our forecast, we worked on the assumption that the oil price may hover around USD 60 in the short run. As opposed to that, the oil price was close to USD 54 on the closing date for this Report. At the same time, the euro depreciated against the dollar, and thus there was no material shift in the euro-denominated oil prices, which are relevant for the forecast.

Amongst agricultural commodities futures, wheat prices decreased further compared to our December forecast, mainly due to the crop increase in South America and high inventories from bountiful global harvests. By contrast, maize prices have not changed materially since our previous forecast. Thus, taken together, we project a moderate fall in food prices over the forecast horizon.

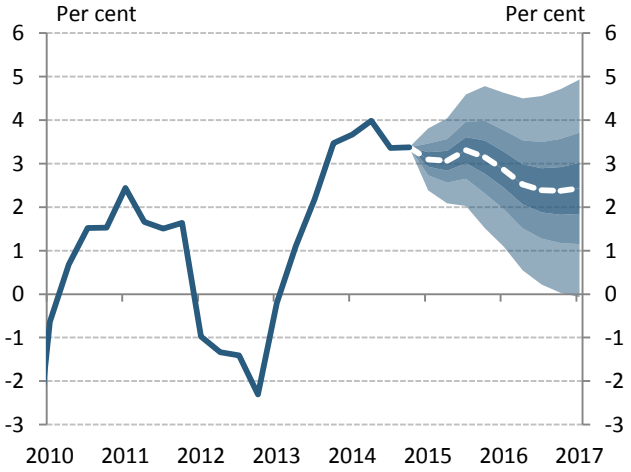
Expectations for euro-area economic growth increased recently, primarily as a result of falling oil prices and the asset purchase programme of the European Central Bank. On the other hand, the improving growth prospects may be curbed by the slowdown in the developing economies and the Russian-Ukrainian conflict, along with the continued high private and public indebtedness.

Due to the low commodity prices, moderate growth prospects and relatively weak domestic demand, inflation in the euro area may remain low, and consequently we expect that the ECB will maintain its accommodating monetary policy conditions over the longer term. At the same time, the ECB's asset purchase programme may facilitate an increase in euro-area inflation. Due to the different monetary policy stance of the ECB and Fed, we still expect that the euro exchange rate may be even weaker than assumed in our December forecast.

1.2. Real economy forecast

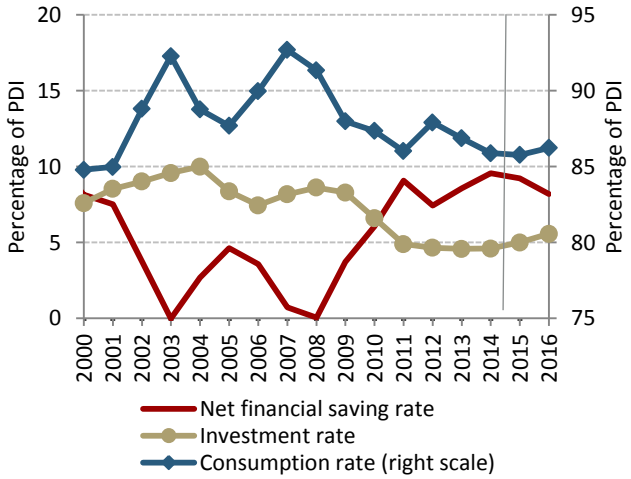
The economy is expected to continue expanding dynamically this year. Robust economic growth will be supported by both domestic and external demand. Low inflation due to the decline in the prices of raw materials may increase the real income of domestic agents, which may in turn lead to a pick-up in both consumption and investment. The significant rise in real incomes stemming from the low inflation and the substantial reduction in household indebtedness may contribute to a marked increase in consumption. Along with improving demand conditions, rising corporate investment is supported by the extension of the Funding for Growth Scheme. Owing to the strong absorption of EU funds, public investment is expected to be significant in 2015 as well, but a decline is projected in 2016. Lower oil prices and the ECB's asset purchase programme point to improving economic performance among Hungary's main trading partners. Accordingly, export growth may remain buoyant.

Chart 1-4: Fan chart of the GDP forecast



Note: Based on seasonally adjusted and reconciled data.
Source: MNB

Chart 1-5: Use of household income



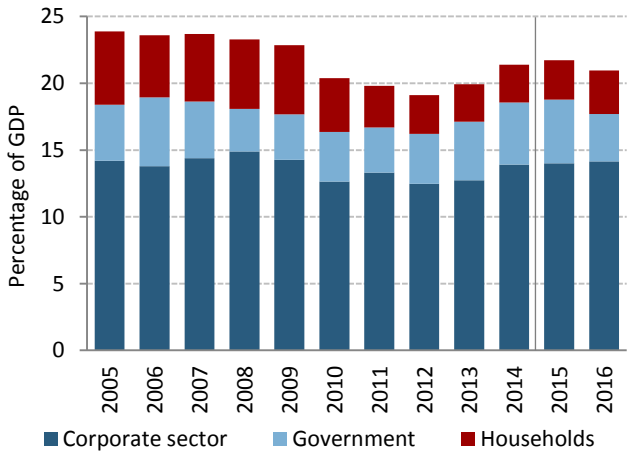
Note: As percentage of personal disposable income. Net financial savings of households exclude mandatory contributions payable to private pension funds.
Source: HCSO, MNB

Economic growth may remain dynamic over the forecast horizon, supported the increase in real incomes due to low inflation, improved financing conditions, and the pick-up in external demand. The growth contribution of domestic demand – in particular, private consumption – may become more pronounced. The Hungarian economy may grow at a rate of 3.2 per cent in 2015 and 2.5 per cent in 2016. The key element of growth will be household consumption, while the investment dynamics may gradually decelerate from a high level (Chart 1-4, Chart 1-8).

Household consumption is expected to steadily accelerate in the coming years, supported by increases in real income and the gradual decline in precautionary motives. In the low inflation environment, a wide range of households can expect to see an increase in real income. Household debt has declined significantly since the crisis. The settlement with banks after the Curia's decision increases the net worth of households, and lowers the monthly instalments on loans, thereby accelerating the reduction of outstanding debt. In addition, the conversion of foreign currency loans reduces the sensitivity of consumption to exchange rates and contributes to moderating precautionary considerations. Accordingly, the saving rate may decline significantly over the forecast horizon (Chart 1-5).

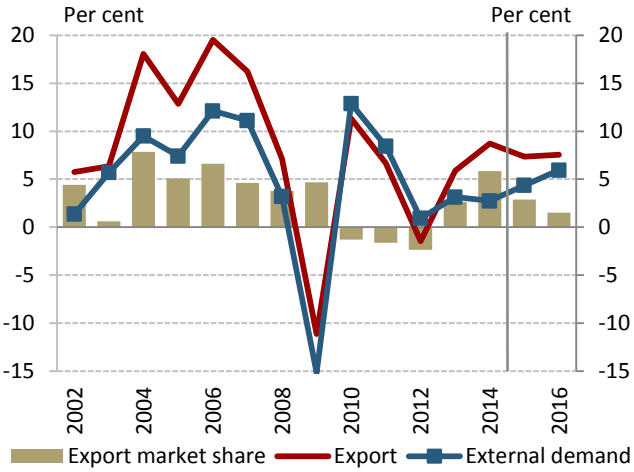
After exceptional growth in 2014, investment may expand further in 2015. The investment rate remains stable at above 20 per cent, while the share of private capital formation may increase within total investment. Apart from the growth in economic activity, extension of the Funding for Growth Scheme also supports the increase in corporate investment. With steadily low financial yields and the improvement in households' real income position, household sector investment may gradually accelerate. Developments in public sector investment are primarily determined by the drawdown of European Union funds. Based on the information received since the December forecast, the utilisation of EU funds may be more intensive

Chart 1-6: Breakdown of gross fixed capital formation



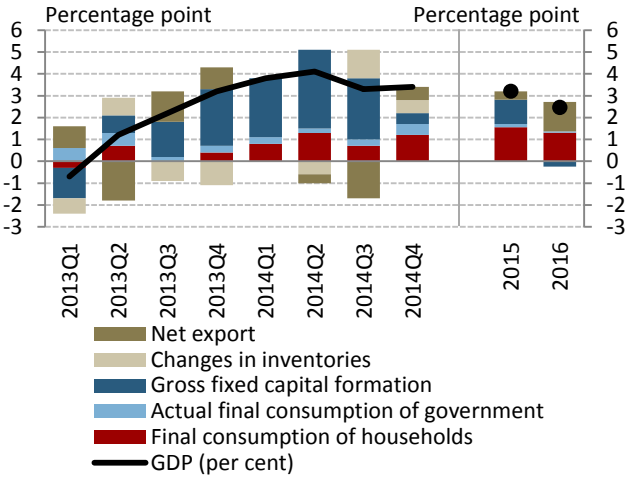
Source: HCSO, MNB

Chart 1-7: Changes in export market share



Note: Annual change.
Source: MNB

Chart 1-8: Evolution of GDP growth



Source: HCSO, MNB

in 2015 than previously expected. Consequently, public sector investment activity may remain strong in 2015, followed by a downward shift in 2016 – partly due to base effects – with the depletion of the funds provided under the 2007–2013 budget cycle (Chart 1-6).

Supported by the extension of the Funding for Growth Scheme and the reduction of the bank levy, the portfolio of corporate loans is expected to increase rapidly over the forecast horizon. The gradual contraction in the outstanding debt of households may continue. However, with the continued recovery of the housing market, the portfolio of new housing loans may increase further.

Export growth will be supported by the upturn in external demand, and the export market share of Hungary may also continue to increase. The ECB's asset purchase programme and low oil prices may foster growth in Hungary's trading partners, but this may be partly offset by the weakness of the Russian and Ukrainian economies. The depreciation of the euro may improve the competitiveness of euro-area exporters as well as the performance of Hungarian suppliers, contributing to an expansion of Hungary's export market share (see Box 1-2). In addition, the commissioning of new vehicle industry capacities in recent years may support a further increase in Hungary's export market share, although a significant part of these positive effects already emerged in 2013–2014 (Chart 1-7). Import dynamics may decelerate in 2015, in line with a slowdown in high-import-intensity investment. In parallel, the contribution of net exports to growth may gradually increase (Chart 1-8).

Output gradually approaches its potential level over the forecast horizon. Household consumption – the most relevant factor for domestic inflationary pressure – may continue to rise, but still fall short of its pre-crisis level even in the years ahead. The disinflationary effect of the real economy may slowly fade over the forecast horizon, and the output gap may close by the end of the period.

The recovery in aggregate demand has a favourable impact on potential growth as well. In the years ahead, this may be facilitated by the increase in labour market participation, lower unemployment, stronger lending activity and growth in corporate investment. Thus, in addition to the closing of the output gap, the gradual acceleration of potential growth also contributes to economic growth.

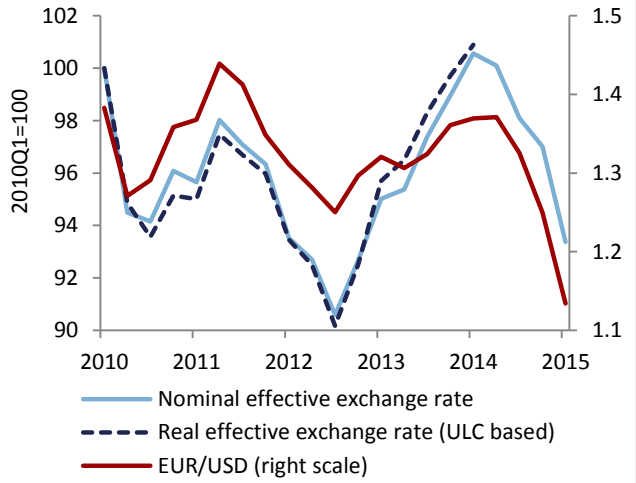
Box 1-2: What is the impact of the depreciation of euro on Hungarian exports?

The exchange rate of the euro to the US dollar has depreciated by over 20 per cent since the first half of 2014 (Chart 1-9). Compared to our external assumptions made in December, in our March forecast we assume the euro to be 8 per cent weaker against the dollar. Fundamentally, this depreciation may be mainly attributable to the different monetary policy stance of the Federal Reserve and the European Central Bank. While the Fed has gradually reduced its asset purchases and prepared for the gradual increase of the base rate, the ECB announced additional monetary easing measures in 2014 and decided to launch its asset purchase programme in January 2015. In parallel with changes in the EUR/USD rate, the trade-weighted effective exchange rate of the euro area also depreciated significantly. The weaker euro may substantially support euro-area exports, thereby facilitating the recovery of aggregate demand and the increase of inflation from the present low levels.

Euro depreciation improves growth prospects in several of Hungary's main trading partners. The expected impact in these countries depends on the share of extra-euro-area exports and the elasticity of exports to real exchange rate changes (Chart 1-10). In the case of Germany, which is Hungary's main trading partner, GDP-proportionate exports outside the euro area are relatively high, while the real exchange rate elasticity of German exports is moderate. Among Hungary's other major trading partners, Austria exhibits high export elasticity with respect to the real exchange rate, while extra-euro-area exports play a particularly important role in Slovakia.

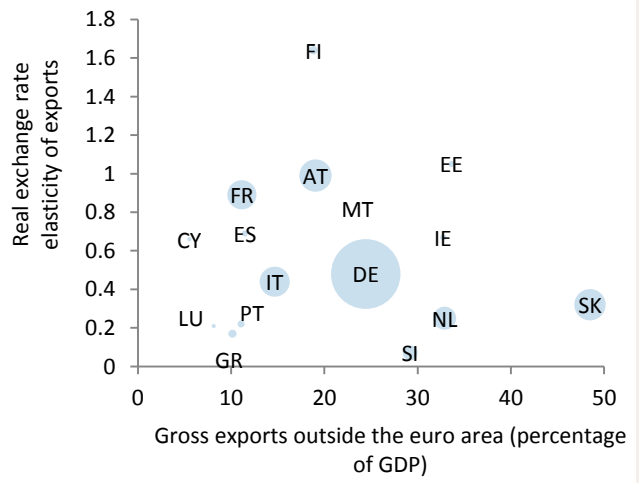
The depreciating euro also impacts the growth prospects of the Hungarian economy. The Hungarian export sector has close supplier links with the euro-area countries. Consequently, the improving competitiveness of euro-area exporters also stimulates demand for the Hungarian export products. These relations may be particularly strong in the case of the motor vehicle industry, as German companies have created extensive supply chains across the region.[1] The large German car manufacturers present in Hungary sell 50-60 per cent of their production outside Western Europe, and thus depreciation of the euro may support their sales and profitability to a substantial degree. In addition, the recovery of the car industry may also improve the performance of the supplier sectors (e.g. textile industry, tyre industry).

Chart 1-9: Evolution of the euro exchange rate



Note: Estimate for 2015 Q1.
Source: ECB, Eurostat

Chart 1-10: Exports outside the euro area and the real exchange rate elasticity of exports in euro-area countries



Note: Elasticities were calculated with real exchange rates based on unit labour costs for the whole economy. Bubble sizes are proportional to countries' weights in Hungarian exports.
Source: Eurostat, Christodoulopoulou, S. - Tkacevs, O. (2014): Measuring the Effectiveness of Cost and Price Competitiveness in External Rebalancing of Euro Area Countries: What Do Alternative HCIs Tell Us? Latvijas Banka, Working Paper 6/2014.

[1] See: IMF (2013): German-Central European Supply Chain – Cluster Report, IMF Country Report No. 13/263, International Monetary Fund, Washington D.C.

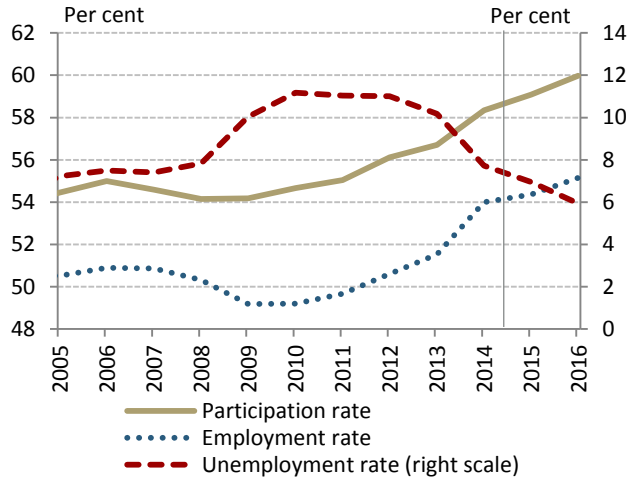
The positive impact on Hungarian exports is also supported by econometric estimates. Previous analyses show that a monetary easing in the euro area is associated with a rising market share of Hungarian exporters.[2] In our own analysis, we estimated a vector autoregressive (VAR) model that models the dynamic links among the volume of goods exports, the volume of world trade, the Hungarian real exchange rate and the euro-dollar exchange rate.[3] Based on the model, a 10 per cent depreciation of the euro to the dollar increases the level of Hungarian goods exports by about 0.8 per cent.

Based on these estimates, the recently observed depreciation of the euro may provide a substantial boost to Hungarian export growth. The euro depreciation since last year may increase Hungary's export market share by approximately 0.8 percentage points, thereby supporting an increase of GDP in 2015 by some 0.2 percentage points.

1.3. Labour market forecast

Labour market participation and employment in the national economy may continue to increase over the forecast horizon. The rebound in private sector labour demand may be partly attributed to the pick-up in economic growth, while the expansion of the public work programmes contributes significantly to employment in the national economy. By the end of the forecast horizon, the unemployment rate may drop below 6 per cent. Growth in real wages may exceed the dynamics seen in pre-crisis years. The stabilisation of inflationary expectations may facilitate wages and price dynamics at levels consistent with the inflation target over the time horizon of monetary policy.

Chart 1-11: Employment, participation rate and unemployment in the national economy



Source: MNB calculations based on HCSO data

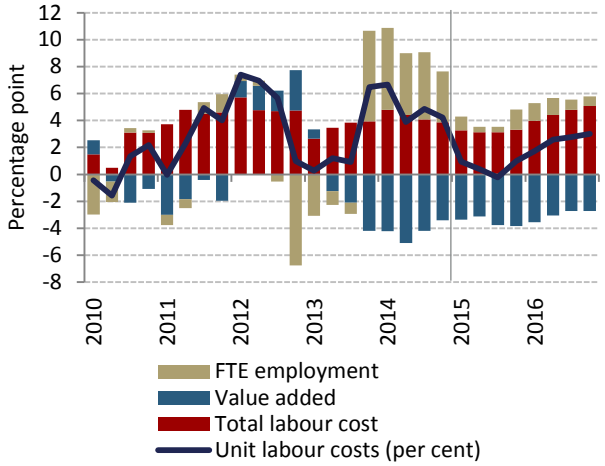
Labour market participation continues to grow over the forecast horizon. Participation has increased sharply since the crisis, primarily as a result of labour supply boosting measures, the effects of which may still be perceivable in the coming years. Moreover, thanks to the improved outlook for economic activity, the return of discouraged workers to the labour market may also boost the participation rate (Chart 1-11).

In addition to increased employment in the private sector, the planned expansion of public work programmes may also foster an increase in employment in the national economy. Over the forecast horizon, labour demand may steadily increase in the private sector. As part-time employment continues to gain ground, the number of people employed may rise at a faster rate than the number of hours worked. The envisaged increase in the number of public workers will continue to play a major role in job creation in the national economy in the years ahead. In our forecast, we assume that the number of people in public employment may rise to nearly 280,000 by 2016.

[2] Benkovskis, K. – Bessonovs, A. – Feldkircher, M. – Wörz, J. (2011): The Transmission of Euro Area Monetary Shocks to the Czech Republic, Poland and Hungary: Evidence from a FAVAR Model, OeNB Focus on European Economic Integration, Q3/11, Österreichische Nationalbank, p. 8-36.

[3] The model contains the seasonally adjusted, monthly change in export and world trade volumes. The national real exchange rate is based on unit labour costs, and is filtered from its trend component with a Hodrick-Prescott filter (lambda=14400). The EUR/USD exchange rate was also detrended with the Hodrick-Prescott filter (lambda=14400). The model was estimated on monthly data between January 1998 and December 2014, with 3 lags. The shock of the EUR/USD exchange rate was generated by Cholesky decomposition, where the EUR/USD exchange rate was ordered first.

Chart 1-12: Decomposition of unit labour cost in the private sector



Source: MNB calculations based on HCSO data.

As a result of favourable developments in employment, the labour market may become tighter. The unemployment rate is expected to fall near 6 per cent by the end of 2016.

Private sector real wages may rise significantly over the forecast horizon, while low inflation may temper nominal wage dynamics. In addition to the tightness of the labour market, the improvement in corporate profitability and productivity may also boost real wages. At the same time, expectations may have adjusted to the persistently low inflation rates, pointing to a decline in nominal wage dynamics (see Box 1-3). In the context of improved productivity and restrained nominal wage dynamics, the growth rate of unit labour costs may remain moderate (Chart 1-12).

We project a subdued rise in public sector wages. The growth rate of the national economy wage index is also restrained by the expansion of the public work programme through the composition effect of the low wages earned by participants.

Box 1-3: Expectations for private sector wage increases in 2015

Our current Inflation Report projects average inflation near 0 per cent this year. If low inflation, which persistently undershoots the target of the central bank, is incorporated into wage-setting, the resulting lower nominal path may become a risk to reaching the inflation target in the medium run as well. A central issue in our current forecast is the wage-setting behaviour of companies in the coming years. Since companies typically revise wages in March, meaningful information on wage-setting decisions for 2015 will be provided by the March wage figures. Until release of the March wage data, we can draw conclusions as to what extent the impact of the low inflation may be reflected in the wages on the basis of the other indicators observed in the wage negotiation period.

Results of Hay Group's corporate survey

A preliminary picture of companies' wage-setting decisions is provided by the results of Hay Group's usual annual wage analysis performed in December 2014. The respondent companies – the vast majority of which are large corporations – anticipate wage growth of about 2 per cent next year. However, the survey may only be used for comparison with the HCSO actual figures to a limited extent, since the Hay survey is dominated by the large corporations and the sectoral composition of the respondents also differs from the actual one. Based on previous experiences, it is not suitable for comparison in terms of level; however it helps identify the main trends in the wage-setting processes (Chart 1-13). Accordingly, based on this it can be concluded that the **respondent companies basically expect wages to increase at a rate similar to that of 2014.**

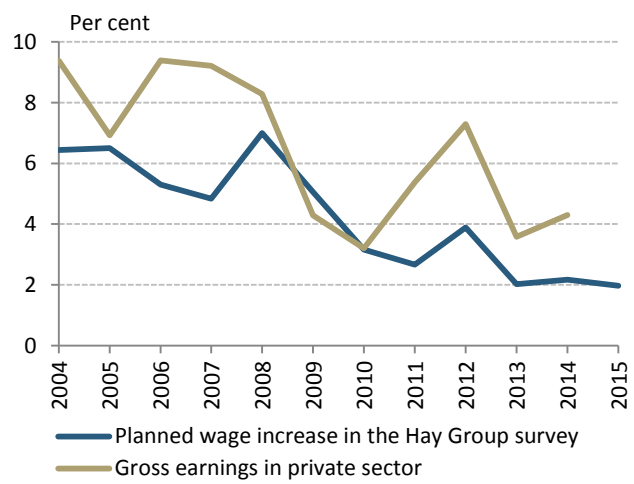
However, it is questionable which corporate inflation expectations the results are consistent with. **While households' inflation expectations were already stabilised at a historically low level in the period when wages for 2015 were negotiated (December 2014 – January 2015), our inflation projection has decreased further since that period.** However, this may result in the adjustment of wage-setting to a lower nominal path, if companies start to set wages to reflect the permanently low inflation.

Households' real income expectations

Based on the ESI (Economic Sentiment Indicator) survey, there **was no substantial change in the real income expectations of households** last year (Chart 1-14), which does not suggest any significant decrease in real wages in the

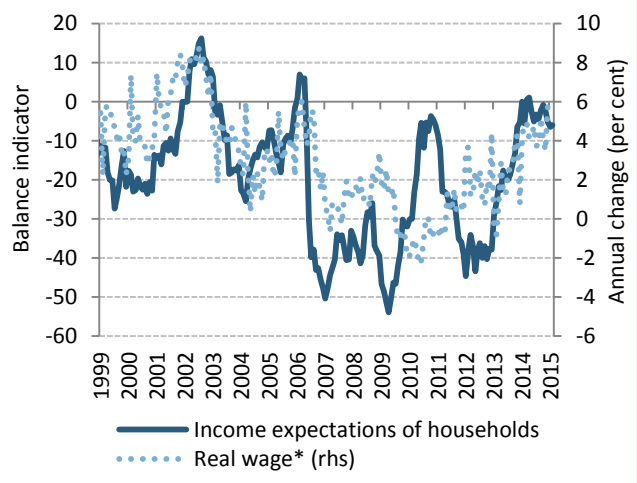
coming months. These real wage expectations, viewed together with the short-term expected inflation, may be consistent with nominal wage growth of around 3-4 per cent.

Chart 1-13: Planned and actual wage increase in private sector



Source: Hay Group, HCSO

Chart 1-14: Real income expectations of households



Note: * Nominal wages deflated by CPI.
Source: European Commission, MNB calculations based on HCSO data

Minimum wage increase rate

Based on the agreement between the government and employers' and employees' representatives, **the minimum wage and the guaranteed minimum wage increases by 3.4 per cent from 2014 to 2015.** The rate of the minimum wage increase is similar to that of the previous year, and in light of the present outlook, it is considerably higher than the inflation-indexed increase. Based on earlier experiences, the rate of the minimum wage increase may set an approximate lower limit for wage dynamics. This is because the distribution of the wages is negatively (left) skewed, i.e. a large number of the employees earn a wage that is close to the minimum wage or the guaranteed minimum wage. Accordingly, the increase in the minimum wage is an effective increase for a significant part of the employees (according to the NLC Wage Survey for 25-30 per cent). Additionally, the rate of the minimum wage increase may have a pass-through effect on higher earnings as well. It should be noted that the joint recommendation by the government, employers' and employees' business federations for private sector wage increases in 2015 was between 3-4 per cent.

Evolution of labour market slack

In addition to the inflation expectations, nominal wage-setting is also determined, by the amount of slack on the labour market. **In recent years, the labour market has become gradually tighter, and this tightness has not decreased in the recent months.** The gradual decrease of labour market slack may continue to stimulate the nominal wage dynamics.

Development of corporate sector profitability

The profitability of private sector companies may have increased substantially through the pick-up in economic activity, the decreasing oil prices and the declining financing costs in recent years. **Thus there may be room for wage increases based on corporate profitability**. In addition to the continued economic growth, the dynamics of productivity may also recover. All of these factors run counter to the slowdown in wage dynamics over the forecast horizon.

Taken together, most of the examined factors may mitigate the slowdown in nominal wage dynamics, and thus the decrease in wage dynamics attributable to the low inflation expectations may be moderate. Should inflation expectations permanently decouple from the central bank's target, nominal wage dynamics may also settle onto a considerably lower path.

Table 1-3: Changes in our projections compared to the previous Inflation Report

	2014	2015		2016	
	Actual	Projection			
		December	Current	December	Current
Inflation (annual average)					
Core inflation	2.2	2.4	1.6	3.3	3.0
Core inflation without indirect tax effects	1.4	2.2	1.4	2.8	2.5
Inflation	–0.2	0.9	0.0	2.9	2.6
Economic growth					
External demand (GDP-based)	1.5	1.6	1.7	2.3	2.5
Household consumer expenditure	1.7	2.8	3.2	2.3	2.7
Government final consumption expenditure	2.1	–0.5	0.7	0.0	0.2
Gross fixed capital formation	11.7	1.8	5.2	–1.0	–1.2
Domestic absorption	4.3	1.8	3.0	0.8	1.2
Export	8.7	6.3	7.3	6.9	7.6
Import	10.0	6.2	7.4	6.1	6.8
GDP	3.6	2.3	3.2	2.1	2.5
External balance[1]					
Current account balance	4.4	5.1	5.3	6.0	6.3
External financing capacity	8.0	8.0	8.8	7.8	7.8
Government balance[1,5]					
ESA balance	–2.3	–2.4	–2.4	–1.9	–-2.2
Labour market					
Whole-economy gross average earnings	2.5	3.7	3.4	3.1	3.6
Whole-economy employment	5.3	1.0	1.7	1.8	2.2
Private sector gross average earnings[2]	4.3	4.0	3.5	4.8	4.6
Private sector employment	4.6	0.8	1.0	0.8	1.1
Unemployment rate	7.7	7.6	6.9	7.6	5.9
Private sector unit labour cost[3]	4.3	1.5	0.5	3.0	2.6
Household real income[4]	3.1	2.4	3.1	1.5	2.2

[1] As a percentage of GDP.

[2] According to the CSO data for full-time employees.

[3] Private sector unit labour cost calculated with full-time equivalent domestic employment.

[4] MNB estimate.

[5] With complete cancellation of free reserves.

Table 1-4: MNB baseline forecast compared to other forecasts

	2015	2016
Consumer Price Index (annual average growth rate, %)		
MNB (March 2015)	0.0	2.6
Consensus Economics (March 2015)[1]	(–0.9) – 0.0 – 1.0	0.1 – 2.3 – 3.9
European Commission (February 2015)	0.8	2.8
IMF (October 2014)	2.3	3.0
OECD (November 2014)	2.0	3.0
Reuters survey (March 2015)[1]	(–0.7) – 0.1 – 0.9	1.5 – 2.5 – 2.8
GDP (annual growth rate, %)		
MNB (March 2015)	3.2	2.5
Consensus Economics (March 2015)[1]	1.8 – 2.5 – 3.2	1.7 – 2.2 – 2.6
European Commission (February 2015)	2.4	1.9
IMF (October 2014)	2.3	1.8
OECD (November 2014)	2.1	1.7
Reuters survey (March 2015)[1]	2.3 – 2.7 – 3.2	1.7 – 2.3 – 3.2
Current account balance[3]		
MNB (March 2015)	5.3	6.3
European Commission (February 2015)	4.4	4.9
IMF (October 2014)	2.6	1.7
OECD (November 2014)	4.4	4.7
Budget deficit (ESA-95 method)[3,4]		
MNB (March 2015)	2.4	2.2
Consensus Economics (March 2015)[1]	2.0 – 2.5 – 3.0	1.8 – 2.4 – 3.3
European Commission (February 2015)	2.7	2.5
IMF (October 2014)	2.8	2.8
OECD (November 2014)	2.6	2.5
Reuters survey (March 2015)[1]	2.0 – 2.5 – 2.6	1.8 – 2.4 – 2.7
Forecasts on the size of Hungary's export markets (annual growth rate, %)		
MNB (March 2015)	4.4	5.9
European Commission (February 2015)[2]	3.7	5.4
IMF (October 2014)	4.2	5.1
OECD (November 2014)[2]	3.7	4.8
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)		
MNB (March 2015)	1.7	2.5
European Commission (February 2015)[2]	1.7	2.2
IMF (October 2014)	1.8	2.1
OECD (November 2014)[2]	1.7	2.2

[1] For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the median 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.

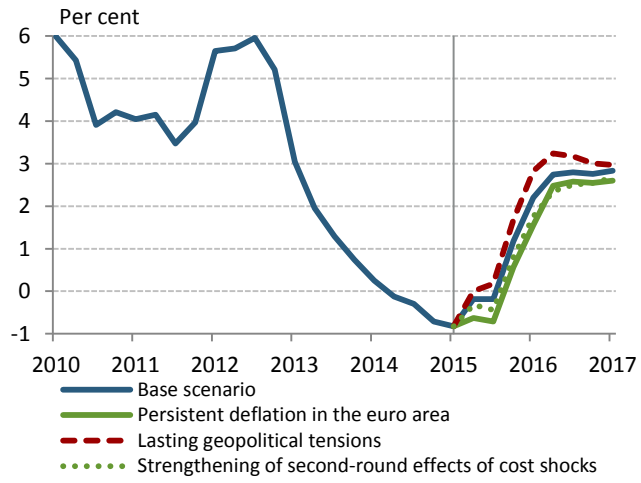
[4] With complete cancellation of free reserves.

Source: Consensus Economics, European Commission, IMF, OECD, Reuters poll

2. EFFECTS OF ALTERNATIVE SCENARIOS ON OUR FORECAST

In addition to the baseline projection in the March Inflation Report, the Monetary Council has identified three alternative scenarios which may have a tangible impact on the future development of monetary policy. The alternative scenario assuming persistent deflation in the euro area poses downside risks to inflation and growth, and therefore looser monetary conditions than assumed in the baseline projection ensure the achievement of the inflation target. Lasting geopolitical tensions could lead to a decline in external demand associated with a sharp rise in the risk premium. The resulting exchange rate depreciation raises inflationary pressures, and therefore a tighter monetary policy stance ensures that the inflation target is met at the forecast horizon. In the case of the alternative scenario assuming more substantial second-round effects of cost shocks, inflation expectations might move away from the target, may resulting in a significantly lower path for nominal wage growth. All of this could lead to lower inflationary pressure in the medium term, which calls for looser monetary conditions than assumed in the baseline projection during the period.

Chart 2-1: Impact of the risk scenarios on our annual inflation forecast



Source: MNB

Persistent deflation in the euro area

External inflation has further decreased recently, attributable to the price-reducing power of moderate demand, along with supply shocks. The considerable fall in oil prices in recent months may substantially curb the development of international inflation this year. Globally favourable food production may act towards a moderate inflation path in the coming months as well. During the winter months, euro-area inflation continued to decline, accompanied by moderate growth figures. As a result of these effects, **deflationary risks may have increased in the euro area**.

Moderate growth prospects in emerging economies, together with consistently lower-than-expected inflation in the global economy (in the euro area as well) and the related deflation fears pose a risk that the cyclical position of the euro area may be even more open than assumed in the baseline projection and that the recovery may be slower than expected. Moreover, second-round effects via wage-setting and inflation expectations, caused by persistently below-target inflation, may strengthen. Accordingly, **it is conceivable that the present very low inflation environment may become entrenched in Europe and persistent deflation may develop in the euro area**. In addition, the deceleration of the emerging economies, especially China, may also contribute to a weakening of global economic activity, possibly generating additional disinflationary impacts through commodity prices. As a result of the foregoing, domestic imported inflation may be lower than expected in the baseline scenario.

Consequently, in this alternative scenario we expect that the weaker-than-assumed external demand and persistent deflation in the euro area will have a stronger disinflationary impact, leading to a lower external inflation path and more moderate growth, via the external trade channel. Additionally, as a result of the low external inflation environment, the globally important

central banks may maintain loose monetary conditions over the longer run. In this scenario, due to the stronger external disinflationary impact, **achieving the inflation target points to looser monetary conditions than assumed in the baseline scenario.**

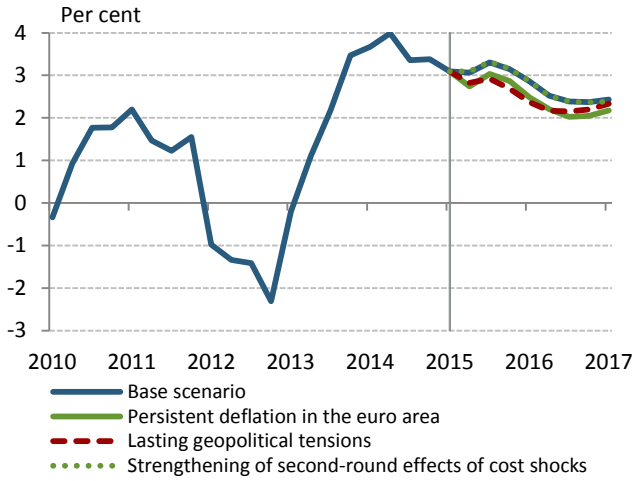
Lasting geopolitical tensions

As a result of the **conflict between Russia and Ukraine**, which has now already lasted for over a year, the growth prospects of these two countries have deteriorated significantly. Despite intense international efforts, the **peace process is fragile** and breaks from time to time, and thus there is **little chance for a rapid resolution of the conflict**. These prolonged tensions have a negative impact – through the bilateral economic sanctions remaining in effect and declining demand in Russia and Ukraine – on the EU's growth prospects, which **represents a substantial downside risk in terms of Hungary's external demand, while escalation of the conflict may significantly increase Hungary's risk premium**.

In addition, recently **the risk of Greece exiting the euro area ("Grexit") has also increased**. The CEE region's real economic relations with Greece are not significant, and thus as long as it takes place in an orderly form a potential Grexit would have no major direct impact. However, **if the unified nature of EMU breaks down, Greece's exit from the euro area could have considerable negative impacts on the financial and capital market**. A potential Grexit may impact Hungary mostly through the risk premium, while real economic impacts would only be marginal via external demand.

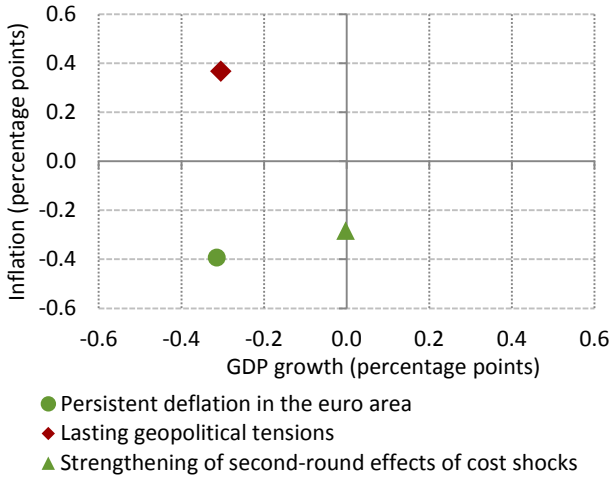
In this scenario, we assume that intensification of the aforementioned geopolitical problems impair investor sentiment and significantly increase Hungary's risk premium. Compared to the baseline scenario, this would result in higher funding costs, which would also restrain bank lending, leading to tighter lending conditions both in the corporate and household sectors. The rise in the risk premium results in significant exchange rate weakening, intensifying the inflationary pressure. **In addition, the risk path also represents a downside risk to Hungary's external demand and exports.** On the whole, the decline of external demand has a larger impact on the domestic export than the exchange rate developments, and thus domestic growth prospects worsen. **In this alternative scenario achieving the inflation target at the forecast horizon is ensured by a tighter monetary policy.**

Chart 2-2: Impact of the risk scenarios on our GDP forecast



Source: MNB

Chart 2-3: Risk map: effect of alternative scenarios on the baseline forecast



Note: The risk map presents the average difference between the inflation and growth path of the alternative scenarios and the baseline forecast on the forecast horizon. The red marker represents tighter and the green markers mean looser monetary policy than the baseline forecast.

Source: MNB

Strengthening of second-round effects of cost shocks

The **significant downside cost shocks observed in the recent past have contributed to a great degree to the development of the current low inflation environment**. Inflation in February 2015 was -0.1 per cent, and thus the consumer price index has been in the negative range for half a year, and looking ahead we can still expect negative inflation values. In terms of the ratio of the deflating and non-deflating products, it can be stated that in the case of **regulated-price and cost-sensitive products the ratio of products characterised by negative price index increased**, whereas the price dynamics of demand-sensitive products do not suggest deflation at the time being (see section 6.2). At the same time, although there is no deflation in the demand-sensitive product group, the dynamics of the prices have been lower than the rate consistent with the inflation target for a longer period of time.

In terms of future inflation developments, it is of crucial significance whether or not inflation expectations evolve in line with the central bank's inflation target. **If expectations are weakly anchored at the target, the inflation target may lose its orientation power and thus the impact of the low inflation may persist.** In the case of Hungary, households' inflation expectations were gradually decreasing in the previous period and then stabilised slightly below, but close to the inflation target. The below-target inflation experienced in recent years and the present moderate inflationary environment may cause the expectations to decrease further and **pricing and wage-setting decisions will not be consistent with the inflation target.**

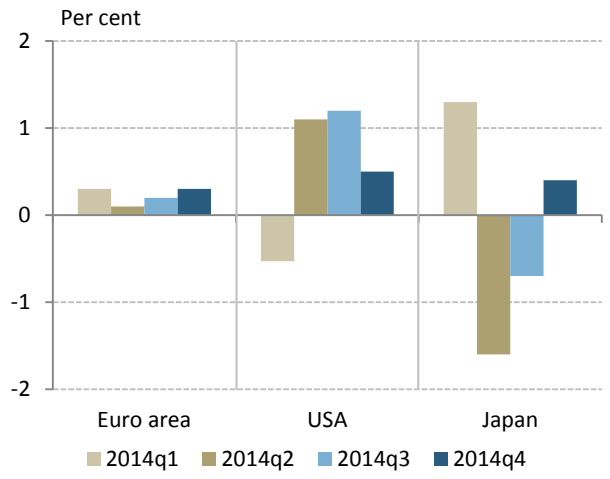
In view of the foregoing, **in this risk scenario we anticipate that inflation expectations will decouple from the central bank's inflation target, and thus the second-round effects of the cost shocks may intensify**. In this case, underlying inflation processes may fall persistently short of the level that can be deemed consistent with the inflation target. Persistent decoupling of inflation expectations from the central bank's target will result in a **substantially lower path for nominal wage dynamics**. All of this will result in a lower inflation over the medium term as well, **which necessitates looser monetary conditions during the period as compared to the baseline scenario**.

3. MACROECONOMIC OVERVIEW

3.1. International environment

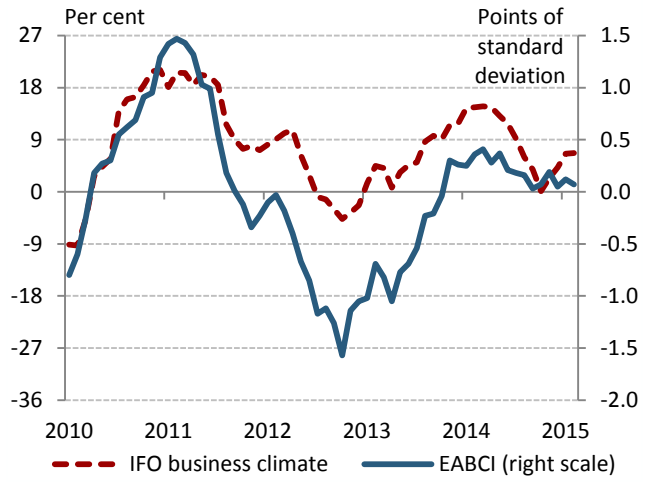
Global economic growth once again showed signs of improvement at the turn of 2014–2015. The benign impact of falling oil prices and improving labour market conditions may have already been reflected in consumption indicators at the beginning of the year. In the euro area, growth in the fourth quarter exceeded expectations, and the expansion of the US economy continues to be dynamic. Although economic growth in China has slowed, it still provides substantial support for global economic growth. In line with the continued, significant fall in oil prices and restrained demand, global inflation trends remained moderate. In most countries, developments in inflation and capacity utilisation suggest that expansive monetary conditions will be maintained, or relaxed further in certain countries.

Chart 3-1: Quarterly GDP growth in the advanced economies



Note: Seasonally adjusted quarterly change.
Source: OECD

Chart 3-2: Business climate indices for Germany and the euro area



Source: European Commission, IFO

3.1.1. Developments in global economic activity

Growth prospects for the global economy improved in recent months. In the last quarter of 2014, moderate growth was seen in the euro area. However, the degree of expansion surpassed both the expectations and the dynamics registered in previous quarters. In the United States, the economy continued to expand at a dynamic rate. Looking ahead, falling oil prices and the ECB's quantitative easing programme may support growth in Hungary's export markets, but at the same time the negative consequences of the Russia-Ukraine conflict may reduce the effect of these factors.

Data for Q4 reflect moderate quarterly growth (0.3 per cent) in the euro-area economy (Chart 3-1). This performance was slightly better than the expectations and is partly attributable to the massively improvement in German growth, although growth in other significant economies also developed more favourably than expected. Growth in Germany, which is Hungary's most important trading partner, expanded at a rate of 0.7 per cent quarter-on-quarter, primarily due to accelerating household consumption and investment activity. On the other hand, after the improving trends of the previous quarters, growth in France only stagnated in the fourth quarter.

Of the periphery countries, based on the preliminary data, Spain (0.7 per cent) and Portugal (0.5 per cent) achieved more substantial quarter-on-quarter growth in the fourth quarter. Greece lost much of its growth momentum compared to Q3, while stagnation was seen in Italy.

In addition to gradually improving labour market conditions, the recovery in euro-area domestic demand may be supported by the decreasing cost of finance due to falling oil prices and the expansion of the ECB's asset purchase programme. The unemployment rate in the euro area has been on a downward trend since December. The 11.2 per cent rate measured in January was the

lowest since April 2012. According to the lending survey performed by ECB in January, credit terms were eased further not only in the core countries, but also in some of the periphery countries.

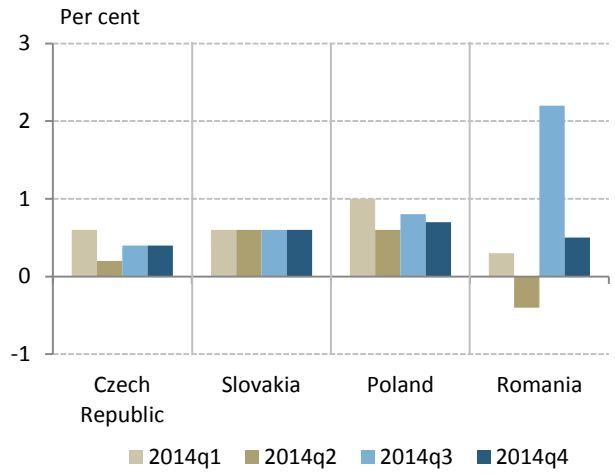
Leading indicators point to positive performance across the euro area (Chart 3-2). According to the European Commission survey, business confidence in the euro area has been stable on the whole since the end of 2014 and is slightly higher than average. The Ifo business climate index signals an improving outlook for the German economy since December, which is also reflected in the better industrial production data. **The favourable impact of low oil prices may also already be reflected in the retail sales volume in the beginning of the year.** In January 2015, the retail sales volume in the euro area expanded by 1.1 per cent compared to the previous month and by 3.7 per cent compared to January 2014.

As regards the non-euro-area European countries, **growth continued in the United Kingdom with a 0.5 per cent quarterly increase in gross value added.**

Growth in the Central and Eastern European region decelerated somewhat compared to the previous quarters (Chart 3-3). Hungary recorded quarterly growth of 0.9 per cent, surpassing the expansion of the rest of the countries in the region. In the region, the performance of the Czech economy was the weakest, as the quarterly growth rate there remained unchanged compared to 0.4 per cent in Q3. Economic growth remained stable in Slovakia in 2014.

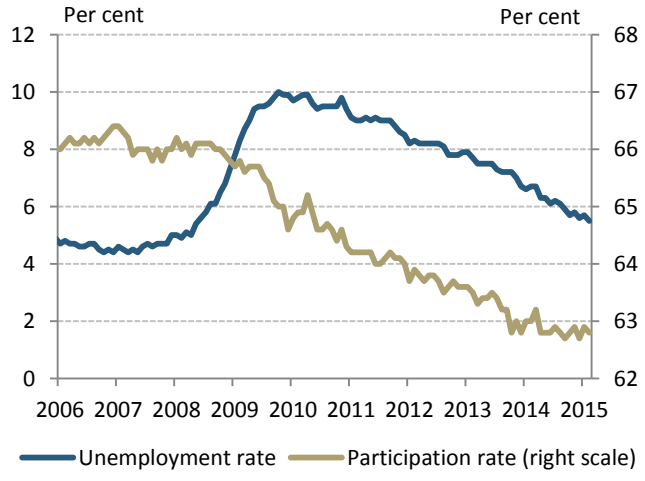
In the United States, the annual rate of economic growth lost some momentum after Q2 and Q3, but the expansion of 2.2 per cent still can be considered dynamic. In the previous quarters, the higher-than-expected government purchases related to the increase in military expenditure made a considerable contribution to growth, but in the final quarter the decrease in government purchases had a negative impact on growth. Falling oil prices reduced GDP through a slowdown in investment activity in the oil industry. A sharp upturn in consumption was the primary factor behind the economic growth in Q4. According to expectations, the positive impact of low oil prices on disposable income may further enhance the dynamics of household consumption over time. Net exports decreased due to rising imports as a result of the strong dollar. Unemployment is on a downward trend, with the rate at 5.5 per cent in February 2015. The monthly expansion in the number of new jobs in February exceeded the January value (Chart 3-4).

Chart 3-3: Quarterly GDP growth in CEE countries



Note: Seasonally adjusted series.
Source: Eurostat, Institutul National de Statistica

Chart 3-4: Unemployment and participation rate in the U.S.



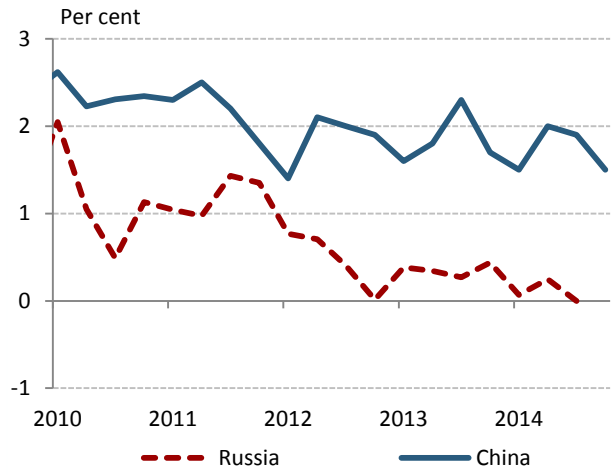
Source: Bureau of Labor Statistics (BLS)

Japanese economic performance improved again at the end of 2014. Japan's economic performance fell significantly following the VAT increase last April, but in the last quarter of 2014 the level of GDP rose again. Consumption, investment and exports also managed to expand in quarterly terms.

Of the main emerging economies, the growth rate of the Chinese economy in 2014 Q4 was identical with that of Q3 (7.3 per cent) (Chart 3-5). In 2014, one half of the growth was attributable to increased consumption. While capital asset investments increased at a moderate rate, there was material growth in the infrastructure investment last year. Compared to last year's 7.5 per cent growth, the Chinese government projects economic growth of around 7 per cent this year.

In November 2014, the performance of the Russian economy declined by 0.5 per cent year-on-year. At the end of the year, industrial production remained weak, and the manufacturing sector purchasing managers' index fell from the December value of 48.9 to 46.7 by January. Looking ahead, decreasing export revenues and investments due to the low oil prices, as well as the sanctions applied by the West may further hamper growth prospects. In accordance with this, economists expect a significant contraction of around 5 per cent in 2015.

Chart 3-5: Quarterly GDP growth in China and Russia



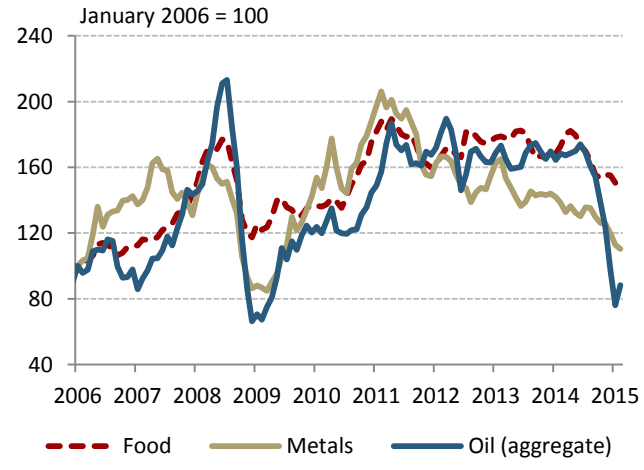
Note: Seasonally adjusted series.
Source: OECD

3.1.2. Global inflation trends

Commodity prices continued to fall sharply; in the second half of February, oil prices stabilised around USD 60, but then dropped to around USD 50 in early March (Chart 3–6). The world market price of Brent oil fell to USD 45 per barrel by mid-January from around USD 75 in November, and then starting from the second half of January it returned to USD 60 by mid-February, followed by an another drop in March. The increase in oil prices was attributable to the decrease in the number of the American shale oil wells and appreciation of the US dollar. However, the output of the working shale oil wells remained stable, and thus the oil market oversupply persisted in recent months.

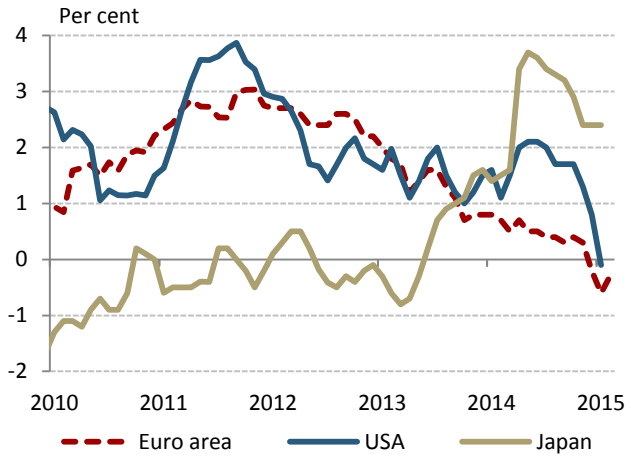
On the whole, industrial commodity prices fell in the fourth quarter and this trend continued in early 2015 as well. Since August, there has been a significant decline in world metal prices; prices fell by 5.7 per cent year-on-year in January, due to weaker demand prospects, particularly in China. Agricultural prices have also continued to fall in recent months, possibly attributable to favourable harvest results.

Chart 3-6: Changes in major commodity prices (USD)



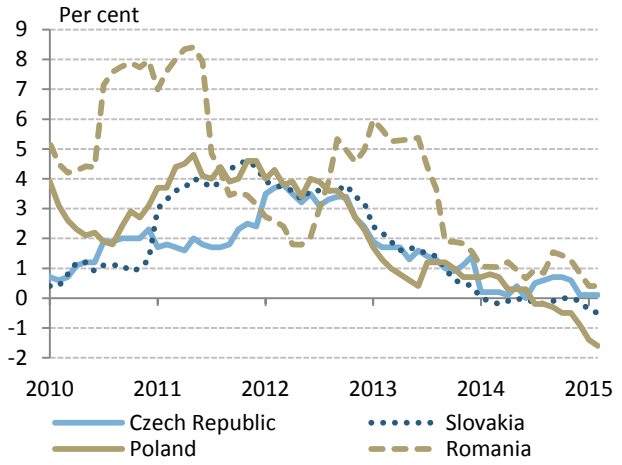
Source: IMF

Chart 3-7: Inflation in advanced economies



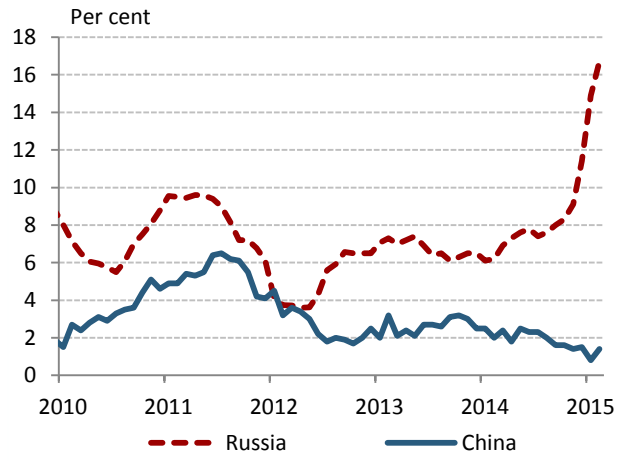
Note: Annual change.
Source: OECD

Chart 3-8: Inflation in CEE countries



Note: Annual change.
Source: OECD, Eurostat

Chart 3-9: Inflation in China and Russia



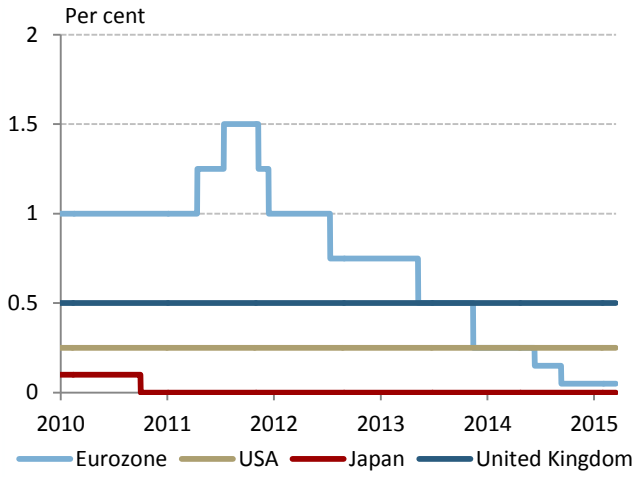
Note: Annual change.
Source: OECD

The rate of increase in consumer prices was typically still below target in the developed countries (Chart 3-7). The output gap is negative in the developed countries, and demand-pull inflation therefore remained moderate. Due to the continuing decline in commodity prices, there is also no perceivable inflationary pressure from the expenditure side. In the United States, the annual change in the consumer price index fell to -0.1 per cent in January as a result of declining oil prices. The price increase calculated from the personal consumption expenditure (PCE), relevant in terms of the price stability mandate, also fell. The annual rate of the consumer price index also continued to fall in the euro area, mainly due to the decrease in energy prices and weak domestic demand. Inflation remained in negative territory in February. Inflation in core countries decreased further in recent months, and similarly to that of the periphery countries, it was already in the negative range at the beginning of the year. Annual inflation in Japan between November 2014 and January 2015 stabilised at 2.4 per cent, while the core inflation net of taxes fell from 0.5 per cent in December to 0.2 per cent in January. In the United Kingdom, the annual growth rate of consumer prices fell to a historic low of 0.3 per cent in January after a continued decline since November. The negative trend is primarily due to energy price effects.

Inflation remained low and was below target levels in the Central and Eastern European region (Chart 3-8). The decline in inflation stems primarily from the decrease in consumer prices of non-core items, while on the whole core inflation was at a stable, low level. In the Czech Republic, inflation stabilised at 0.1 per cent in the first two months of 2015. In February, annual inflation in the region was in the negative domain, except in the Czech Republic and Romania. A further decrease in consumer price index was observed both in Slovakia and Poland in recent months. Within the region Romania continues to record the highest inflation rate.

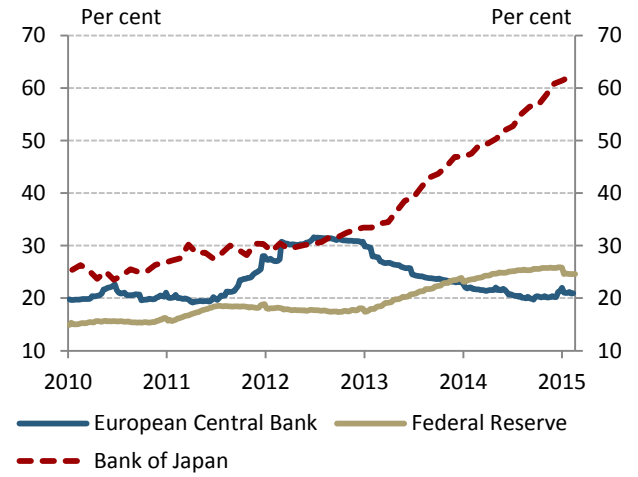
Of the larger emerging countries, the **rate of price increase is still moderate in China**, as inflation fell from 1.5 per cent in October to 0.8 per cent in January and then accelerated to 1.4 per cent in February. **By contrast, inflation in Russia accelerated after a continuous rise from 8.3 per cent in October to 16.7 per cent, reaching a thirteen-year high by February**, mainly due to the pass-through of the weakening rouble exchange rate into the import prices (Chart 3-9).

Chart 3-10: Central bank rates in developed economies



Source: Databases of central banks

Chart 3-11: Central bank total assets in advanced countries (percentage of GDP)



Source: Databases of central banks, IMF, Eurostat

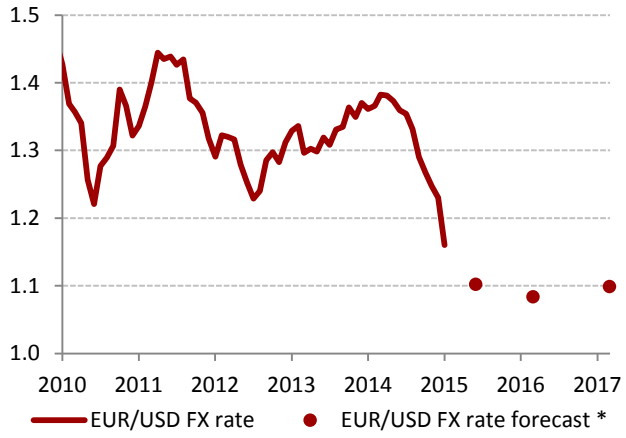
3.1.3. Monetary policy and financial market developments

Due to the continued decline in inflation, a number of central banks moved to further ease monetary conditions in recent months (Chart 3-10). While the Fed and the Bank of England are still preparing the appropriate timing and degree of the interest rate increase, starting from March the ECB launched an asset purchase programme which included government securities to boost economic growth and reach the central bank's inflation target. Apart from the ECB, the Swedish central bank also opted for quantitative easing in February to offset the inflation outlook falling steadily below the target. Looking ahead, further easing of the monetary stance is possible in certain countries. In Canada, Sweden and Norway, there are still risks related to household indebtedness and the real estate market. This may justify the broader application of the macroprudential tools.

In recent months, the Fed has not changed its policy rate nor announced any new measure to follow the termination of asset purchases in October. The decision-makers regard their forward guidance as being consistent with the previous indication, according to which they will be cautious when approaching an increase in the near-zero policy rate, especially if inflation remains below the 2 per cent long-term target. According to the current communication, the Fed is currently waiting with the increase in the policy rate, and the level of interest rates is expected to lag behind the level that is expected in the long run, even after employment and inflation develop in accordance with the dual mandate. According to the remarks at the last meeting and on the hearing at the Congress, Fed will indicate to the market before the increase.

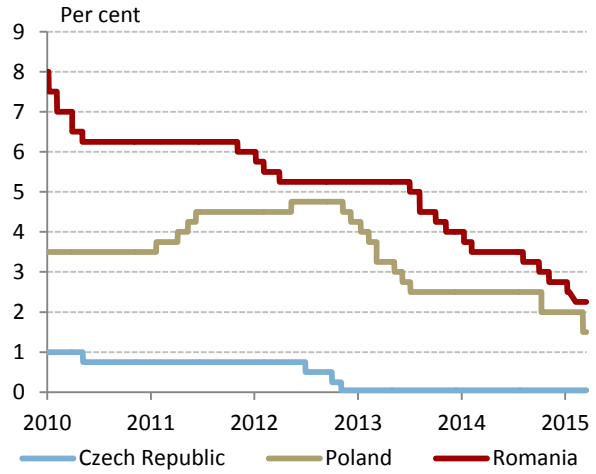
The ECB did not change its forward guidance, according to which the policy rate may stay at the current level over the longer run; at the same time in January it came to the conclusion that additional unconventional instruments are also required to lift inflation and inflation expectations close to the target on the central bank horizon. Accordingly, it announced that it would also extend the securities purchase scheme to the government securities. Based on the programme, the ECB will purchase securities with a total value of EUR 60 billion per month starting from March (Chart 3-11). The decision was explained by the fact that incoming actual figures confirmed the extremely low, negative price trend and expectations deviated downwards from the target. In addition to this, the interest rate on loans granted within the TLTRO programme was also reduced. In the wake of

Chart 3-12: Changes in the EUR/USD exchange rate



Note: * March 2015 Consensus poll. Higher values mean euro appreciation.
Source: ECB, Consensus Economics

Chart 3-13: Central bank rates in CEE economies



Source: Databases of central banks

the measures announced by the ECB the euro exchange rate weakened against the dollar (Chart 3-12).

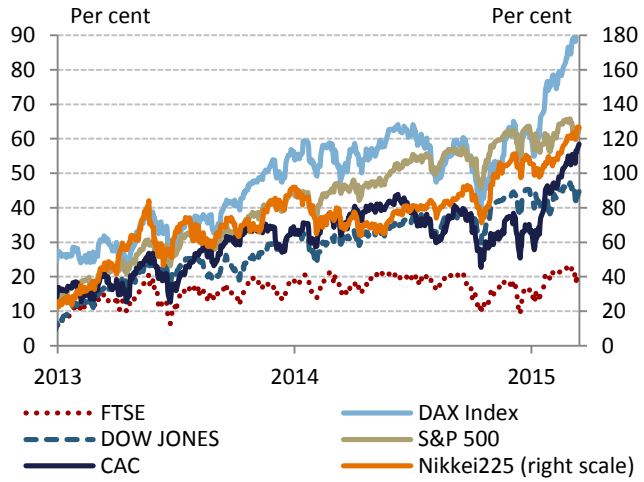
The Bank of England maintained its guidance, which was modified due to the unemployment threshold being reached. In that guidance, it stressed that the interest rate would be raised only gradually, with the timing, extent and progress of the increase depending on economic conditions and various indicators linked, primarily, to capacity utilisation and the labour market. Based on market expectations, the anticipated first interest rate increase by the Bank of England was postponed to autumn 2015 in view of the inflation lags considerably behind the target and the quantitative easing was announced by the ECB in the meantime.

Of the central banks in the emerging countries, in response to the slowdown in the Chinese economy, the central bank of China decided in January to provide the financial system with an additional CNY 50 billion (USD 8.1 billion) in liquidity under the Medium-term Lending Facility (MLF) programme to boost economic growth. The central bank of China provided the banking system with funds on several occasions during the last half-year. In addition, in early February, the central bank decided to reduce the required reserve ratio by 50 basis points and also announced additional credit incentives. After cancellation of the Russian intervention band, in the first half of December the rouble depreciated against the dollar by more than 30 per cent, to which **the Russian central bank responded with interest rate increase of 750 basis points in total, made in two steps, and an additional massive foreign exchange market intervention**. Apart from this, the central bank also applied other instruments which increase foreign currency liquidity to manage the money market turbulence. After this, with reference to the anticipated large-scale risk of recession, the central bank unexpectedly decreased the base rate by 200 basis points to 15 per cent at the end of January, which was followed by an another cut of 100 basis points in March.

Central banks in the Central and Eastern European region also maintained loose monetary conditions (Chart 3-13). After the 50 basis points decrease in October, at its **meeting in March the Polish decision-making body**, taking the forecast of the inflation report of March into consideration, **reduced the base rate by 50 basis points to 1.5 per cent** due to the risk of prolonged deflation and the below-target increase in inflation. At the same time, it also noted that this cut was the end of the easing cycle. The Romanian central bank reduced the base rate in two

steps from 2.75 per cent to 2.25 per cent, citing the more moderate-than-expected development of inflation. The recent moderate inflationary pressure is primarily due to the low oil prices, the modest imported inflation, the continued negative output gap and the gradual decrease of the inflation expectations. In recent months, the Czech central bank has maintained its key policy rate at 0.05 per cent and indicated that it remained committed to this level even longer than previously anticipated, presumably until at least the second half of 2016 in order to maintain the lax monetary conditions. The decision-makers signalled that they were ready to modify the exchange rate threshold if permanent signs of deflation appear in the Czech economy, with the threat of a fall in domestic demand, a decrease in inflation expectations and the risk of deflation.

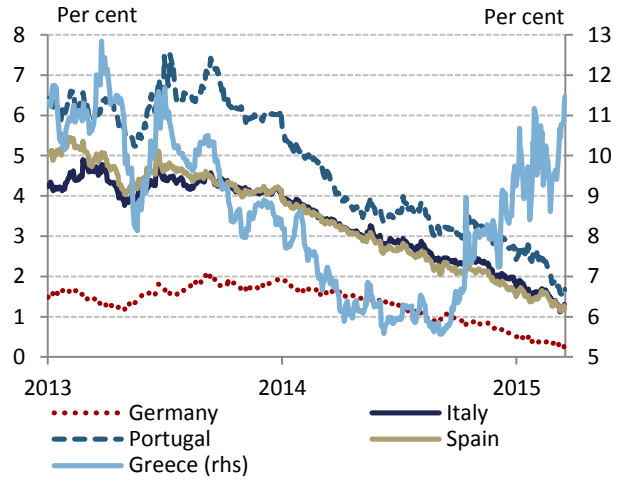
Chart 3-14: Leading stock exchange indicators



Note: 1 January 2012 = 0.

Source: Bloomberg

Chart 3-15: 10Y periphery and German bond yields



Source: Bloomberg

Global market sentiment in the previous period was favourable on the whole, despite the fact that in mid-December the rouble crisis, mostly attributable to the fall of oil prices, and several factors in January (the measure of the Swiss central bank, ECB's announcement on the extension of its asset purchase programme, the Greek crisis and the Russian-Ukrainian conflict) contributed to the volatility of asset prices. Sentiment in February was broadly positive, supported by the easing measures of the developed and emerging central banks, as well as the European macro figures which were slightly better than expected (GDP, PMI). Looking at the stock market indices, it was mainly the performance of the European indices that was stood out, but the rest of the regions also showed a positive picture (Chart 3-14). Long-term yields in Europe decreased substantially, primarily as a result of the ECB's announcement of its asset purchase programme, which had a tangible yield decreasing and exchange rate strengthening impact on the CEE region as well, while the euro depreciated against almost all other currencies.

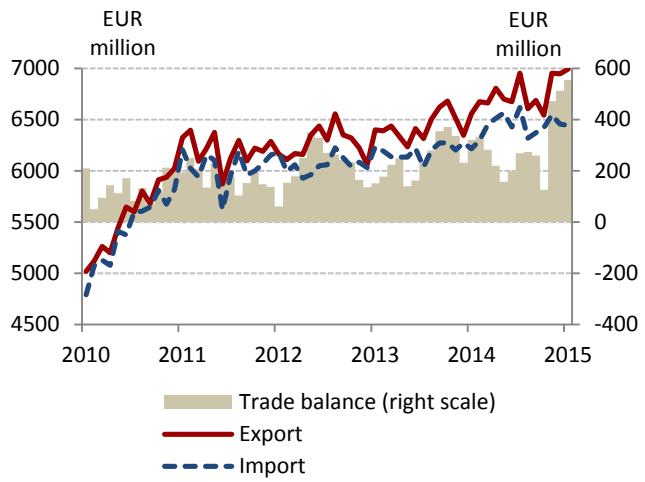
Greek asset prices were characterised by extreme volatility in the fourth quarter, due to the Greek elections and the potential consequences thereof (Chart 3-15). 10-year yields of the euro area's periphery countries (compared to the German yields Spanish and Italian yield spreads fell below 100 basis points for the first time since 2010) and CDS spreads did not show any significant parallel movement with Greek assets, contrary to earlier episodes (euro-area crisis in 2012). One of the main reasons for this was the expected, and then on 22 January the actual announcement of the ECB's asset purchase programme. In addition, unfavourable impacts were also mitigated by the more favourable institutional

background of the euro area and the better economic prospects expected as a result of the stronger capitalisation of the banks, the weak euro and the low oil price.

3.2. Aggregate demand

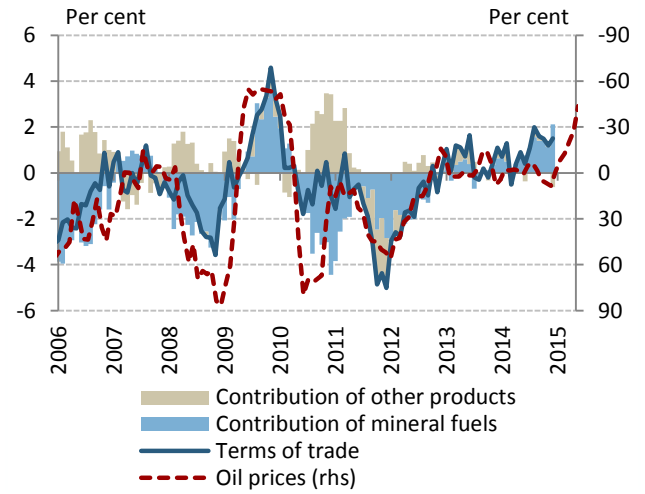
Gross domestic product increased by 3.6 per cent in 2014. This growth was led by domestic demand, and in particular investments increased at an outstanding degree. The contribution of net exports was negative in annual terms. Growth dynamics remained buoyant in Q4; GDP increased by 3.4 per cent year-on-year. By the end of the year the dynamics of investments decelerated, while the growth contribution of net exports became positive once again.

Chart 3-16: External trade of goods



Source: HCSO

Chart 3-17: Evolution of terms of trade and oil prices



Note: Chart shows the six-month delay of oil prices on a reverse scale. Annual change.
Source: HCSO, IMF

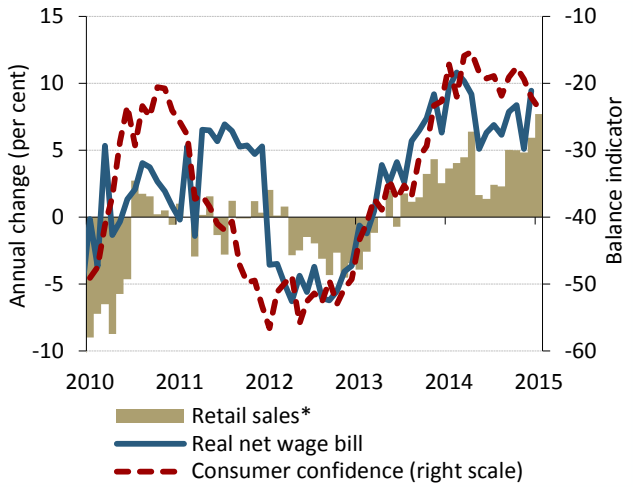
For 2014 as a whole, Hungary's gross domestic product increased by 3.6 per cent, which was the second fastest growth rate in the European Union. This growth was primarily driven by domestic demand, paired with outstanding investment growth. Growth remained buoyant in Q4 as well, but its structure has changed. The dynamics of investments have decreased, while the contribution of net exports has increased.

3.2.1. External trade

The volume of net exports started to increase again in Q4. This was also due to the recovery in exports and the slowdown in import dynamics. Exports of both goods and services increased in year-on-year terms. Growth in goods exports primarily stemmed from the higher output of the domestic car manufacture (Chart 3-16), while the expansion in services exports was mainly related to the rebound in tourism demand. In addition, transportation and other business services also contributed to the increase in exports of services. Slacker import dynamics also resulted from the slowdown in investments with high import content and inventory investment in 2014 Q4. Based on preliminary data, in January 2015 goods export increased further, accompanied by a continued increase in the trade surplus for goods.

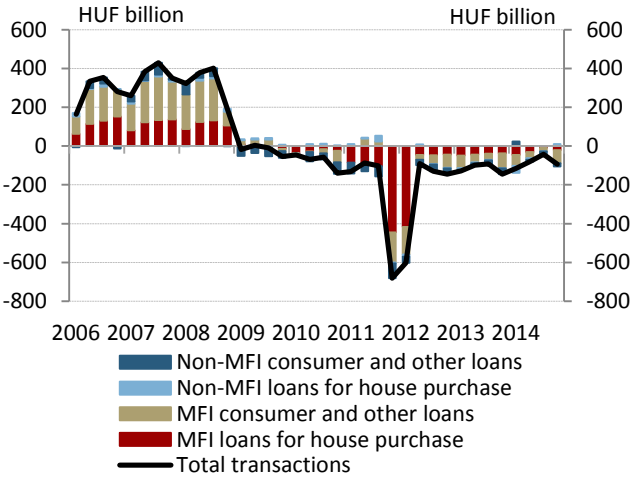
The increase of the trade surplus was also facilitated by continued improvement in the terms of trade in 2014 Q4 (Chart 3-17). Since Hungary's net energy imports are substantial, world fuel prices play a key role in the development of the terms of trade. The substantial fall in oil prices in the first half of 2015 points to more significant improvement in the terms of trade. The first signs of this could be observed already in the external trade price indices of December 2014.

Chart 3-18: Developments in retail sales, income and the consumer confidence index



Note: *January 2015 based on preliminary data.
Source: GKI, HCSO

Chart 3-19: Quarterly transactions in loans to households from domestic financial intermediaries by credit purpose



Note: Loans granted by credit institutions and other financial intermediaries. Seasonally unadjusted transactions.
Source: MNB

3.2.2. Household consumption

Household consumption expenditures gradually increased in 2014, mainly on the back of the improving labour market situation and dynamically increasing real wages in the low inflation environment (Chart 3-18). **Consumption growth continued in Q4 as well**, and based on its buoyant expansion in January the retail sales volume could further accelerate at the beginning of 2015.

The saving rate remains high, but precautionary savings may begin to gradually decline. This is supported by the decreasing unemployment and the declining exchange rate risk as a result of the conversion of households' foreign currency loans into forints. This might have been offset to some extent by the strengthening of the Swiss franc exchange rate among the car finance borrowers. The recovering consumption intention may be signalled by the high level of the consumer confidence index, which did not change in the beginning of 2015.

Household's net financial wealth continued to increase in Q4. Financial wealth proportional to personal disposable income rose further from its historical peak. The increase in the holdings of financial assets has been accompanied by a gradual decrease in household indebtedness; **in 2014 Q4 the financial intermediary system's household loans fell by HUF 94 billion** (Chart 3-19). This decrease resulted from the continued reduction of foreign currency loans, while forint lending was dominated by the increasing trend of new loan issuance at the end of 2014 as well. In the coming quarters, as a result of the settlement with the banks, the net financial wealth of households will increase substantially, which may support a further expansion of consumption. The impact of this may be mitigated by the bankruptcy of certain financial intermediaries; as a result of the frauds revealed at such companies, the value of the households' financial assets may decrease.

Household demand for credit is characterised by dual trends stemming from the heterogeneity of the sector. On the one hand, the continued debt reduction is still a key factor in the behaviour of those settling their foreign currency debts. On the other hand, in the case of lesser indebted households a recovery in credit demand is likely, in parallel with recovery of the housing market and the stable and increasing dynamics of the retail sales volume. On the supply side, banks' credit conditions further eased in the case of consumer loans, but remained unchanged for housing loan product types. Furthermore, it is a favourable trend in the price terms that the average credit cost of newly issued loans, together with the average

credit spread, decreased during the quarter.

3.2.3. Private investment

In 2014, there was a substantial increase in investments, and the investment ratio rose to 21.6 per cent. Hungarian investment activity was boosted by the combination of recovering demand, the accelerated absorption of EU funds and improving lending terms in the context of the Funding for Growth Scheme (FGS). In the fourth quarter, the volume of national economy fixed investments increased further; however, growth dynamics decelerated in a large number of industries. This slowdown was explained by the decreasing investments in manufacturing and the public sector.

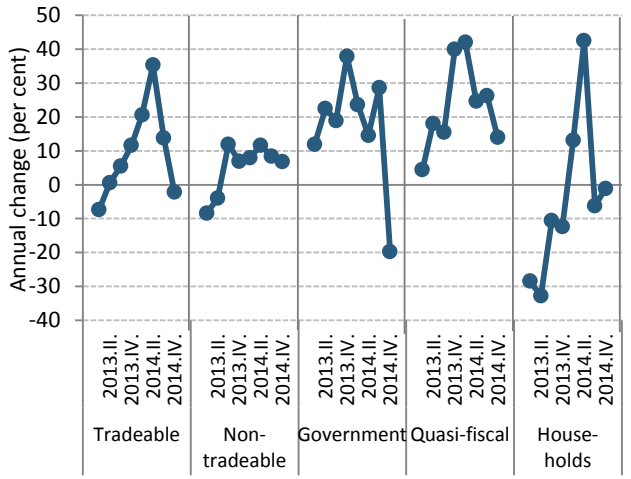
Corporate sector investments were mainly supported by the investment activity of the industries producing for the domestic market and of the quasi-fiscal sectors in 2014 Q4 (Chart 3-20). In the case of companies producing for the internal market, the Funding for Growth Scheme may have contributed to the growth, in addition to the gradual increase in demand. The slight decrease in export-oriented manufacturers was mainly attributable to the gradual end of capacity expansion investments in car manufacturing and related supplier industries. Growth in agricultural investment was primarily due to utilisation of funds provided by the FGS.

Investment activity by industries related to the public sector was driven by the accelerating utilisation of EU funds in 2013. By the end of 2014 the drawdown of EU funds was close to its peak, and thus the public investments decreased, while the growth rate of the quasi-fiscal sector's investments fell. The continued increase in quasi-fiscal investment was attributable to the development of the large towns' transport network, along with additional road construction and railway reconstruction work.

The investment activity of households increased in Q4, but in terms of its level it still considerably below the pre-crisis average. Housing investments may have been supported by the low interest rate environment, in addition to rising real incomes. The implementation of renovations postponed during the years of the crisis may have contributed to the upswing in household investments. Furthermore, the machinery purchases of agricultural primary producers expanded considerably, which may have also been financed using funds from the Funding for Growth Scheme.

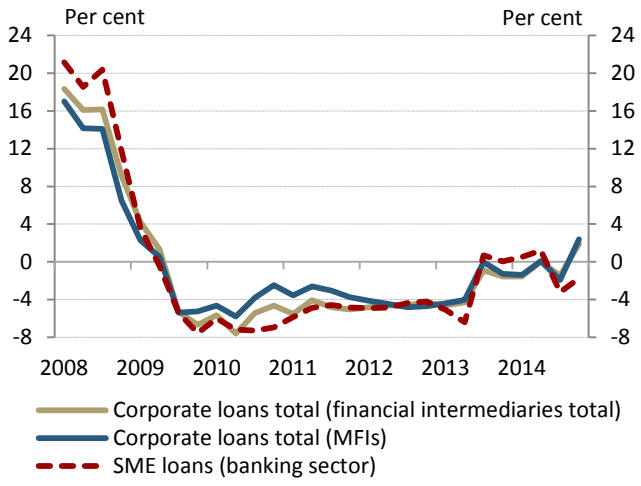
In 2014 Q4, the corporate loan portfolio of the domestic

Chart 3-20: Development of sectoral investment



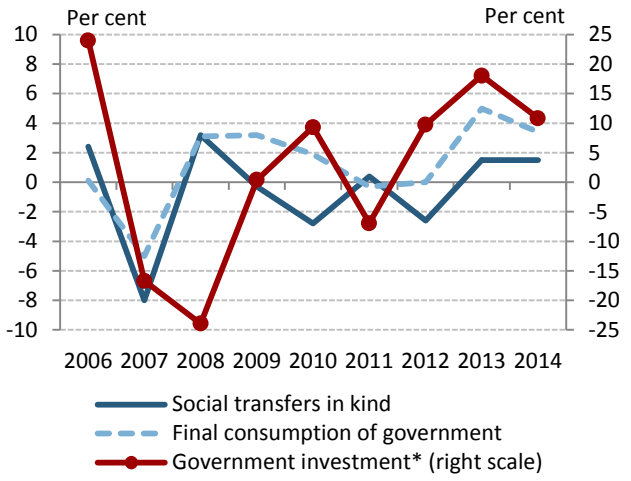
Source: HCSO

Chart 3-21: Annual growth rate of lending to non-financial corporates and SMEs



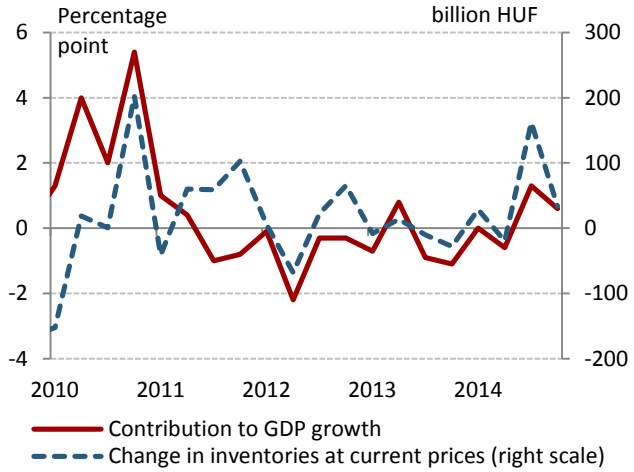
Note: Data for corporate loans total are based on transactions. For SME loans, estimated transaction are applied as of Q4 2013.
Source: MNB

Chart 3-22: Annual volume changes in government consumption and investments



Note: *MNB estimation for 2014.
Source: HCSO, MNB

Chart 3-23: Changes in inventories and their contribution to GDP growth



Note: National Accounts data.
Source: HCSO

financial intermediary sector rose by HUF 94 billion. In the period under review, the new loan disbursements shifted towards longer maturities. In annual terms, the total corporate credit portfolio increased by 1.9 per cent on the whole, while in terms of its composition the transaction-based portfolio reduction rate of the banking sector's SME loans slowed down to 1.8 per cent (Chart 3-21). Corporate credit demand may have been stimulated by the extension and prolongation of FGS, the improving outlook for economic activity and by the further reduction of the cost of funds associated with new corporate loans outside the FGS. Moreover, demand for long-term loans may have been affected favourably by the expansion of the investment activity of companies supplying the domestic market, which was driven by the gradual recovery in demand and through that, improving business prospects. On the supply side, one fifth of the banks participating in the lending survey eased their credit conditions, and the interest rate level of the new corporate loans and the spread of the new euro credits decreased, but on the whole – bearing in mind the former wide-scale tightening of conditions –credit conditions were still relatively strict.

3.2.4. Government demand

Similar to previous quarters, the demand effect of the fiscal policy was characterised by dual trends. On the one hand, due to the accelerating utilisation of funds, in line with the gradually approaching end of the 2007–2013 EU budget cycle, the investment demand of the public sector continued to increase significantly in 2014 as well. At the same time, fiscal policy remains committed to maintaining a low government deficit level. The increase in government transfers measured at current prices was typically linked to wage raises in the education and healthcare sectors (Chart 3-22).

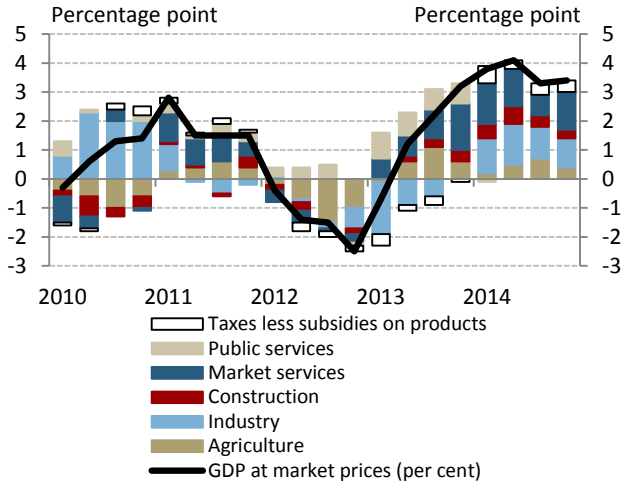
3.2.5. Changes in inventories

The level of the inventories of the national economy increased slightly on the whole, and thus it still made a positive contribution to GDP growth in Q4. The inventory of self-manufactured products fell, which is primarily attributable to the manufacturing sector's year-end plant stoppages. However, the increase in the inventories of purchased products in the commercial and service sectors exceeded that of self-manufactured products, which may have been related to the surge in demand and production at the beginning of the year (Chart 3-23).

3.3. Production and potential output

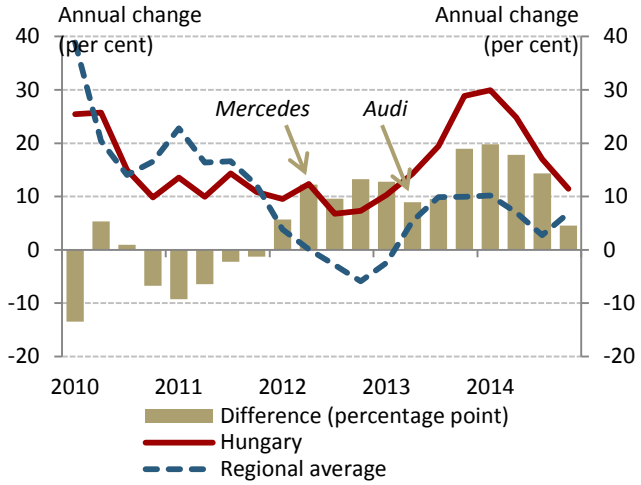
Buoyant economic growth was contributed to by a wide range of industries in 2014. Growth in industry was supported to a large degree by the commissioning of new car industry capacities, while the recovery in domestic demand boosted the growth of the construction industry and services. Owing to the outstanding harvest results, agriculture also made a substantial contribution to the expansion in value added.

Chart 3-24: Contribution of the output of the main sectors of the national economy to GDP growth



Source: HCSO

Chart 3-25: Changes in production of the automotive industry in Hungary and the region*



Note: * Average production of Czech Republic, Poland and Romania (no data for Slovakia). Seasonally adjusted and adjusted data by working days. Start of new production is indicated on the chart.

Source: Eurostat

Domestic output continued to expand in a wide range of industries in 2014 Q4. The growth rate exceeded the forecast from the December Inflation Report (Chart 3-24).

Value added in industry increased moderately in Q4. This expansion was supported manufacturing, while the performance of mining and the energy sector was moderate.

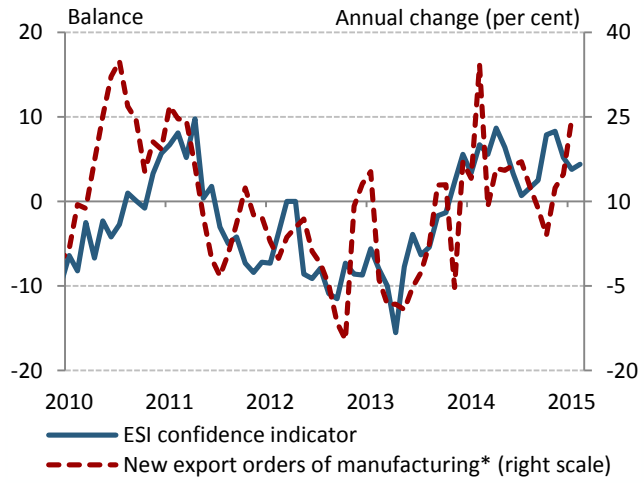
The car manufacturing sector played a dominant role in the performance of industry in 2014. Owing to the newly deployed capacities, the sector expanded 10 percentage points faster last year than in the other countries in the region (Chart 3-25). With the upswing in production capacities, the additional economic growth gradually decreased towards the end of the year. At the same time, at the beginning of 2015, with the introduction of the new model at the Suzuki plant a significant upswing can be expected in automotive industry output. In Q4, in addition to the car manufacturing, the chemical industry and tyre manufacturing supported industrial growth, while the performance of other manufacturing branches declined.

The forward-looking indicators point to improving prospects. The value of the Ifo index, reflecting the prospects of the German economy, gradually improved, and new orders from German industry have slightly increased in recent months. Confidence indicators for Hungarian industry were also above the historical average (Chart 3-26). Industrial production data for January also suggest further growth in 2015 Q1. Additionally, new export orders for industry remained at a high level in January 2015.

The expansion of construction output decelerated in Q4. However, the sector's output increased in January 2015. The deceleration in the construction industry can be attributed primarily to state infrastructure investment, which was financed from EU funds and has peaked out. The decreasing volume of outstanding orders and the declining confidence indices may signal a decline in the sector's output this year, with the gradual end of funds provided in the 2007-2013 budget cycle (Chart 3-27).

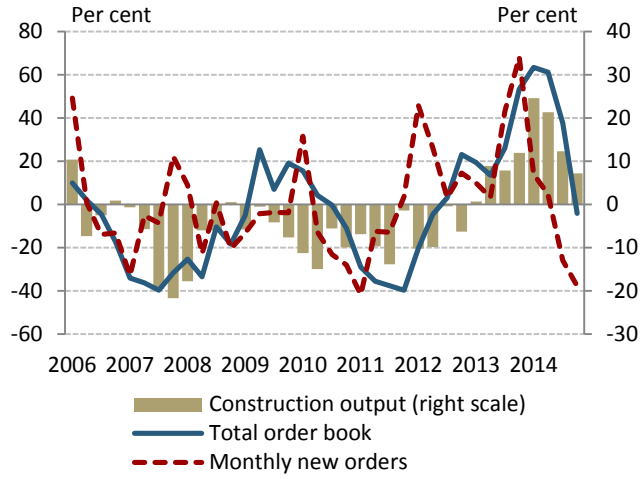
Agricultural performance was outstanding last year. Agricultural output expanded further compared to 2013. Based on the national accounts, the gross value added of

Chart 3-26: Industrial business climate indicators



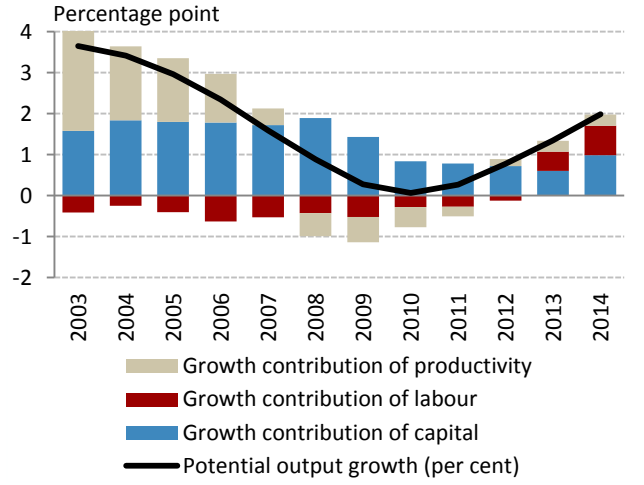
Note: *Three-month backward-looking moving average
Source: European Commission, HCSO

Chart 3-27: Annual changes in construction output, orders and new orders



Source: HCSO

Chart 3-28: Annual changes of potential output



Source: MNB

the agricultural sector exceeded the level of the previous year by 16 per cent. This growth was primarily due to the cereals harvest results, as the maize crop surpassed its historic best. In addition, the volume of livestock also increased in 2014. The HCSO performed a data revision when reporting the Q4 GDP figures: it partially redistributed the favourable agricultural performance to the previous quarters of 2014. (The expected performance of agriculture for 2015 is analysed in Box 3-2.)

Value added in the service sector continued to increase in the fourth quarter (Chart 3-24). Output rose across a broad range of service industries. The volume of retail sales recorded stable growth; the expansion of sales affected a broad range of products. Robust growth continued in January as well: turnover in foodstuffs and other products increased significantly, in addition to fuels. The introduction of online cash registers, which resulted in whitening of the retail sales volume, may have also contributed to the increase in the statistically reported value of the retail sales volume.

Value added in the catering and tourism sectors continued to grow tangibly in Q4 as well, and the number of overnight stays increased by 7 per cent in annual terms. The upturn in tourism was supported by the improving income position of households, the wider utilisation of fringe benefits aimed at promoting domestic tourism, as well as by the increased travel demand of foreign tourists. The travel demand of foreign tourists may have also been driven by the weakening of the forint exchange rate last year. The turnover of accommodation establishments continued to increase at a brisk pace in January 2015.

The performance of the financial sector remained moderate, in line with the declining credit portfolio. The modest increase in the real estate sector may be attributable to the increase in home construction, accompanied by the recovery in used home turnover.

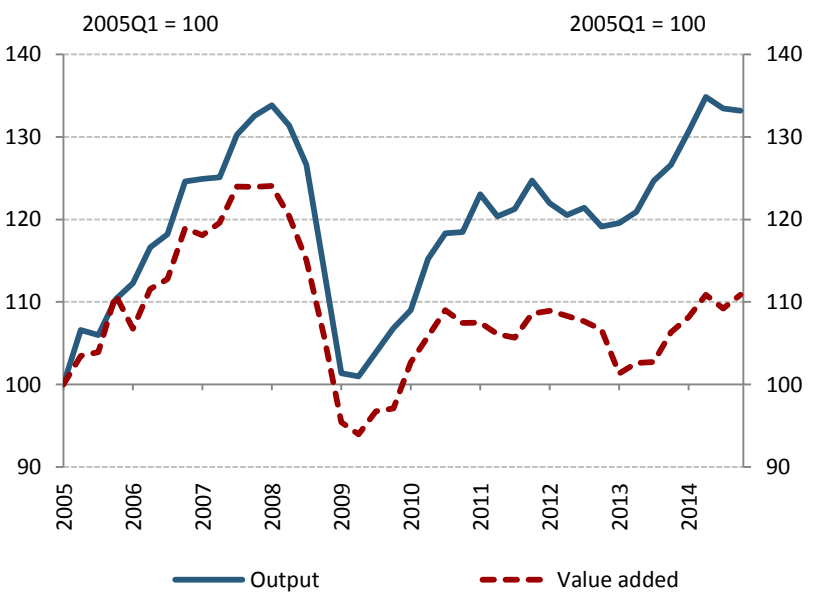
In parallel with rising demand, potential growth may have also recovered in 2014 (Chart 3-28). Owing to the improving demand prospects, the expansion in investments contributed substantially to the increase in the economy's production capacity. In addition, improving employment prospects may have encouraged the return of the discouraged unemployed to the labour market, which may have contributed to the decline in the long-term unemployment and eased the tensions between the labour demand and supply structure. The improvement of productivity may have been supported by rising investments and easing financing constraints.

Box 3-1: Underlying factors behind the differing dynamics of industrial output and value added

Manufacturing output has increased rapidly in recent years. **Despite the output of the sector having reached its pre-crisis peak by 2014, the value added of the manufacturing sector still falls short of its 2008 level** (Chart 3-29). The data series show a substantial gap after 2009 in particular, as a result of several factors. This box describes the possible reasons underlying this phenomenon.

According to the HCSO definition, output equals net sales adjusted by the change in the balance of self-produced inventories, while value added equals the difference of output and intermediate consumption (value of inputs used for the production of goods and services). Accordingly, the development of value added can be substantially influenced by the dynamics of output and the change in value added per unit of output.

Chart 3-29: Output and value added of manufacturing at constant prices

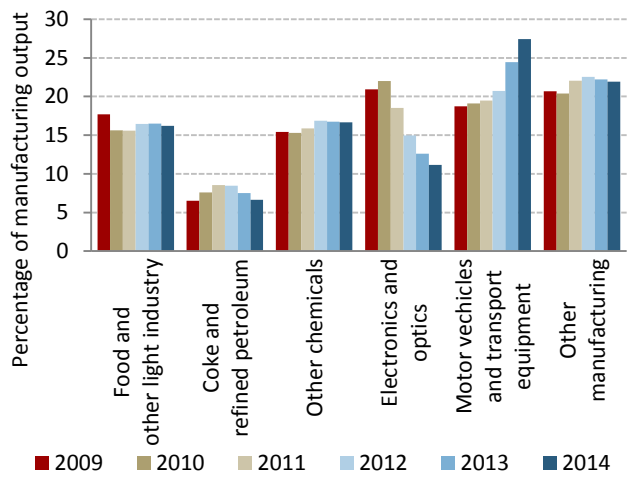


Note: Seasonally adjusted series.
Source: HCSO

The different dynamics of output and value added can primarily be explained by **sectoral transformation** in the manufacturing sector (Chart 3-30, Chart 3-31):

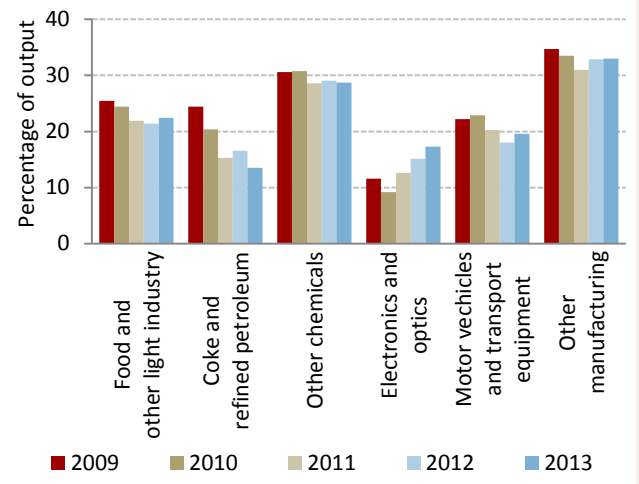
- The **output of the automotive industry increased dynamically** in the previous period as a result of the deployed capacities (Mercedes, Audi), gaining considerable weight within the manufacturing sector by 2014. However, the value added content of the automotive industry is lower than the average of manufacturing, and thus the increase in the subsector's output only raised the value added of manufacturing at a moderate rate.
- The contraction in the **electronics and optics** subsector took place in parallel with an upswing in the automotive industry in recent years. The value added content of the subsector is one of the lowest among manufacturing subsectors. Thus, the decrease in its share of manufacturing output raised the average value added content of manufacturing, shrinking the gap between output and value added.
- Although the weight of the **coke manufacturing and crude oil processing** subsector essentially stagnated within manufacturing, its value added per unit of output decreased considerably in the period reviewed. The European crude oil processing subsector has been characterised by permanent overcapacity since the crisis, and thus refining margins have decreased. In parallel with this, value added per unit of output dropped significantly compared to 2009.

Chart 3-30: Sectoral structure of manufacturing production



Source: HCSO

Chart 3-31: Evolution of value added content



Source: HCSO

In summary, the diverging dynamics of manufacturing output and value added may be explained by the sectoral transformation of the machinery industry and the change in the value added content of coke manufacturing and crude oil processing. Looking forward, the difference of the two data series which have developed in recent years may persist over the long term, while the dynamics of output and value added in the manufacturing sector may develop similarly.

Box 3-2: Developments in the value added of the agricultural sector

In 2014, the contribution of agriculture to GDP growth was 0.5 per cent. Thus, the sector helped to boost economic growth in two consecutive years. Last year's remarkable performance was primarily driven by robust **crop yields**. In particular, corn yields peaked at a historically high level. After two years of high growth rates, the question arises how agricultural output may develop going forward.

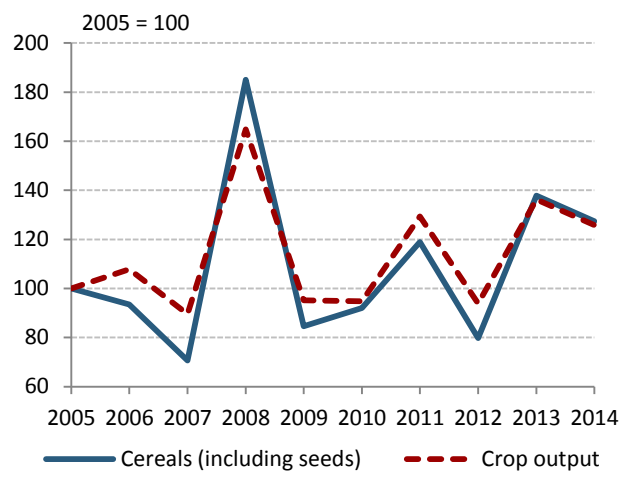
Crop farming accounts for 60 per cent of agricultural output, while livestock farming represents 35 per cent.[4] Grain production accounts for roughly a half of the value of crop farming. The performance of crop farming is strongly dependent on weather conditions. **Based on historic observations, grain yields tend to revert to the historical average after a year of record production** (Chart 3-32, left panel). Since we have no information about the expected crop yields until the middle of the year, as a technical assumption we can expect grain yields consistent with the long-term average.

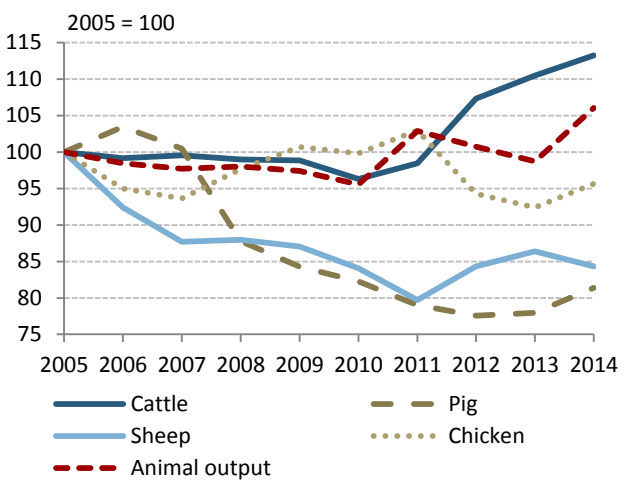
By contrast, several factors point to the expansion of value added in the agriculture sector. On the one hand, the performance of livestock farming may improve further. This assumption is supported by the **steady increase in livestock farming in 2014** (Chart 3-32, right panel). In addition, **the productivity of agriculture may also improve, following the rapid expansion of investment activity in recent periods**.

The substantial subsidies received by the sector and the improving financing environment in recent years have played an important role in the remarkable growth of agricultural investment. With respect to agricultural subsidies, in addition to the direct Single Area Payment Scheme provided during the 2007–2013 EU budget period (a total of HUF 2,726 bn until 2014), EU co-financing and national subsidies are also available. The Agro Széchenyi Card Overdraft facility, working capital loans granted by FHB with a preferential interest rate and the new investment loans available under the Funding for Growth Scheme (HUF 111 bn until the end of 2014) may all have contributed to the improvement of the financing environment.

[4] The remaining part of agricultural output contains agricultural services and non-separable non-agricultural secondary activities.

Chart 3-32: Volume of crop and animal output





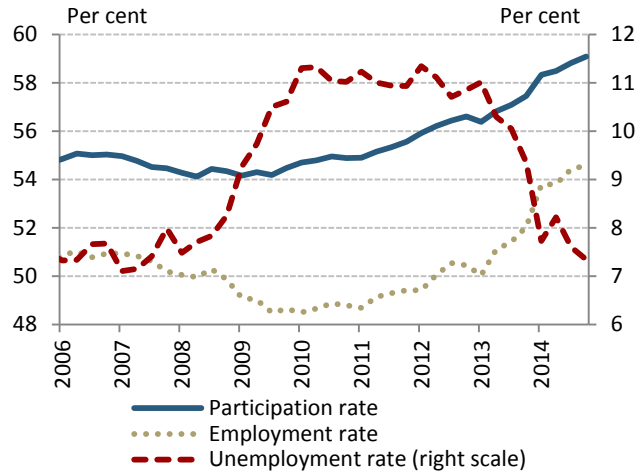
Source: HCSO

In consideration of all these factors, **in our forecast we assumed that the sector's contribution to gross value added would be neutral**. In technical terms, after last year's outstanding performance, crop yields are expected to decline. This may be offset by the rising output in livestock production and the improving productivity of agriculture. In the second half of the year, after the disclosure of crop yield figures, we should be able to present a more precise assessment of the expected contribution of agriculture to growth in 2015.

3.4. Employment and unemployment

Total employment increased slightly in Q4, owing to the decrease in the number of private sector employees and the increase in public sector employment. The unemployment rate decreased further in the fourth quarter of 2014. Labour market tightness remained stable compared to the previous quarter.

Chart 3-33: Participation, employment and unemployment, total economy

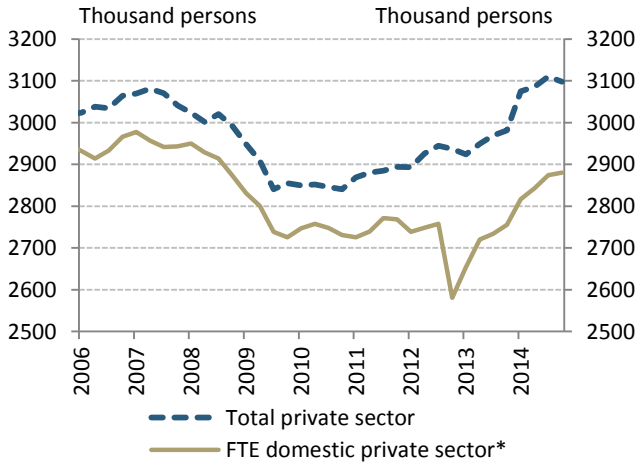


Source: HCSO

Labour market participation increased significantly in 2014. This rise then decelerated towards the end of 2014, and the participation rate practically did not change in Q4. This resulted from the slight increase in employment and the decrease in unemployment. In Q4, the participation rate of the 15–74 age group was 59.0 per cent (Chart 3–33). Groups which are loosely linked to the labour market but potentially willing to work (discouraged workers) continued to flow into the labour market. This may have been attributable to the improving employment prospects and public work programmes.

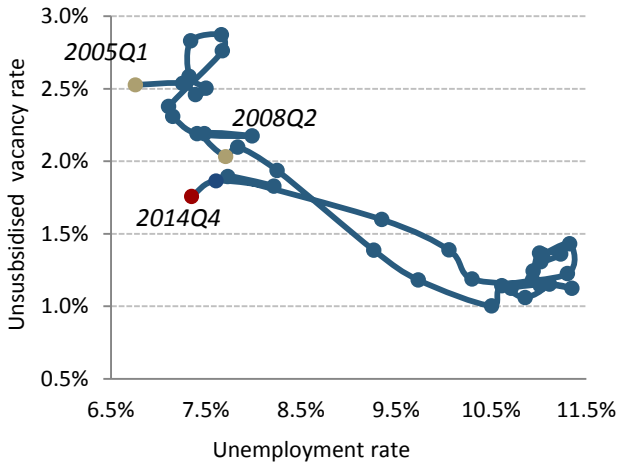
In 2014, the number of employees in the national economy increased considerably, explained by the rebound in private sector labour demand and expansion of public work programmes. **The level of total employment increased slightly at the end of the year, while private sector employment declined on a quarter-on-quarter basis.** The decrease in the number of private sector employees was primarily related to market services, but growth in the manufacturing sector came to an end in Q4 2014. The quarterly rise in public sector employment may have been related to public work programmes. The per

Chart 3-34: Evolution of employment in the private sector



Note: * Full-time equivalent without workers employed abroad.
Source: HCSO

Chart 3-35: Development of Beveridge curve



Note: The non-supported vacancy ratio indicates the ratio of non-supported vacancies to active workers in the quarter.
Source: MNB calculation based on National Employment Service and HCSO data

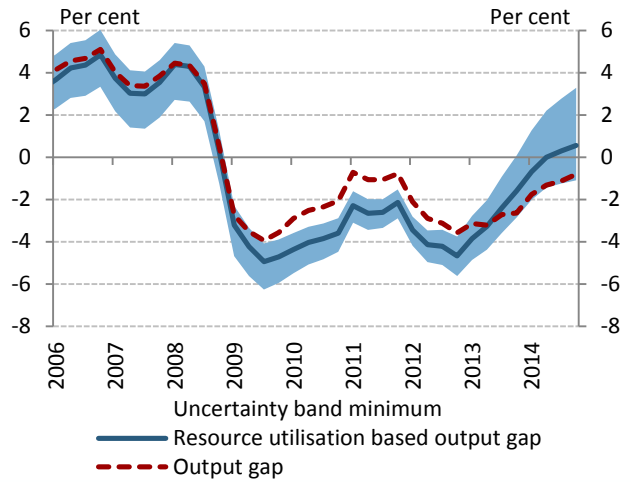
capita number of hours worked by full-time and part-time employees fell in Q4, and thus full-time equivalent private sector employment was lower in Q4 (Chart 3-34).

The unemployment rate decreased substantially in 2014 and continued to fall in Q4. The number of long-term unemployed has been decreasing since mid-2013, and thus the average time of unemployment declined. The number of non-subsidised vacancies decreased, but still remains at a relatively high level. The number of non-subsidised new jobs also declined in Q4. The labour market has become tighter since the beginning of 2013. There was no substantial change in tightness compared to the previous quarter (Chart 3-35).

3.5. Cyclical position of the economy

Moderate underlying inflation processes suggest that the real economic environment in Hungary still has a disinflationary impact. At the same time, capacity utilisation indicators were continuously increasing in 2014, thus unused capacities in the economy gradually decreased.

Chart 3-36: Output gap measures



Note: The resource utilisation based output gap consolidates the information content of various corporate capacity utilisation indicators into a single indicator. The uncertainty band reflects the uncertainty of that estimate. For a detailed description of the methodology, see: Rácz O. M. (2012): Using confidence indicators for the assessment of the cyclical position of the economy, MNB Bulletin, June 2012.
Source: MNB

Chart 3-37: Retail sales per unit area

Note: Volume of retail sales divided by the sale space of retail shops. Estimates for 2009, H1 data for 2014 sale space.
Source: HCSO

Moderate underlying inflation developments suggest that the inflationary pressure from the real economy remained weak in recent months as well. In line with this, **according to our estimation the output gap continues to be negative** (Chart 3-36).

In parallel with a pick-up in economic activity, a number of indicators based on company surveys and labour market indicators point to an increase in corporate capacity utilisation. Confidence indicators continued to improve in the past months, with several indicators approaching their pre-crisis levels.

The increasing capacity utilisation is signalled by the fact that in the surveys fewer and fewer companies indicate demand as a factor that limits production. By contrast, since 2013 there was a significant rise in the number of companies citing labour shortage as the primary constraint.

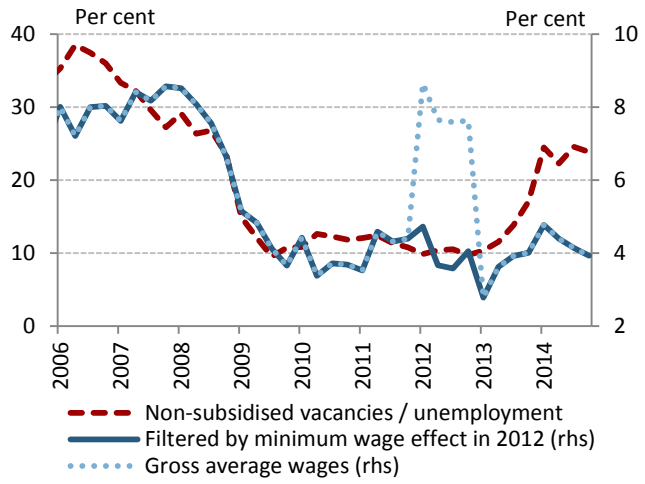
The higher level of the output gap indicator based on the utilisation of resources is justified by the fact that the improving capacity utilisation was mainly typical for those sectors that are less important in terms of aggregate inflationary pressure. At the same time, the level of the retail sales volume falls short of the pre-crisis level even after the increase recorded in the past quarters (Chart 3-37).

The assessment of the cyclical position of the Hungarian economy has not changed materially since the December Inflation Report. The fact that inflation is lower than forecast in December is mainly the result of the cost shock from the global economy. While the GDP increase was higher than expected, household consumption – the most relevant factor in terms of inflationary pressure from the demand side – developed in line with expectations.

3.6. Costs and inflation

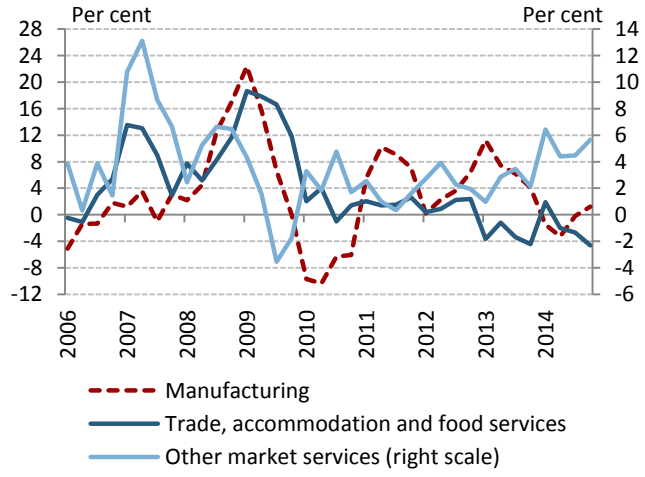
Inflation has been negative since September 2014. This weak inflation was primarily due to consistently low cost shocks (moderate oil and food prices), modest imported inflation and low inflation expectations. The increase in private sector wage dynamics can mostly be explained by the increasing tightness of the labour market since 2013.

Chart 3-38: Annual changes in gross average wages and development of labour market tightness



Source: HCSO, MNB calculation based on National Employment Service data

Chart 3-39: Annual changes and components of unit labour cost in private sector



Note: Nemzeti számla adatok alapján.
Source: MNB calculation based on HCSO data

3.6.1. Wages

Gross average wages in the private sector increased by 3.6 per cent in the fourth quarter of 2014. The significant deceleration in November was corrected in December. The magnitude of bonus payments did not depart substantially from the usual degree in the fourth quarter. Within the private sector, wage growth dynamics in manufacturing were slightly higher than in market services. Gross average wages in the private sector increased by 4.3 per cent on a year-on-year basis for 2014 (Chart 3-38).

The labour market has become tighter since 2013, which may have contributed substantially to the recovery in wage dynamics. Surging economic activity and moderate production costs (low oil and food prices), along with the improvement in corporate sector profitability, may also explain the higher wage dynamics in 2014 compared to 2013. These impacts resulted high real wage dynamics for consumers.

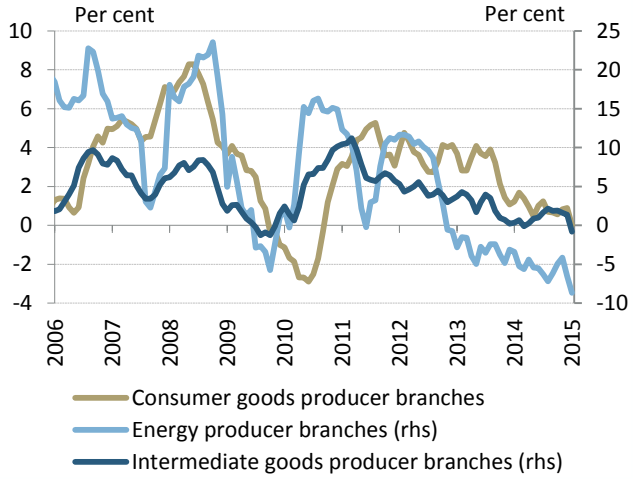
Unit labour cost (ULC) dynamics calculated from national accounts data remained moderate in 2014Q4 (Chart 3-39). Manufacturing ULC stabilised after the recent decline, partly owing to weaker value added growth. ULC steadily declined in the trade, accommodation and food services sector, which was driven by rising value added as well as moderate labour cost growth. In other branches of market services the growth rate of ULC picked up slightly.

3.6.2. Producer prices

Inflationary pressure from the agricultural commodity prices continued to be moderate. Agricultural producer prices remained low in the past period, primarily due to the favourable harvest results, the price depressing effect of the Russian embargo and the decline in fodder prices. The price level of both cereals and animal products continued to decrease in recent months.

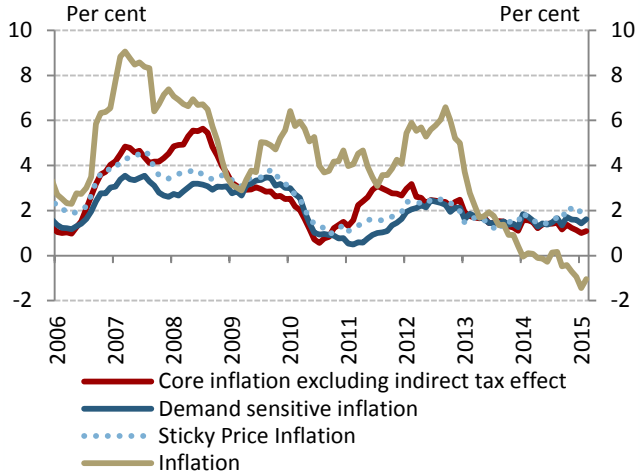
Industrial production prices were moderate in the past period (Chart 3-40). Price dynamics of sectors producing consumer goods and goods for further processing remained moderate. Domestic producer prices were in line with the developments observed in the euro area. The moderate price developments in processed goods may be due to the modest demand pressure and further

Chart 3-40: Annual change in industrial producer prices



Source: MNB calculation based on HCSO data

Chart 3-41: Development of inflation and underlying inflation indicators



Source: MNB calculation based on HCSO data

decreases in prices of raw materials.

3.6.3. Consumer prices

Inflation has been negative since September 2014, primarily due to cost shocks (moderate oil and food prices) and low regulated prices.

The subdued level of the underlying indices continues to indicate a moderate inflationary environment (Chart 3-41). Underlying inflation remained stable in the range of 1.5–2 per cent, and thus deflation is still not expected, despite inflation being below 0 per cent. However, consumer prices remained low in spite of the recovery in demand in recent months.

Prices of industrial goods were moderate, which was likely due to the price depressing effect of imported inflation. Within industrial goods, prices of durable products fell, while the non-durable tradable inflation continued to be restrained.

Prices of market services increased only moderately in the first months of 2015 despite the continuous recovery in demand. Based on the price-setting practices of the sector, the start of the year is pivotal in terms of inflation developments. Restrained price dynamics were observed in a wide range of market services.

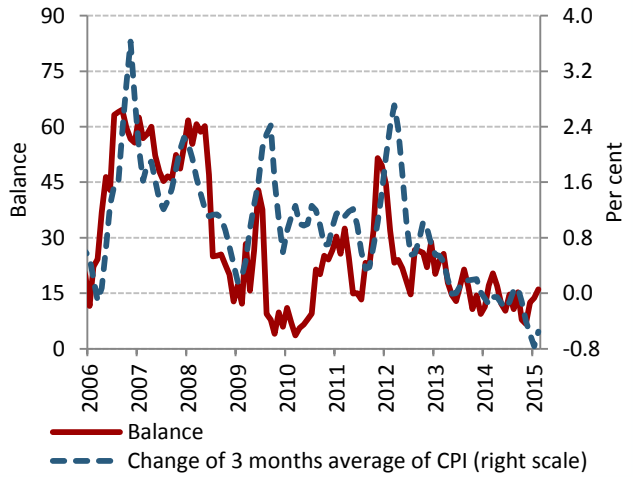
Food prices were moderate in early 2015, in line with agricultural producer prices. The decrease in the price level of processed and unprocessed food may also have been due to the price depressing effect of increasing supply as a result of the Russian embargo.

The annual decline in fuel prices occurred as a result of the falling oil prices, but according to market sources, fuel prices may have increased in March compared to the level of previous months. The price of Brent crude oil in US dollars (USD) fell close to USD 45/barrel by mid-January 2015, and then – after an increase of almost 20 per cent – spot prices adjusted to around USD 60/barrel by mid-February. The impact of the declining oil prices expressed in USD may have been somewhat mitigated by the depreciation of the forint against the dollar.

Overall, regulated prices remained moderate in early 2015. Significant increases occurred only for motorway tolls. The HCSO took into consideration the increase in the number of toll road sections and the introduction of county motorway vignettes in evaluating the prices of this product group.

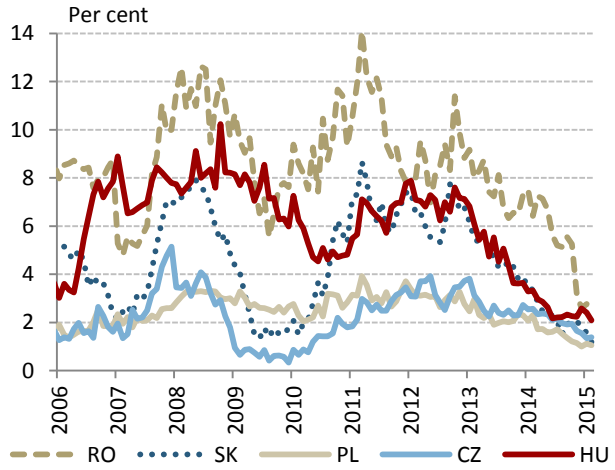
Inflation data for the latest period were lower than the expectations of the central bank. This discrepancy is

Chart 3-42: Expected changes in retail sales prices in the next 3 months* and actual inflation



Note: * Balance is the difference between the proportion of corporations expecting price increase and price decrease.
Source: GKI and MNB calculation based on HCSO data

Chart 3-43: Inflation expectations in the region



Source: MNB calculations based on data of the European Commission

primarily explained by cost factors (moderate oil and food prices), but underlying processes also became more restrained.

3.6.4. Inflation expectations

Inflation expectations for retail sales remained low, and thus they still do not point to any significant price increases in the coming months (Chart 3-42).

In recent months, Hungarian households' inflation expectations settled at the level of countries that could earlier be characterised by steadily low inflation expectations (Czech Republic, Poland). Inflation expectations of Hungarian households remained stable in the second half of 2014, despite the decreasing inflation. In contrast to this, the inflation expectations in the countries of the region typically decreased further (Chart 3-43).

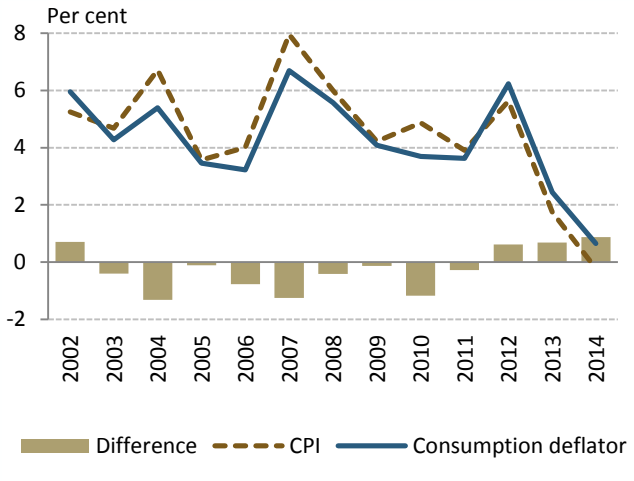
Box 3-3: Factors behind the significant rise in the GDP deflator

The GDP deflator is an indicator capturing the price change between the current price and constant price levels of the gross domestic product. On the output side, the GDP deflator captures the difference between the output price of certain sectors and the price level of costs incurred during production.[5] On the expenditure side, the GDP deflator quantifies the price change of consumer and investment goods, the rise in government expenditures (reflected primarily in wages), and the gains or losses on the terms of trade deriving from the change in export and import prices. Although consumer prices marginally slightly last year, the GDP deflator increased by 3.1 per cent. While a similar wedge has been observed between the two indicators several times, an important difference is that inflation was consistently higher in the past. **This Box provides a brief overview of the contribution of the expenditure components of GDP to changes in the GDP deflator and presents the reasons behind the price changes observed in 2014.**

On the expenditure side of GDP, the final consumption of households represents a weight of 50 per cent, while the respective weights of transfers linked to the government, public consumption and investment account for approximately one fifth of GDP. In addition, the GDP deflator is also influenced by the gains or losses on the terms of trade deriving from changes in export and import prices.

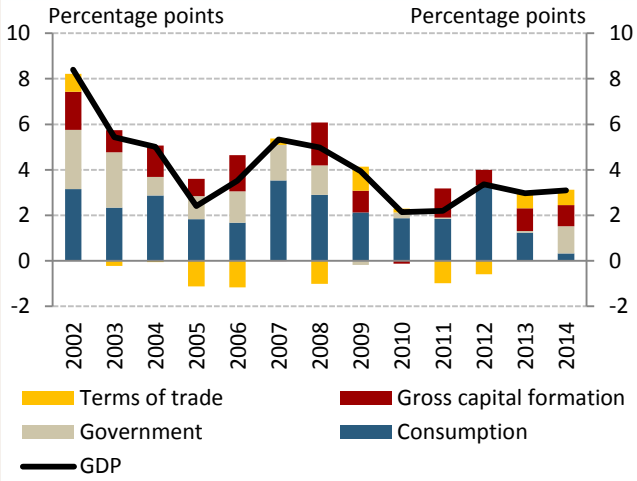
Due to the considerable weight of consumption, there is a high degree of covariance between the GDP deflator and the consumer price index, but the two indicator can be different due to methodological reasons. The consumption concept considered in the system of national accounts includes items the price changes of which are not reflected in inflation.[6] Moreover, the CPI is a base period index (Laspeyres), while the consumption deflator is a current period index (Paasche).[7] The different set of items and weighting has caused differences in the past as well; however, **in the past three years the personal consumption expenditures deflator was consistently higher than inflation.**

Chart 3-44: Consumer price index and the consumption deflator



Source: HCSO

Chart 3-45: Contribution of expenditure components of GDP to changes in the GDP deflator



Source: HCSO, MNB calculations

On the expenditure side, **public sector spending** appears in two components. Transfers in kind include expenditures related to education and healthcare, while the HCSO accounts for all other operational and material expenses of the state in the category of public consumption. In respect of public sector spending, the deflator basically changes in line with the wage index of the public sector.[8] In the period preceding the crisis, the accommodating fiscal policy and wage increases in

[5] For more details, see Box 1-2. of the December 2014 Inflation Report.

[6] Such items include: imputed rent (usage fee of owner-occupied homes, rental costs), life assurances, Financial Intermediation Services Indirectly Measured, accounting of drugs and prostitution. The recognition of imputed rent represents the most important item, accounting for around 12 per cent of consumption. The rest of the items listed account for 6–7 per cent of household consumption together.

[7] See, Szilágyi Gy. (2002): Indexek és nemzeti számlák, *Statisztikai Szemle*, 80(1), 5-21. o. (only in Hungarian)

[8] Based on the CSO's methodology, the public worker's wage mainly accountend in the deflator of the government consumption.

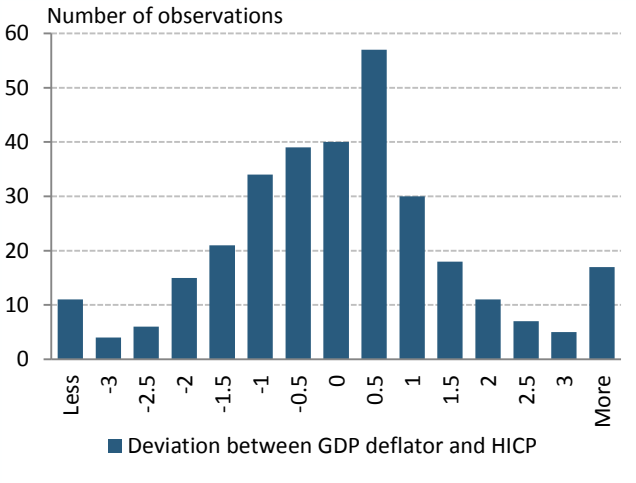
the public sector raised the deflator of public expenditure components. Since the crisis, however, due to the tightening of fiscal policy and persistently restrained public wages, the price change of these items has been marginal. **For the first time in years, in 2014 the price index of the general government sector was markedly positive**, reflecting, for the most part, the introduction of teachers' career path model and substantial public wage outflows.

Both in the past and last year, the price change of **capital formation** (investment, changes in inventories) contributed slightly to the GDP deflator. Owing to moderate import prices and the low construction industry price index, the price change of capital goods has been muted in recent years.

Besides the domestic demand components, another important element of the GDP deflator is the **balance of external trade price changes, i.e. the terms of trade**. Since Hungary's net energy import is significant (accounting for about 6 per cent of GDP), the Hungarian terms of trade primarily reflect changes in global energy prices. In the past two years, terms of trade made a positive contribution to the GDP price index. Looking ahead, the sharp fall in oil prices this year may improve the terms of trade significantly and hence, raise the GDP deflator well above the consumer price index.

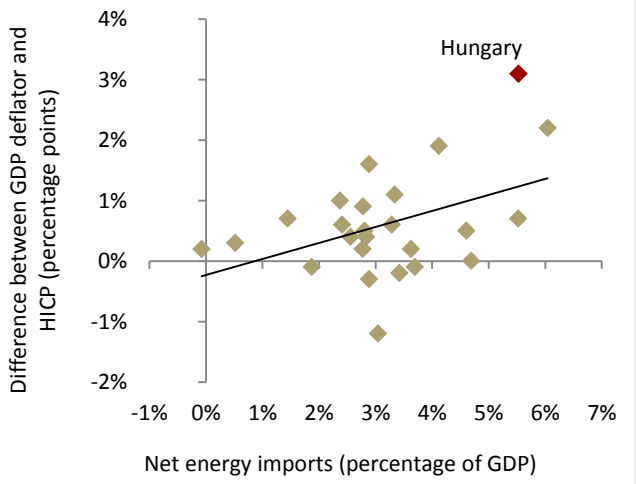
In international comparison, the GDP deflator and HICP inflation differ frequently. In the EU member states in the last decade, the distribution of the difference showed wide range, although the average difference was around zero (Chart 3-46). Falling global oil prices contributed to the 2014 difference in several countries. In net energy importing countries, declining energy prices improved the terms of trade, which raised the GDP deflator relative to consumer price inflation (Chart 3-47).

Chart 3-46: Distribution of differences between the GDP deflator and HICP in EU Member States (values between 2005-2014)



Source: Eurostat

Chart 3-47: Net energy imports and the difference between GDP deflator and HICP in international comparison in 2014



Source: Eurostat

To summarise, the 2014 difference between the GDP deflator and consumer price inflation was significant, but by no means unique in international comparison. The gap was mainly due to methodological differences between the deflator of personal consumption and the consumer price index, the statistical impact of public sector wage increases, and the improving terms of trade thanks to falling energy prices. These factors are expected to maintain a high gap between the GDP deflator and CPI inflation in 2015 as well.

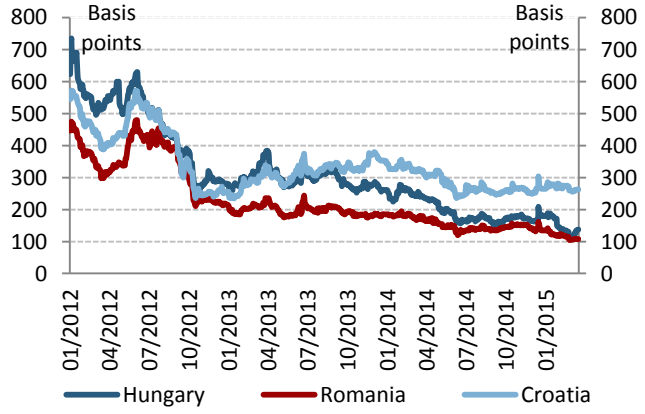
4. FINANCIAL MARKETS AND INTEREST RATES

4.1. Domestic financial market developments

Global market sentiment was favourable recently, although the rouble crisis in mid-December, which was mostly attributable to the declining oil prices, and several factors in January (the measures of the Swiss central bank, the ECB's announcement of QE, the Greek crisis and the Russian-Ukrainian conflict) contributed to the volatility of asset prices. February was characterised by positive sentiment, supported by central bank easing measures. However Greece's membership in the euro area and the outcome of the Ukrainian-Russian conflict remained uncertain. At the start of the period developed stock market indices rose to historic heights and then diverged in the second half of the period: while the European and the Japanese stock exchange were driven by positive sentiment, stock market sentiment in the US and UK deteriorated. Long-term yields in Europe have decreased, which had a positive impact on the Central and Eastern European region as well. The euro depreciated, while the US dollar strengthened against almost all other currencies. In the second half of the period, mounting interest rate increase expectations related to the Federal Reserve pushed yields in emerging markets higher.

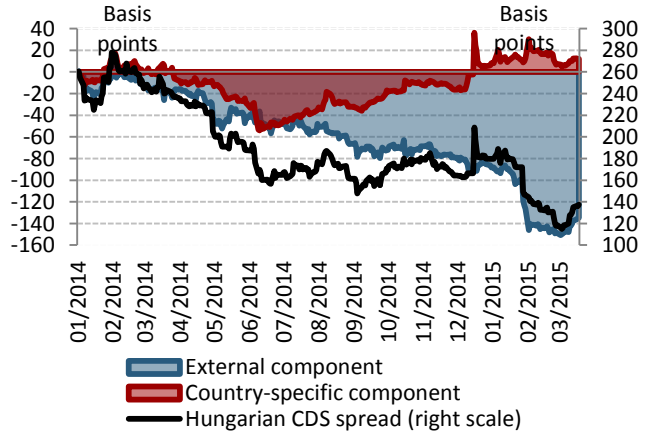
Domestic money market developments were essentially positive. The improving risk assessment of Hungary was reflected in the decrease of the CDS spread, while long-term yields started to rise in the second half of the period responding to developments in the US yield curve. The forint exchange rate against the euro strengthened by more than three per cent, outperforming other currencies in the region. Short-term yields on government securities remained low, but rose slightly from the extremely low values seen in December. Long-term yields fell overall by 20-40 basis points.

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



Source: Bloomberg

Chart 4-2: Components of 5-year Hungarian CDS spreads



Note: The decomposition method used can be found in the MNB Bulletin: Variance decomposition of sovereign CDS spreads, Kocsis–Nagy (2011).
Source: Bloomberg

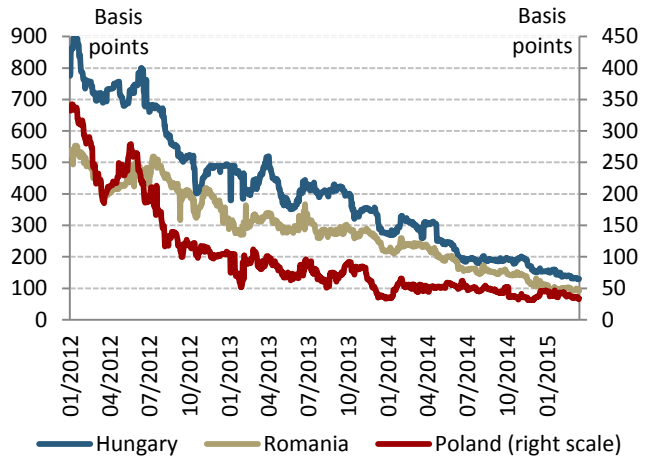
4.1.1. Risk assessment of Hungary

Hungarian risk indicators developed favourably since the December Inflation Report. The Hungarian 5-year sovereign CDS spread decreased by 50 basis points, falling to a new low since 2008. The strengthening of the forint exchange rate during the quarter exceeded the regional trends. The government securities market yields increased in the short-term segment, but are still below the base rate. Overall long-term yields have decreased, although they temporarily shifted upwards during recent weeks. The risk indicators of CEE countries moved in the same direction. Effects of fluctuations in global market sentiment were smaller in the region, and despite the Russian-Ukrainian conflict the assessment of the region is still relatively favourable.

Hungary's 5-year CDS-spread decreased compared to the mid-December level. Fluctuations in global market sentiment were reflected relatively moderately in the regional CDS spreads. The Hungarian spread temporarily fell to 115 basis points, and then by the period-end it rebounded to almost 135 basis points. Taking the period as a whole the regional spreads moved similarly (Chart 4-1).

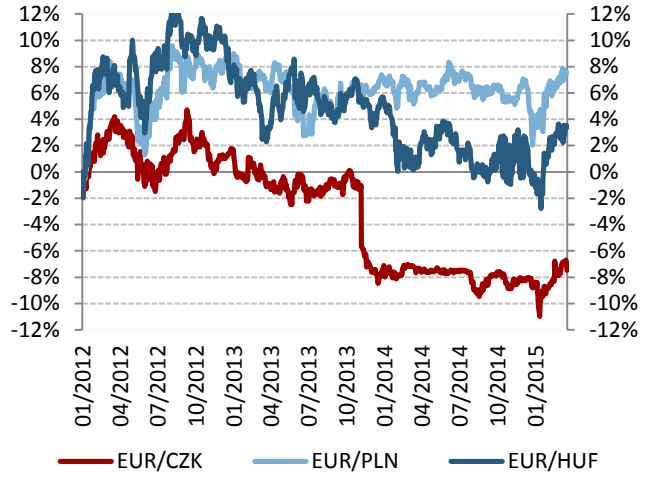
According to the CDS decomposition methodology, the decline in Hungarian risk spread was more due to international factors at the beginning of the period. After a slight rise, the country-specific component improved again, with the foreign currency loan conversion programme and the agreement between the banking

Chart 4-3: Spreads of CEE sovereign euro bonds maturing in 2018



Source: Bloomberg

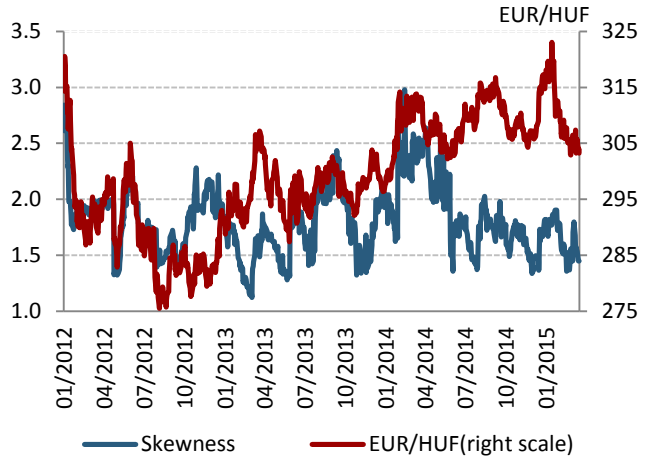
Chart 4-4: Exchange rates in the region



Note: Changes compared to beginning of 2012. Positive values mean an appreciation of the currency.

Source: Thomson Reuters

Chart 4-5: EUR/HUF exchange rate and 1-month skewness



Note: Skewness = Risk reversal/Volatility *10.

Source: Bloomberg

sector and the government possibly playing a role in this development, along with the improvement in fundaments (falling debt and deficit, Chart 4-2).

EUR-denominated Hungarian foreign currency bond spreads decreased by about 30 basis points during the past three months. Although to varying degrees, the decline in yields was also observed for the other foreign currency bonds of the region; in terms of the foreign currency bond spread and the CDS a similar rate of decrease could be observed in the Romanian figures (Chart 4-3).

Taken together, the risk assessment of Hungary improved in line with that of the region, and may be deemed favourable.

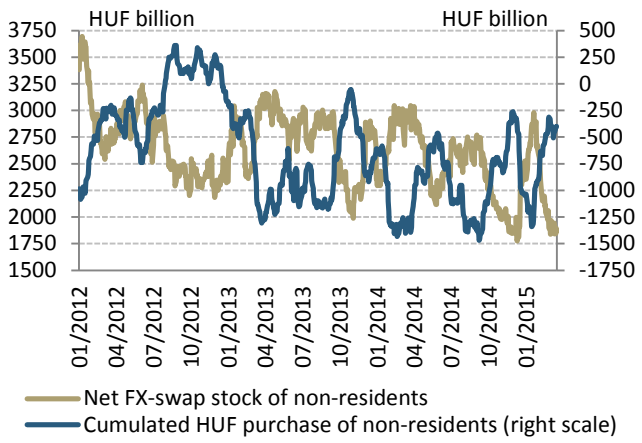
4.1.2. Developments in foreign exchange markets

The EUR/HUF cross rate fluctuated in a broader band than in the previous quarter (HUF/EUR 303-324). On the whole, the forint exchange rate strengthened against the euro by more than 3 per cent during the period. The forint exchange rate was mostly impacted by international factors, along with some country-specific effects. The major international factors included the rouble crisis, the "unlocking" of the Swiss franc exchange rate, as well as the ECB asset purchases and the Fed communication. The forward-looking indicators (volatility, skewness) moved together with the forint exchange rate, and close to the end of the period the forint strengthening was accompanied by a decrease in risk indicators.

The forint exchange rate outperformed compared to the exchange rates of other CEE currencies, although the Romanian leu, the Czech crown, and the Polish zloty all strengthened against the euro (Chart 4-4). At the same time, the period was characterised by the continued, substantial strengthening of the US dollar. The forint has depreciated by 10 per cent, and the Czech, Polish and Romanian currencies have lost 12-13 per cent against the US dollar since mid-December.

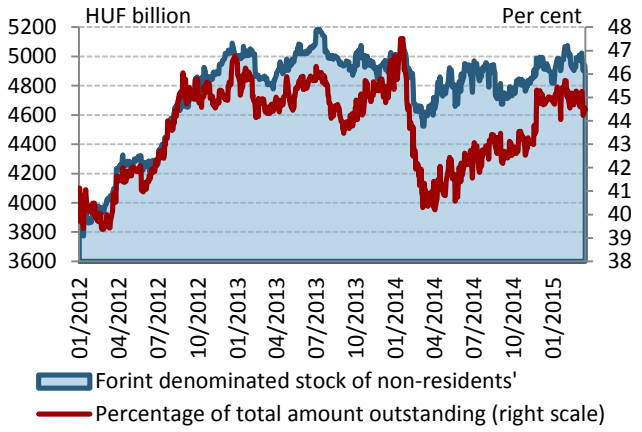
Swap spreads showed some volatility during the period for short-term maturities (up to a month), typically rising only during the more tense, month-end periods. At the beginning of December, quotes for 1-month and 2-month maturities, stretching over to 2015, hinted at the usual tensions associated with the banks' end-of-year balance sheet adjustment, and then at the end of the year this was significantly reflected in the short-term premiums, which was managed by the MNB via its usual tenders. At the end of January another minor episode of tension was felt, but

Chart 4-6: HUF FX swap stock and cumulated HUF purchase of non-residents



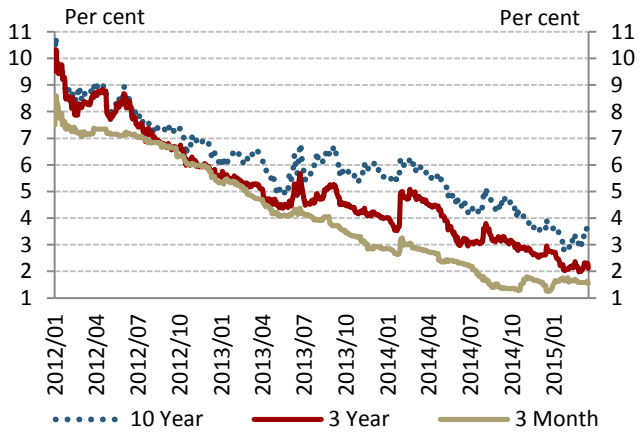
Note: Cumulated HUF purchase of non-residents: 4 Jan. 2010=0.
Source: MNB

Chart 4-7: Hungarian forint-denominated government securities held by non-residents



Note: The chart shows the stock of T-bills and T-bonds and the amount of government securities held by non-residents; but retail securities are not included.
Source: MNB

Chart 4-8: Yields of benchmark government securities



Source: ÁKK

in recent weeks there was no tension in the swap market.

Non-residents' position against the forint, as well as the forward holdings of the resident sector declined, in parallel with the strengthening of the exchange rate. Net FX-swap holdings of non-residents decreased by HUF 213 billion by the end of the period, while their cumulated forint purchases increased considerably, rising by HUF 430 billion (Chart 4-6). After a small fluctuation at the end of the year, the HUF-denominated government securities portfolio of non-residents remained stable in the previous period, hovering in the range of HUF 4,800–5,050 billion and amounting to HUF 4,890 billion at the end of the period. Taken together, compared to the beginning of the period there was a slight decrease of HUF 55 billion in the portfolio, while non-residents' share in HUF-denominated securities was fluctuated at around 44-45% (Chart 4-7).

4.1.3. Government securities market and changes in yields

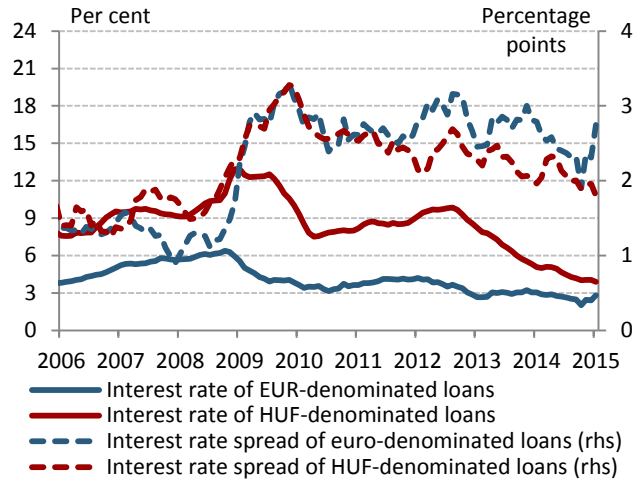
Demand in the primary market of government securities weakened, but in general the bid-to-cover ratio at the auctions is still adequate. In the case of the short-term securities, demand surged due to the increase in yields early in the year, but the gradual decrease or stagnation in yields also reduces demand. The trends for long-term securities were also similar during the period. In addition, demand at the auctions for 3-year and 5-year floating rate government securities was apparently high, as the issuer regularly increased the accepted quantities compared to the original announcement.

Secondary market yields on government securities increased overall across short maturities, and declined in the case of long-term papers, which reduced the steepness of the yield curve compared to the beginning of the period. As regards the dynamics, short-term yields first increased and then stagnated, while long-term yields fell to their historical lows early in the period and then partially adjusted (Chart 4-8). In the short-term segment, government securities yields are still below the interbank yields, while in the long-term segment the situation is the opposite.

4.2. Credit conditions in the financial intermediary system

The cost of financing decreased in both the corporate and household segment in the final quarter of 2014. By the end of 2014, the forint interest rates on corporate loans had declined to the regional average. The average lending rate on euro-denominated corporate loans increased significantly, resulting in a rise in the spread due to the benchmark rate remaining unchanged. Banks reported an easing of non-price conditions on corporate loans, and conditions eased generally according to the respondents of the Lending Survey. Respondents anticipate further easing in the first half of 2015. By contrast, tightening of credit conditions is expected in the household segment, but this is largely explained by the technical effects of the recently adopted debt cap rules. The moderation of inflation expectations pushed down the one-year forward-looking real interest rate in January.

Chart 4-9: Smoothed 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. Loans with floating interest rates or with up to 1 year initial rate fixation.
Source: MNB

4.2.1. Corporate credit conditions

Corporate lending rates declined further in the fourth quarter of 2014. Based on new disbursements, interest rates on forint loans (with floating interest rates or loans with up to 1 year initial rate fixation[9] smoothed by the three-month moving average) dropped to 4.1 per cent in the fourth quarter and declined further to 3.9 per cent in the third quarter (Chart 4-9), reaching the regional average in an international comparison. At the same time, the interest rate on euro-denominated loans edged up to 2.8 per cent by January, compared to 2.5 per cent in October. **The change can be primarily attributed to a change in spreads**, both in the case of forint and euro-denominated loans. Solvent small and medium-sized enterprises continue to benefit from the extended, favourable credit facility provided under the second phase of the Funding for Growth Scheme. Moreover, the FGS+ offers more favourable fianncing costs compared to market conditions for the higher-risk small and medium-sized enterprises which were previously excluded from the original FGS programme.

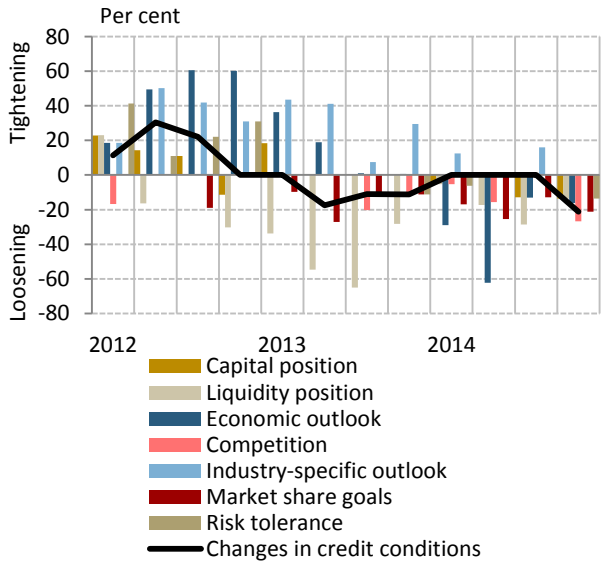
The Lending Survey[10] revealed that, in net terms,[11] 21 per cent of banks eased credit conditions in the fourth quarter of 2014. This was made possible by ample liquidity and strong capital position of the banking sector, but market share considerations and competition among peers were also important contributing factors. Looking ahead, a net 16 per cent of the respondents indicated further easing in the first half of 2015, justified by intensifying competition according to a large share of respondents (Chart 4-10). In addition, in parallel with GDP growth, banks cited economic outlook as a further

[9] The majority of loans granted under the Funding for Growth Scheme are long-term loans; therefore, the interest rates reviewed mainly reflect lending developments outside of the programme.

[10] For a detailed analysis of the findings of the Lending Survey, please refer to the MNB's latest Trends in Lending publication, available at: http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Kiadvanyok/trends-in-lending/201411/Hitelezesi_folyamatok_201411_EN.pdf

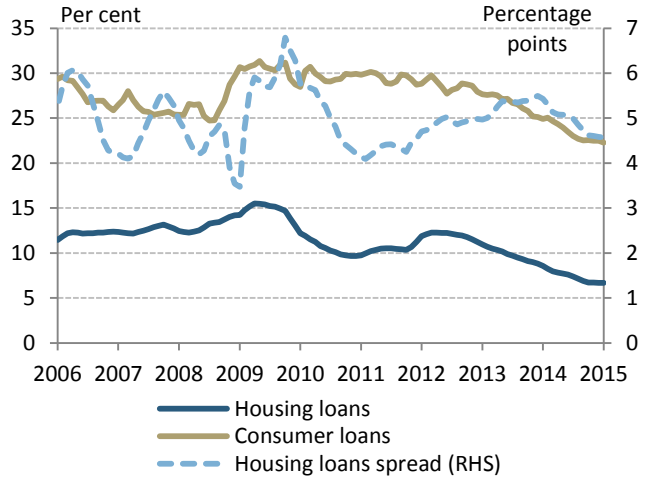
[11] Net percentage balance of respondents tightening/easing credit conditions weighted by market share.

Chart 4-10: Changes in credit conditions and factors contributing to changes in the corporate segment



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share.
Source: MNB lending survey

Chart 4-11: Smoothed annual percentage rate of charge (APRC) and spreads of 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.
Source: MNB

contributing factor in easing credit conditions, as in the previous three quarters.

4.2.2. Household credit conditions

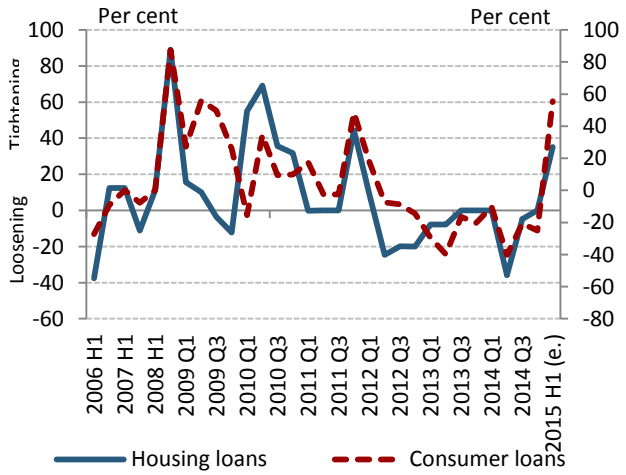
Based on new disbursements, the annual percentage rate of charge (APR) smoothed by the three-month moving average fell further in both segments (Chart 4-11). For the most part, the downward shift in the APR reflected the narrowing of spreads in the review period. In the case of housing loans, the difference between the average lending rates of floating rate schemes and fixed-interest loans decreased as a result of a larger decline in the spread on fixed-rate constructions. In addition, the average decline in interest rate expectations during the period was also reflected in the BIRS. Rates on other consumer credit fell sharply in January, mainly due to decreasing interest rates on personal loans and hire purchase loans. As regards spreads, the downward trend observed since December 2013 continued.

Based on the responses in the Lending Survey, banks eased conditions on consumer credit in Q4 2014, while leaving the credit standards on housing loans broadly unchanged. A net 20 per cent of the banks surveyed reported easing in the case of unsecured consumer loans (Chart 4-12). Looking ahead, 35 per cent of banks indicated tightening conditions on housing loans for the next half year, while 56 per cent envisaged tightening in the consumer credit segment. The largest percentage of banks anticipated tightening of the maximum payment-to-income ratio criteria. This, however, reflects the implementation of new legislative provisions (debt cap rules) by the banks, and not the extent of the tightening. Only a small part of customers will be affected by the tightening, as the vast majority of contracts complied with the new regulation even on the basis of the previous conditions. Thus, tightening will be observable at most banks, but it will be an administrative measure rather than effective tightening.

4.2.3. Changes in real interest rates

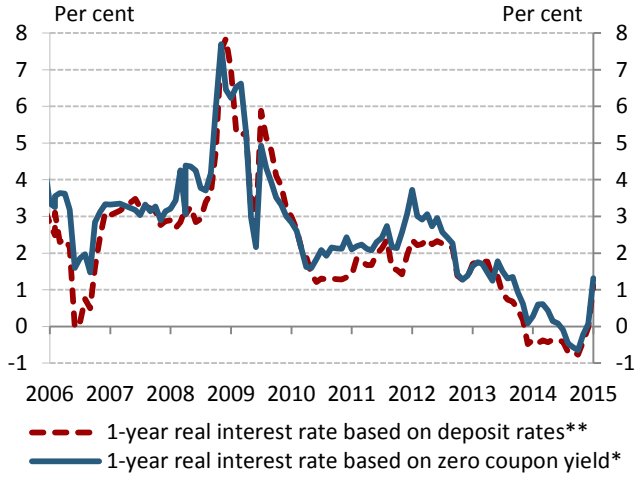
One-year forward-looking real interest rates started rising in the fourth quarter of 2014. The downward trend observed since February 2014 came to a halt in October, which was followed by a steady rise in real interest rates. Consequently, reduced by inflation, the interest rate stood at 1.3 percent based on the yields estimated from government security yields, and at 1.1 per cent based on deposit rates (Chart 4-13). This rise in the real interest rate was largely the result of falling inflation expectations amidst stagnating deposit rates and government securities

Chart 4-12: Changes in credit conditions for the household sector



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

Chart 4-13: Forward-looking real interest rates



Note: * Based on the one-year forward-looking inflation expectations of analysts calculated by the MNB using the 1-year zero coupon yield and the Reuters poll. **Based on the one-year forward-looking inflation expectations of analysts calculated by the MNB using deposit rates with maturity up to 1 year and the Reuters poll.
Source: MNB, Reuters poll

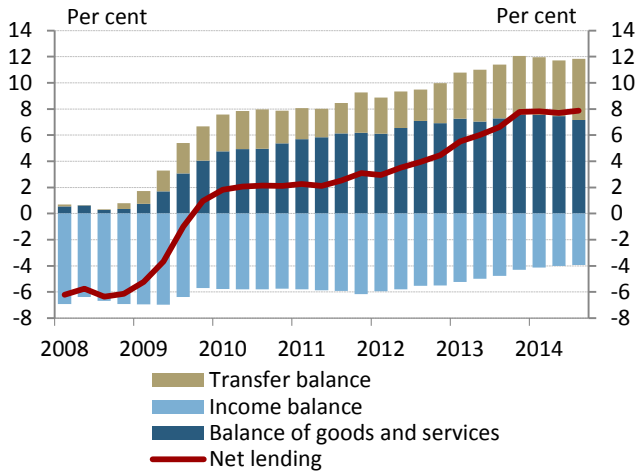
yields. 12-month ahead inflation expectations have declined steadily since October 2014, falling to 0.4 per cent by January compared to 1.5 per cent in December.

5. BALANCE POSITION OF THE ECONOMY

5.1. External balance and financing

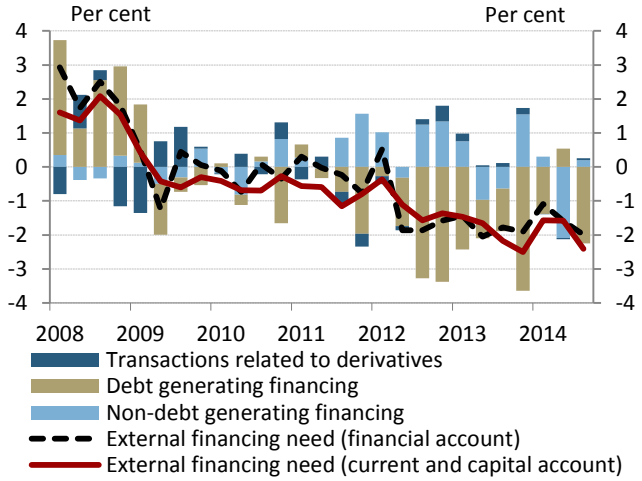
In the third quarter of 2014, the four-quarter external surplus of the economy amounted to around 8 per cent of GDP, which was reached at the end of 2013. The mild decline in the trade surplus was offset by a similar increase in the transfer balance. On the financing side, the net FDI inflow was accompanied by a considerable drop in debt-type funds. In line with this, the external debt indicators decreased further, after the temporary rise in the previous quarter, which was primarily attributable to the revaluation resulting from decline in yields.

Chart 5-1: Changes in external net lending (as a percentage of GDP)



Note: Cumulated four-quarter values.
Source: MNB

Chart 5-2: Structure of external financing (as a percentage of GDP)



Note: The net borrowing calculated from financial account side corresponds to the total of the net lending and the net errors and omissions.
Source: MNB

5.1.1. Developments in Hungary's external balance position

Net lending under the real economy approach was stable in Q3 as well, at close to 8 per cent of GDP (Chart 5-1). The **trade surplus** slightly decreased, primarily due to increased investments and imports related to the filling of natural gas storage facilities. The increase in the **transfer balance** surplus was primarily due to the fact that the four-quarter value of the utilisation of EU transfers increased to EUR 5.7 billion. There was no material change in the **income balance**, however the deficit amounting to almost 4 per cent of GDP is still considerably behind the levels typical in former years. Based on the preliminary monthly data, the trade surplus may have increased at the end of the year, while the large amount of EU transfers in Q4 slightly fell short of the year-on-year value.

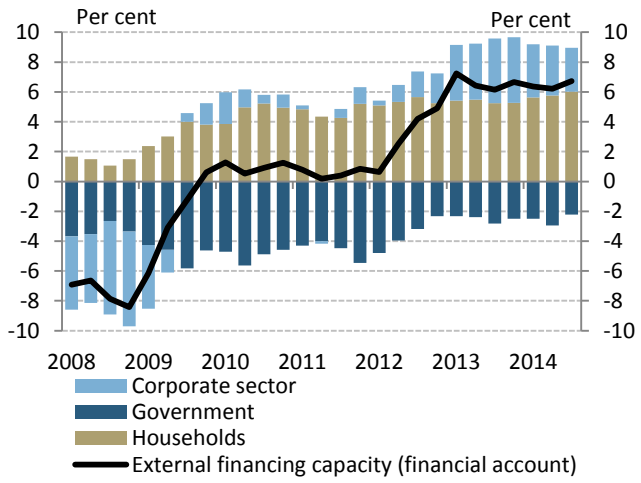
5.1.2. Developments in financing

The net lending position calculated from the financing data increased in Q3, but fell slightly short of the value calculated from the real economy side (Chart 5-2). The net outflow of debt-type funds was extremely high, exceeding EUR 2 billion, while there was an inflow of non-debt liabilities.

In the third quarter, net foreign direct investment (FDI) increased by EUR 0.5 billion, primarily due to capital injections made in the banking system. Based on the preliminary monthly data, the FDI inflow continued in Q4 as well, and thus on the whole in 2014 the net FDI inflow was similar to that of the previous year.

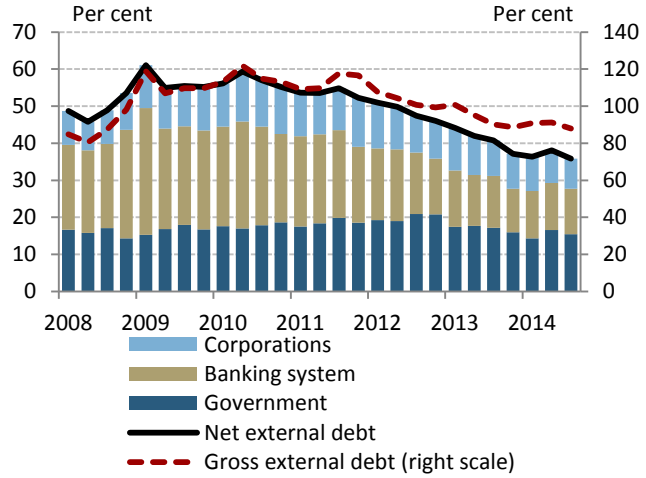
In the third quarter, debt-type funds fell to a larger extent, declining in excess of EUR 2 billion. The reduction of debt-type liabilities was dominated by the net debt reduction of the state, consolidated with the MNB, of over EUR 1 billion, which in part is related to the conversion of the MNB bond into deposits. After the large decreases that were typical earlier, the external debt of the banking sector stabilised in the last quarters, which may be attributable to the conversion of the central bank's main policy instrument. That is, the forint liquidity that exited from the MNB bonds may have partially flowed into the

Chart 5-3: Breakdown of external financing capacity by sectors (as a percentage of GDP)



Note: Four-quarter cummulation.
Source: MNB

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



Note: Excluding intercompany loans.
Source: MNB

banking sector. Corporations further reduced their external debt in Q3 as well. Based on preliminary monthly data, the substantial redemption of external debt continued in Q4 as well, primarily due to increasing loan repayments by banks. In this respect it is worth noting that this is partially related to banks' year-end balance sheet management, and will thus presumably be a temporary phenomenon.

The financing requirement of the state decreased in Q3, while the net financial saving of the private sector stabilised at a high level (Chart 5-3). The decline in general government net borrowing is due to the fact that economic growth, the high wage dynamics and the increasing employment boosted the state's tax revenues, which may have been further enhanced by the improved efficiency of VAT collection stemming from the installation of tax authority cash registers. At the same time, the improvement in the external position was partially offset by the decline in corporations' financial savings, which may be explained by the expansion of the investments also driven by the Funding for Growth Scheme. Based on the Q4 preliminary data, the borrowing requirement of the state and the financial savings of the households declined slightly.

The net external debt of the economy decreased in Q3 and amounted to 36 per cent of GDP at the end of the quarter (Chart 5-4). As a result of the substantial outflow of debt-type liabilities and the increase in GDP in Q3, external debt indicators once again decreased, following a previous temporary increase. The adjustment of the indicators was predominantly linked to the consolidated general government, which is primarily attributable to the conversion of the MNB's main policy instrument into deposits.

5.2. Forecast for Hungary's net lending position

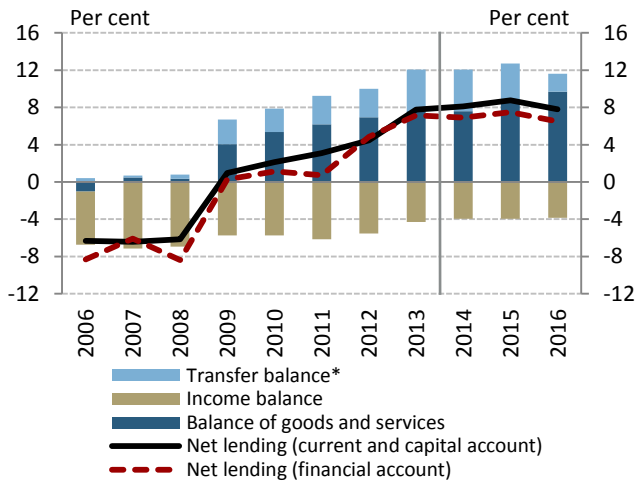
The net lending position of the Hungarian economy may remain significant in the coming years: it may slightly increase in 2015 due to the expected improvement in trade balance, while in 2016 it is likely to decrease to 8 per cent of GDP, the level at which it was at in 2013–2014 as a consequence of the expected decline in EU transfers. The slight decline in trade surplus in 2014 may have been only temporary, reflecting the filling of gas storage facilities and a peak in investment. In the context of oil-price reductions and recovering external demand, it may start to increase again in 2015–2016. Transfers from the EU are expected to reach an amount similar to that experienced last year, and they may decrease at a larger extent only in 2016 in accordance with the new budget period of the EU. As a net result of contrasting developments, the income balance deficit may stabilise at around 4 per cent of GDP. Looking at the savings position of individual sectors, the net borrowing of the general government is expected to remain historically low, while the financial savings of the private sector may stabilise at high levels. With an expected increase in profitability, apart from a temporary decline stemming from the losses sustained by banks, the corporate net position may increase slightly over our forecast horizon, while households' fundamental net savings may decline in the context of increased consumption and investment. While net lending is expected to remain high, external debt indicators may decline further in parallel with the conversion of FX loans into forints.

As was the case in 2014, Hungary's external balance position is expected to remain high (Chart 5-5). The relatively high level of the net lending position is a net result of two contrasting effects. On one hand, the trade surplus may increase significantly due to the expected upturn in external demand amid falling oil prices and the ECB's quantitative easing, the deceleration of imports resulting from declining domestic investment and improving terms of trade. On the other hand, however, the surplus of the transfer account may decline significantly in the context of the new budget period of the EU, which may offset the positive effect of the increase in the trade surplus. The deficit of the income balance may stabilise at 4 per cent of GDP in view of the rising profit outflows associated with the expected improvement in corporate profitability and the reduction of interest payments parallel to the decline in external debt. (It should be noted, however, that the Act on the fair banking system decreases the size of profit outflows through the reduction of bank interest.)

Examining developments in the external balance in terms of the net lending of sectors, **in parallel with the continued high net lending position of the private sector, the borrowing requirement of the general government may decline slightly** (Chart 5-6).

As a result of subsiding precautionary motivations in the context of increased employment and the conversion of FX loans into forints, the **net savings position of households may moderately decline in the coming years**. During 2015, the impact of bank settlements due to unilateral interest rate hikes and the exchange rate margin is expected to increase net household savings on a temporary basis. At the same time, the underlying trend of household savings will not change noticeably over the

Chart 5-5: Evolution of net lending (as a percentage of GDP)



Note: * The sum of the balance of the current transfers and the capital account balance.
Source: MNB

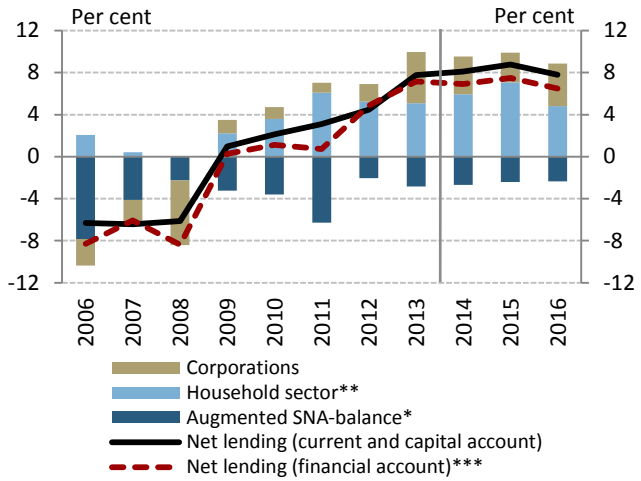
long term (Table 5-1), as the higher disposable incomes resulting from lower net repayments may boost, in addition to consumption, households' accumulation of financial instruments. Owing to the easing of precautionary motives, households' net savings may decrease slightly, with a larger parallel increase in consumption.

Apart from the one-off losses sustained by banks this year as a result of unilateral interest rate increases and the exchange rate margin, the **net lending of corporations may moderately increase**. Financial savings in the corporate sector may increase despite the expected increase in corporate borrowing boosted by the FGS+ scheme and the reduction of the bank tax in 2016, which may reflect improvements in corporate profitability. Indeed, GDP-proportionate wage costs are likely to fall in coming years, while lower oil prices may also improve the profitability of corporations.

In the coming years, the net borrowing of the general government may be slightly lower than it was in 2014. The savings stemming from the improved efficiency of VAT collection and a decrease in interest payments due to the sharp decline in government paper yields already reduced the financing requirement in 2014, and these developments may continue to exert a positive effect over the next few years as well. The dynamic increase in public employment expenditures is offset by the decelerating rate of government consumption and some transfers falling short of GDP-proportionate growth. On the revenue side, however, EU grants will decline over the forecast horizon compared to the peak observed in 2014, and bank taxes will be reduced from 2016. The combination of these factors dampens the balance-improving effect of restrained expenses and the recovering economy.

The expectedly high level of net lending points to a further decline in external debt ratios. The level of the economy's net lending position (approximately 8 per cent) translates into a corresponding decline in Hungary's net external debt within a year as a result of transactions; in other words, in the context of typically slightly positive net FDI inflows, net external debt may decrease at a similar rate (disregarding exchange rate effects). Although this does not concern the net indicator, the conversion of households' foreign currency loans into forints also reduces gross external debt through the balance sheet adjustments of the banks.

Chart 5-6: Changes in savings of sectors (as a percentage of GDP)



Note: * In addition to the central government, the augmented general government includes local governments, MNV Inc., institutions discharging quasi-fiscal duties (MÁV, BKK), and the MNB. The augmented SNA deficit takes into account private pension savings. ** The nNet financial savings of households consistent with the SNA deficit does not contain include the pension savings of those who return to the public pension system. The official net savings (shown in the financial account) areis different from the data in the chart. *** We expect that 'Net errors and omissions' (NEO) will return to the historical average.
Source: MNB

Table 5-1: Households' fundamental net lending and net lending according to financial accounts data (as a percentage of GDP)

	2011	*2012*	*2013*	*2014*	*2015*	*2016*
I. Net financial saving in the financial accounts	**5.3**	**5.2**	**5.1**	**5.9**	**7.1**	**4.8**
a) The effect of consumer claims due to settlements of exchange rate margins and unilaterally raised interest rates on savings					–1.9	
b) Portion of real yields expended on consumption	0.3					
c) Rise of net saving due to early repayment	–0.6	–0.7				
d) Other effects		–0.1		–0.4		
II. Net lending capturing basic trends (I.+a+b+c+d)	**4.9**	**4.4**	**5.1**	**5.6**	**5.2**	**4.8**
e) Savings attributed to the disbursement of real yields	0.6					
f) Impact of the early repayment on net savings	0.6	0.7				
g) The effect of consumer claims due to settlements of exchange rate margins and unilaterally raised interest rates on savings					1.9	
h) Other effects		0.1		0.4		
III. Net financial saving consistent with augmented SNA deficit (II.+e+f+g+h)	**6.1**	**5.2**	**5.1**	**5.9**	**7.1**	**4.8**

Source: MNB

5.3. Fiscal developments

According to our forecast, the ESA deficit of the general government may remain well below 3 per cent of GDP and close to the deficit target of the government over the entire forecast horizon. Based on available data, in 2014 the ESA deficit may have been around 2.3–2.4 per cent of GDP, which is 0.1–0.2 per cent more favourable than our forecast in the December Inflation Report. With the cancellation of the available free reserves, we estimate the 2015 deficit to amount to 2.4 per cent of GDP. According to our rule-based forecast, which applies a number of technical assumptions, the deficit may be around 2.2 per cent of GDP in 2016. Based on the above, the demand-increasing effect of fiscal policy may have amounted to 0.3 per cent of GDP in 2014, while we estimate further marginal demand-boosting effects for 2015 and 2016. According to our estimates, from 2015 the cyclically-adjusted augmented SNA deficit, which may also be considered an approximation of the structural balance, will decrease below 2 per cent of GDP, and thus the expected path of the budget may approach the medium-term budgetary objective laid down in the Convergence Programme. Based on preliminary data, the gross-consolidated debt of general government decreased further in 2014, falling below 77 per cent of GDP. Gross government debt as a percentage of GDP calculated at an unchanged, 2014 end-of-year exchange rate may decrease over the entire forecast horizon, but the actual debt-to-GDP ratio will be strongly influenced by changes in the exchange rate of the forint.

Table 5-2: General government balance indicators (as a percentage of GDP)

	2014	2015	2016
ESA deficit*	–2.3	–2.4	–2.2
Cyclically-adjusted augmented (SNA) deficit*	–2.4	–1.7	–1.9
Fiscal impulse**	0.3	0.1	0.2

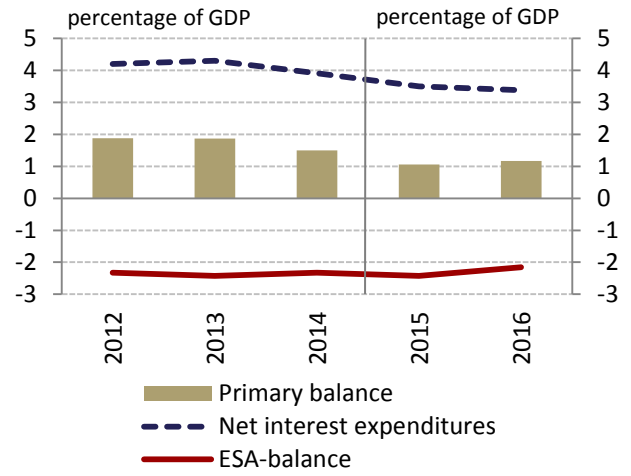
Note: * Complete cancellation of the available free reserves (National Protection Fund) was assumed upon the calculation of the balance indicators. ** Change in the augmented (SNA) primary balance.

Source: HCSO, MNB

5.3.1. Main balance indicators and the fiscal impulse

According to our forecast, with cancellation of available free reserves (National Protection Fund), the ESA deficit of the government sector may amount to 2.4 per cent of GDP in 2015 and 2.2 per cent of GDP in 2016. Based on our estimations, in 2014 the ESA deficit of the government sector was around 2.3–2.4 per cent of GDP, significantly lower than the 2.9 per cent deficit target defined in the budget (Table 5-2). The unexpectedly favourable balance can be attributed to more dynamic economic growth than expected, while the government kept expenditures under control throughout the year. The decline in interest expenses will have an increased influence on keeping the budget deficit low during each year of the forecast horizon (Chart 5-7). This results from

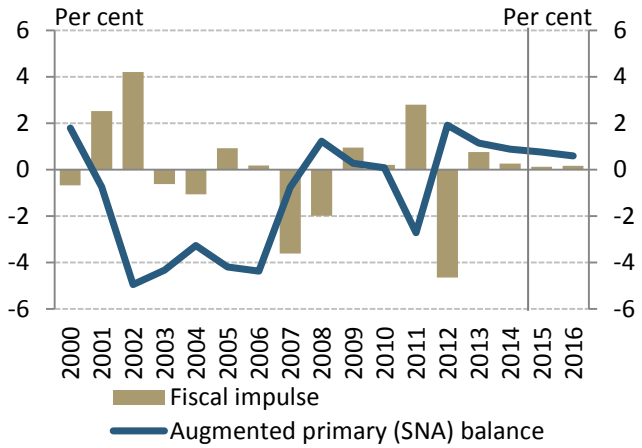
Chart 5-7: Decomposition of the ESA-balance



Note: Due to the ESA2010 methodology, from 2012 the interest expenditures include imputed interest expenditures related to the reform of the pension system.

Source: MNB

Chart 5-8: Fiscal impulse (as a percentage of GDP)



Note: 1) The fiscal impulse corresponds to the change in the augmented (SNA) primary balance. 2) The positive prefix indicates demand expansion, while the negative prefix implies demand restraint. 3) Assuming the cancellation of the available free reserves in 2015–2016.

Source: MNB

a decline of yields in recent years, which, due to the structure of government debt, will exert its impact only gradually.

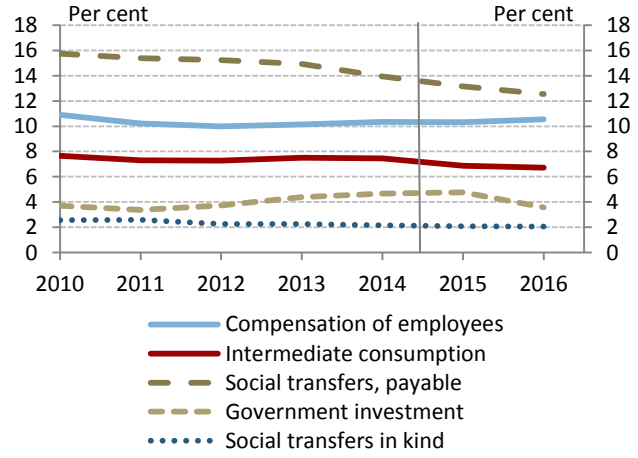
Following increased demand in 2013, fiscal policy contributed to another rise in aggregate demand in 2014.[12] In 2014, the expansion of demand was implemented with a largely unchanged ESA balance, caused by a decrease in the primary surplus along with an improvement of the net interest expenditure. This trend may continue in 2015 and 2016 as well (Chart 5-8), as the reduction of financial transfers to households, a result of the effect of earlier measures on the pension system, may be offset by a rise in self-funded investment spending.

The expected improvement in the balance of the government in coming years may be driven to a large degree by decreasing expenditures of the government sector as a percentage of GDP. The decrease in financial transfers as a percentage of GDP can be attributed to several factors, the strongest of which is the fact that the inflation rate, on the basis of which certain expenditures (e.g. pensions) are indexed, is lower than the growth rate of nominal GDP, and pension expenditures are reduced by the gradual raising of the retirement age. In the case of certain social benefits, based on the projection included in the budget bill we expect the nominal fixing of normative subsidies. Furthermore, benefits related to unemployment may also decrease in consideration of the proposed expansion of the public work scheme. The amount of public wages as a percentage of GDP is assumed to increase in 2016 as a result of measures (e.g. public employment, career path models) and also because we do not foresee a general wage freeze in the public sector in 2016. A moderate contraction is expected in social transfers in kind and material costs, the latter being largely influenced by utility tariff reductions (Chart 5-9).

The changes in public investment are consistent with the pattern of EU capital transfers. In parallel with the accelerated drawdown and absorption of EU grants at the end of the previous EU budget period, public sector investment rose to historical levels in respect of both self-funded and EU-financed projects. At the beginning of the new programming period, we expect a lower level of capital transfers. With that in mind, we assume that in

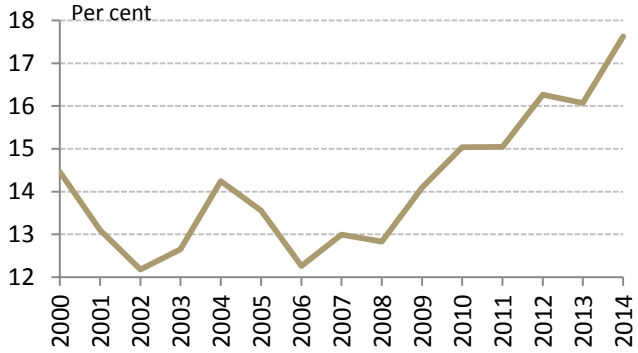
[12] Fiscal impact is measured by the change in the augmented (SNA) primary balance, which gauges the impact of fiscal measures, fiscal developments and the automatic stabilisers on the income position of the other sectors.

Chart 5-9: Government expenditures (percentage of GDP)



Source: HCSO, MNB

Chart 5-10: Effective VAT rate (per cent)



Source: MNB

Table 5-3: Decomposition of the change in the 2015 ESA balance forecast (compared to the December Inflation Report, as a percentage of GDP)

	Macro data	*Measure*	*Other*
I. Central government revenues	0.3	0.0	–0.2
Consumption-type tax revenues	0.3	-	-
PIT and SSC	–0.1	-	-
Corporate income tax	0.1	-	-
Revenues from state property	-	-	–0.2
II. Central government expenditures	0.0	0.0	–0.2
Net expenditures related to EU-funding	-	-	–0.2
III. Other effects	0.1	-	0.1
Net interest expenditures	0.1	-	-
Other items	-	-	0.1
Total (I.+II.+III.)	**0.4**	**0.0**	**–0.4**

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively.

Source: MNB

response to the new situation, the government will adjust its investment spending to the level of 2013 depreciation (Chart 5-12).

5.3.2. Budget balance in 2014

According to our estimation, in 2014 the ESA deficit of the general government sector may have been around 2.3–2.4 per cent of GDP, 0.1–0.2 percentage points lower than our forecast in the December Inflation Report. However, official data will be available only at the end of March. With respect to VAT revenues, the installation of online cash registers was accompanied by an increase in the effective VAT rate. It was partly for this reason that VAT revenues exceeded our forecast by 0.3 percentage points of GDP (Chart 5-10). Stronger-than-expected economic growth resulted in tax revenues exceeding our expectations by 0.1 per cent of GDP at the end of the year, due to the profitability of the corporate sector. On the expenditure side, net expenditures related to EU programmes exceeded our forecast by 0.4 per cent of GDP. In the case of some other primary expenditures of the central government, several items fell marginally short of our expectations.

5.3.3. Budget balance in 2015

According to our forecast, the ESA deficit of the general government may be 2.4 per cent of GDP in 2015, assuming the complete cancellation of the available free reserves appearing in the budget bill. While this is in line with our December projection, there may be some differences in the structure of the deficit (Table 5-3). In our forecast of main tax revenues, we took into account a 2014 base effect. When formulating our VAT projection, we assumed that the effective VAT rate increase observed throughout 2014 following the installation of online cash registers would continue into 2015 because of the full-year effect.

The Budget Act includes revenues of HUF 169 billion under the heading “other sales and utilisation revenues”. In the December issue of the Inflation Report, we assumed that the government would realise only the average amount of recent years under this revenue heading. Given that since the adoption of the bill no measures have been revealed for the implementation of the revenue plan, this time we do not expect revenues under this heading other than among the positive risks. As a result of this change, we adjusted our revenue expectations downwards by 0.2 per cent of GDP compared to the December forecast. Compared to the budget bill, however, similarly to the previous round we

Table 5-4: Differences between our forecast and the appropriations set out in the 2015 Budget Act (as a percentage of GDP)

	Difference from appropriation
I. Central government revenues	–0.3
Corporate income tax	0.1
Other taxes paid by business organisations	–0.1
Consumption-type tax revenues	0.1
Revenues from state property and related expenses	–0.4
II. Central government expenditures	0.2
Housing subsidies and pension-related expenditures	0.1
Interest expenditures	0.2
III. Other effects	0.1
Cancellation of the reserves	0.1
Total (I.+II.+III.)	0.0

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively, compared to appropriations.
Source: MNB

Table 5-5: Decomposition of the change in the 2016 ESA balance forecast (compared to the December Inflation Report; as a percentage of GDP)

	Macro data	*Measure*	*Other*
I. Central government revenues	0.4	-0.2	0.0
Consumption-type tax revenues	0.3	-	-
Corporate income tax	0.1	-	-
Special tax on financial sector	-	-0.2	-
II. Central government expenditures	0.0	0.0	–0.7
Investment expenditures	-	-	–0.7
III. Other effects	0.2	0.0	0.0
From this net interest expenditures	0.1	-	-
Total (I.+II.+III.)	**0.6**	**–0.2**	**–0.7**

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively.
Source: MNB

still have a lower forecast regarding the expenditures of the Investment Fund (consistent with our December assumption) by 0.1 per cent of GDP, as based on the budget bill we assume that, in case of lower-than-expected capital incomes, these expenditures would be restrained during the execution of the budget.

We adjusted our projection regarding EU transfers significantly, both on an accrual and a cash basis. As a combined result of several factors, the amount of revenues expected for 2015 from the EU was increased. On one hand, we assumed a nearly total absorption of the funds available in the 2007–2013 budget cycle, taking into account the over-securing of commitments. On the other hand, since the accrual-based revenue figure for 2014 underperformed our expectations, the revenues expected for 2015 were adjusted upward in consideration of the carry-over effect. Thirdly, we lowered our forecast in respect of the carry-over previously expected for 2016 from the 2007–2013 cycle; accordingly, we increased the value of finances expected for 2015. In light of higher EU finances, we substantially raised the amount of public sector investment expenditures projected for 2015; through the increased own funds requirement, this implies net spending growth, raising primary expenditures by 0.2 per cent of GDP.

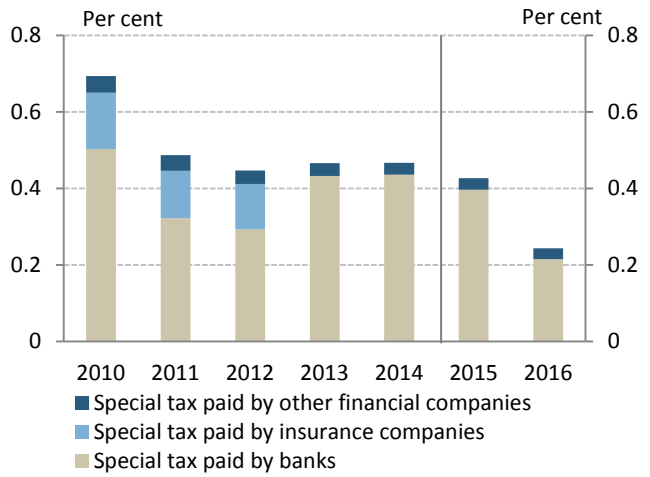
Our forecast for the 2015 balance is consistent with the deficit target of the government stipulated in the Budget Act, but they differ in their structure (Table 5-4). Our forecast differs from the appropriations in that it assumes that the total amount of the National Protection Fund will be cancelled, which alone should improve the budget balance by 0.1 per cent of GDP.

5.3.4. Budget balance in 2016

Based on technical assumptions, we expect an ESA deficit of 2.2 per cent of GDP for 2016, which is a 0.3 percentage point deterioration compared to the forecast published in the December Inflation Report (Table 5-5). Tax and social contribution revenues – which are dependent on macroeconomic developments – make a positive contribution to the accrual-based balance. However, this effect is substantially tempered by the announced reduction of the tax imposed on financial institutions (Chart 5-11).

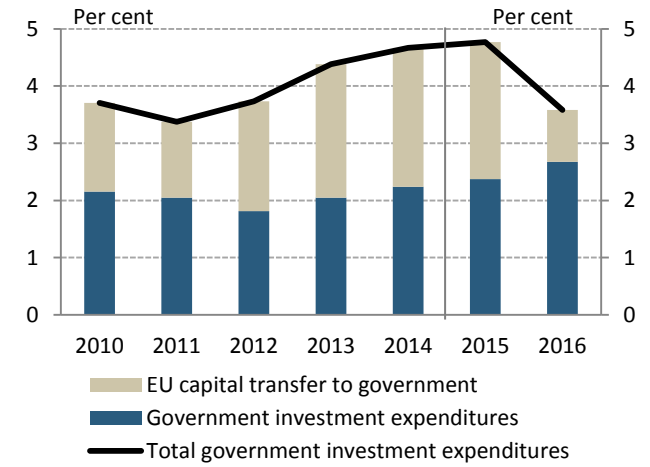
Compared to our December forecast, one significant change is that EU capital transfers are expected to decrease more than we had previously estimated, which would reduce the investment expenditures of the government to a low level. Consequently, we applied a

Chart 5-11: The special tax of financial organisations (as a percentage of GDP)



Source: HCSO, MNB

Chart 5-12: Composition of government sector investment expenditures (as a percentage of GDP)



Source: HCSO, MNB

technical assumption that public investment expenditures in 2016 would at least reach the depreciation of the public capital stock (3.6 per cent of GDP). The new technical assumption necessitates an upward adjustment of primary expenditures (Chart 5-12). The decline in yield levels observed in recent years alleviates the implicit interest burden on public debt, allowing for a further decline in the net interest expenditures of the government sector as a percentage of GDP.

5.3.5. Risks surrounding the baseline scenario

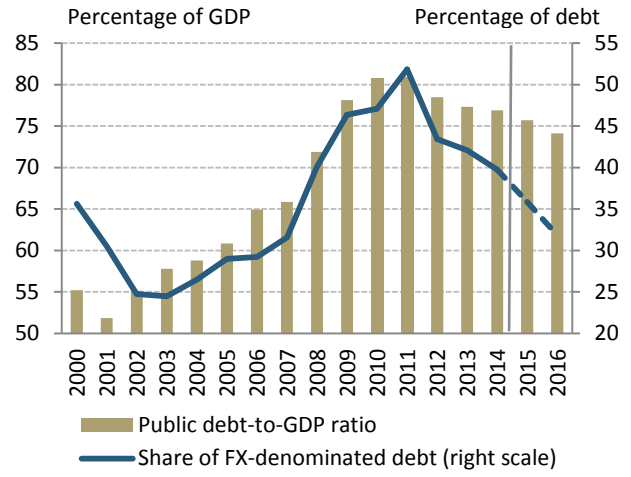
The baseline scenario is surrounded by a number of positive and negative risks; the risks are asymmetrically distributed toward a lower deficit level. In 2015, the potential full realisation of the real estate revenue appropriated in the budget bill represents a positive risk, constituting 0.4 per cent of GDP. (In this case, partial cancellation of the Investment Fund would not be necessary.) The extension of the mandatory use of online cash registers and the implementation of the Electronic Public Road Trade Control System (EKÁER) represent another positive risk. The over-securing of the drawdown of EU sources available for the 2007–2013 period carries a negative risk. If the investment activity of the government sector exceeds the available funding, the excess investment expenditure would have to be financed from government funds (i.e. the government deficit). (It should be noted, however, that this would have a positive effect on economic growth, which would imply additional revenues for the budget.)

5.3.6. Expected developments in public debt

According to the latest data, by the end of 2014, gross consolidated general government debt dropped to 76.9 per cent of GDP from 77.3 per cent in 2013. The decline in the public debt-to-GDP ratio in 2014 was a net result of several factors with opposite effects. Economic growth exceeded expectations and the net financing needs of the general government proved to be better than anticipated; these factors put downward pressure on the debt ratio. Their positive effects, however, were largely offset by the increase in margin deposits placed at the Government Debt Management Agency following the appreciation of the US dollar and the debt revaluation effects caused by the depreciation of the forint against the euro. Nearly 40 per cent of Hungary's public debt is denominated in foreign currency and as such, each 1-forint change in the euro changes the debt-to-GDP ratio by around 0.1 percentage point.

Calculating with the 2014 end-of-year exchange rate, we expect the public debt-to-GDP ratio to decrease further

Chart 5-13: Gross public debt forecast from 2015 calculated with unchanged (end-of-2014) exchange rate



Source: MNB

over the entire forecast horizon (i.e. the public debt rule of the Constitution is expected to be fulfilled in the future as well). According to our forecast, the debt rate may decrease to below 76 per cent by the end of 2015 and may approach 74 per cent in 2016 (Chart 5-13). These favourable debt dynamics may be supported primarily by the expected economic growth, the disciplined fiscal policy and the moderate yield conditions. In addition, as we expect foreign currency denominated net debt issuance to be negative, the proportion of foreign exchange debt may also decrease further. It may even drop below 35 per cent in 2016, which – through the reduction of the exchange rate exposure of public debt – would further moderate Hungary's external vulnerability.

If the forint exchange rate against the euro consistently remains stronger than it was at the end of last year, it would result in a more favourable Maastricht debt-rate trajectory than indicated above. At the same time, the potential positive effects of this scenario could be offset by the further strengthening of the US dollar exchange rate through the increase in margin deposits placed at the Debt Management Agency.

6. SPECIAL TOPICS

6.1. Evaluation of the central bank forecasts for 2014

The purpose of our analysis is to present the level of accuracy of our forecasts regarding the values of the key macro-economic variables in the previous calendar year. In addition, we examine how the forecast performance of the central bank compared to that of market analysts. In the case of the variables assessed for 2014, the first forecast was prepared in December 2012. On the whole, inflation in 2014 became lowerwhile the growth and number of employees became higher compared to our forecast.

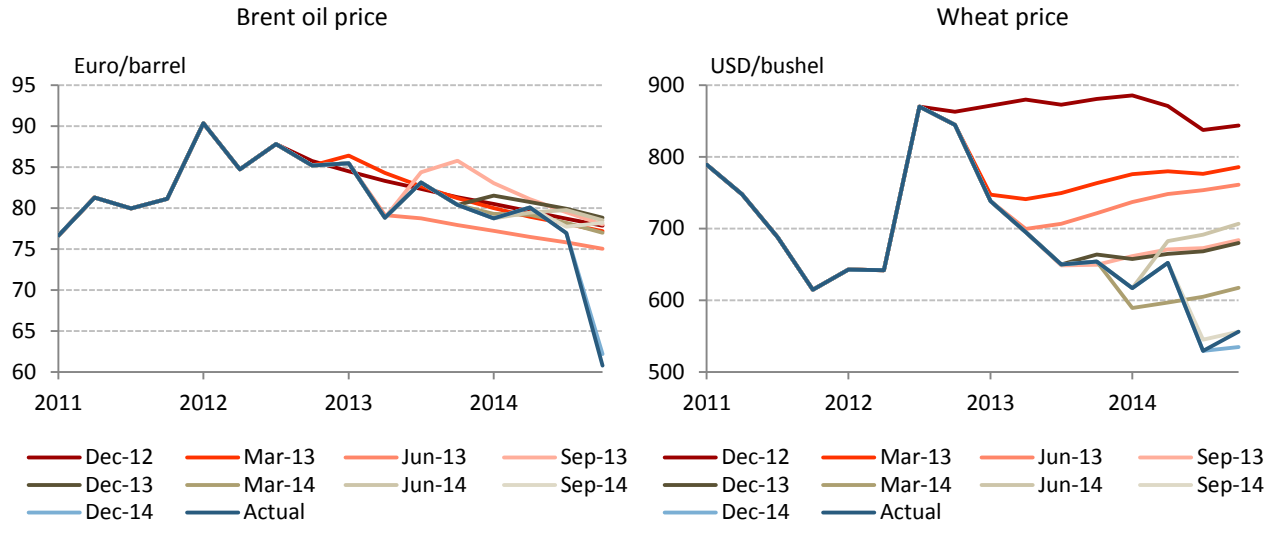
6.1.1. Inflation

Until mid-2013 we expected that inflation in 2014 might be close to the level consistent with the central bank's target. This assumption was supported by the gradual recovery of the consumption demand. In addition, we expected the partial pass-through of the corporate taxes announced during 2012 (e.g. electronic road toll, special tax of the energy sector) through the production chain. In the subsequent quarters, we continuously revised our forecast downwards and expected below-target inflation. Contributing to this were continuously decreasing inflation expectations from the end of 2012, in addition to the moderate-demand environment. The main reasons for the change in our forecast included:

- cost shock pointing to lower inflation (food, fuel, imported inflation; Chart 6-1)
- a decrease of the regulated energy prices performed in multiple steps (inflation reports from September 2013 and March 2014); the overall impact of these on 2014 inflation was -1.0 and -0.2 percentage points
- due to the introduction of the free cash withdrawal in the beginning of 2014, an additional substantial revision in December 2014, the impact of which was -0.2 percentage points

As regards the core inflation adjusted for taxes, the actual figure in 2014 was lower than our forecast, which can be explained by the moderate demand, the gradual decrease of inflation expectations, the lower pass-through of corporate tax burdens and the moderate imported inflation. The more significant error in overall inflation could be attributable to lower oil and food prices, as well as the decrease in regulated energy prices.

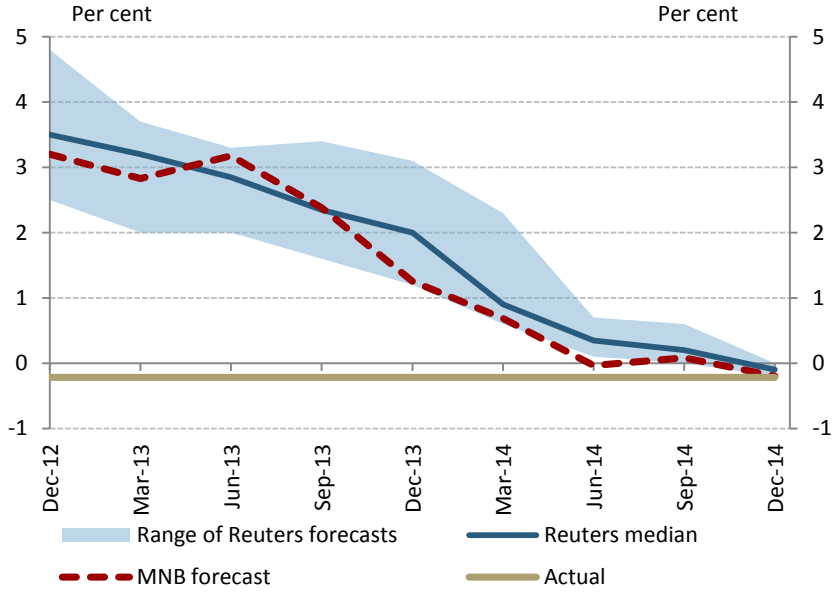
Chart 6-1: Changes in assumptions on crude oil and wheat prices



Source: Bloomberg, CBOT

On the whole, it can be stated that from the end of 2013 our inflation projection related to 2014 was at the lower end of the expectations of the market analysts participating in the Reuters survey. Thus, MNB projections were among the first to signal a very low inflation environment. The central bank's inflation projections consistently showed smaller deviation compared to the realised actual data than market forecasts (Chart 6-2).

Chart 6-2: MNB and market forecasts for 2014 inflation

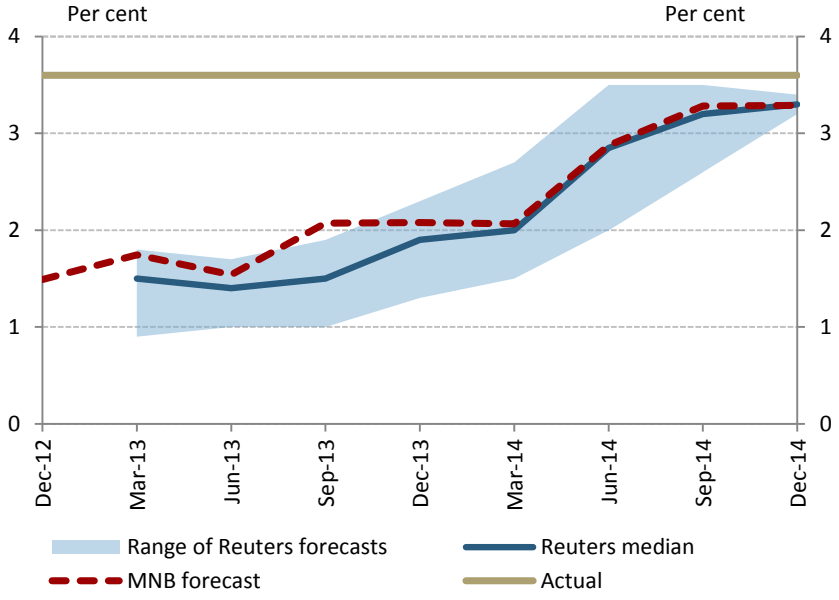


Source: HCSO, MNB, Reuters

6.1.2. Economic growth

Economic growth in 2014 proved more vigorous than the projections of the central bank and market analysts. The average forecast error of the MNB was smaller than the forecast error of the market analysts' median (Chart 6-3).

Chart 6-3: MNB and market forecasts for GDP growth in 2014



Source: HCSO, MNB, Reuters

During 2013, we calculated gradual recovery in 2014, driven primarily by a pick-up of exports through strengthening of external demand and an acceleration in the production capacities of the automotive industry. In addition, in the case of the domestic demand we expected gradual improvement due to continued balance sheet adjustment and strong precautionary motifs. Later on, in parallel with the recovery of domestic demand, we expected a more balanced pattern of growth in 2014.

Starting from mid-2013, MNB projections were gradually revised upwards, but the actual outcome was even more favourable due to supply-side factors, which were largely exogenous to our forecasts. The most important of these were:

- that the continuing and the extension of the Funding for Growth Scheme supported investment activity through improved lending conditions;
- that the absorption ratio of EU funds turned out to be higher than our previous assumptions;
- that commodity prices were considerably lower than our technical assumptions; the resulting low inflation boosted real income, which supported private consumption and expansion and faster acceleration of the capacities of the automotive industry;
- the contribution of better-than-expected agricultural harvests to economic growth, thanks to favourable weather conditions.

Overall, the central bank's real economy forecast was higher than the median of analysts' market expectations; it was thus closer to actual figures.

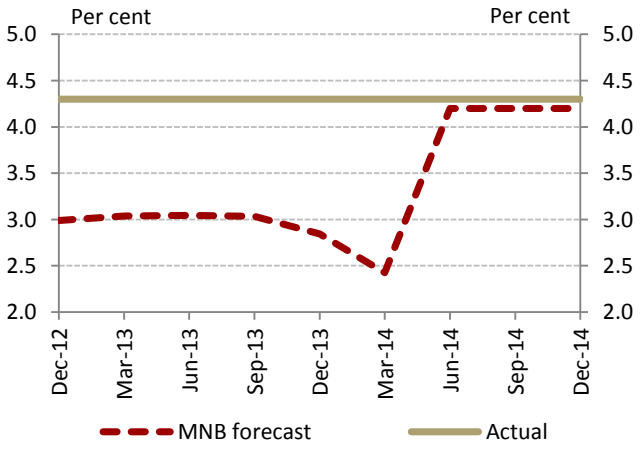
6.1.3. Labour market

The accuracy of the MNB forecasts related to the labour market variables developed differently in terms of gross average wages and number of employees.

Due to low corporate profitability resulting from the unfavourable business conditions and the increasing tax burden of the private sector, we calculated with restrained wage dynamics at the end of 2012 and during 2013. The restrained wage dynamics was also justified by the loose labour market conditions and the gradual adjustment of the inflation expectations. In June 2014 we significantly modified our wage forecast. This was mainly attributable to changes in our judgement, as the decrease of unemployment and the expansion of advertised new jobs suggested a less loose labour market compared to the previous quarters. The higher than expected wage figures in the beginning of the year also acted towards the increase of our forecast. Additionally, as a result of higher than expected nominal GDP growth and decreasing financing costs, we hypothethised that corporate profitability could be more favourable than previously anticipated. As of June 2014, expected wage dynamics were close to the actual reality (Chart 6-4).

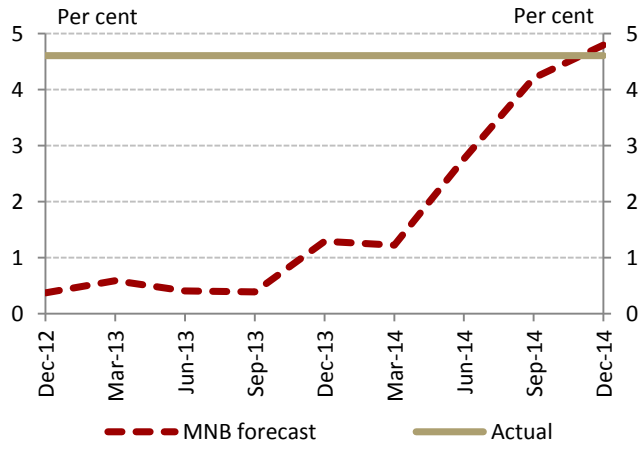
We expected an increase of the number of employees in the private sector from 2014 in parallel with the improvement of the business conditions. Until September 2013, we expected a moderate expansion in number of employees. In December 2013, as a result of higher data on employment growth coming in, we increased our employment figures. The increase of part-time employment, the expansion of the public work scheme and its impact on the seasonal pattern of employment also contributed to our forecast revisions (Chart 6-5).

Chart 6-4: MNB and market forecasts for 2014 private sector gross average earnings



Source: HCSO, MNB

Chart 6-5: MNB and market forecasts for 2014 private sector employment



Source: HCSO, MNB

6.2. Why did the underlying inflation developments remain low, despite the continued recovery in demand?

Since mid-2013, inflation has been well below the medium-term target of 3 per cent. Moreover, in the past quarters the inflation rate has further decreased, and it has been in the negative range for several months. Conversely, household consumption has been continuously recovering. According to our estimates, the output gap is gradually closing and the labour market has become tighter as well. **In the coming months, despite the continued recovery of demand, we should calculate with negative inflation values.** Accordingly, our analysis will review what role the specific factors may have had on the negative inflation and to what extent it reflects general trends in price-setting. In addition, we examine the impact that the key factors determining the corporations' pricing behaviour may have on the inflation in the coming years.

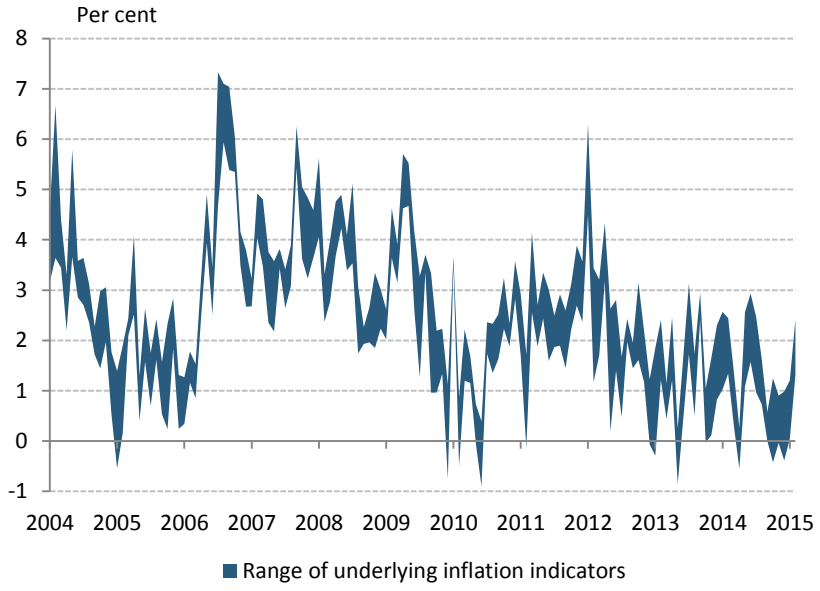
6.2.1. Development of underlying inflation indicators

The consumer price index monitors the prices of numerous products and services. The prices of part of these items are extremely volatile. The price of other items is set by government measures. **We can examine the longer-term trends of the prices set by corporations, and the underlying inflation developments in several ways.**

One of the possible approaches is to eliminate the most volatile-priced product groups and the extreme values on a statistical basis from the consumer price index (Edgeworth-weighted index, unweighted median, etc.). The band generated from these indices provides a robust view of the underlying processes, while also properly illustrating the uncertainty of the measurement. Based on practical experience, it is appropriate to analyse the month-on-month change of these indices. In this way, a change in the general trends of inflation may be signalled much earlier than the indicator measuring the year-on-year price change.[13]

The band of the short-term inflation outlook indicators does not suggest a permanent price decline. It merely signals extremely restrained underlying processes. Since the second half of 2014, the indices have constantly remained in the 0 to 1 per cent range (Chart 6-6).

Chart 6-6: Short-term inflation indicators



Source: MNB calculations based on HCSO data

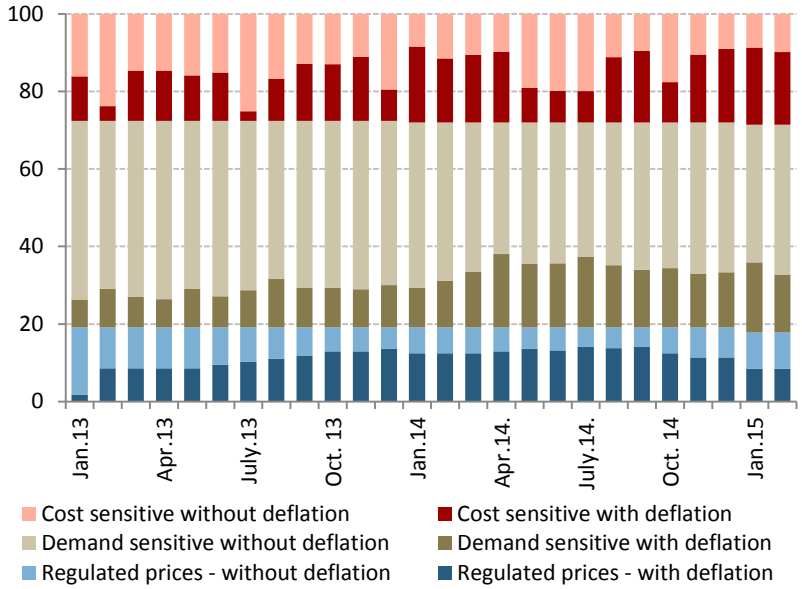
A cross-sectional analysis of consumer prices may provide additional information on underlying inflation developments. For this purpose, we examined what percentage of the consumer basket is characterised by the decrease of the price level. On the whole, 42 per cent of the consumer basket has a negative price index in February, which is high even in a regional comparison. However, we obtain a more precise picture if we aggregate the contents of the consumer basket on

[13] Details about the calculation of these indicators can be found in Bauer P. (2011): Inflációs trendmutatók, MNB-Tanulmányok 91. (only in Hungarian)

the basis of the key factors determining their prices. The three examined categories comprise the products subject to administrative price measures, the products whose prices are mainly determined by cost factors (e.g. food, fuel), and products whose prices are demand-sensitive (primarily industrial goods and services).

As a result of multi-round administrative price cuts, the **share of the regulated price products characterised by a negative price index increased.** At present, 8.5 per cent of the domestic basket belongs to this group. **The weight of the products characterised by a negative price index also increased among the cost-sensitive products,** which in recent months was impacted by the major decrease in oil prices and falling food prices attributable to the price-depressing effect of the Russian embargo. Conversely, **in the group of demand-sensitive products, the share of the products characterised by decreasing price levels has not changed since spring 2014,** despite the fact that the consumer price index became negative precisely in this period. Thus, the price developments of industrial goods and market services do not indicate deflation for the time being (Chart 6-7).

Chart 6-7: Inflation decomposition by the most relevant factors of price determination



Source: MNB calculations based on HCSO data

At the same time, **although deflation is not being experienced in the demand-sensitive category, the price dynamics have been lower than the rate consistent with the inflation target for an extended period.** To understand whether the level of the demand-sensitive inflation is consistent with the inflation target, it has to be determined to what extent the two indicators typically diverge. The divergence may arise from, amongst other things, the fact that cost shocks from the global economy can have a permanent impact on the inflation of the demand-sensitive category, and thus the relative prices of demand- and cost-sensitive products may change.

We examined the difference of the inflation and the demand-sensitive inflation of the EU member states figures between 2004–2014. Depending on which countries are examined at what period, the estimation of the adjusted target value of demand-sensitive inflation is uncertain. We demonstrate the calculated adjusted target values on different time-periods in Charts 6-8. (The band is based on calculations being performed for every single EU country in each period and also for Central Eastern countries only. The results are slightly different for the two groups of countries.)

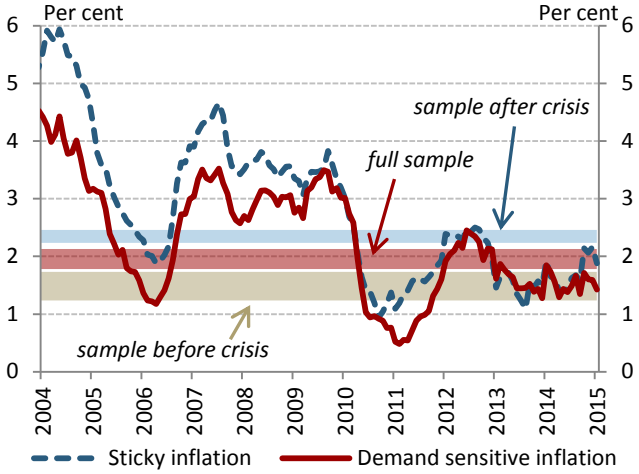
Due to the trend-like increase of commodity prices in the pre-crisis years, inflation of cost-sensitive products was high. Therefore, the achievement of price stability required low demand-sensitive inflation. However, commodity prices showed much more restrained dynamics after the crisis (Table 6-1), and thus price stability became achievable even under higher demand-sensitive inflation.

If we take the period since 2004 as a baseline, at present the indicators are in the lower part of the band that may be deemed consistent with the target. However, if we focus only on the post-crisis period, the deviation is more significant.

Therefore, if the inflation of the cost-sensitive and the regulated-price products remains moderate in coming years, in accordance with our forecast's base assumptions as well, achievement of the inflation target may require higher cost-sensitive inflation than the actual one.

Moreover, the core inflation indices have consistently fallen short of the level consistent with the inflation target since 2013. Thus, we try to identify the factors underlying the low level of demand-sensitive inflation.

Chart 6-8: Development of underlying inflation indicators and estimated ranges consistent with the inflation target



Source: MNB calculations based on HCSO data

Table 6-1: Average inflation of cost sensitive and regulated prices (per cent)

	2004–2008	2009–2014
Cost sensitive	7.1	3.1
Regulated prices	9.0	1.2

Source: MNB calculations based on HCSO data

6.2.2. Possible causes of the underlying low inflation developments

In recent months, inflation has been substantially lower than our December forecast. This was **mainly a**ttributable **to cost factors** (e.g. food and fuel prices). **However, the services price inflation also fell short of the December forecast.** In order to understand the underlying processes, it is worth examining the factors that determine the price developments of these product groups, as well as the processes behind these.

The real-economy developments of past quarters pointed to an increase in demand-sensitive inflation. The Hungarian economy grew dynamically in 2014; within that, household consumption further improved. In our projection, we expect that output may gradually approach its potential level and the recovery of the household consumption, essential in terms of domestic inflationary pressure, may also continue.[14]

The dynamics of the unit labour costs were high in the region in past quarters, although they decreased somewhat during 2014. Thus the labour costs may have had some role in the moderate underlying processes. However, compared to the case of deflation (i.e. the macroeconomic developments in Japan in the 1990s)[15] – cited most often in the international specialist literature – the Hungarian wage index shows much higher dynamics.

In terms of future inflation processes, it is very relevant whether or not inflation expectations consistently follow the central bank's inflation target. If yes, then the impact of the low inflation arising from the cost shocks will be temporary, as the economic agents will know that looking ahead they can expect inflation that is consistent with the central bank's target. However, if the expectations are not anchored to the target, the inflation target loses its orientation power. In this case, the impact of the surprisingly low inflation may last.

Although actual inflation has been continuously decreasing, **in the case of Hungary the decrease of the households' inflation expectations halted in the second half of 2014 and has remained stable since then.** In autumn 2014, this may

[14] This view is also reinforced by the preliminary figures of retail-sales volume in January 2015, according to which recovery of the domestic demand continued.

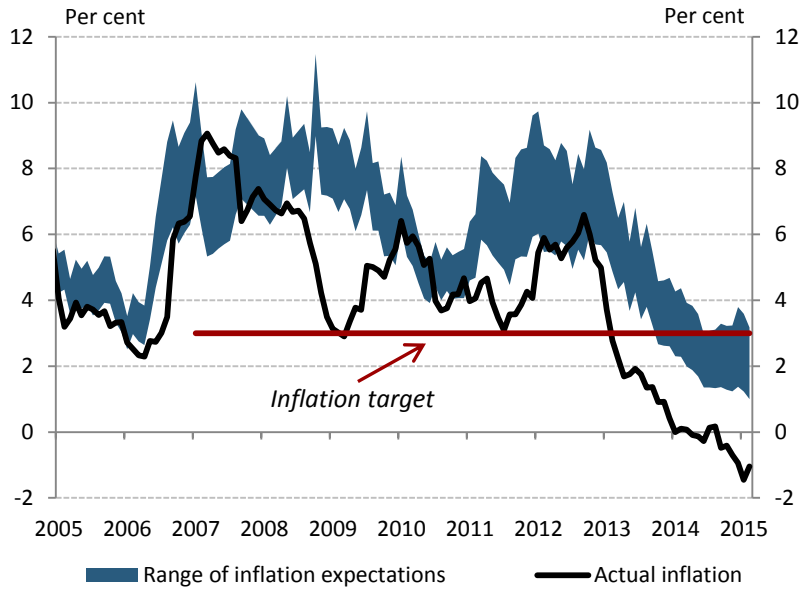
[15] See MNB Inflation Report, June 2014, Box 3-1.

have been due to expectations related to the tax changes planned for 2015. The inflation expectations quantified from the ESI survey, also taking estimation uncertainties into account, at present may be in the range of 1 to 3 per cent (Chart 6-9). Thus, it is possible that in fact the expectations are anchored at a lower level than the central bank's inflation target. Furthermore, if the expectations are only weakly anchored around the central bank's inflation target, the expectations may decrease further due to the low inflation values in the beginning of 2015. Therefore, it could be the case that the low level of the inflation expectations or their weak anchoring may also contribute to moderate pricing processes.

Box 6-1: What factors influence households' inflation expectations?

According to an MNB study[16] aimed at explaining the evolution of inflation expectations, Hungarian expectations follow actual inflation developments and thus they are retrospective. At the same time, the inflation expectations in all countries are being hit by shocks that cannot be explained by the development of the inflation. (Amongst other factors, these shocks might be the reason for domestic expectations remaining at high levels, in a regional comparison, between 2006 and 2013.) Based on the analyses, certain items of the consumer basket are more important for the development of the expectations; households presumably monitor the changes of these items more closely. (These are mostly regulated prices and food prices.) In addition, it is a general phenomenon that upon developing their expectations, households tend to overweight frequently purchased products and, on a larger scale, transparent price changes. (These may include changes of fuel prices and regulated prices, which receive great publicity.) Based on this, looking ahead expectations may further decrease, which may be attributable to a continued decrease of food prices and the consumer price index falling to a historic low.

Chart 6-9: Households' inflation expectations



Source: MNB calculations based on data of the European Commission

6.2.3. Summary

In recent months, domestic consumer prices have been continuously decreasing. The downward drift was not general among the products; it mostly characterised regulated-price and cost-sensitive products. Inflation of demand-sensitive products remained positive. However, for an extended period, demand-sensitive inflation has been falling short of the level that may be consistent with the central bank's inflation target. The upswing of consumption demand alone acted towards an increase in demand-sensitive inflation. This may have been offset by slightly decreasing unit labour costs and declining inflation expectations. Looking ahead, inflation expectations and their impact on wage setting may have a key role in the development of demand-sensitive inflation.

[16] Gábriel P. – Rariga J. – Várhegyi J. (2014): Inflation expectations in Hungary; MNB Occasional Papers 113

7. BREAKDOWN OF THE AVERAGE CONSUMER PRICE INDEX FOR 2015

Table 7-1: Decomposition of inflation to carry-over and incoming effects

	Effect on CPI in 2015		
	Carry-over effect	Incoming effect	Yearly index
Administered prices	–0.2	0.2	–0.1
Market prices	–1.0	1.0	0.0
Indirect taxes and government measures	0.0	0.2	0.1
CPI	–1.3	1.3	0.0

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so-called carry-over and incoming effects. The carry-over effect is the part of the yearly index that 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 (non-administered prices, excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.
Source: MNB

Table 7-2: Detailed decomposition of our inflation forecast to carry-over and incoming effects

	2015				
	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	–2.3	0.0	2.5	0.0	0.2
non-processed	–4.5	0.0	6.0	0.0	1.2
processed	–1.2	0.0	0.9	0.0	–0.3
Traded goods	0.0	0.0	0.5	0.0	0.5
durables	–0.2	0.0	–1.4	0.0	–1.7
non-durables	0.1	0.0	0.9	0.0	1.1
Market services	1.3	–0.1	1.5	0.0	2.7
Market energy	0.3	0.0	–0.5	0.0	–0.2
Alcohol and Tobacco	–0.1	0.0	3.0	1.7	4.6
Fuel	–10.0	0.0	–2.4	0.0	–12.2
Administered prices	–1.4	0.0	1.0	0.0	–0.4
Inflation	–1.2	0.0	1.2	0.2	0.0
Core inflation	0.2	0.0	1.2	0.2	1.6

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of the so-called carry-over and incoming effects. The carry-over effect is the part of the yearly index that 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 (non-administered prices, excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.
Source: MNB

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Mátyás Hunyadi

(23 February 1443 – 6 April 1490)

He ruled from 1458 to 1490 as King of Hungary, and had been Czech king from 1469 and Prince of Austria from 1486. Hungarian tradition regards him as one of the greatest Hungarian kings whose memory is preserved in many folk tales and legends. He is also known as Matthias Corvinus, King Matthias the Just or officially as Matthias I, but commonly he is simply denoted as King Matthias.

His father, János Hunyadi, the regent of Hungary, was one of the most outstanding military leaders and strategists in the country's medieval history who triumphed at the Battle of Nándorfehérvár in 1456. Matthias' mother was Erzsébet Szilágyi, and he had an elder brother, László Hunyadi. The future king was brought up by his mother and nurse until the age of six, and was subsequently placed under the supervision of his tutors. János Hunyadi did not have a chivalrous education in mind for his son: first, it was a Polish humanist, Gergely Szánoki who introduced him to the realm of knowledge, then this task was assigned to János Vitéz. Mátyás was brought up and educated in a humanistic spirit to become a versatile and curious-minded person who had been taught canon and constitutional law, arts and Latin. In addition to Hungarian, he also spoke German and Czech.

After the death of László V, his uncle, Mihály Szilágyi, and the armed forces supporting Hunyadi exercised pressure to have Matthias crowned as King of Hungary on 24 January 1458. Even in the early years of his reign Matthias had troubles both with the magnates of the country and Emperor Frederick III of the Holy Roman Empire. As the king was still a minor, parliament appointed Mihály Szilágyi to act as regent on his behalf. However, Matthias did not tolerate any guardianship and pushed his uncle to the background who devised a plot against the king in response. Returning from battle with the Turks, the king had the rebels captured and he imprisoned his uncle in the castle of Világos.

Upon his ascension to the throne the annual income of the treasury hardly exceeded 110 to 120 thousand forints. During his rule spanning thirty-two years the king managed to multiple revenues from taxes. Considering the average of the taxes levied, less the revenues from the Czech and Austrian provinces, this yearly amount approximated 628,000 forints and may as well reached 900,000 gold forints in the most prosperous years. This was still much less than the annual revenue of the western powers of the age. In order to raise the low income of the treasury, reform-like and comprehensive financial actions were needed. Matthias recognised that a centralised, nationwide financial system was the only solution to the problem, and that the royal revenues had to be directed to a single person, the treasurer. The reforms of Matthias were adopted by parliament and his decrees were promulgated on 25 March 1467.

We can get a glimpse of the cultural life in the royal court, which represented the elite of European civilisation at the time, at the partly reconstructed Royal Palace in Visegrád. The most distinguished pieces of the cultural legacy of Matthias are the Corvinian books, richly illustrated volumes of the former royal library.

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