



INFLATION

REPORT



S E P T E M B E R

20|4

*‘...we shall make no attempt at anything that is contrary
to the benefit and interest of the public.’*

Mátyás Hunyadi



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REPORT

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Pursuant to Act CCVIII 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 17 September 2014.

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The Monetary Council finished the two-year easing cycle in July 2014.

With a cumulative 490 basis point reduction, the central bank policy rate fell to 2.1 per cent as a result of a two-year easing cycle. In the Council's judgement, with the easing cycle finished, maintaining the current low level interest rates for an extended period ensures the achievement of the Bank's medium-term 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.

Inflation is likely to remain close to zero per cent this year, before rising to levels around 3 per cent consistent with price stability in the second half of the forecast period.

The Council expects the inflation rate, on average, to remain around zero per cent, before rising gradually to levels around the medium-term target in the course of next year. The dynamics of consumer price inflation have continued to be historically low in recent months. Low inflation in external markets, favourable developments in commodity prices and imported inflation, subdued domestic demand, the fall in inflation expectations and the reductions in administered energy prices have all contributed to the low inflation environment. At the forecast horizon, the domestic real economy is expected to continue to have a disinflationary impact, albeit to a declining extent, as domestic demand recovers gradually. As a result of improvements in productivity and moderate wage growth alongside economic growth, low inflation is likely to persist for a sustained period, despite the pick-up in domestic demand. Low inflation environment for a prolonged period is likely to lead to a persistent reduction in expectations, which is expected to help anchor inflation expectations playing a key role in determining the nominal path of the economy around the Bank's medium-term inflation target.

In the Council's judgement, economic growth is likely to continue, despite slightly weaker external demand.

The recovery in the real economy has continued over the past quarter, with output rising across a wide range of sectors as employment continued to grow. The protracted recovery in Hungary's external markets and the economic sanctions imposed due to the conflict between Ukraine and Russia have resulted in a slightly weaker external demand environment; however, economic growth is expected to continue, reflecting the pick-up in domestic demand. The improvement in the outlook for activity, the effect of the Funding for Growth Scheme, the easing in credit constraints and the increasing use of EU funding are expected to support investment growth. As seen in previous quarters, the gradual improvement in employment and rising household real income due to low inflation are playing a key role in the recovery in household consumption. As a result of the legislative process affecting household loans, household net financial wealth is expected to increase, accelerating the deleveraging process. However, the recovery in consumption is likely to remain moderate, due the slow fall in precautionary motives following the crisis. The decision is expected to contribute to an increase in household income, but the saving rate is likely to remain above pre-crisis levels, due to the slow fall in precautionary motives. Looking ahead, Hungarian economic growth may continue in a more balanced pattern than previously.

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

The external position of the economy continued to improve in the first half of 2014, as reflected in the decline in external debt ratios. The trade surplus, while remaining substantial in the coming years even as imports continue to rise due to increasing consumption and investment, is likely to keep the current account surplus high over the coming years. The slight decline in the income balance deficit is expected to contribute to Hungary's external position remaining strong. The external financing capacity of the economy is likely to remain substantial as the use of EU transfers remains high despite the new budget cycle. Consistent with this, the debt ratios, key in terms of the country's vulnerability, are likely to continue to decline.

The Hungarian risk premium has remained broadly unchanged in the past quarter and sentiment has been volatile in global financial markets.

International investor sentiment has been volatile in the past quarter, mainly reflecting the escalation of geopolitical conflicts, uncertainty surrounding an interest rate increase by the US Federal Reserve, the interest rate reduction by the European Central Bank and its additional monetary policy measures. Of the domestic risk indicators, the CDS spread and foreign currency bond spreads have not changed significantly since publication of the June Inflation Report. Long-term yields also remained around levels seen at the beginning of the quarter, following a sharp rise due to temporary factors. The forint exchange rate has depreciated in the past quarter, due in part to country-specific reasons, but mainly as a result of the changes in international investor sentiment. Hungary's persistently high external financing capacity and the resulting decline in external debt have contributed to the reduction in its vulnerability. In the Council's judgement, a cautious approach to monetary policy is still warranted due to uncertainty about future developments in the global financial environment.

The macroeconomic outlook is surrounded by both upside and downside risks.

The Monetary Council considered three scenarios around the baseline projection in the September Report, which, if materialise, might influence the future stance of monetary policy. In the alternative scenario assuming a weaker-than-expected recovery in Hungary's trading partner countries and, consequently, lower inflation, the inflation target can be achieved with looser monetary conditions than assumed in the baseline scenario. In the risk scenario assuming an earlier-than-expected monetary policy tightening by globally influential central banks, tighter domestic monetary conditions than suggested in the baseline projection can ensure that inflation moves in line with price stability in the medium term. A third scenario, which assumes more robust growth in domestic employment and consumption, and, consequently, stronger domestic activity growth and a faster increase in inflation relative to the baseline projection, also implies a tighter monetary policy stance.

In the Council's judgement, there remains a degree of unused capacity in the economy and inflationary pressures are likely to remain moderate *in the medium term*. The negative output gap is expected to close gradually at the monetary policy horizon. *Looking ahead, therefore, the disinflationary impact of the real economy is likely to diminish and, with current monetary conditions maintained, inflation is likely to move into line with the target over the medium term.* The Council judges that, based on available information, the current level of the central bank base rate is consistent with the medium-term achievement of price stability and a corresponding degree of support to the economy. *If the assumptions underlying the Bank's projection hold, achieving the medium-term inflation target points in the direction of maintaining current loose monetary conditions for an extended period.*

SUMMARY TABLE OF THE BASELINE SCENARIO
(FORECAST BASED ON ENDOGENOUS MONETARY POLICY)

	2013	2014	2015
	Actual	Projection	
Inflation (annual average)			
Core inflation	3.3	2.4	2.9
Core inflation without indirect tax effects	1.5	1.6	2.7
Inflation	1.7	0.1	2.5
Economic growth			
External demand (GDP based)	1.0	1.5	1.7
Household consumption expenditure	0.2	2.2	2.6
Government final consumption expenditure	1.4	0.8	0.1
Gross fixed capital formation	5.8	12.5	2.6
Domestic absorption	0.8	3.6	2.1
Export	5.3	6.5	5.9
Import	5.3	7.1	6.0
GDP	1.1	3.3	2.4
External balance¹			
Current account balance	3.1	3.1	3.1
External financing capacity	6.8	7.0	6.2
Government balance^{1,5}			
ESA balance	-2.4	-2.8	-2.6
Labour market			
Whole-economy gross average earnings	3.1	3.2	3.4
Whole-economy employment	1.6	4.4	0.2
Private sector gross average earnings ²	3.6	4.2	4.0
Private sector employment	0.8	4.2	0.1
Unemployment rate	10.2	8.1	7.8
Unit labour cost in the private sector ³	2.3	4.4	0.7
Household real income ⁴	1.5	3.9	1.9

¹ As a percentage of GDP.

² According to the original 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.

1. INFLATION AND REAL ECONOMY OUTLOOK

The Hungarian economy has been characterised by further acceleration in growth and subdued inflation in recent months. In line with our expectations, the Hungarian economy continued to grow in a structure which was more balanced than in the past. In line with the improving cyclical development, private sector demand for labour picked up, while private sector wage dynamics remained invariably more restrained. Inflation developments were broadly consistent with the assumptions made in the June Inflation Report.

According to our forecast, inflation may still be close to zero in September and gradually climb upwards in the subsequent months, approaching its medium-term target by the second half of the forecast horizon. The low inflation environment is invariably the consequence of unused capacities in the economy, the subdued external inflationary environment, moderate wage dynamics and further regulated price cuts implemented during the autumn months. Persistently below-target inflation may help to anchor inflation expectations, which in turn may foster a sustained low inflation environment over the medium term.

We expect to see continued economic growth over our forecast horizon. Domestic demand components are playing an increasingly important role in the growth structure. The increasing utilisation of European Union funds is still a key factor behind the rise in whole-economy investments. Along with the improving outlook for earnings, growth in corporate investments is fostered by lower funding costs, and the Funding for Growth Scheme and its extended second phase further facilitate small and medium sized enterprises' access to funding. Over our forecast horizon, we expect gradual acceleration of growth in household consumption, driven by improving labour market prospects and households' higher real income stemming from low inflation. The uniformity decision of the Curia concerning household loans may further boost consumption from 2015 onwards. This measure will increase households' net worth, which may also drive higher consumption, but the saving rate may remain high in forthcoming years due to the slow easing of prudential considerations. Uncertainty about external demand, a key determinant of export performance, has risen significantly. Euro-area economic growth came to a halt in the past quarters, and may slow further due to mounting uncertainties in the Russia-Ukraine crisis and the sanctions which were imposed. Higher demand for imports resulting from rising domestic demand and deteriorating export growth prospects may diminish net exports' contribution to growth. Meanwhile, new vehicle industry capacities may drive an increase in export market share.

Labour market activity may continue to rise over our forecast horizon. We expect to see private sector labour demand increase as economic growth continues to pick up, and the extension of public sector employment schemes may also contribute significantly to higher national economy employment. The labour market may become tighter over our forecast horizon, however, inflationary pressure from the labour market remains moderate since the unemployment rate is still above its pre-crisis level.

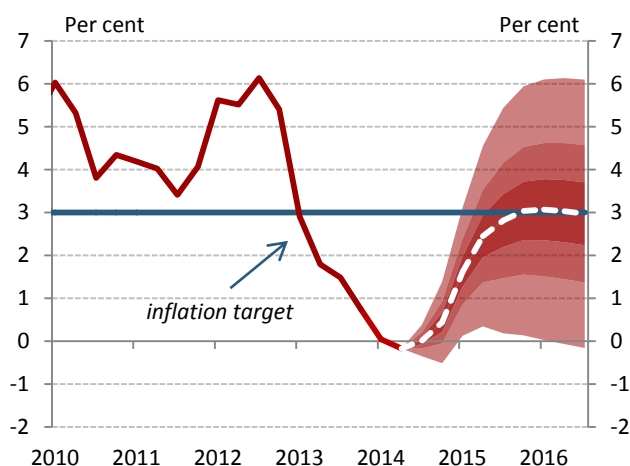
The economy's net lending may remain substantial in the forthcoming years. The budget deficit may remain around 3 per cent of GDP in this and the next year, and if a disciplined fiscal policy is applied, the government's deficit target is likely to be reached.

All in all, the real economy may continue to exhibit disinflationary effects over the entire forecast horizon, the result of two opposing developments. The output of Hungary's trading partners may fall short of its potential level permanently, and thus less favourable growth prospects for Hungary's export markets may result in lower capacity utilisation in the domestic export sector. By contrast, domestic demand is set to continuously accelerate 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

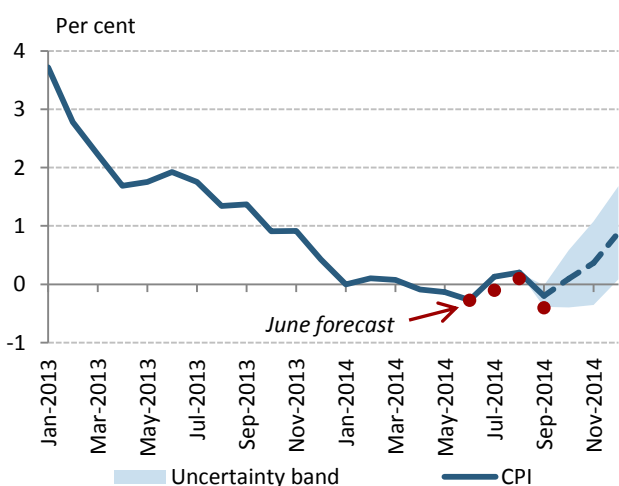
No significant changes have occurred in our inflation projection since the June Report. Inflationary pressure from rising consumption and the weakening forint exchange rate may be offset by moderate import prices, good harvest results at the global level and the expected disinflationary effects of the Russian embargo on foods. In parallel with the revival in domestic demand, the rate of inflation may gradually rise and may approach the 3 per cent target by the second half of the forecast horizon.

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

Inflation is likely to remain substantially below target this year, slightly below next year and to approach its target by the second half of the forecast horizon (Chart 1–1). There have been no significant changes to our inflation projection since the June Report.

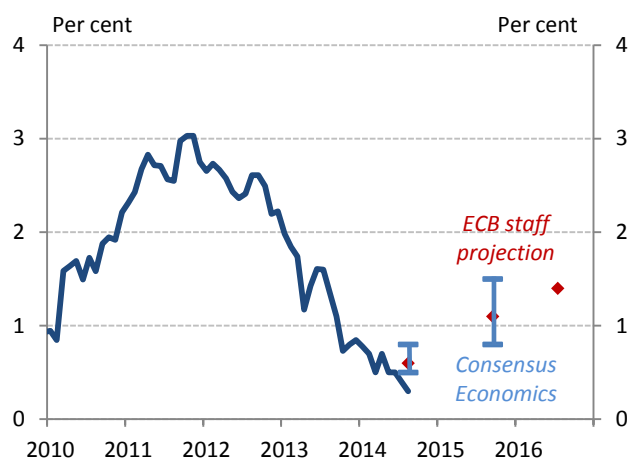
According to our short-term inflation projection, the annual inflation index may be slightly negative in September, with the price level gradually climbing from subsequent months (Chart 1–2), resulting in an overall level of inflation of 0.1 per cent this year and around 2.5 per cent next year. Several factors may foster a subdued inflationary environment in the short run: low commodity prices and imported inflation, the subdued demand environment and lower regulated energy prices all contribute to moderate increases in consumer prices. We expect to see inflation rise from the end of the year as the impact of the regulated energy price cuts implemented last November fades out.

Factors determining inflation trends over the medium term point to a low inflation environment. The output gap may remain negative over the entire forecast horizon, while its closure is increasingly supported by domestic demand. The legal uniformity decision of the Curia concerning household loans may invigorate household consumption further from 2015 onwards. On the other hand consumption expenditure may remain well below its pre-crisis level, and thus the real economy gradually decreasing may continue to exert a disinflationary impact going forward.

Overall, inflationary pressure from import prices may remain weak. Annual inflation in the euro area, Hungary's main trading partner, declined further in recent month and may remain below the ECB target over our entire forecast horizon based on our assumption (Chart 1–3).

Unit labour costs may rise at a moderate rate in the private sector. Economic growth fosters improving productivity, while inflation expectations falling close into line with the target may support the maintenance of subdued wage dynamics over our forecast horizon. The low inflation environment over the long term may permanently reduce expectations, thereby helping to maintain wage and price dynamics consistent with the inflation target over the

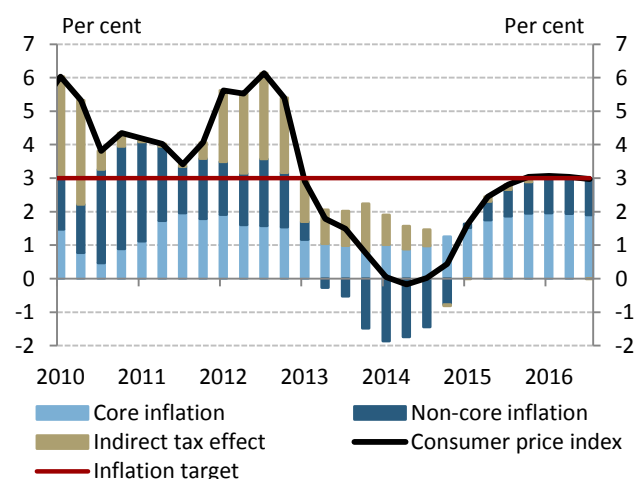
Chart 1-3: HICP inflation in the euro area



Note: Annual change. The chart shows the maximum and minimum of the individual forecasts in the Consensus poll.

Source: Eurostat, ECB, Consensus Economics

Chart 1-4: Decomposition of the inflation forecast



Source: MNB

Table 1-1: Details of the inflation forecast

		2013	2014	2015
Core inflation		3.3	2.4	2.9
<i>Contribution to inflation</i>		2.2	1.6	1.9
Non-core inflation	Unprocessed food	6.1	-3.8	2.1
	Gasoline and market energy	-0.9	-0.3	4.0
	Regulated prices	-3.7	-6.5	0.6
	Total	-1.2	-4.3	1.7
<i>Contribution to inflation</i>		-0.5	-1.5	0.6
Inflation		1.7	0.1	2.5

Source: MNB

medium term.

Core inflation dynamics, adjusted for indirect taxes from the current low level may rise slowly in parallel with narrowing of the output gap (Chart 1-4). Core inflation may rise in parallel with a gradual pick-up in domestic demand, but dynamics may moderate due to weak imported prices and slightly falling inflation expectation.

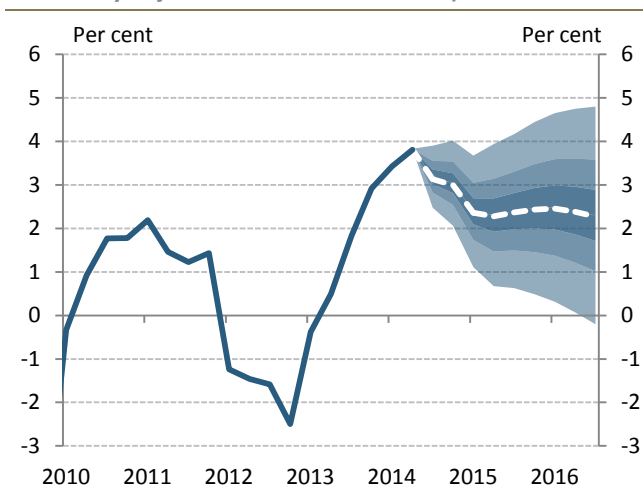
Price increases of non-core items may remain subdued. Higher oil prices stemming from the weakening EUR/USD exchange rate contribute to inflation within this product group, which may however be offset by favourable global food harvests and disinflationary effect of oversupply in food market due to the expected impact of the Russian embargo on foods.

The direct impact of government measures on inflation may remain moderate over our entire forecast horizon, and the regulated energy price cuts adopted at the beginning of the year will contribute to this. We still assume unchanged regulated energy prices over the entire forecast horizon. Non-energy regulated prices may rise in harmony with the subdued inflation environment.

1.2. Real economy forecast

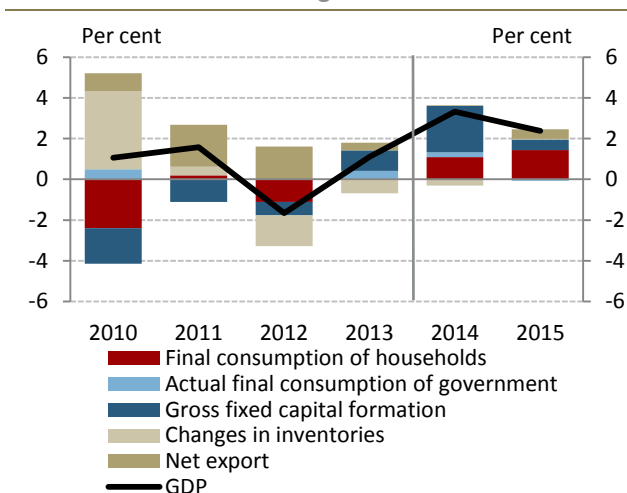
We expect to see economic growth continue over the forecast horizon, although with more moderate dynamics than in the first half of this year. Domestic demand may pick up gradually, driven by both household consumption and investment activity. State investments financed from EU funds continue to play a key role in the revival of investment activity, while corporate investments may be driven by improving real economic prospects and the easing lending conditions supported by the extension Funding for Growth Scheme. The acceleration of the households' consumption growth may also be driven by the increasing real income in the low inflation environment and the legal uniformity decision of the Curia concerning household loans. The saving rate, however, may remain high due to the slow easing of prudential considerations in the following years. Along with an upswing in domestic demand components, weaker euro-area growth and increasing geopolitical risks may result in lower economic growth in our export markets. This effect can be compensated by the increase in export market share based on the new vehicle industry capacities.

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



Source: MNB

Chart 1-6: Evolution of GDP growth



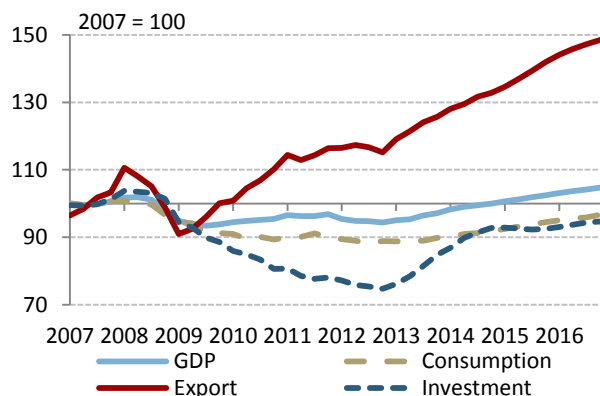
Source: CSO, MNB

Economic growth may continue with a more moderate dynamics than in the first half of the year and may continue to exhibit a balanced structure (Chart 1–5, Chart 1–6). The contribution of domestic demand to growth should rise over our forecast horizon. Higher utilisation of EU funds, expansive monetary conditions and low inflation resulting in increasing real income all foster economic growth, while falling global business activity and households' prudential considerations may hold it back. Continuous growth is projected on a quarterly basis, but the setback in the annual pace of growth may be caused by a base effect in the last quarter of the year. All in all, the Hungarian economy may expand by 3.3 per cent this year and 2.4 per cent next year. The Hungarian economy is set to reach its pre-crisis volume by the beginning of 2015 if these growth dynamics are sustained (Chart 1–7).

In line with the less favourable external demand, Hungarian export performance may fall short of our assumption from June. Growth prospects in the euro area, Hungary's main trading partner, have deteriorated, and escalation of Russia-Ukraine conflict entails substantial risks, which were already felt in the second quarter's growth figures (Chart 1–8). Consistent with these effects and the large share of the European countries among our trading partners lower external demand is expected.

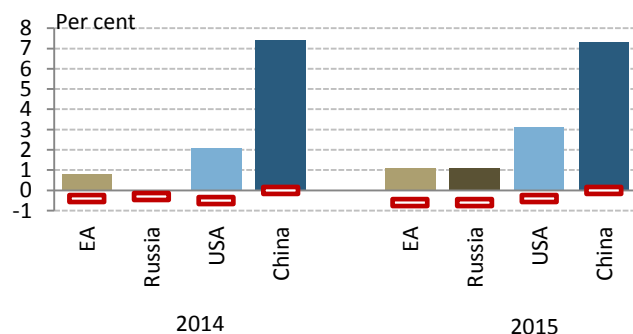
New vehicle industry capacities may again drive an increase in export market share. With the number of new vehicles manufactured in Hungary, set to rise by one third. In addition, rising domestic supplier performance driven by the knock-on effects of auto industry investments may contribute to a lower import content of vehicle exports. However, rising domestic consumption and investment may boost the economy's demand for imports, which could restrain the contribution of net exports to growth in the

Chart 1-7: Changes in GDP and main components since the crisis



Source: CSO

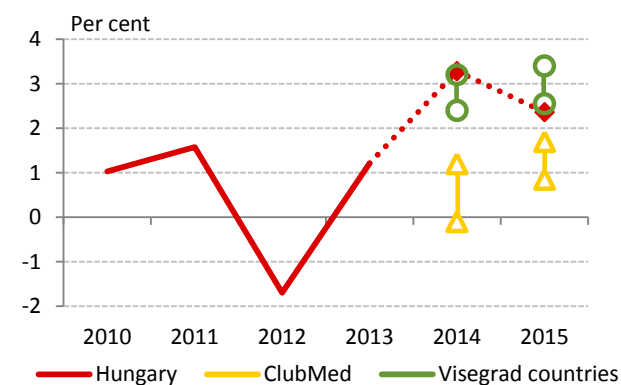
Chart 1-8: Change in the GDP growth forecasts of our major foreign trade partners



Column = Consensus Economics, September 2014
Line = change compared to May 2014

Note: * The Russian forecast was taken from Consensus Economics, other countries were taken from the OECD.
Source: OECD May and September 2014, Consensus Economics May and September 2014

Chart 1-9: Evolution of GDP in the EU periphery and in the region



Note: Annual change. ClubMed countries: Greece, Italy, Portugal and Spain. Visegrad countries: Czech Republic, Poland and Slovakia.

Source: MNB, Bloomberg

coming quarters.¹

Public investments implemented from EU funds continue to represent the primary driving force behind the significant investment growth within the national economy (Chart 1–10). As the funds allotted to Hungary in the EU’s 2007-2013 budgetary cycle are being drawn down at an increasing pace, the number of co-financed investment projects has risen sharply in 2013–14. The volume of public investments may subsequently remain stable throughout 2015.

Within the corporate segment, investment activity is primarily driven by manufacturing, more specifically the auto industry and the related supplier network. Further easing lending constraints resulting from the extension of the Funding for Growth Scheme and improving real economic prospects both support corporate investments by SMEs. Lax monetary conditions and the increasing real income may increase household investment at a moderate pace from its low level, primarily thanks to the implementation of the renovation projects postponed during the crisis period. The investment rate in the national economy may reach 20 per cent by 2015.

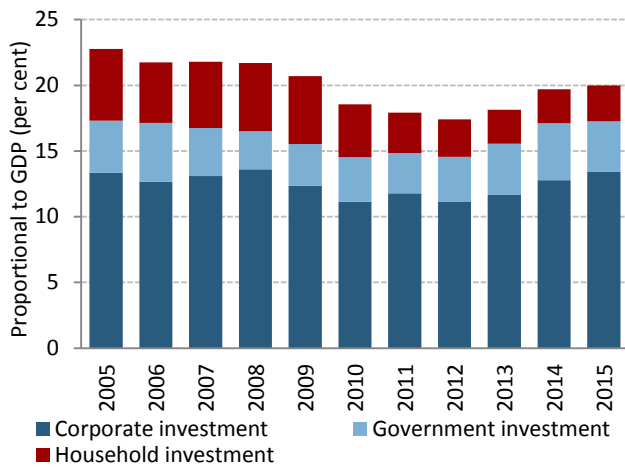
We expect accelerating growth in household consumption over our forecast horizon. The pick-up in consumption stems primarily from low inflation and favourable labour market developments, resulting in higher real incomes. The Curia’s legal uniformity decision on household loans may boost consumption substantially in 2015, as this measure increases households’ regular disposable income and net worth, fostering faster deleveraging. At the same time, prudential considerations may remain pronounced, as reflected in a higher than pre-crisis level propensity to save.

The volume of corporate loans may stabilise in the upcoming years, in parallel with a continuing decline in the household loan volume. The volume of loans extended to small and medium-sized enterprises may continue increasing thanks to the Funding for Growth Scheme.

Aggregate output may fall short of its potential level over the entire forecast horizon. Household consumption, which is relevant in terms of inflationary pressure of domestic origin, may continue to rise more quickly, but may fall significantly short of its pre-crisis level despite this steady increase. The cyclical position of our most important trading partners remain still negative, causing unused

¹ Our forecast based on the trade data available in the National Accounts shows a decline in net exports’ contribution to GDP growth in 2014. However according to the revision of the monthly current account statistics in 2014 June, net exports’ contribution to GDP growth may be favourable in 2014.

Chart 1-10: Development of sectoral investment



Source: CSO, MNB

capacities in the export sector. The real economy will exhibit disinflationary impacts and the output gap may close by the end of the forecast horizon.

Box 1-1: Real economy impact of the Supreme Court (Curia) decision on exchange rate margins and unilateral interest rate changes

In its legal uniformity decision of 16 June 2014, the Curia took a position in several issues affecting foreign currency loans. Following the Curia's decision, the Government formulated a regulation² on the settlement of the contractual terms of foreign currency loans. Pursuant to the regulation, **after the review of the exchange rate margins and unilaterally raised interest rates, damages arising from the contract modifications declared invalid will be refunded to borrowers.** Overpayments settled through the application of the regulations generally must be considered as early repayment of the principal, but in the course of the calculation allowances given to the borrowers (e.g. allowances on instalments, remittals, interest allowances in the framework of the exchange rate cap scheme) can be taken into consideration. The regulation also prohibits unilateral raises in interest rates until 30 April 2016.

This box addresses the expected real economy impacts of the legal uniformity decision and the attached regulation. In view of the directives in effect, the amount to be refunded to debtors is estimated to be approximately HUF 942 billion. According to the bill supplementing Act XXXVIII of 2014, the sums in question will be refunded through the reduction of the debtor's outstanding principal in the case of existing contracts, and in the form of lump-sum payments in the case of contracts which have ended.

The package may impact growth through two main channels. On the one hand, the indemnification of debtors may influence consumption decisions through the income position/financial wealth of households and, on the other hand, it will also affect the liquidity and capital position of the financial intermediary system, which may have macroeconomic effects indirectly, through lending activity.

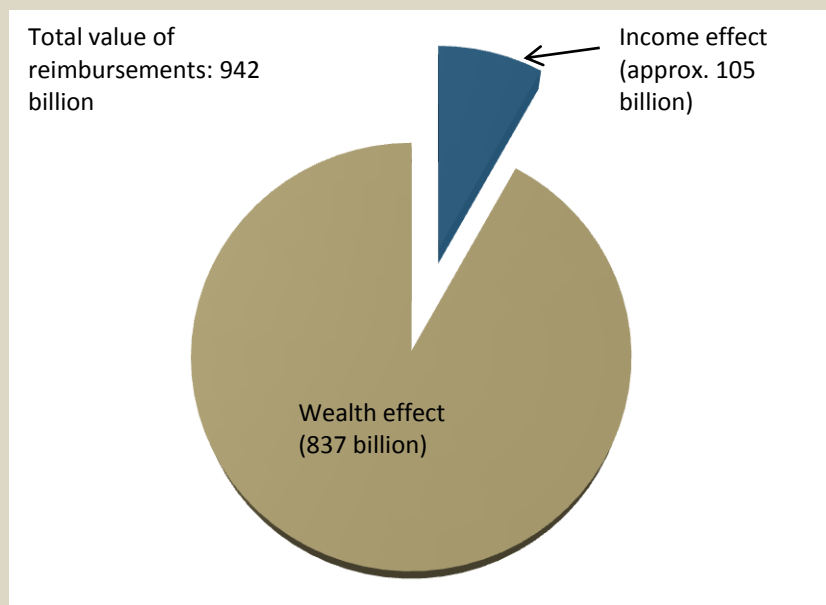
Impact of the package on household consumption

Settlements with the debtors result on the one hand in a lump-sum repayment and on the other hand in reduction of the outstanding principal. The latter represents a shortfall in the income on the side of the lending institutions, because mainly interest payments decrease within the instalments of the debtors. The total sum of repayments is expected to amount to HUF 942 billion and within this amount the decrease in the instalments on our forecast horizon account for approximately HUF 120 billion.

The package affects households' consumption decisions through two effects. In case of **terminated contracts**, the payments received can be considered as a **temporary increase in income** (i.e. income effect). Since payments to debtors with terminated contracts are estimated to be in the range of HUF 100–110 billion, in our estimate we used a figure of HUF 105 billion. As regards **still valid contracts, the outstanding principal debt will be reduced** by the difference between the currently outstanding foreign currency debt and the foreign currency debt resulting from the recalculation, which will improve the net worth of debtors and as such, it can be regarded as a **permanent positive effect on wealth** (i.e. wealth effect). We quantified this part of the package as HUF 837 billion.

² Act No. 38/2014, and the corresponding bill specifying the details of settlements (introduced on 12th September 2014).

Chart 1-11: Estimated wealth and income effect of the package's single reimbursement



Source: MNB

We estimated the effects of the measure using consumption equations applied in the MNB, which are based on so-called error correction models. The estimated consumption effect of the two intervention types, even in case of a similar magnitude, may differ from one another in terms of size and timing. The consumption effect of the permanent wealth increase is more moderate, but its effect will be perceivable for a longer period. At the same time, the immediate effect of a temporary income shock on consumption is stronger during the year of its occurrence, but the effect wears off quickly in subsequent periods. The overall effect of the HUF 942 billion package on the annual change of consumption may be approximately 0.9 per cent in the first year, i.e. in 2015 (Table 1–2). Accordingly, **through this channel, the package is expected to generate a 0.2–0.3 per cent increase in GDP in 2015.** In our estimate, we took into account the presumably higher percentage of households with liquidity constraints among those concerned, as their consumption behaviour may be influenced more strongly by the increase in current income amid reduced debt burdens. At the same time, our estimate also reflects the experiences of the crisis, which suggest that the households' propensity to consume decreased compared to the period before 2008. Currently, households tend to consume far less from surplus income per unit (about 65–70 per cent) than they did during the years preceding the crisis.

Table 1-2: Effects of the Curia decision on the annual change in consumption (%)

	1 st year	2 nd year	3 rd year
Income effect	0.4	-0.3	-0.1
Wealth effect	0.5	0.2	0.0
Total	0.9	-0.1	-0.1

Source: MNB

Examining the wealth effect in the context of households' instalment amounts yields a similar result. In the case of the valid contracts, the outstanding debt will be reduced by the amount which is due to be refunded as a result of the unilaterally raised interest rates and exchange rate margins. The disposable income of households with foreign currency debts after instalments is expected to increase by around HUF 120 billion, and this will be supplemented by the effect of the one-off refund on already terminated contracts. The related consumption response is estimated to be approximately 0.9 per cent of household consumption. This effect will be reflected in consumption in the first year and subsequently *ceteris paribus* consumption may remain at a higher level. It is important to note that the amount of HUF 837 billion calculated for the lower outstanding principal debt includes the loans of households belonging to the non-performing stock. In the case of those currently non-performing households, which start to repay their debts again as a result of the measure, the restart of instalments may offset the above-mentioned consumption effect in the short term.

In addition to the economic effects, a **statistical effect** should also be mentioned. According to the calculations of national accounts, **interest payments on loans are also reflected in households' final consumption expenditure through Financial Intermediation Services Indirectly Measured (FISIM)**. As a result of the package, not only households' instalment amounts will decline, as the related interest payments will as well. Therefore, the FISIM and the SNA-based consumption will be also reduced by this amount. This is offset by the effect estimated above by using the two different approaches, which indicates that the rise in households' disposable income after instalments will also generate an increase in their consumption.

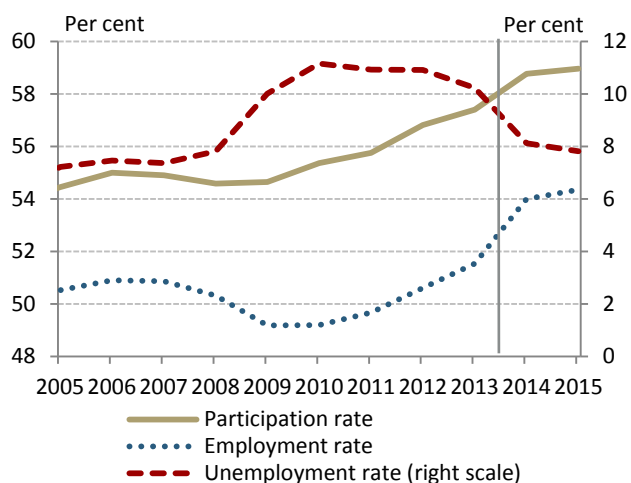
Impact of the package on the banking sector

The **indemnification of debtors will also affect the liquidity and capital position of the financial intermediary system**, which may indirectly affect lending activity. **Due to the relatively high capital buffers, the risk of significant deleveraging is expected to remain moderate.** In addition to the immediate effects, over the medium term, the measures will contribute to the cleaning up of banks' balance sheets and thereby, the emergence of a healthier balance sheet structure. According to our calculations, the effects stemming from the changes in the capital position and the improving balance sheet structure may neutralise one another over the forecast horizon; therefore, we do not expect a drastic change in credit supply. The effects of the FX debtor relief package on the financial intermediary system will be presented in more detail in the November issue of the Financial Stability Report.

1.3. Labour market forecast

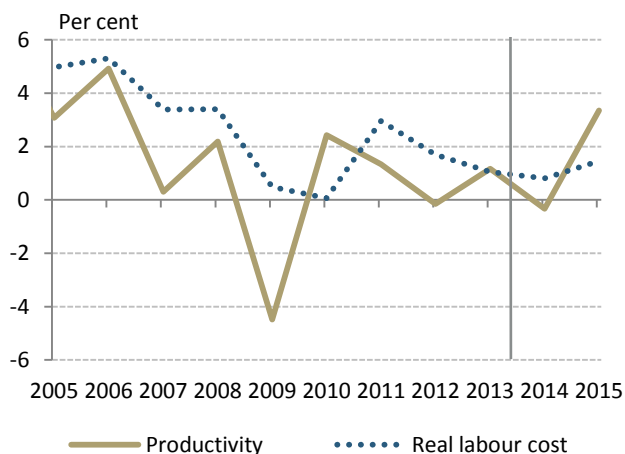
Labour market developments moved in accordance with our expectations, and – in parallel with the real economy upturn – a rise in employment is expected in the national economy, with private sector hiring and public sector employment schemes possibly contributing to this. The annual average of the unemployment rate may remain around 8 per cent over the forecast horizon. Due to the increase in productivity and anchoring of inflation expectations wage dynamics might be permanently lower than the pre-crisis level in the private sector.

Chart 1-12: Employment, participation rate and unemployment in the national economy



Source: MNB calculations based on CSO data

Chart 1-13: Development of productivity* and real wage costs in the private sector



Note: * Calculated using full-time equivalent employment. Real compensation is deflated with the price index of private sector value added.

Source: MNB calculations based on CSO data.

We expect a continued rise in the labour force participation rate (Chart 1–12). The pick-up in labour demand may be caused by labour supply boosting measures implemented after the crisis. In addition, growing labour demand may enable unemployed persons who turned inactive earlier to enter in higher proportion to the labour market.

In line with the upturn in economic activity, private-sector labour demand may continue to grow. In our forecast, we project the rate of part-time employment to remain permanently above the pre-crisis level. As a result of this, employment may expand at a faster rate than the rise in the number of hours worked. Additionally, public employment schemes may continue to play a key role in employment in the national economy as a whole. In line with government reports, in our forecast the number of public employees may remain around 200,000 in the years to come.

The labour market may become tighter compared to the past years. Unemployment is expected to decline, thanks to the public employment schemes and rising private sector labour demand. Despite these improving labour demand, the unemployment rate may remain higher than its pre-crisis level until the end of the forecast horizon and expected to be around 8 per cent on average.

Wage dynamics in the corporate segment may remain subdued compared to pre-crisis levels (Chart 1–13). Beside the slack labour market conditions and the improving productivity, the dynamics in unit labour cost in the private sector remain moderate. An adjustment of inflation expectations will also contribute to keeping private-sector wage dynamics permanently below pre-crisis levels. With inflation lower than wage dynamics, we expect to see a modest increase in real wages.

The public employment scheme and public-sector wages jointly exert a substantial influence on the national average wage index. Since the earnings of public employees are below the national economy average, the extension of the public employment scheme significantly lowers the national average wage index through the composition effect.

Box 1-2: Main assumptions applied in our forecast

Hungary is a small, open economy, and so 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 such.

The short presentation of changes in external assumptions published in the chapter on forecasts is intended to make the central bank's forecasts more transparent.

On the commodity markets, prices have continued to decline. In light of slowing growth in (net) oil importing countries (Europe, China) and changes in foreign exchange rates, compared to the June forecast we have slightly lowered our assumption for the oil price trajectory expressed in USD for 2014 and left it essentially unchanged for 2015. Futures quotes for unprocessed food decreased as a result of globally favourable harvests, and thus our forecast is based on lower food prices. In our benchmark assumptions, the euro exchange rate weakened vis-à-vis the US dollar, stemming primarily from the difference between the Fed and ECB monetary policy stance. Uncertainty continued to surround regional economic growth due to the protracted recovery in the euro area, and this may be exacerbated by the escalation of the Russia-Ukraine conflict. Euro-area inflation may remain low over our forecast horizon in line with the subdued growth, and according to experts' expectations the ECB may maintain its lax monetary conditions in the longer run.

Table 1-3: Changes in our basic assumptions applied for forecasting

Technical Assumptions	2014		2015		Change	
	June	Sept.	June	Sept.	2014	2015
Oil (USD/barrel)	108.1	106.0	103.8	103.6	-1.9%	-0.2%
Food prices						
Wheat (USD/bushel)	6.74	5.93	7.30	5.98	-12%	-18.1%
Maize (USD/bushel)	4.80	4.16	4.94	3.94	-13.3%	-20.2%
USD/EUR	1.366	1.347	1.361	1.315	-1.4%	-3.4%
Euro area inflation (%)	0.8	0.6	1.2	1.1	-0.2 pp.	-0.1 pp.
Euro area GDP (%)	1.1	0.8	1.4	1.1	-0.3 pp.	-0.3 pp.

Source: CBT, Bloomberg, OECD, Consensus Economics, MNB calculations

Table 1-4: Changes in our projections compared to the previous Inflation report

	2013	2014		2015	
	Actual	Projection			
		June	Current	June	Current
Inflation (annual average)					
Core inflation	3.3	2.4	2.4	3.0	2.9
Core inflation without indirect tax effects	1.5	1.6	1.6	2.8	2.7
Inflation	1.7	0.0	0.1	2.5	2.5
Economic growth					
External demand (GDP-based)	1.0	1.9	1.5	2.1	1.7
Household consumer expenditure	0.2	2.0	2.2	1.9	2.6
Government final consumption expenditure	1.4	1.4	0.8	-0.3	0.1
Fixed capital formation	5.8	8.4	12.5	3.9	2.6
Domestic absorption	0.8	3.1	3.6	1.9	2.1
Export	5.3	6.2	6.5	6.6	5.9
Import	5.3	6.7	7.1	6.5	6.0
GDP	1.1	2.9	3.3	2.5	2.4
External balance¹					
Current account balance	3.1	3.1	3.1	3.3	3.1
External financing capacity	6.8	6.4	7.0	6.4	6.2
Government balance^{1,5}					
ESA balance	-2.4	-2.7	-2.8	-2.6	-2.6
Labour market					
Whole-economy gross average earnings	3.1	2.8	3.2	3.7	3.4
Whole-economy employment	1.6	3.5	4.4	0.8	0.2
Private sector gross average earnings ²	3.6	4.2	4.2	4.0	4.0
Private sector employment	0.8	2.8	4.2	1.0	0.1
Unemployment	10.2	8.7	8.1	7.9	7.8
Private sector unit labour cost ³	2.3	3.5	4.4	2.0	0.7
Household real income ⁴	1.5	3.2	3.9	1.5	1.9

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 1-5: MNB baseline forecast compared to other forecasts

	2014	2015
Consumer Price Index (annual average growth rate, %)		
MNB (September 2014)	0.1	2.5
Consensus Economics (September 2014) ¹	0.0 – 0.2 – 0.6	1.9 – 2.5 – 3.0
European Commission (May 2014)	1.0	2.8
IMF (April 2014)	0.9	3.0
OECD (May 2014)	0.5	2.8
Reuters survey (August 2014) ¹	0.0 – 0.2 – 0.8	2.0 – 2.5 – 3.0
GDP (annual growth rate, %)		
MNB (September 2014)	3.3	2.4
Consensus Economics (September 2014) ¹	2.2 – 3.1 – 3.5	1.6 – 2.3 – 2.9
European Commission (May 2014)	2.3	2.1
IMF (April 2014)	2.0	1.7
OECD (May 2014)	2.0	1.6
Reuters survey (August 2014) ¹	2.4 – 3.0 – 3.4	1.6 – 2.1 – 2.6
Current account balance³		
MNB (September 2014)	3.1	3.1
European Commission (May 2014)	3.0	2.7
IMF (April 2014)	2.7	2.2
OECD (May 2014)	3.6	3.9
Budget deficit (ESA-95 method)^{3,4}		
MNB (September 2014)	2.8	2.6
Consensus Economics (September 2014) ¹	2.1 – 2.9 – 3.0	2.1 – 2.7 – 3.1
European Commission (May 2014)	2.9	2.8
IMF (April 2014)	2.9	2.9
OECD (May 2014)	2.9	2.9
Reuters survey (August 2014) ¹	2.7 – 2.9 – 3.2	2.5 – 2.9 – 3.0
Forecasts on the size of Hungary's export markets (annual growth rate, %)		
MNB (September 2014)	3.9	4.1
European Commission (May 2014) ²	4.1	5.6
IMF (April 2014) ²	3.1	4.2
OECD (May 2014) ²	3.9	5.2
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)		
MNB (September 2014)	1.5	1.7
European Commission (May 2014) ²	1.9	2.2
IMF (July 2014) ²	1.6	2.0
OECD (May 2014) ²	1.8	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 forecasts for all partner countries.

³ As a percentage of GDP.

⁴ With complete cancellation of free reserves.

Sources: Eastern Europe Consensus Forecasts (Consensus Economics Inc. (London), September 2014); European Commission Economic Forecasts (May 2014); IMF World Economic Outlook Database (April and July 2014); Reuters survey (August 2014); OECD Economic Outlook No. 93 (May 2014).

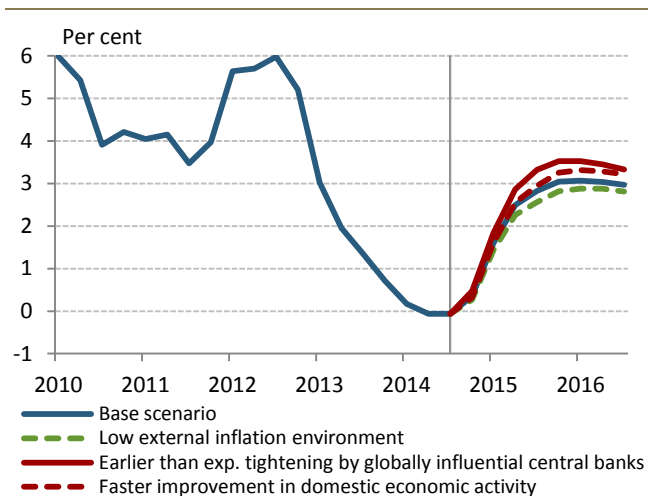
2. EFFECTS OF ALTERNATIVE SCENARIOS ON OUR FORECAST

With regard to the baseline projection of the September Inflation Report, the Monetary Council has identified three alternative scenarios which, in the event that should they materialise, may influence the monetary policy stance. The alternative scenario assuming a slower-than-expected recovery of Hungary's trading partners and thereby a lower external inflation environment implies a downside risk both to growth and inflation; consequently, the medium-term inflation target may also be achieved with looser monetary conditions than envisaged in the baseline scenario. In the risk scenario assuming earlier-than-expected monetary tightening by the major global central banks in the context of favourable changes in the external environment, monetary conditions tighter than that included in the baseline scenario may ensure that inflation moves in line with price stability over the medium term. A third scenario, which assumes more robust growth in domestic employment and consumption, and, consequently, stronger domestic activity growth and a faster increase in inflation relative to the baseline projection, also implies a tighter monetary policy stance.

Moderate growth in external markets and a persistently low external inflationary environment

External inflation declined further in the past quarter, mainly owing to the combined effects of persistently weak demand and moderate commodity prices. During summer month, euro-area inflation continued to decline, while growth data also proved to be worse than expected. As a result of these effects, deflationary risks increased in the euro area.

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



Source: MNB

Looking ahead, as projections pertaining to Hungary's most important trading partners also point to a downside risk to growth, the output gap of Hungary's external markets may remain permanently more open than currently assumed. Accordingly, the existing, extremely low inflationary environment may persist in Europe, exacerbating the risk of deflation. In addition, risks related to growth deceleration in emerging economies, especially in China, may also contribute to the weakening of global activity, which may induce additional disinflationary effects through commodity prices. In view of the above, domestic imported inflation may be lower than expected in the baseline scenario.

Consequently, this alternative scenario assumes that weaker external demand will have a stronger disinflationary impact, resulting in a lower external inflation path and, via the foreign trade channel, more subdued growth than expected in the baseline projection. Moreover, in the low external inflationary environment globally influential central banks may decide to maintain their loose monetary conditions longer which, in turn, could offset the change in global investor sentiment. In this scenario, as a result of stronger disinflation, **the inflation target can also be achieved in the medium term with looser interest rate conditions than those assumed in the baseline scenario.**

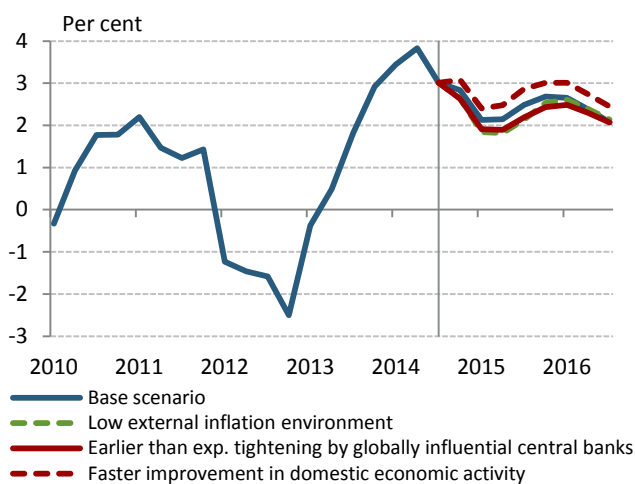
Sooner-than-expected monetary tightening by globally influential central banks

According to the baseline projection, owing to favourable growth and labour market data in the United States, the tapering of the Fed’s asset purchase programme, which was launched at the end of last year, is to conclude in October. At the same time, the risk perception of Hungary may be considerably influenced by the future application of the unconventional instruments adopted by globally influential central banks, by their monetary policy stance and by developments in global risk appetite.

External risks arising from the monetary policy of globally influential central banks shaping the global financial environment may be significant to Hungarian monetary policy as well. In developed countries (especially in the case of the Fed and the Bank of England), a faster recovery in the demand environment may lead to an earlier-than-expected tightening of international monetary conditions, which may set off an abrupt turnaround in capital flows in emerging markets and result in deterioration of their risk indicators.³ In addition, emerging market capital outflows may also have a negative impact on Hungary’s growth outlook through a downturn in external demand.

Based on the above, in this scenario the earlier-than-expected tightening of international monetary conditions may lead to a deterioration in investor sentiment related to emerging markets. A rise in risk spreads may weaken the exchange rate, which intensifies inflationary pressures. In the case of domestic exports, two opposing effects may emerge: in the short run, deceleration in the demand of emerging markets may lead to a lower growth path than that expected in the baseline projection. At the same time, over the long term stronger growth in developed markets may benefit our external demand, which may improve Hungary’s growth outlook in the second half of the forecast horizon. In terms of inflation developments, the effect of the weakening exchange rate is only partly offset by the disinflationary impact of the external environment. Based on this alternative scenario, deteriorating risk perception and rising inflation may warrant a tighter monetary stance during the period as compared to the baseline scenario. **A tighter monetary policy would ensure that inflation is in line with the target at the end of the forecast horizon.**

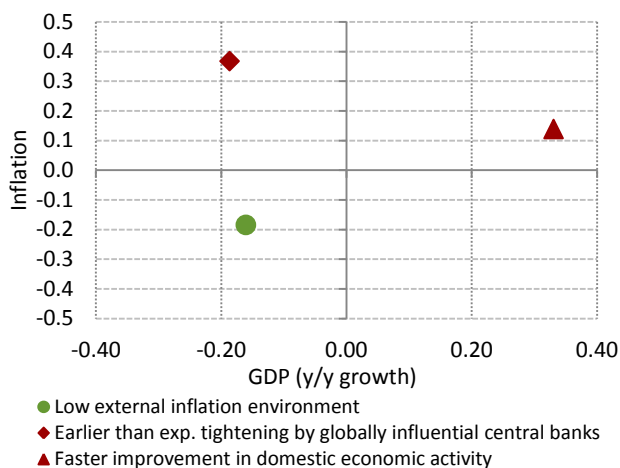
Chart 2-2: Impact of the risk scenarios on our GDP forecast



Source: MNB

³ Besides earlier-than-expected monetary policy tightening, global risk appetite, risk indicators and external demand developments may be adversely affected by the deterioration of the growth prospects of Hungary’s export markets, the materialisation of risks pointing to a return of the European debt crisis and the vulnerability of the banking sector, and by the escalation of the Russia-Ukraine conflict.

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 markers mean tighter and the green markers mean looser monetary policy than the baseline forecast.

Source: MNB

Faster recovery in domestic economic activity

According to data received during the past quarter, the recovery in domestic demand has continued. As regards the key macroeconomic factors that shape household consumption, real incomes increased due to the low inflationary environment. Moreover, the legal uniformity decision of the Curia in respect of household foreign currency loans increases the financial wealth of households, thereby accelerating the deleveraging process of the households concerned. At the same time, as post-crisis precautionary considerations tend to ease only slowly, the improvement in consumption may remain moderate.

Looking forward, there is a possibility that consumer confidence will improve more markedly and outstanding debts will be reduced faster than currently expected. Faster-than-expected easing of precautionary considerations and declining pressures for balance sheet adjustment may increase the propensity to consume and lead to a steeper rise in the consumption path.

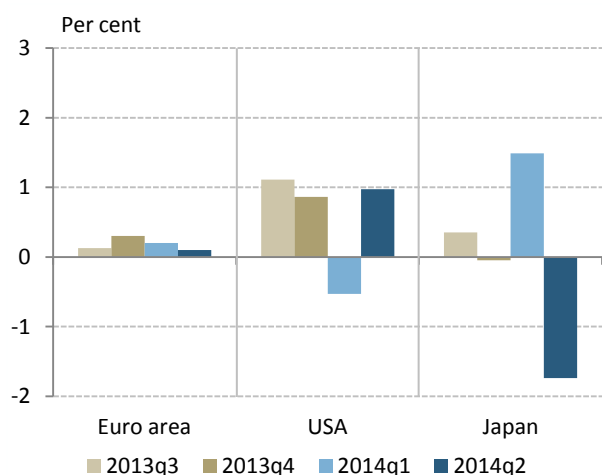
In addition, in line with the gradual upswing in economic activity and employment, the labour market may also become increasingly tighter. Boosted by the effect of public labour programmes and the improvement in private sector employment, employment has increased significantly since the beginning of the year. This may be an indication of the private sector's rising demand for labour in recent quarters and hence, a sign of increased competition among employers, which may point to acceleration in wage dynamics. This implies inflationary pressure at the forecast horizon. Through an increase in households' disposable income, higher-than-assumed wage dynamics may raise the consumption path which, in turn, may trigger a faster closure of the output gap than anticipated in the baseline scenario. Rising domestic demand, therefore, entails a narrower output gap and a milder disinflationary impact. **All these factors may warrant a tighter monetary policy stance than envisaged in the baseline projection.**

3. MACROECONOMIC OVERVIEW

3.1. International environment

Risks related to global growth rose during the second quarter. Global economic growth remained moderate and continued to exhibit significant differences between the regions. Euro-area growth stagnated amid the intensifying conflict between Russia and Ukraine, while the economic performance of the United States and China improved. In line with the restrained demand environment, global inflation trends remained subdued. Although developed country central banks have followed different paths in recent months in terms of monetary policy stance, the interest environment remained supportive.

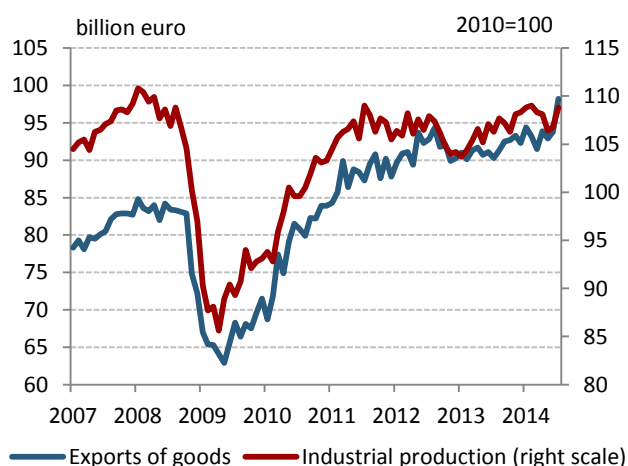
Chart 3-1: GDP growth in the advanced economies



Note: Seasonally adjusted quarterly change.

Source: OECD

Chart 3-2: German industrial production and exports of goods



Source: Eurostat

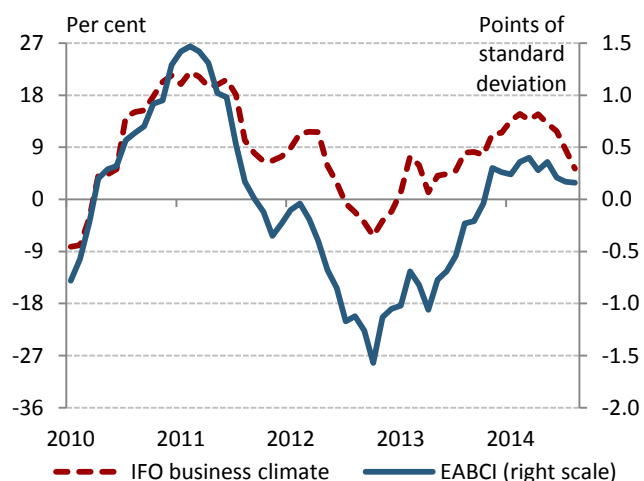
3.1.1. Developments in global economic activity

Global economic growth remained subdued in the second quarter. The differential between the growth in the developed and emerging regions persists. Owing to increased uncertainty and the Russia-Ukraine conflict, euro-area growth faltered, while the United States saw significant expansion after the weaker figures posted early in the year. Looking forward, the uncertainty and geopolitical tensions emerging in relation to the Russia-Ukraine conflict will impair the economic performance of the European region to the largest extent.

Data reported for Q2 indicate that the euro-area economy stagnated during the period (Chart 3–1). The abrupt halt in the gradual recovery from the crisis was mainly the result of the deteriorating performance of core countries. Primarily attributable to subdued investment and foreign trade dynamics, growth in the German economy was down 0.2 per cent compared to the previous quarter. The base effect resulting from favourable weather conditions at the beginning of the year – especially in the construction sector – may have contributed to this deterioration. In Q2, industrial production declined in Germany, Hungary’s most important foreign trade partner, while the stock of orders in the sector increased at a rate not seen since last year (Chart 3–2). Business confidence was undermined significantly in the euro area by the conflict between Russia and Ukraine (Chart 3–3). The purchasing managers’ index for the manufacturing sector fell to a seven-month low in July, but its level points to expansion for the sector. Besides geopolitical risks (the Russia-Ukraine conflict), labour market developments also pointed to weaker demand. The labour market has yet to show clear signs of a recovery. The unemployment rate did not change in Q2 compared to the beginning of the year and standing at 11.6 per cent, it remained at a high level.

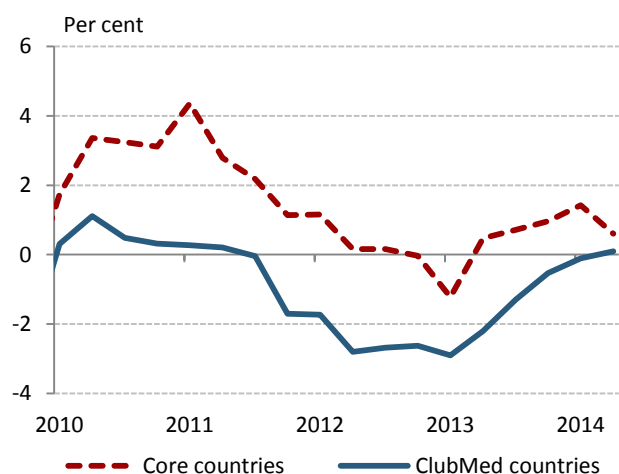
Among the periphery countries, data posted by Spain and Portugal were surprisingly positive; both economies achieved 0.6 per cent growth, while the output of Italy declined slightly (Chart 3–4).

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



Source: European Commission, IFO

Chart 3-4: GDP growth in the euro area



Note: Annual change. Core countries: Germany, France, Netherlands and Austria. Club Med Countries: Greece, Italy, Portugal and Spain

Source: Eurostat

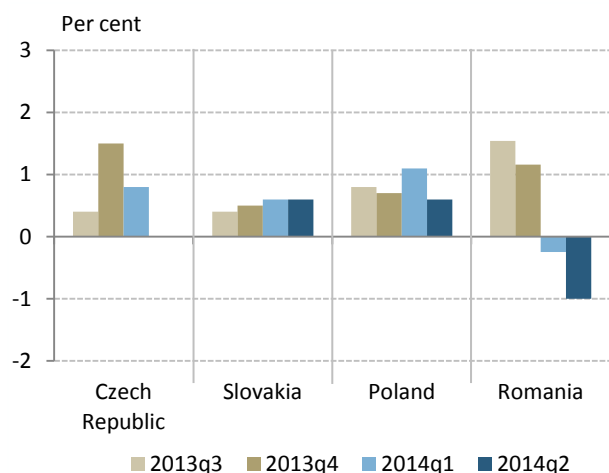
As regards non-euro area European countries, the United Kingdom saw continued economic growth (+0.8 per cent quarter on quarter), thanks to the performance of its service sector, but manufacturing sectors also made a positive contribution. On the expenditure side, private sector consumption contributed to growth to the largest extent. The upswing in consumption was supported by improving labour market conditions. Over the medium term, however, deleveraging in the private and public sectors may continue to impede the expansion.

Second quarter data for the countries in the Central and Eastern European region showed a mixed picture (Chart 3–5). Growth in Romania decelerated markedly in quarter-on-quarter terms, while the Czech economy stagnated. In the past three months, economic growth accelerated by 0.6 per cent in Slovakia and Poland, but these dynamics imply a sharp fall in Poland compared to the previous period, while it can be regarded only as a mild slowdown in the case of Slovakia. Hungary demonstrated the most dynamic growth in the region both on a quarterly basis (0.8 per cent) and an annual basis (3.9 per cent).

Following the downturn observed in Q1, the annual growth rate of the United States was 4 per cent in Q2. The improvement was mainly due to adjustments prompted by the transitory factors that resulted in decelerating growth in the first quarter (inventory investment, poor export performance, adverse weather conditions). In addition, private sector investment and consumption expenditures contributed positively to growth. Incoming data indicate that the supportive financial environment and improving consumer and business confidence may continue to boost private sector demand in Q3, which may help maintain the growth dynamics as the downward effect of budgetary consolidation measures wears off. The unemployment rate declined further in Q2, followed by a slight (0.1 percentage point) decrease in August. At 62.8 per cent in August, the labour force participation rate dropped slightly compared to the beginning of the year (Chart 3–6).

In Japan, consumption brought forward due to the sales tax increase in April boosted the economy in Q1, but GDP then contracted 1.7 per cent in Q2 compared to the previous quarter. Industrial production growth decelerated year on year in June, which was accompanied by a downturn in export performance. Although, looking ahead, confidence indicators do not signal a clear direction, it is a positive sign that the purchasing index of the manufacturing sector indicated expansion in July, while the labour market situation also remained favourable. The unemployment rate dropped to another historical low (3.5 per cent) in May, but by July it gradually rose to 3.8 per

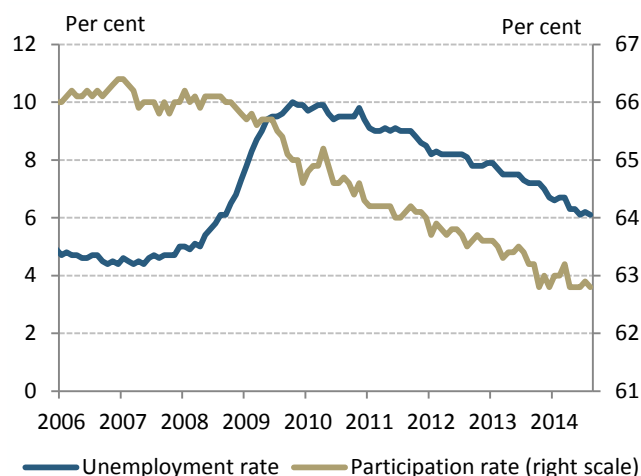
Chart 3-5: Quarterly economic growth in CEE countries



Note: Seasonally adjusted series

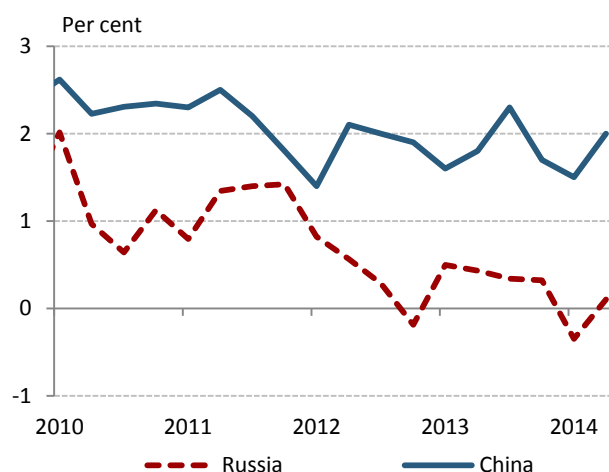
Source: Eurostat, Institutul National de Statistica

Chart 3-6: Unemployment and participation rate in the USA



Source: Bureau of Labor Statistics (BLS)

Chart 3-7: GDP growth in China and Russia



Note: Seasonally adjusted quarterly change.

Source: OECD

cent.

In respect of the main emerging economies, economic activity in China improved thanks to fiscal stimulus measures, ample credit supply and recovering external demand (Chart 3–7). In Q2, GDP grew by 7.5 per cent year on year, while quarterly dynamics also accelerated. This faster growth was driven mainly by investment projects, while net exports – negative since the beginning of 2013 – also made a positive contribution. Looking ahead, the 7.5 per cent target of the government may be achievable. At the same time, GDP growth is still fuelled by excessive credit expansion, which exacerbates economic imbalances and increases financial vulnerability.

In Q2, Russia recorded annual growth of 0.8 per cent (Chart 3–7). The annual rate of growth in Russia has been continuously decelerating since 2012 Q1. At the end of July, the European Union announced another set of economic sanctions against Russia, in response to which Russia banned meat, poultry, fish, vegetable and fruit imports from countries adopting the restrictive measures.

(These developments are discussed in detail in special topic 6.2). Over the short term, these actions may be detrimental to the still vulnerable growth in Russia. Major international institutions have recently adjusted downward the outlook of the Russian economy. The IMF reduced its 2014 growth projection from 1.3 per cent to 0.2 per cent in July and, mainly in view of weakening internal demand and intensifying geopolitical tensions, and lowered its 2015 forecast from 2.3 per cent to 1 per cent.

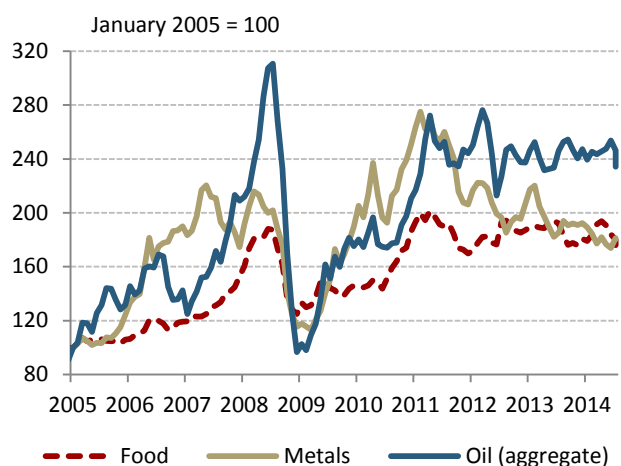
3.1.2. Global inflation trends

Commodity prices have been subject to volatile changes in recent months (Chart 3–8). Global crude oil prices embarked on a declining path in June and dropped close to USD 100 by the middle of August. This trend can be explained both by supply and demand factors (for details, see Box 3–1.).

Global oil supply increased markedly despite the geopolitical conflicts that have jeopardised production in recent months. For the most part, the rise in oil extraction reflects the accelerated production of Saudi Arabia, the currently largest oil exporter, and a surge in US shale oil extraction. Besides increased supply, weak demand may also contribute to the fall observed in oil prices. The downturn in oil demand can be attributed to slowing economic growth in major net importers (China, EMU Member States).

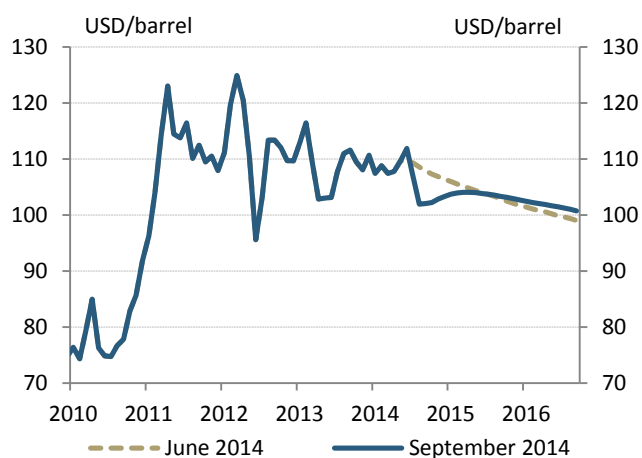
Futures quotes point to a gradual decline in USD oil prices (Chart 3–9). Over the short term, analysts and international organisations expect a further decline in

Chart 3-8: Changes in major commodity prices (USD)



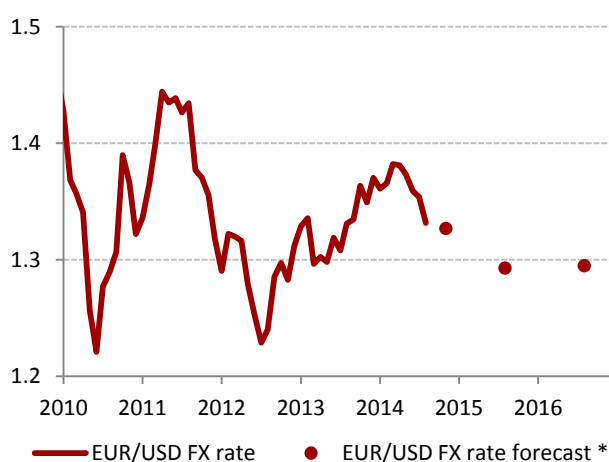
Source: IMF-IFS

Chart 3-9: Change in oil price assumptions



Source: Bloomberg

Chart 3-10: Eurozone NEER and EUR/USD exchange rate



Note: * August 2014 forecast. Higher values mean euro appreciation.

Source: ECB, Consensus Economics

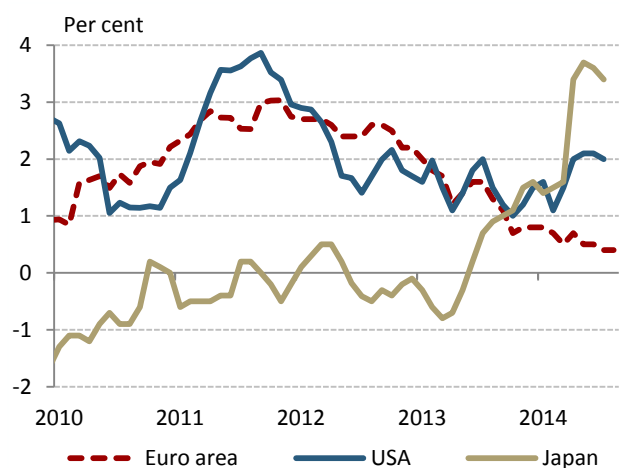
demand. Due to improving energy efficiency and the increasing significance of renewable energy, demand for oil is expected to rise at a slower rate than supply capacities over the medium term, which may keep oil prices moderate despite the global economic upturn. In the short run, the geopolitical tensions affecting the large oil producers may manifest themselves in more volatile oil prices. Since May 2014 the euro exchange rate has depreciated against the US dollar, and economists project further weakening in the coming 2 years. Euro weakening may drive up inflationary pressures through higher import prices (Chart 3–10).

Prices of industrial commodities (iron ore and coal) decreased overall compared to the first quarter. Coal prices were depressed by excess supply in the context of subdued demand. Similarly, surplus pushed down metal prices in June; in July, however, after a three-month fall prices adjusted upward owing to the tightening of production capacities. Unprocessed food prices declined both in June and July in the context of the market's optimistic supply expectations engendered by the favourable weather conditions.

Inflation rates were close to or below the target in most developed countries (Chart 3–11). The output gap remained negative in developed countries and demand-pull inflation was moderate. The combination of significant slack capacities, falling commodity prices and, especially in developed countries, well-anchored inflation expectations point to restrained inflationary pressures. Inflation in the USA was around 2 per cent. Consumer prices decelerated further in the euro area compared to the second quarter, and inflation was registered at 0.4 per cent in August (Chart 3–12). Based on data for August, prices increased by 0.8 per cent in Germany, while the price index was in the negative domain in the periphery countries. Besides slack capacities, it was mainly declining energy and food prices that contributed to the moderation of euro-area inflation. In Japan, the sales tax hike in April has kept the consumer price index well above the target. By July, the index had dropped to 3.4 per cent compared to the 23-year high observed in May (3.7 per cent). In the United Kingdom, the increase in consumer prices decelerated to 1.5 per cent in August on an annual basis.

As regards the larger emerging economies, inflation in China remains moderate, with annual inflation running at 2 per cent in August. Due to slack capacities in heavy industry, subdued inflationary pressures may persist. In Russia, the accelerated growth of consumer prices continued in May and June with inflation reaching 7.6 per

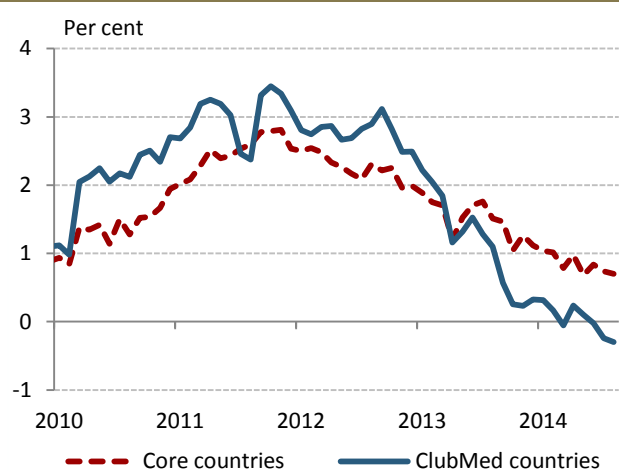
Chart 3-11: Inflation in advanced economies



Note: Annual change.

Source: OECD

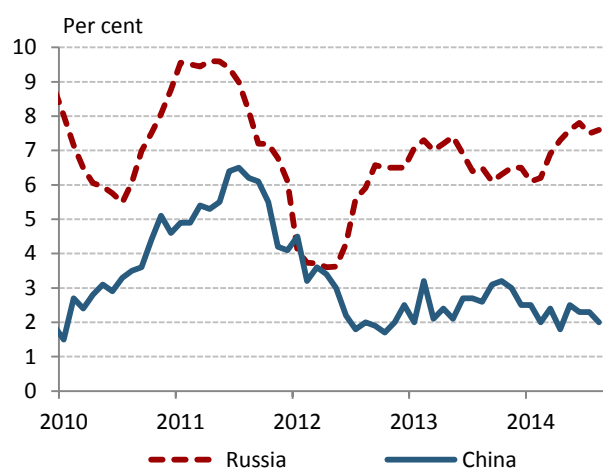
Chart 3-12: Inflation in the euro area



Note: Annual change. Core countries: Germany, France, Netherlands and Austria. Club Med Countries: Greece, Italy, Portugal and Spain

Source: Eurostat

Chart 3-13: Inflation in China and Russia



Note: Annual change.

Source: OECD

cent in August (Chart 3–13).

Inflation remained below target levels in the Central and Eastern European region.

In the Czech Republic, the consumer price index and inflation excluding the primary effect of indirect tax changes (relevant variables for monetary policy) remain at low levels. In August, the consumer price index rose to 0.7 per cent, falling short of the lower bound of the tolerance band of the central bank's target. According to the central bank, as a result of the exchange rate being applied as a monetary policy instrument, inflation may continue its gradual rise in the coming quarters through rising import prices on the one hand, and through a rebound in economic activity on the other. At -0.1 per cent in August, inflation in Poland remained well below the 2.5 per cent target. In Q2, core inflation did not change noticeably, but fell in recent months reaching 0.5 per cent in August. Inflation in Romania was at 1.3 per cent in August. In its August Inflation Report, the central bank forecasts a 2.2 per cent rate of inflation by the end of 2014.

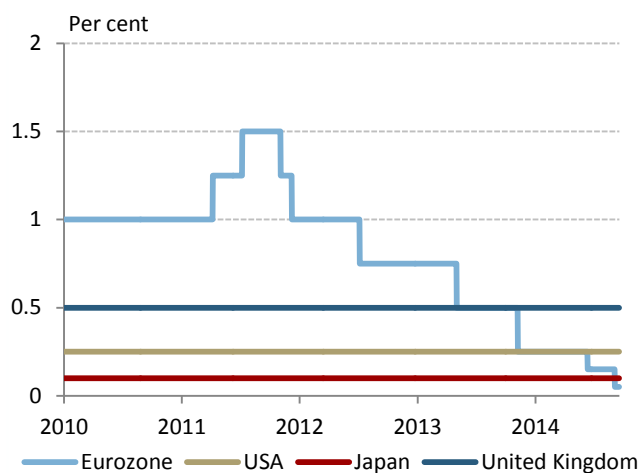
3.1.3. Monetary policy and financial market developments

According to the assessments of **globally influential central banks**, medium-term inflation risks are moderate in the current economic environment, and thus these institutions **maintained their relaxed monetary conditions** (Chart 3–14). In response to mounting deflationary risks, the ECB eased monetary conditions further. At the same time, owing to more favourable growth data in some economies (USA, UK), inflation inched gradually closer to the price stability objective which, looking forward, raised the question of gradual monetary tightening. In other countries (Canada, Sweden, New Zealand), risks arising from households' indebtedness and the real estate market situation may warrant a more extensive use of the macroprudential set of instruments, and should the instruments fail to be suitably efficient, a possible interest rate increase may alleviate stability tensions. In most countries, there are no trends in terms of inflation and capacity utilisation that point to monetary tightening this year.

In September, the Federal Reserve decided to reduce the amount of its monthly asset purchases to USD 15 billion.

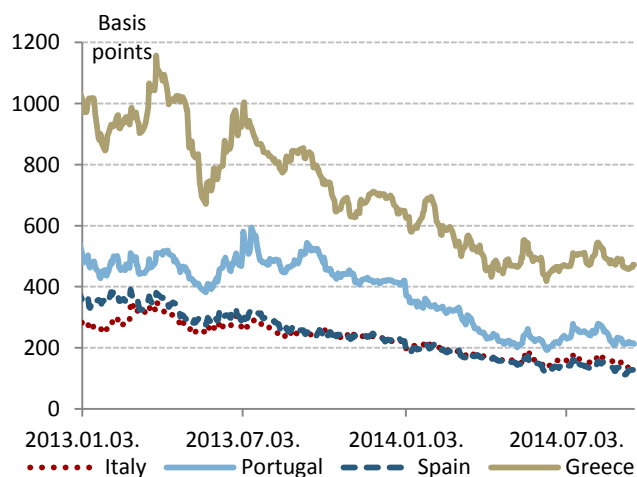
According to its forward guidance, an increase in the near-zero policy rate is not expected until well after the termination of asset purchases, especially if inflation remains below the 2 per cent long-term target. Recently, Fed decision-makers have communicated different messages about the expected date of the first interest rate increase. Federal Reserve Chair Janet Yellen said that the interest rate may be raised earlier than currently expected

Chart 3-14: Central bank rates in advanced economies



Source: Databases of central banks

Chart 3-15: 10Y periphery bond spreads over 10Y German bond yields



Source: Bloomberg

if the labour market improves faster than anticipated, but in the case of a prolonged recovery period, the current accommodative monetary policy stance will be maintained longer. Meanwhile, some decision-makers believe that economic conditions may warrant an interest rate lower than the long-term neutral rate for a while, even after the inflation and employment levels consistent with the Fed's mandate have been achieved. Based on current market expectations, monetary easing (QE3) may be tapered in October 2014, but the interest rate hike is not expected to take place until much later (around mid-2015).

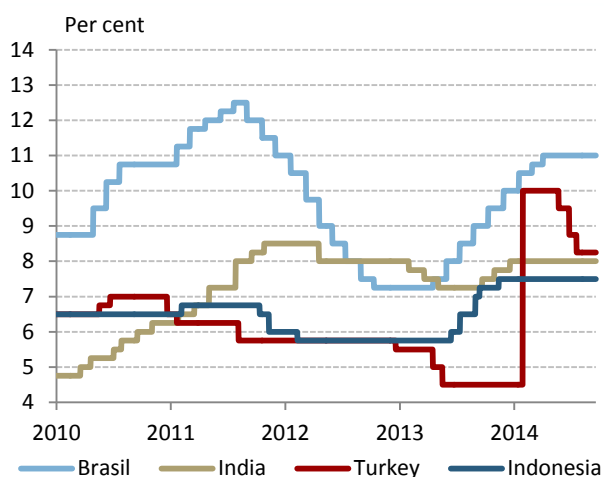
Following an interest rate cut in June, the ECB maintained its key policy rate at 0.15 per cent. In September, the ECB cut the base rate by 10 basis points to 0.05 per cent. The ECB also announced that from October, as an extension of the earlier unconventional measures, it will begin to buy asset backed securities (ABS) and covered bonds (CBPP3). The detailed modalities of these programmes will be announced later. According to the central bank, the introduction of the new measures is warranted by the medium- and long term inflation expectations declining below inflation target.

After having adjusted its forward guidance when the unemployment threshold was reached, the Bank of England maintained its guidance. In its guidance, the central bank 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. At the same time, Governor Mark Carney indicated that, while the first interest rate increase may take place earlier than expected by market participants, it is not expected to reach pre-crisis levels as a result of the tightening.

The central bank of Japan maintained its policy of quantitative and qualitative easing in order to increase its monetary base by JPY 60–70 trillion on an annual basis. The chances of achieving the 2 per cent inflation target in the first half of 2015 have improved, which have alleviated some of the pressure on the Japanese central bank to apply additional easing measures, but the sustainability of the 2 per cent inflation level is still surrounded by risks.

Global investor sentiment was supportive during the entire period, but the combined effect of intensifying geopolitical tensions (the Russia-Ukraine conflict) and rising expectations about a possible interest rate increase by the Fed temporarily undermined risk appetite. Sanctions mutually imposed by the EU, the USA and Russia worsen the economic growth prospects primarily in Russia and Europe, and as a result, the rouble, the euro and the

Chart 3-16: Central bank rates in major emerging economies



Source: Databases of central banks

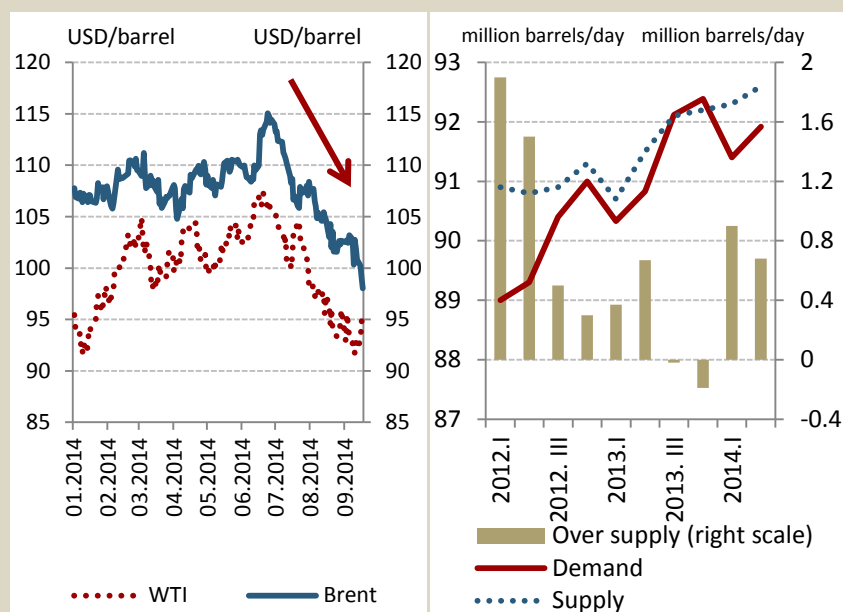
currencies of CEE countries all depreciated against the US dollar. Owing to the strengthening of the dollar, the intensification of the conflict between Russia and Ukraine and certain country-specific factors, emerging markets exhibited similarly increasing risk aversion, which put downward pressure on the currencies of emerging countries.

Central banks in the Central and Eastern European region maintained loose monetary conditions. In view of the latest inflation forecasts which envisage a significantly lower inflation path, at its August meeting the central bank of Romania reduced its key policy rate by 25 basis points to 3.25 per cent. In July, the central bank lowered the minimum reserve requirement ratio on foreign currency denominated liabilities to 16 per cent from 18 per cent. In recent months, the Czech central bank has maintained its key policy rate at 0.05 per cent and at the same time, it indicated that it would remain committed to maintaining the level of the exchange rate (EUR/CZK 27) at least until 2015 Q2. Nevertheless, the likelihood of keeping this one-sided commitment for an even longer period increased. Decision-makers of the central bank of Poland did not change the 2.5 per cent key policy rate; however, in parallel with adjusting the Bank's inflation forecast downward, they omitted from the Bank's communication in July the forward guidance of maintaining the base rate unchanged until September 2014.

Box 3-1: Factors shaping oil prices

In the last months global oil prices declined further despite the growing geopolitical risks. Global oil prices are shaped by many factors through the physical crude oil market and financial market developments. The main determinants of prices include the rate of energy consumption, real and potential energy production capacity and accumulated reserves. In addition to supply and demand factors, commodity exchange prices, oil futures contracts, foreign exchange rates and equity market developments also come into play. As a result of these factors, the oil price quotes used as a benchmark have reflected a substantial decrease in the price of oil over the past months. The key crude oil products in terms of global trade, such as quotes of US WTI and Brent Crude extracted from the North Sea, fell by over 10 per cent, bringing the global price of oil near USD 100.

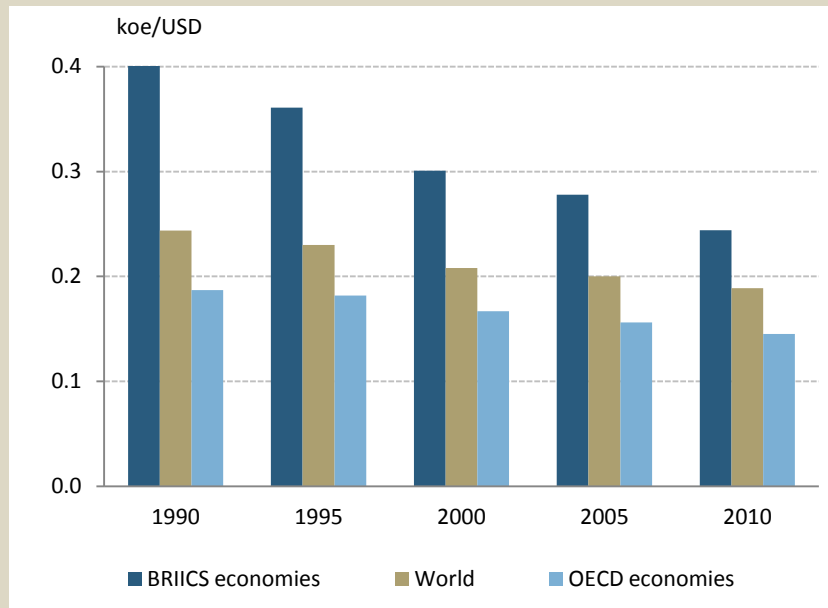
Chart 3-17: Developments in leading crude oil prices (left panel) and supply and demand factors (right panel)



Source: Bloomberg, International Energy Agency (IEA)

The decline in oil prices stems from changes in supply and demand factors which have jointly led to a surplus on the oil market. Current and expected demand has decreased, mainly due to slowing economic growth in major net oil importing countries (China and the euro area). In addition, declining industrial output and oil-intensive industry investment, adverse weather (drop in output due to the harsh US winter) and the spread of alternative energy sources (solar and wind energy) have all contributed to lower demand for oil. Meanwhile, on the supply side, output has increased, despite tensions between Russia and Ukraine, the situation in the Middle East, the Israeli-Palestinian conflict and the Libyan civil war. Growing geopolitical risks were offset by the substantial increase in Saudi Arabian oil production, the relaunch of Libyan oil exports, the easing of concerns regarding the drop in Iraqi oil output, the rise in US shale oil production and the eradication of the Mexican state oil monopoly.

Chart 3-18: Energy intensity of the world economy



Note: Kilogram oil equivalent per value added in USD at 2005 prices.

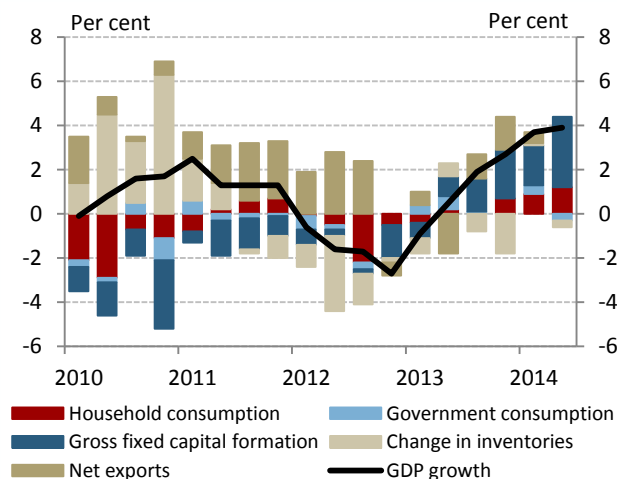
BRIICS: Brazil, Russia, India, Indonesia, China and South Africa.

Source: OECD

3.2. Aggregate demand

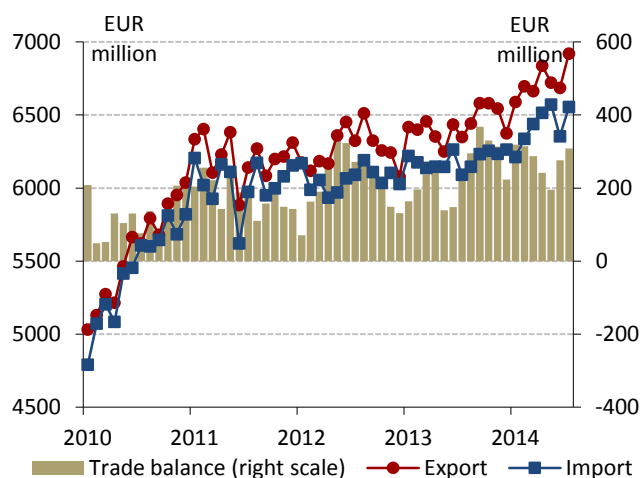
GDP growth continued in the second quarter. From the demand side, the expansion can be mainly attributed to investment projects and increasing household consumption. Alongside the increase in foreign trade, the recovery in domestic demand boosted the dynamics of imports as well, and as a result net exports contribution to growth was neutral.

Chart 3-19: Structure of annual GDP growth



Source: CSO

Chart 3-20: Foreign trade and foreign trade balance



Source: CSO

In 2014 Q2, Hungary's GDP expanded at a rate of 3.9 per cent year on year. Output increased by 0.8 per cent compared to 2014 Q1. As regards the structure of growth, the contribution of domestic demand components has become more pronounced. Household consumption, private and public sector investment and exports all increased (Chart 3–19).

3.2.1. Foreign trade

The trade surplus continued its dynamic growth in year-on-year terms (Chart 3–20). As was the case in previous quarters, exports were driven mainly by vehicle manufacturing and the related industries. Imports accelerated in response to recovering domestic demand. In parallel with the upturn in imports, the contribution of net exports to growth dropped to zero per cent, which was lower than the levels seen in previous quarters. Despite the rise in imports, the foreign trade surplus remained substantial, as in recent years.

Foreign trade in services increased further in Q2. The key sectors of tourism and transportation recorded significant growth, and the also important sector of business services expanded considerably. Overall, the balance of services improved slightly in the first half of 2014.

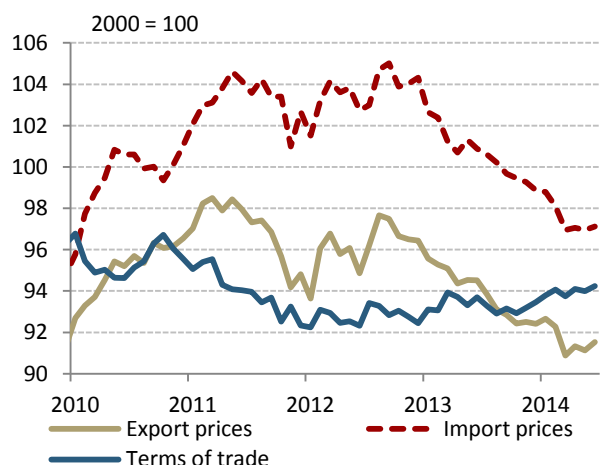
Terms of trade have not changed significantly in recent months. Both export and import prices declined at the beginning of the year, but there were no further changes in the past few months. As regards the composition of exports, the shift to higher-value products is expected to gradually improve the terms of trade (Chart 3–21).

3.2.2. Household consumption

The turnaround seen in household consumption expenditure in the second half of 2013 continued in 2014 Q2 (Chart 3–22). Improving labour market conditions and the low inflation environment continued to boost real incomes. At the same time, households remain cautious in making their decisions on using their increased income for consumption/savings. In the second quarter, the consumption expenditure of households rose by 1.6 per cent year on year, while the saving rate remained high. In view of households' strong precautionary considerations and weaker consumer confidence in recent months, the recovery of consumption will be a gradual process.

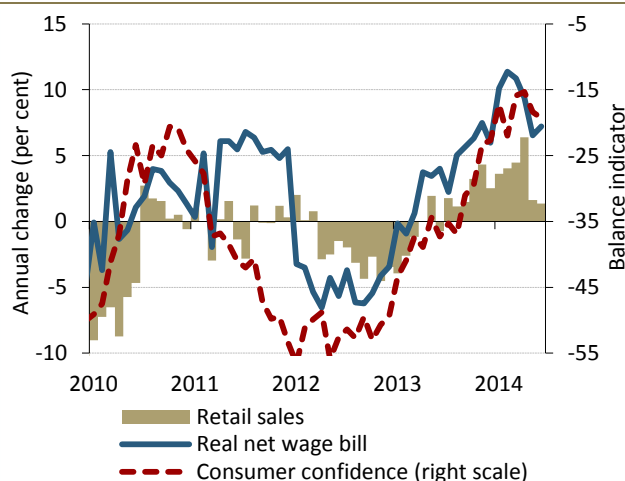
Similarly to previous quarters, households' net financial

Chart 3-21: Change in terms of trade



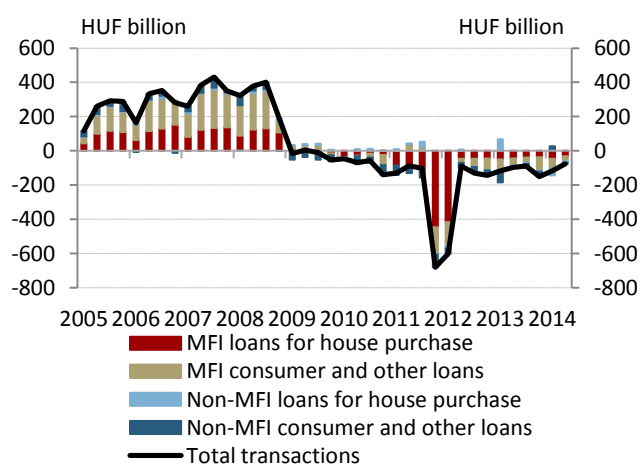
Source: CSO

Chart 3-22: Developments in retail sales, income and the consumer confidence index



Source: GKI, CSO

Chart 3-23: 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

wealth rose further in the second quarter of 2014. Owing to the high propensity to save, within the context of the gradual reduction of outstanding debt, the portfolio of financial instruments increased further with a parallel decline in liabilities. The financial wealth-to-income ratio rose to a historical peak in this period.

As a result of transactions, loans to households from the financial intermediary system continued to decline in Q2, falling by around HUF 77 billion in total (Chart 3–23). On the supply side, banks’ conditions eased markedly both for consumption and housing loan product types. In parallel with the central bank base rate cuts, interest rates on new housing loans dropped further, which, on the whole, may boost loan demand in the household segment. Housing market and retail sales indicators point to a slight expansion of households’ demand for credit, which is already apparent in the rising volume of new contracts, while at the same time, households’ precautionary motives and continued balance sheet adjustments still impede any significant increase in lending to households on the whole.

3.2.3. Private investment

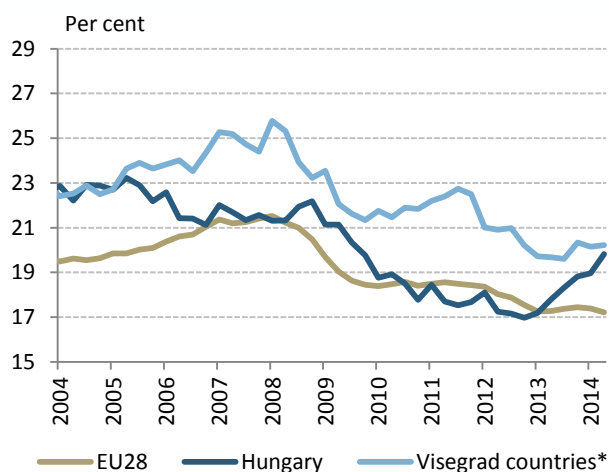
Whole-economy fixed investment continued to grow in the second quarter. Hungarian investment activity is being boosted by the combination of the gradually recovering demand environment, accelerated absorption of EU funds and improving lending terms in the context of the Funding for Growth Scheme.

Gross fixed capital formation was up 18.7 per cent year on year in 2014 Q2, and consequently, the investment rate approached 20 per cent, which is the regional average (Chart 3–24).

As in previous quarters, investment activity in the manufacturing sector producing for export markets played a key role. In particular, investment by the suppliers of the vehicle manufacturing sector generally increased, which may reflect the spillover effect of large vehicle manufacturing projects. Agricultural investment also increased markedly, mainly as a result of the utilisation of funds provided under the Funding for Growth Scheme (FGS). Of the sectors producing for domestic consumption, investment grew primarily in the construction and commercial sectors, which was dampened somewhat by a downturn in financial and insurance activities.

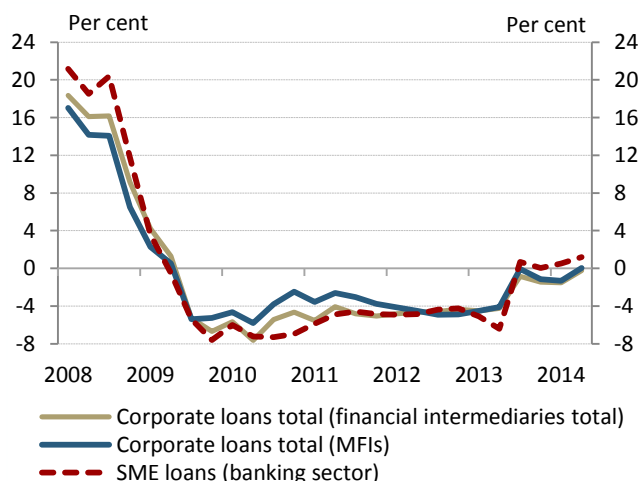
Households’ investment activity showed signs of recovery in Q2. Rising real incomes, improving labour market conditions and the low interest rate environment all contributed to the slow turnaround in housing investment. Along with renovation decisions postponed during the

Chart 3-24: Development of investment rate in international comparison



Note: * Visegrad countries: Czech Republic, Slovakia and Poland
Source: Eurostat

Chart 3-25: 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

years of the crisis, purchases for investment purposes in the low yield environment may have also contributed to the upswing in investment.

In 2014 Q2, transactions increased the corporate loan portfolio of the overall financial intermediary system by around HUF 40 billion. This expansion primarily consisted of long-term forint loans provided by credit institutions. As a result, the corporate loan portfolio stagnated overall compared to the same period of the previous year, whereas in terms of composition, transactions expanded the SME portfolio of the banking sector by 1.2 per cent (Chart 3–25). Underlying trends in corporate lending were shaped primarily by the central bank’s Funding for Growth Scheme and by loan demand, which increased in parallel with industrial production and investment activity. On the supply side, however, the review period was still characterised by relatively tight credit conditions as, according to the lending survey, the majority of banks did not significantly change their price and non-price conditions.

3.2.4. Government demand

Similar to previous quarters, government demand was shaped by the dual trends of accelerated absorption of EU funds and a fiscal policy committed to maintaining a low government deficit level. Investment demand from sectors tied to the state continued to increase significantly in Q2. The accelerating pace of EU funds’ utilisation boosted the state’s infrastructure investment in particular.

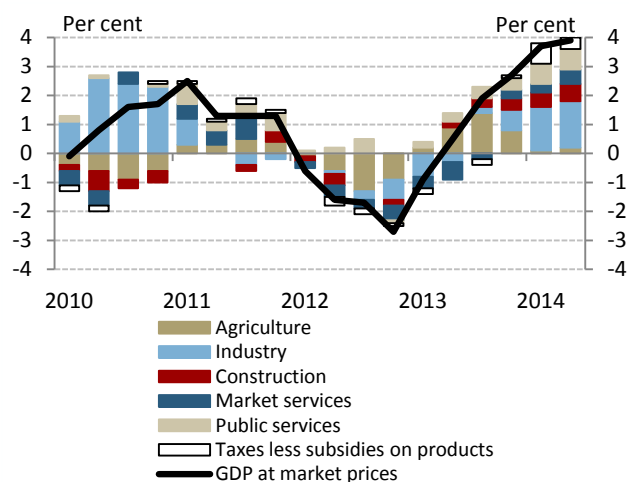
3.2.5. Changes in inventories

In Q2, changes in the inventories of the national economy made a slightly negative contribution to GDP, which can be partly attributed to the revaluation of inventories. Based on the detailed inventory statistics, in line with improving economic activity, inventory levels increased in most sectors producing for domestic demand.

3.3. Production and potential output

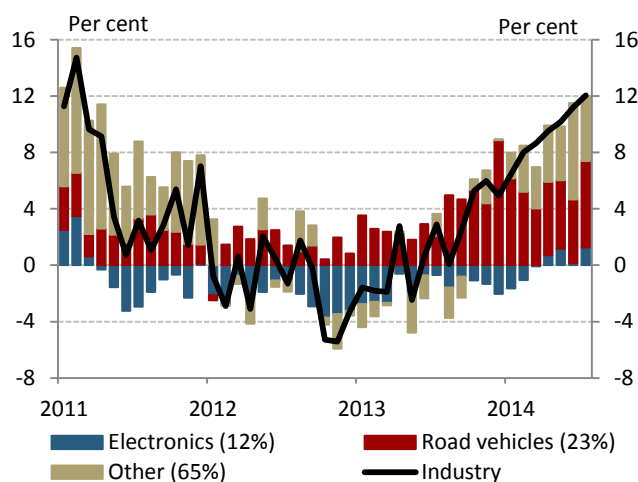
Output expanded in a broad range of sectors in 2014 Q2. The rebound in the performance of sectors producing for export was coupled with an increase in the value added in the service sectors and sectors producing for domestic consumption. Rising investment activity and improving labour market data point to a gradual recovery of potential growth.

Chart 3-26: Contribution of the output of the main sectors of the national economy to GDP growth



Source: CSO

Chart 3-27: Contribution of subsectors to the annual change in industrial production



Note: Seasonally adjusted data. The legend shows the weight of each sector in total industrial production.

Source: CSO

The rebound in domestic output continued in 2014 Q2.

Value added increased by 0.8 per cent compared to the previous quarter. Construction and industrial production recorded robust performance, but stronger activity was also seen in market services as well (Chart 3–26). Data for July indicate that retail sales and industrial production kept growing, and thus based on monthly indicators, output may continue to increase in the third quarter.

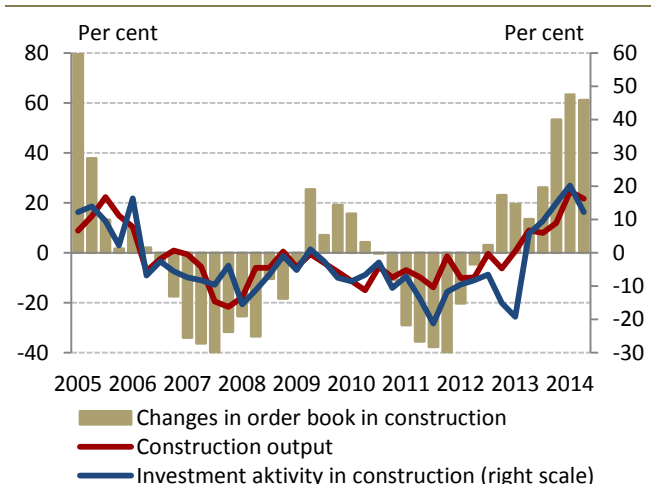
Industrial production expanded robustly again in 2014 Q2,

as the sector's value added rose by 7.2 per cent compared to 2013 Q2. The upturn in industrial production was driven by the manufacturing sector: the increase in the value added of this sector stems primarily from the growing output of vehicle manufacturing and the related supplier industries. In addition, a wide range of other sectors experienced a rebound. In contrast to a marked contraction in 2013, the electronics and optical sectors grew slightly in Q1 and continued to expand in Q2 (Chart 3–27). In July, industrial production continued to grow on a broad basis. At the same time, forward-looking global industrial production indicators signal a deterioration in the short-term outlook. This may reflect the fragile growth prospects of developing countries, even more restrained growth in Europe in Q2 than originally expected, as well as the adverse effects of the Russia-Ukraine conflict and the ensuing economic sanctions. Consequently, the confidence indicator for industrial production in the Hungarian economy has decreased in recent months. New industrial orders stagnated in June, and then increased slightly in July.

Construction output continued to rise sharply in Q2,

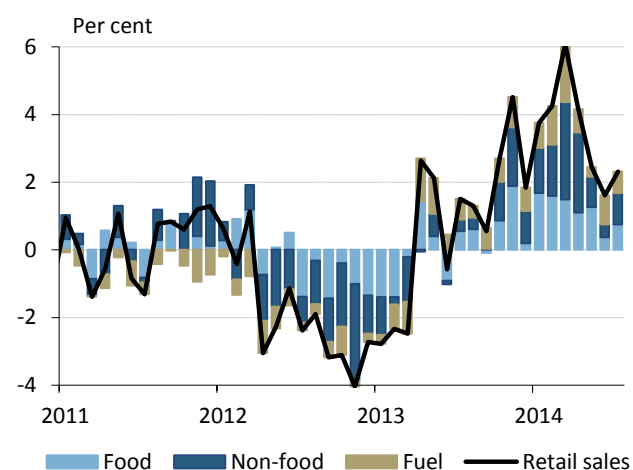
with this low-weighted sector contributing 0.6 percentage points to GDP growth. The nearly 20 per cent annual growth in the construction industry can be primarily attributed to infrastructure investments implemented from EU funds. After having hit its historical trough at the end of last year, the housing market has slowly grown in past quarters. Looking forward, a slow, gradual recovery is expected, in view of households' need for balance sheet adjustment in the context of still-tight credit conditions and the reduction of accumulated debt. Based on new orders and the confidence indicators for the sector, construction output is expected to keep growing, still owing to public sector investments (Chart 3–28). However, the stock of orders related to infrastructure investments using EU funds and new orders declined at the end of Q2,

Chart 3-28: Annual changes in construction output, orders and investment



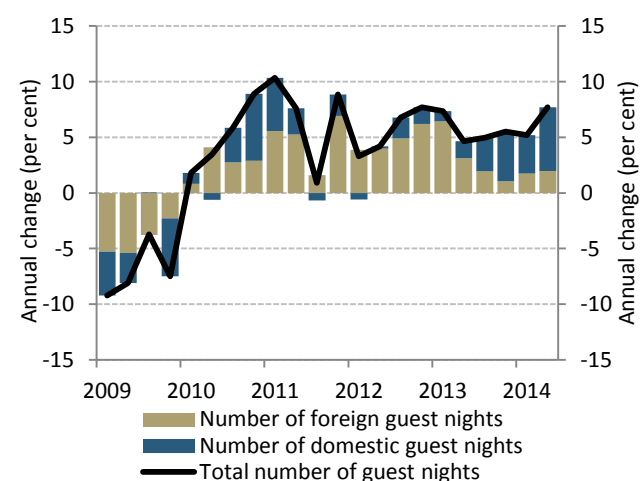
Source: CSO

Chart 3-29: Annual changes in retail sales



Source: CSO

Chart 3-30: Decomposition of the growth of the number of tourism nights in accommodation establishments



Source: CSO

and data for July suggest that this tendency has continued. In line with the end of the EU's budgetary period, construction output growth is expected to slow down compared to the expansion in output observed in the first half-year.

Based on data released so far, agricultural output expanded both in Q1 and Q2. Last year saw average crop yields, and wheat production is expected to be largely the same in 2014. Other crop farming, however, can expect somewhat better harvests. As for corn yields, the extremely rainy summer weather conditions may be a risk, which could be reflected in the data for Q3.

Value added in the service sectors continued to increase in 2014 Q2. Value added by market services was up 2 per cent compared to the same period of the previous year. The expansion in value added continued in a wide range of services, except for finance, where output continued to decline in line with the restrained lending activity.

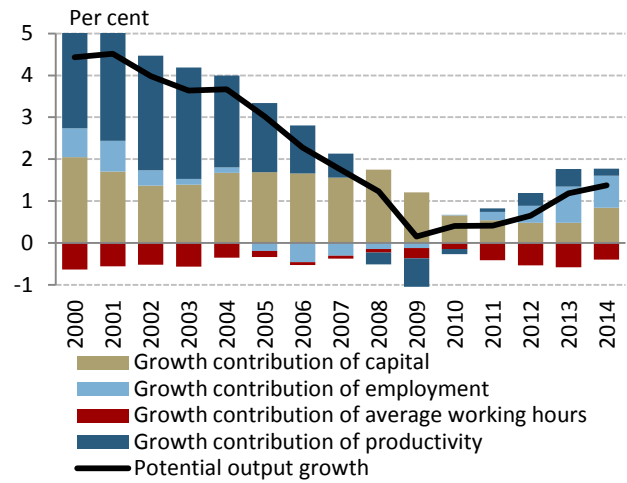
The steady increase seen in retail sales since the beginning of the year continued in Q2, albeit at a slower pace (Chart 3–29). The volume of retail sales grew by 2.8 per cent compared to the same quarter of last year. Sales have increased in a broad range of products since the beginning of the year. In the context of low inflation and rising real incomes, household consumption increased, while the rebound in retail sales may also reflect the whitening effect resulting from the installation of tax authority cash registers.

The performance of the hospitality and tourism sectors improved further, with an increase recorded for the first half of the year both in the number of overnight stays and in catering turnover. The upswing in tourism demand reflects the improving income position of households and the increased utilisation of non-wage benefits aimed at fostering domestic tourism. In addition to the capacity expansion of recent years, the improving price competitiveness from the weaker forint exchange rate may also have contributed to the continuing rise in overnight stays by foreign guests (Chart 3–30).

Value added in the financial and real estate sectors declined further in Q2. Lending activity remained subdued and accordingly, the activity of financial intermediaries was restrained. The market for new homes remains at a historical low, while an upward drift is perceivable in the market of used homes, which decelerated the decline in the value added of the real estate sector in Q2.

Potential growth may have risen gradually in recent years and is expected to increase further. New capacities in the

Chart 3-31: Potential output growth and growth contributions



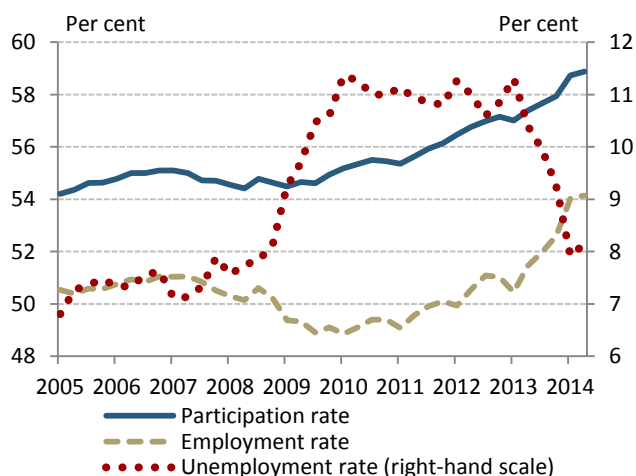
Source: MNB calculations

automotive industry may contribute significantly to this increase which – combined with the group of domestic suppliers – may raise the production capacities of the economy by as much as 0.5 per cent on an annual basis. Employment in the private sector increased in Q1, but labour market participation stagnated. From the production side, potential growth will be also driven by the improving performance of corporate investment and the expected intensification in labour market activity (Chart 3-31).

3.4. Employment and unemployment

In Q2, the number of employed in the private sector increased further, primarily as a result of improving employment in the manufacturing sector. The unemployment rate did not change substantially compared to the previous quarter. Growing labour demand in the private sector and the low level of unemployment suggest that the labour market may be tighter than in previous years.

Chart 3-32: Participation, employment and unemployment, total economy



Source: CSO

Chart 3-33: Evolution of employment in the private sector



Note: * Without workers employed abroad.

Source: CSO

Participation did not change considerably in 2014 Q2.

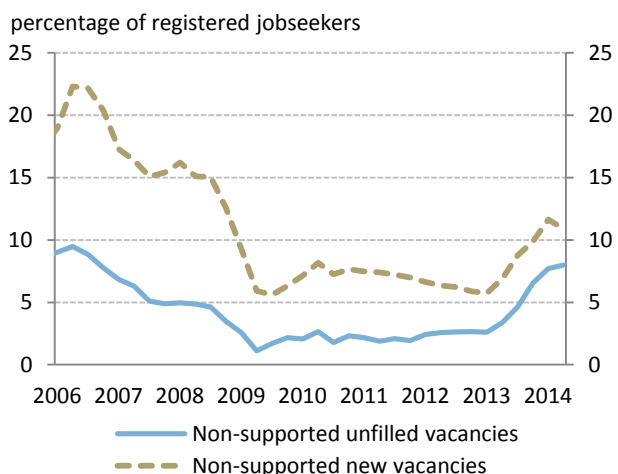
Following a steep rise in Q1, employment in the whole economy increased slightly during Q2. At the same time, the steady decline in the number of the unemployed that started in early 2013 came to a stop in 2014 Q2, primarily due to a temporary halt in public work programmes in May. In Q2, the participation rate for the 15–74 age group was 58.9 per cent (Chart 3–32).

Employment in the private sector improved further in Q2,

but the number of employed in the general government sector fell as a result of a steep decline in the number of public workers (Chart 3–33). At the same time, the number of full-time equivalent employees on domestic sites calculated for the private sector stagnated in Q2, which is associated with a drop in hours worked (for details on full-time equivalent statistics, see Box 3–2). Growth in the number of private sector employees was mostly boosted by steadily rising employment in the manufacturing sector since the beginning of 2013. Following a sharp increase in Q1, employment in the sector of market services did not change considerably in Q2.

Consistent with the data of the Labour Force Survey, data released by the National Employment Service indicate that the **decline in the number of unemployed came to a halt in 2014 Q2**. Strong timing effects related to the announcement of public work programmes may have contributed to this phenomenon. This effect may be corrected once the new programmes are announced. Along with an increase in the number of registered job-seekers, the number of non-supported new vacancies declined. Meanwhile, the increase in the number of non-supported end-of-month unfilled vacancies that started at the beginning of the year continued in Q2, which is consistent with the rising labour demand in the private sector. Based on the tightness indicator calculated for new vacancies, the tightness of the labour market has not reached its pre-crisis level. However, based on the tightness indicator for unfilled vacancies, the tightness of the labour market approached its pre-crisis level in the past year. The latter indicator not only reflects changes in labour demand, but also captures labour market alignment; it expresses the extent to which job seekers find jobs suiting their needs. Overall, both indicators suggest that the labour market is tighter than it was in

Chart 3-34: Development of labour market tightness indicators



Note: Non-supported new vacancies pertains to quarterly inflow of non-supported vacancies, non-supported unfilled vacancies pertains to unfilled non-supported vacancies at the end of the quarter.

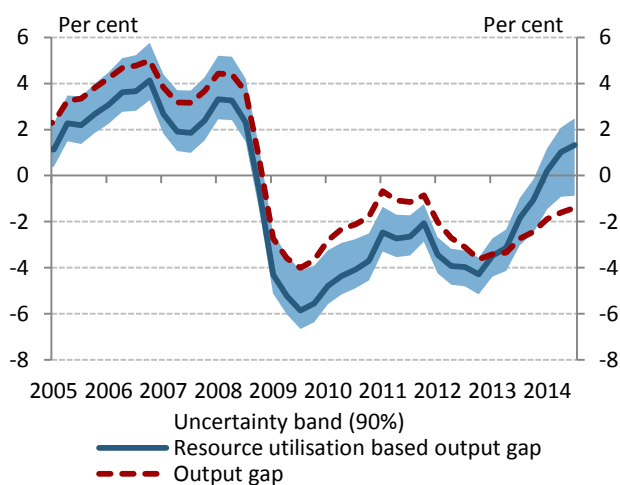
Source: MNB calculation based on National Employment Service data

previous years (Chart 3–34), which may raise the current low inflation rate over the medium term.

3.5. The cyclical position of the economy

As the economy is still likely to be characterised by substantial excess capacities, inflationary pressure from the real economy is moderate. In parallel with recovering demand, the output gap may gradually close, as also confirmed by indicators measuring resource utilisation.

Chart 3-35: Output gap measures

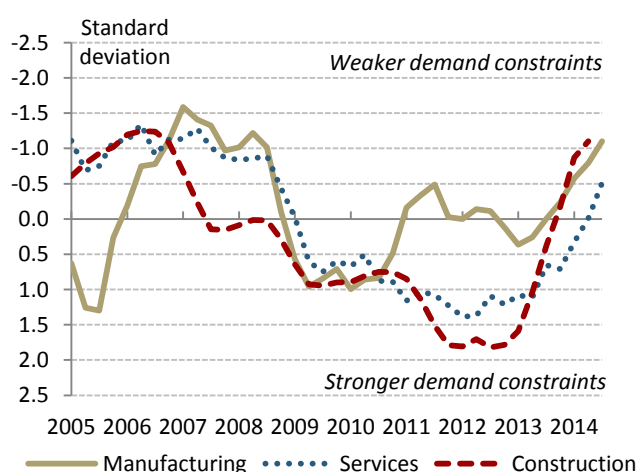


Note: The RU gap consolidates the information content of various corporate capacity utilisation indicators into a single indicator. The uncertainty band reflects the uncertainty of that estimate. For a detailed description of the methodology, see: Rácz O. M. (2012): Using confidence indicators for the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

Inflationary pressure from the real economy continues to be moderate. In line with the subdued underlying inflation trends, our estimate for the output gap – which captures domestic inflationary pressure – remains negative (Chart 3–35). At the same time, it should be noted that our assessment of the output gap is now surrounded by higher uncertainty than before. In parallel with the recovery in economic activity, several indicators point to the closing of the cyclical position.

Based on incoming data, our estimate for the cyclical position of the Hungarian economy has not changed compared to the forecast included in the June Report. Key items of the output gap remain negative, as investment, consumption and exports may fall short of their respective medium-term trends defined by supply factors. As a result of geopolitical tensions (Russia-Ukraine crisis), the cyclical position of Hungary’s European trading partners may have deteriorated in recent months, which may increase excess capacities in the domestic export sector, via Hungary’s external demand. At the same time, the disinflationary effects from the global economy may be offset by the gradual upturn in domestic household consumption.

Chart 3-36: Demand as a primary limiting factor of production in the ESI survey



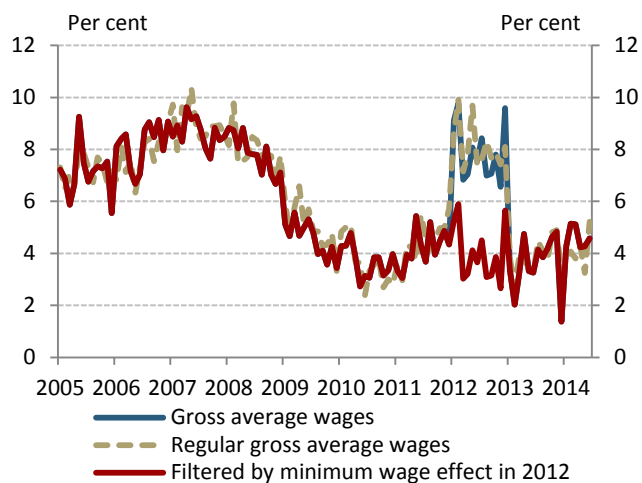
Note: Standardised data, reversed scale. Three-quarter moving averages.
Source: European Commission

Based on corporate surveys, confidence indicators continued to improve in Q2, which might indicate that capacity utilisation has increased as demand picked up. In the surveys, corporations are now less likely to indicate lack of demand as a factor restricting production. It is important to note, however, that this change mainly affected sectors that are less relevant from the aspect of inflationary pressure (construction, industry) (Chart 3–36).

3.6. Costs and inflation

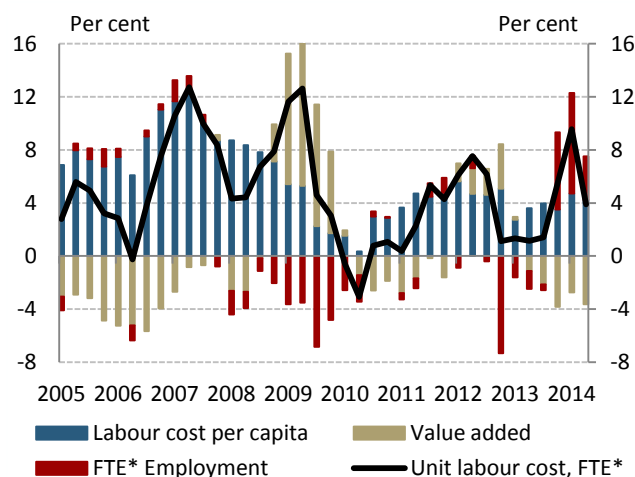
Inflation has remained well below the 3 per cent inflation target over the past months, hovering around 0 per cent. The moderate inflation rate was probably the collective result of cuts in regulated energy prices carried out in several steps, the restrained demand environment, favourable cost pressure and the gradual adjustment of expectations. The wage index of the private sector showed more subdued dynamics in Q2, following a pick-up at the beginning of the year.

Chart 3-37: Annual changes in gross average wages and regular wages (excluding premiums and one-month bonuses)



Source: CSO

Chart 3-38: Annual changes and components of unit labour cost in private sector



Note: * Full-time equivalent. Seasonally adjusted data.

Source: MNB calculation based on KSH data CSO

3.6.1. Wages

In 2014 Q2, the development of private sector wages was somewhat more subdued than at the beginning of the year (Chart 3–37). Regular wage dynamics increased at a faster rate in Q2, although base effects also contributed to this. Bonus payments showed their usual dynamics. Within the private sector, wage growth in the manufacturing sector continued to outstrip growth in market services. In both sectors, bonus payments were consistent with the ratios observed in recent years.

Growth in unit labour costs calculated using the number of full-time equivalent employees decreased in Q2, after accelerating in Q1 (Chart 3–38). To a large degree, the unit labour cost growth was the result of a rise in the number of full-time equivalent employees which was smaller than in the previous month. At the same time, value added increased strongly. Labour cost per capita did not change considerably in Q2. Growth in unit labour costs was around 4 per cent and thus exceeded the average growth rate observed in the last year.

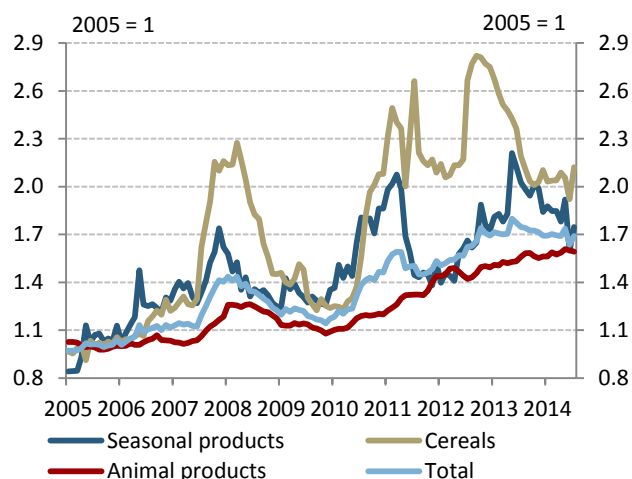
3.6.2. Producer prices

During the second quarter, commodity prices continued to generally exert subdued inflationary pressure. On the whole, producer prices of agricultural products fell in recent months (Chart 3–39). The price level of cereals decreased and prices of seasonal products continued to fall. Prices of products of animal origin rose slightly, driven primarily by higher pork prices. In the quarters ahead, developments in producer prices are expected to be shaped by good agricultural harvests, falling fodder prices and the Russian embargo.

Industrial producer prices were characterised by subdued dynamics over the past months (Chart 3–40). The growth in producer prices was a general phenomenon. Producer prices of sectors producing consumer goods and goods for further processing increased moderately. The impact of the weaker exchange rate of the past period may have been buffered by subdued demand and low imported inflationary pressure. Prices decreased in energy-producing sectors in year-on-year terms.

Hungarian producer prices developed line with the euro-area trends. Changes in producer prices may have resulted from the combination of falling energy prices, muted demand-side price pressure and the gradual adjustment of

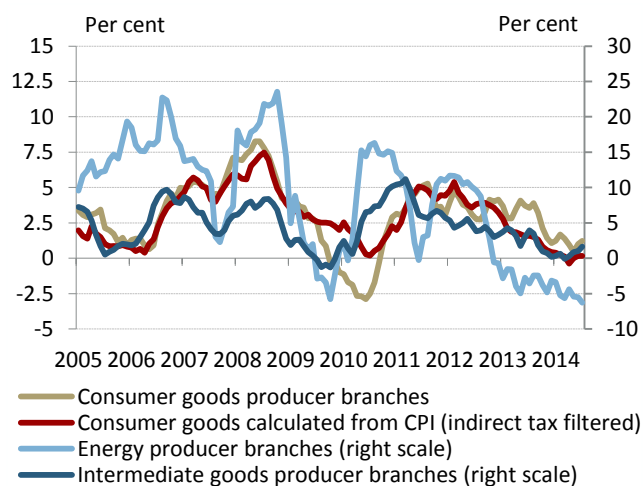
Chart 3-39: Agricultural producer prices



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

Source: MNB calculation based on CSO data

Chart 3-40: Annual change in industrial producer prices



Source: MNB calculation based on CSO data

inflation expectations. Consequently, **imported inflationary pressure in processed goods has been low.**

3.6.3. Consumer prices

Consumer price inflation remained close to 0 per cent over the summer months. Underlying inflationary trend indicators remained unchanged over the past period, at close to 1.5 per cent (Chart 3–41). **The low level of the underlying indices continues to suggest a moderate inflationary environment.** The indicators remain steadily in the positive range, and thus despite the consumer price index hovering close to 0 per cent, deflationary risks remain unlikely.

The price of tradables remained essentially unchanged in recent months. This may be due to the modest price pressure exerted by import prices, which offset the weak exchange rate and the upside inflationary pressure of accelerating household consumption. Within the range of tradable products, the price of durables has declined over the past quarter, while the price of non-durable goods has exhibited subdued price dynamics.

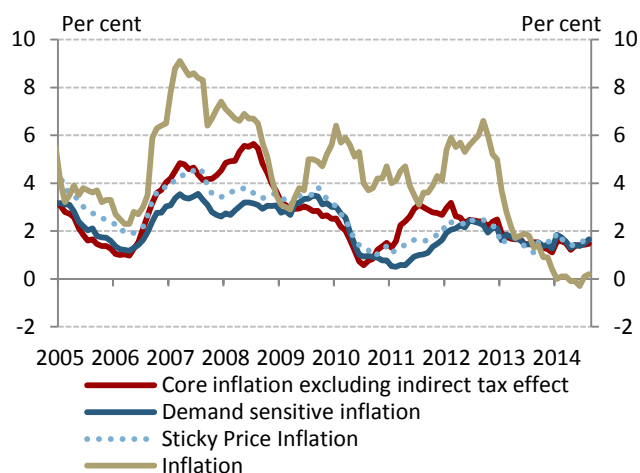
The monthly price change in market services has remained broadly subdued in the past period. One-off impacts also shaped developments in the price of market services. The increase in mobile telephone and Internet prices in June and the increase in the price of healthcare services in July significantly influenced prices among such services. The annual inflation of market services rose further due to these factors. Disregarding these impacts, other services continued to broadly exhibit a moderate price increase.

In harmony with agricultural producer prices, food prices changed to a moderate extent. Processed goods were characterised by moderate inflation in recent months. The seasonally adjusted price level of unprocessed foods has increased in the last two months.

Fuel prices remained essentially unchanged in the past period. The slight decrease in international oil prices offset the weakening HUF/USD exchange rate. Increased Saudi Arabian production, the restoration of Libyan output and easing of the reduction in Iraqi production may have contributed to the world market price of oil falling to around USD 100 by mid-August.

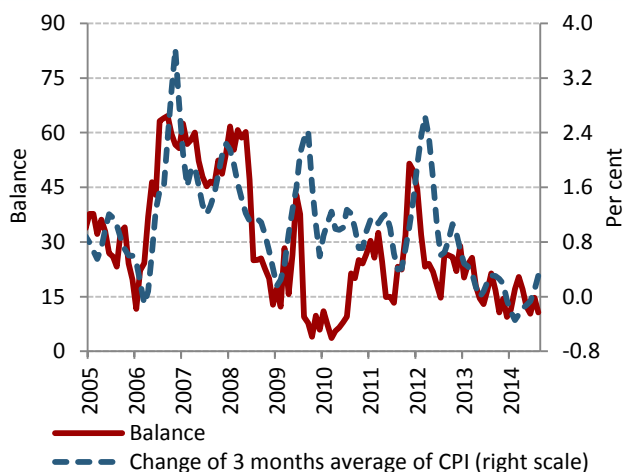
Administered prices did not change over the past months. Inflation within this product range was shaped by the regulated energy price reductions carried out in several steps. Other administered prices showed restrained price developments overall.

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



Source: CSO and MNB calculation based on CSO data

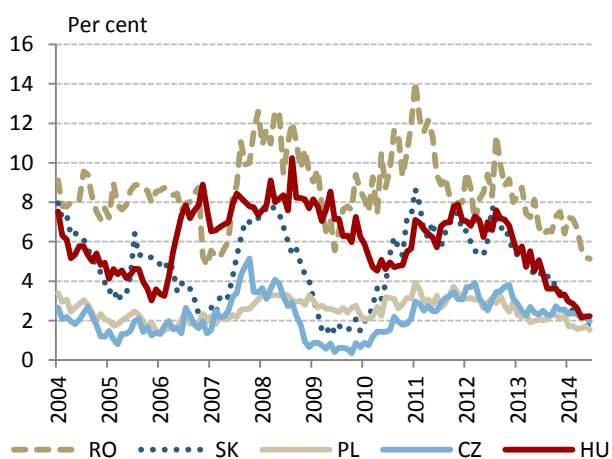
Chart 3-42: Expected changes in retail sales prices in the next 3 months* and actual inflation



Note: * Balance is the difference between the proportion of corporations expecting price increase and price decrease.

Source: GKI and MNB calculation based on CSO data

Chart 3-43: Inflation expectations in the region



Source: MNB calculations based on data of the EU Commission

Inflation data received in the past few months were broadly consistent with central bank's expectations. The minor divergence stems from volatile fuel prices and price developments for unprocessed food.

On the whole, inflation was moderate in recent months. Subdued import prices, globally favourable food production and the Russian food embargo may contribute to moderate cost-side price pressure. A gradual pick-up in internal demand exerts an opposite effect.

3.6.4. Inflation expectations

Expectations for retail sales prices, which play a crucial role in short-term developments in consumer prices, **decreased over the past quarter.** This may indicate that cost- and demand-side factors will still not warrant any significant price increase in the upcoming months (Chart 3-42).

Household inflation expectations have steadily declined since the beginning of last year in line with the actual fall in inflation. **Expectations decreased somewhat further over the summer months (Chart 3-43).** The expectations of the Hungarian population decreased to the levels characterising countries with histories of sustained low inflation (Czech Republic, Poland). The adjustment of inflation expectations may help align the price-setting and wage-setting decisions of economic agents with the inflation target over the medium term.

Box 3-2: Full-time equivalent employment

The private sector employment figures published quarterly by the CSO state the number of people employed, but do not indicate specific information on the amount of time (hours) worked. This may present a misleading picture of private sector labour utilisation, as a shrinking workforce may go hand-in-hand with a higher number of hours worked by those employed, or vice versa.

To avoid this distortion, we need to know the number of hours worked, found in the CSO's Labour Force Survey microdatabase. This allows us to calculate full-time equivalent employment using the following formula:

$$\frac{FT \cdot FTh + PT \cdot PTh}{40}$$

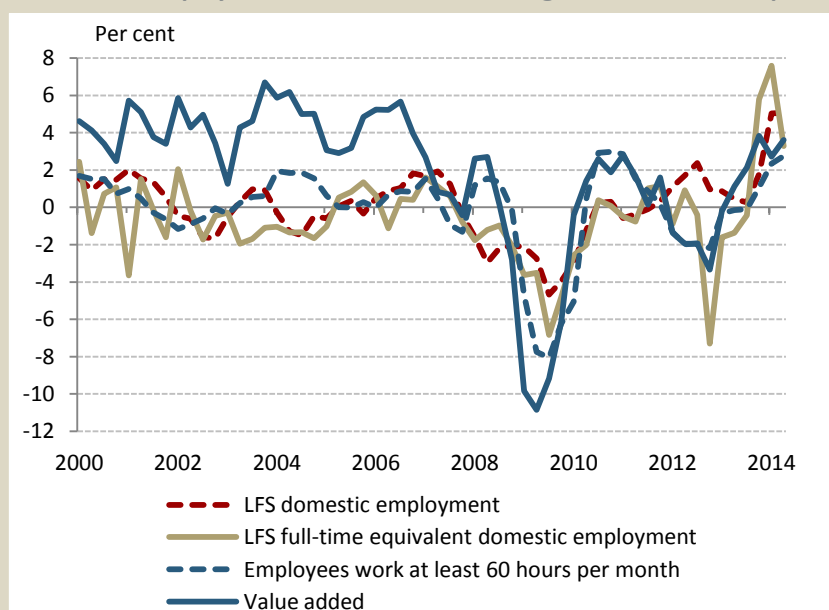
where:

- FT: number of full-time workers
- FTh: average hours worked by full-time workers
- PT: number of part-time workers
- PTh: average hours worked by part-time workers

The full-time equivalent employment figure indicates the total workload of a worker on the basis of hours worked expressed in full-time work (40 hours per week). This figure gives a more accurate indication of the amount of work used in the private sector and co-varies more closely with economic activity (Chart 3–44). The drawback of the indicator is that it is only available with a lag of approximately one quarter and may be sensitive to one-off impacts (see for instance the sharp decrease caused by mass holidays among workers in the fourth quarter of 2012). A greater divergence between the employment figure and full-time equivalent employment occurs if the proportion of part-time workers is elevated. Changes in the full-time equivalent employment figure are shaped to a greater extent by the number of full-time workers and their hours worked.

The proportion of part-time workers in Hungary began rising in the years leading up to the crisis and continued growing gradually during the crisis (for more detail, see Bodnár, 2014)⁴. Employment measured per capita decreased less during the crisis than full-time equivalent employment, as corporations opted to have employees work fewer hours rather than to lay them off.

Chart 3-44: Various employment statistics and the change of value added in private sector



Note: * Institutional survey

Source: CSO, MNB calculations

⁴ Bodnár, Katalin (2014): Part-time employment during the crisis, MNB Bulletin.

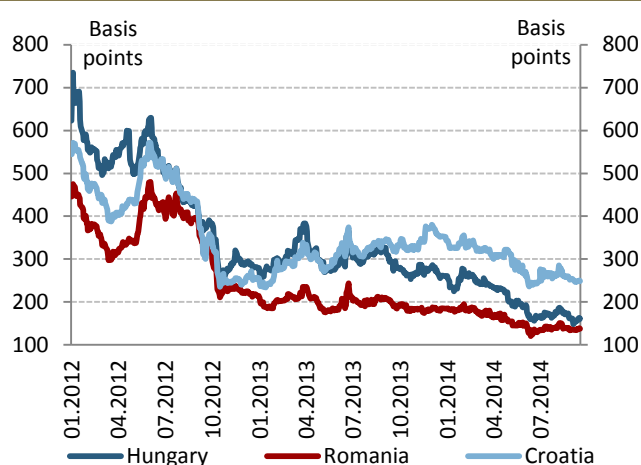
4. FINANCIAL MARKETS AND INTEREST RATES

4.1. Domestic financial market developments

Over the past three months, international markets were characterised by mixed investor sentiment. Geopolitical risks – in particular, events reflecting the escalation of the Russia-Ukraine conflict – intensified from time to time, causing temporary dips in global and domestic financial market indicators. Sanctions adopted in response to the conflict between Russia and Ukraine heightened risk aversion and had a negative impact on both the Russian and European regions, but owing to close economic relations, the Central and Eastern European region was particularly affected. Among the international market-moving events, the diverging monetary policies of developed central banks played a key role: while the market responded positively to the supportive measures of the ECB, heightened expectations about the Fed’s imminent interest rate increase restrained risk appetite.

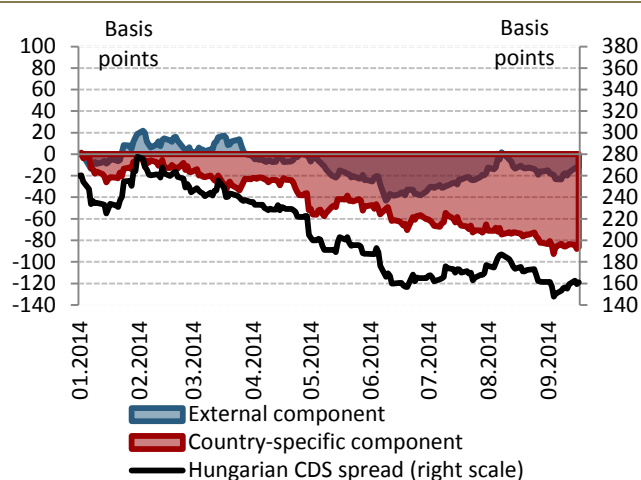
Domestic financial markets show a similarly diverse picture. While the decline in Hungary’s default risk observed in the past three months suggests that Hungary’s risk assessment has improved, the depreciation of the forint against developed currencies and rising long-term yields point to weakening risk appetite. At the same time, yields fell markedly on short-term maturities, which can be attributed to the emergence of excess short forint liquidity in the domestic money market.

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

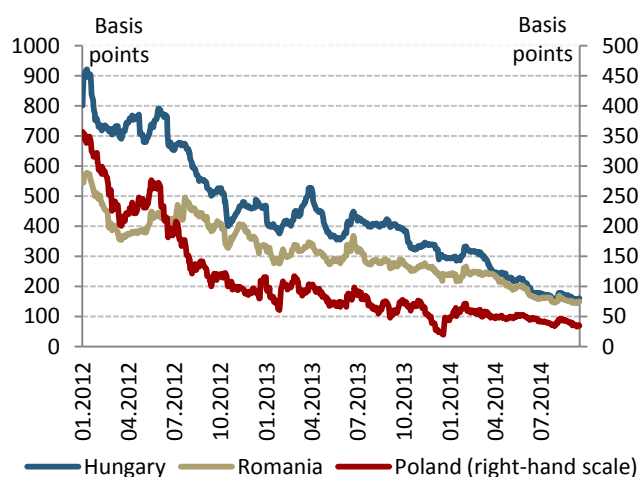
4.1.1. Risk assessment of Hungary

Hungarian risk indicators have shown mixed developments since the June Inflation Report. In parallel with a decline in the Hungarian 5-year sovereign CDS spread, the exchange rate of the forint depreciated overall. Yields on government papers declined on the short end of the maturity spectrum, but shifted upward in the case of long-term maturities. The risk indicators of CEE countries moved in the same direction; their shifts, however, were somewhat less pronounced than in Hungary. As in the past quarter, global market sentiment had a favourable assessment of the region, but the repeated escalation of the conflict between Russia and Ukraine triggered temporary rises in CDS spreads.

The Hungarian five-year CDS spread was down 10 basis points, dropping to 155 basis points from the 165 basis-point level recorded at the end of June. CDS spreads only mildly reflected factors to which the countries in the region are most vulnerable, such as the uncertainty arising from the situation concerning Russia and Ukraine. Regional CDS spreads did not show perceivable shifts over the entire period; the narrowing of spreads by a few basis points suggests a slight improvement in the assessment of the region (Chart 4–1). Hungary’s default risk remained at a multi-annual low, which may suggest that the rise in long-term yields during the quarter was primarily the result of the exchange risk component, while the credit risk factor tended to exert downward pressure on yields.

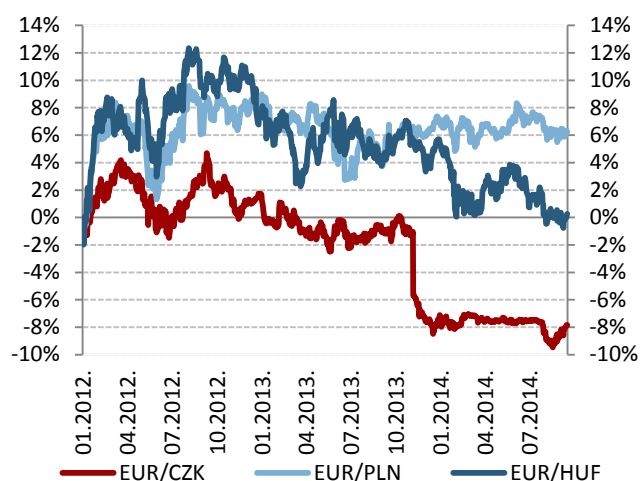
According to our CDS decomposition methodology, the dip in the Hungarian spread at the beginning and at the end of the period resulted from the spread-reducing effects of international factors, and the rise in August was also related to the international component. Taken together,

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



Source: Thomson Reuters

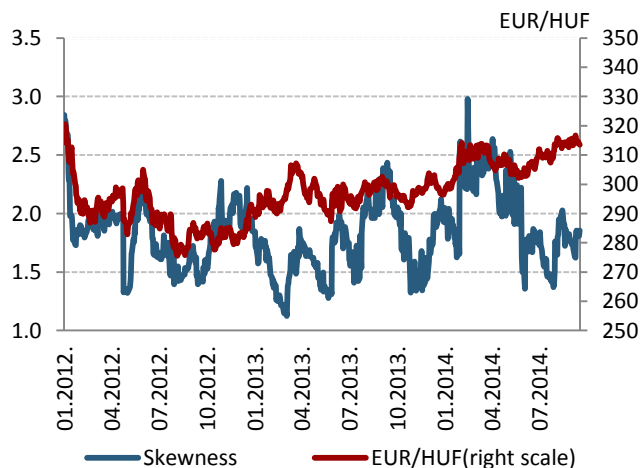
Chart 4-4: Exchange rates in the region



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

therefore, country-specific factors induced only minor shifts in the indicator, and looking at the period as a whole, the spread-reducing effect of the international component was more dominant (Chart 4–2).

Yields on EUR-denominated Hungarian bonds decreased by around 20 basis points during the past three months. Yields declined, albeit less markedly, on other CEE bonds as well (Chart 4–3).

4.1.2. Developments in foreign exchange markets

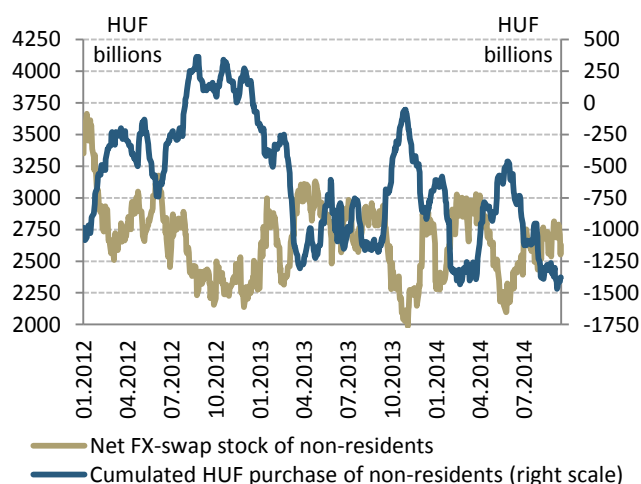
As was the case in the previous quarter, the EUR/HUF cross rate fluctuated within a broad range, but at a slightly lower level, between 307.2 and 317. Overall, the forint exchange rate weakened against the euro by around 1.5 per cent during the period. The forint exchange rate was adversely affected both by domestic events and geopolitical factors. With volatile fluctuations, the exchange rate depreciated in response to the contradictory events in Ukraine, while the surprising decision of the ECB pointed to a strengthening of the forint. Among the country-specific factors behind the weakening of the forint exchange rate, the most noteworthy effects include the uncertainty surrounding the issue of foreign currency debtors and the low level of short yields. The depreciation of the forint exchange rate was accompanied by a moderate increase in forward-looking indicators (volatility, skewness).

The forint exchange rate slightly underperformed in comparison to the exchange rates of other CEE currencies. Being vulnerable to geopolitical risks, regional currencies also weakened, but to a lesser degree than the Hungarian currency. The Polish zloty depreciated by more than 1 per cent, while the Czech koruna and the Romanian leu weakened by less than 1 per cent against the euro (Chart 4–4). CEE exchange rates depreciated markedly against the US dollar in the past quarter, with the depreciation against the US currency reaching more than 5 per cent since the end of June. These exchange rate shifts vis-à-vis the dollar could be primarily attributed to the weakening of the euro as reflected in the EUR/USD cross rate.

The past period saw the emergence of abundant forint liquidity on short maturities, possibly stemming from the reduced holdings of the central bank’s main policy instrument, government papers maturing in August, and banks’ cautious liquidity management. In parallel with the expansion of forint liquidity, shorter-term swap spreads jumped and, save for a minor correction, remained high.

The net FX-swap holdings of non-residents increased by HUF 450 billion by the end of the period, with a nearly corresponding decline in non-residents’ cumulated forint

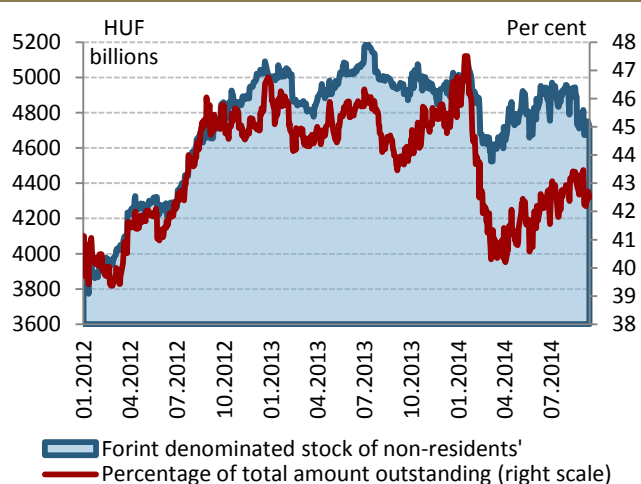
Chart 4-6: HUF FX Swap stock, and cumulated HUF purchase of non-residents



Note: Cumulated HUF purchase of non-residents: 4 January 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

purchases (Chart 4–6). Following the conversion of the main policy instrument into deposits, non-residents were forced out their holdings of the two-week MNB bill; in addition, non-residents’ Hungarian government security holdings declined substantially (by HUF 150 billion) due to the government bonds maturing in August, a smaller portion of which have been replaced. The drop in the government security portfolio of non-residents can be attributed primarily to the reduction of issuance. Although the government security holdings of non-residents decreased by HUF 125 billion, their share in the total portfolio is above the 42 per cent level recorded at the end of the previous quarter (Chart 4–7).

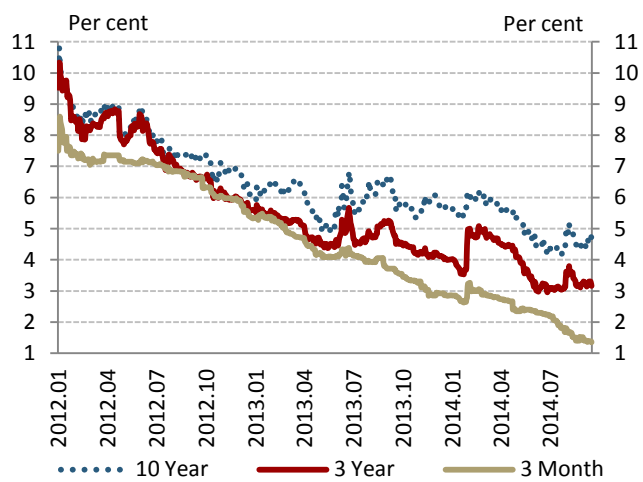
4.1.3. Government securities market and changes in yields

Short-term treasury bill auctions were characterised by more than triple coverage on average. Demand under the central bank self-financing programme peaked in July and early August, linked to the phasing out of the two-week MNB bill. The volume of government securities issued by the Government Debt Management Agency (ÁKK) typically corresponded to the announced amount; on a few occasions, however, the ÁKK increased issuance. In the case of 3-month Discount Treasury Bills, a total of HUF 450 billion was allocated at 10 auctions, while excess liquidity of HUF 243 billion was allocated on six occasions in the case of the 12-month DTB. The ensuing average auction yield declined in the period as a whole.

In the primary market of government securities, excess demand for 3-year and 10-year government bonds amounted to twice the supply on average. The issuer was able to borrow funds slightly in excess of the expected amount in the case of government bonds, and average auction yields increased by 20–25 basis points during the period.

Yields in the government securities market moved in opposing directions for short-term and long-term maturities, and the yield curve became steeper overall compared to the beginning of the period (Chart 4–8). The short end of the curve fell by 60–85 basis points compared to the levels recorded in June, while the long end was up 25–45 basis points. Yields rose significantly in the 5-year and 10-year segments. The deterioration in global sentiment around the middle of the period distressed the government securities market, triggering a considerable yield increase on the long end of the yield curve. The decline in short-term yields resulted mainly from the short forint liquidity surplus. Changes in both the short-term and long-term yields can be considered strong by international standards.

Chart 4-8: Yields of benchmark government securities



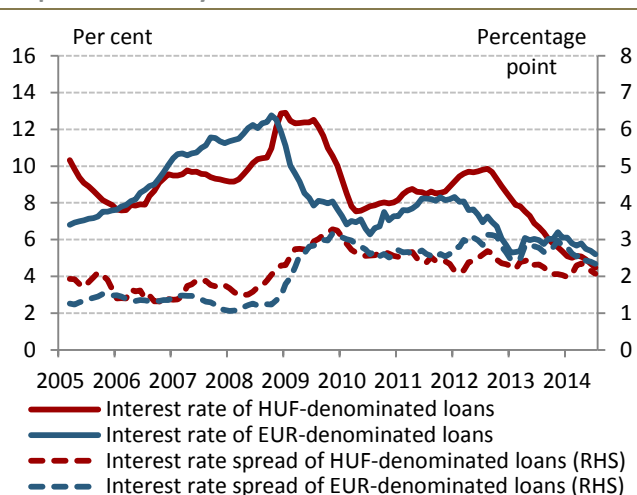
Source: ÁKK

Although to a lesser degree, interbank yields also diverged along the short and long ends of the yield curve. While short-term interbank yields shifted downwards, long-term yields were on the rise.

4.2. Credit conditions of the financial intermediary system

Based on actual transactions, the cost of financing decreased in parallel with the policy rate cuts in both the corporate and household segment in the second quarter of 2014. The decline in interest rates outstripped the downward trend of the reference rate, and thus the interest rate spread narrowed in both segments. According to respondents to the Lending Survey,⁵ banks reported broadly unchanged corporate credit conditions. By contrast, they reported an easing of credit conditions on both housing loans and consumer credit within the household segment in the second quarter. The 1-year real interest rate declined during the quarter due to falling government bond yields, with the Magyar Nemzeti Bank's self-financing scheme playing a significant role in this regard.

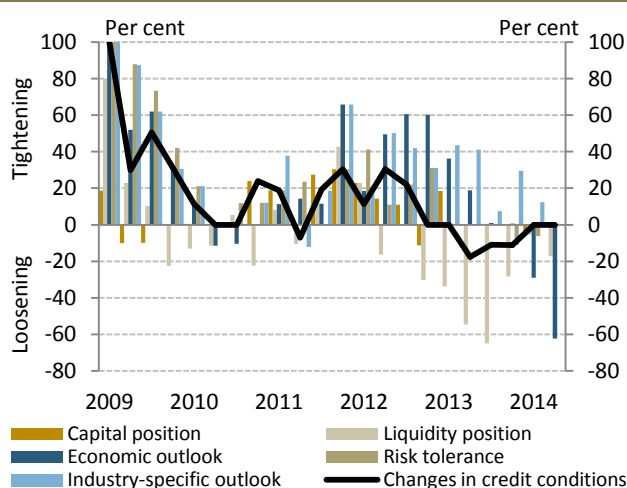
Chart 4-9: Smoothed interest rates and spreads on corporate loans by denomination



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

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



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

Source: MNB based on banks' responses

4.2.1. Corporate credit conditions

In the second quarter of 2014, interest rates on loans to non-financial corporations continued to fall in parallel with the gradual decline in the key policy rate. Interest rates on forint loans with floating interest rates, or loans with up to 1 year initial rate fixation⁶ smoothed with a three-month moving average based on contracts realised stood at 4.7 per cent in the second quarter and at 4.5 per cent in July, down from 5.1 per cent (Chart 4–9). At this level, the cost of financing is no longer extremely high by international standards.

Interest rates declined to a greater degree than the reference rate (3-month BUBOR), and consequently the interest rate spread shrank to 2.1 percentage points in July, down from 2.4 percentage points in April, reverting to the level prevailing at the end of last year following a temporary rise in the first quarter. Loans disbursed in the context of the extended second phase of the Funding for Growth Scheme still provide the most favourable financing conditions with an interest rate of at most 2.5 per cent for creditworthy small and medium-sized enterprises.

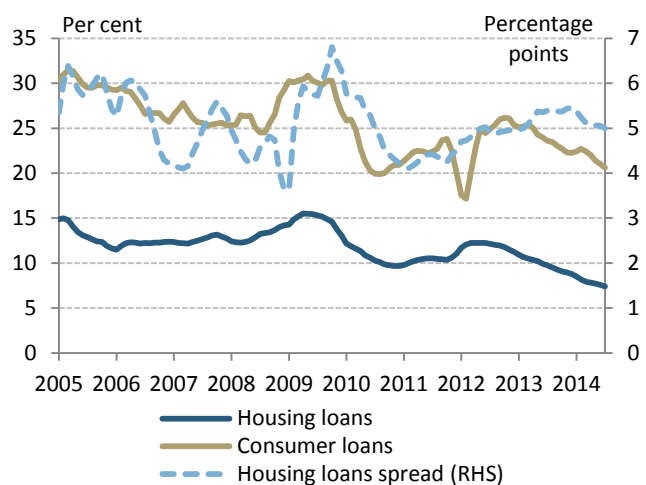
The interest rate level and the spread above the reference interest rate (3-month EURIBOR) on euro-denominated loans both decreased in the second quarter, with the interest rate level smoothed with a three-month moving average at 2.6 per cent and the spread at 2.3 percentage points in July.

The Lending Survey revealed that credit conditions broadly remained unchanged in 2014 Q2, and can still be considered tight. The majority of banks (a net 62 per cent) reported that economic outlook contributed to an easing of

⁵ 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/201408/Hitelezesi_folyamatok_201408_EN.pdf.

⁶ The majority of loans granted within the Funding for Growth Scheme are long-term loans, therefore the interest rates reviewed by us mainly reflect market developments.

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

credit conditions, and the liquidity situation also drove an easing of lending standards among 17 per cent of banks. Banks indicated that they plan to keep standards unchanged during the next half-year (Chart 4-10).

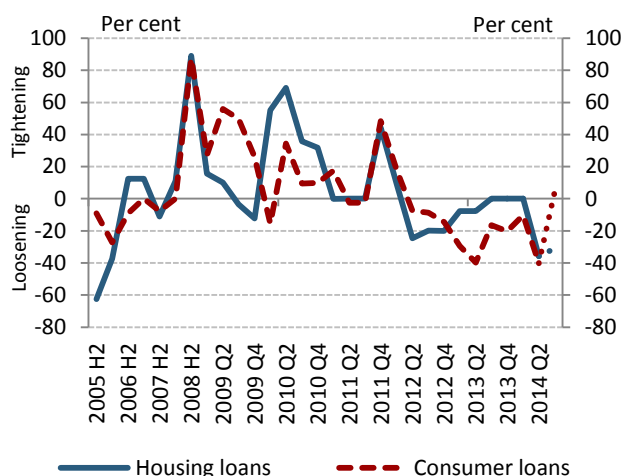
4.2.2. Household credit conditions

The annual percentage rate (APR) smoothed with a three-month average on housing loans fell further, standing at 7.4 percentage points in July based on concluded contracts (Chart 4-11). The decline in the APR exceeded the decline in the 3-month BUBOR during the same period, resulting in a slight decrease in the spread – from 5.1 percentage points in April to 5 percentage points – and thus continuing the downward trend seen since December 2013. The declining APR and spread partially reflect the increasing ratio of floating rate schemes within newly issued loans.

The annual percentage rate smoothed with a three-month moving average on consumer credit fell steadily in the course of the second quarter (Chart 4-11), reaching 20.6 per cent in July, down from 22.4 per cent in March.

According to the bank responses in the Lending Survey, banks eased credit conditions on household loans in 2014 Q2. A net⁷ 36 per cent of banks surveyed reported easing in the case of housing loans and 40 per cent reported easing in the case of unsecured consumer loans (Chart 4-12). The gradual easing of bank credit conditions is also reflected in the average loan-to-value ratio (LTV) of concluded housing loan transactions: since its trough in 2012 Q2, the indicator has risen by nearly 10 per cent to above 57 per cent. Regarding the upcoming half-year, 31 per cent of banks plan to ease their conditions on housing loans while leaving the conditions on consumer credit essentially unchanged.

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



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

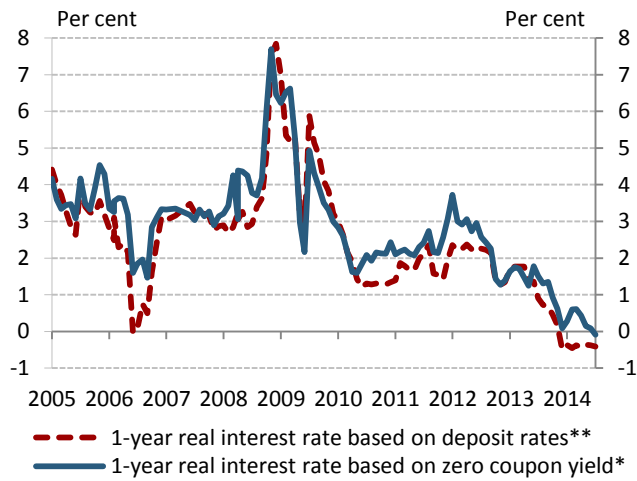
Source: MNB based on banks' responses

4.2.3. Changes in real interest rates

In 2014 Q2, one-year forward looking real interest rates fell continuously based on the 1-year government bond yield and remained essentially unchanged based on short-term deposit rates (Chart 4-13). The decline in real interest rates stemmed from the decrease in zero coupon yields (estimated based on government bond market yields), which was only partially buffered by lower inflation expectations. The self-financing scheme announced by the MNB played a significant role in falling government bond yields. The real interest rate stood at a historic low in July,

⁷ Difference between the banks reporting tightening and those reporting easing, weighted by market share.

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

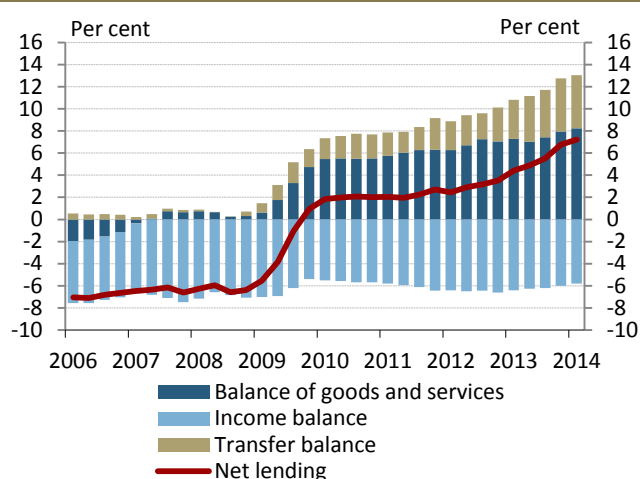
at -0.1 per cent based on 1-year government bond yields and at -0.4 per cent based on banking system deposit rates with maturities of up to 1 year.

5. THE BALANCE POSITION OF THE ECONOMY

5.1. External balance and financing

The four-quarter net lending of the Hungarian economy continued to rise in 2014 Q1, reaching 7.2 per cent of GDP. This rise was driven by a small increase in the balance of goods and services surplus and a decrease of similar degree of the income balance deficit, while the transfer balance stabilised at a high level. The reduction in external debt was also reflected in financing data, primarily thanks to the outflow of debt-generating funds. Consequently, Hungary's external debt indicators, which are decisive in terms of the country's vulnerability, continued to decrease in the first quarter.

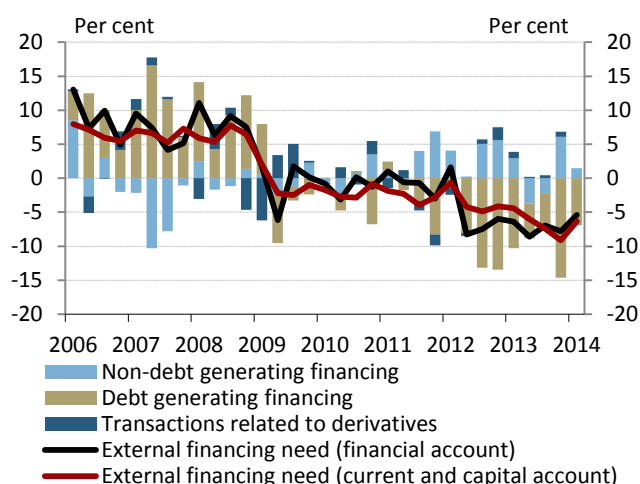
Chart 5-1: Changes in external financing capacity



Note: Cumulated four-quarter values; as a proportion of GDP

Source: MNB

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

Four-quarter net lending calculated from the real economy rose further in 2014 Q1 and reached 7.2 per cent of GDP (Chart 5-1). Net exports contributed to this increase, and with its four quarter balance exceeding 8 per cent of GDP it represented the largest contributor to Hungary's net lending position. The improvement in the net lending was also supported by the decrease in the income balance deficit, which shrank to 5.8 per cent of GDP during the first quarter. Hungary's elevated net lending is also linked to the substantial transfer balance surplus. The four-quarter net EU transfer utilisation was around EUR 5.6 billion during the first quarter. Utilisation of EU transfers may continue in 2014-2015 following the end of the EU's budget cycle in 2013, and thus see the transfer balance surplus remain high in the upcoming period. The preliminary balance of payments data published monthly by the MNB since mid-July indicate that the economy's net lending may have continued to increase during the second quarter, driven mainly by a further rise in the external trade surplus.

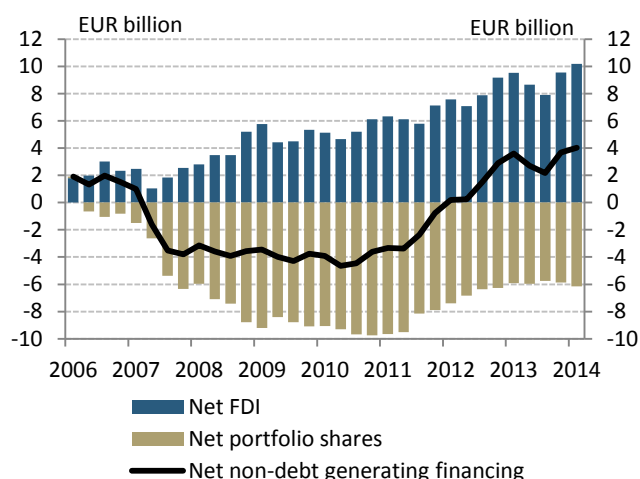
5.1.2. Developments in financing

The indicator based on financing data also suggested significant net lending – although it did fall somewhat short of the value calculated based on the real economic data – in the first quarter (Chart 5-2). In line with the net lending, net debt-generating funds shrank substantially while non-debt generating funds grew within the economy.

The economy's non-debt funds increased in the first quarter (Chart 5-3). This first-quarter growth stemmed from the EUR 0.6 billion rise in FDI and a slight dip in net portfolio-equity investments.

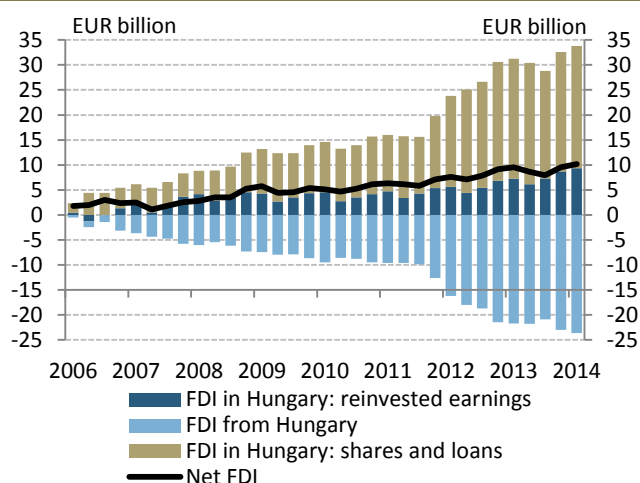
The mild increase in net FDI in the first quarter resulted from increased investment activity in Hungary of non-residents and rising investment abroad by residents (Chart

Chart 5-3: Non-debt generating investments (cumulated transactions)



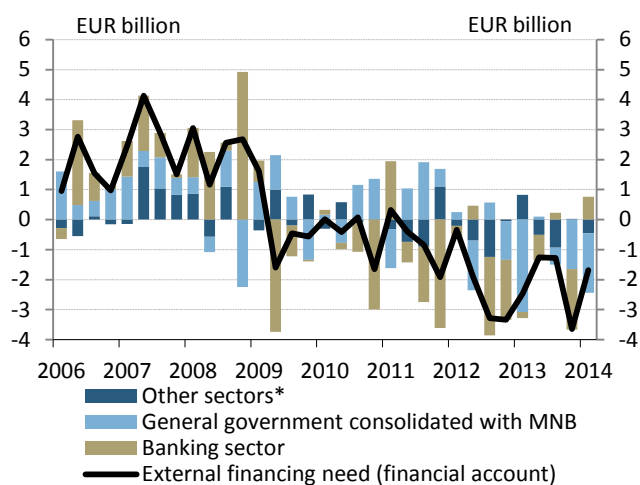
Source: MNB

Chart 5-4: Breakdown of net FDI inflow



Source: MNB

Chart 5-5: Sectoral breakdown of debt inflow



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

Source: MNB

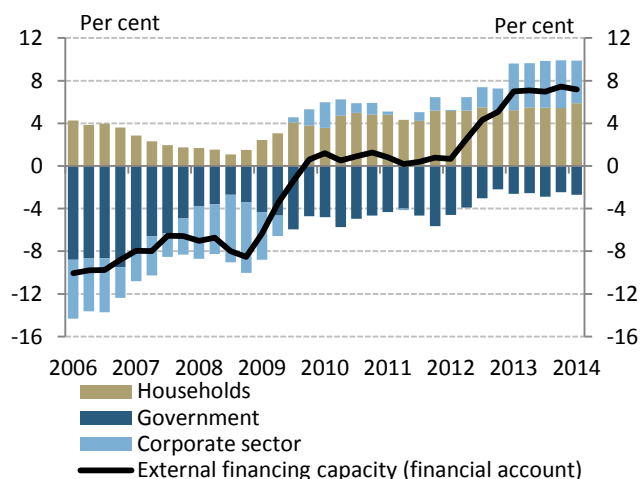
5–4). For the second quarter, however, preliminary monthly data indicate a decline in direct investment funds, which may stem from several causes. First, in the second quarter, the usual voting on corporate dividends leads to a reduction in reinvested earnings. Second, during 2014 Q2, similarly to autumn of 2013, the Hungarian state acquired several foreign-owned firms, which decreased FDI.

The outflow of net debt-generating funds amounted to EUR 1.7 billion in the first quarter (Chart 5–5). At the same time, the repayment of debt showed different dynamics compared to the earlier outflow of funds. Banks’ net external debt expanded by EUR 0.8 billion, which can be regarded as a reversal of the substantial outflow of funds observed in the fourth quarter. In addition, the state curbed its net external debt by EUR 2 billion, which was partly a result of rising international reserves, due to EU transfers. Foreign currency bond issues by the state during the quarter did not affect net external general government debt due to a similar increase in foreign exchange reserves. The stronger role of households in funding the general government also could have contributed to the contraction in external general government debt. Finally, corporations scaled back their external debt by approximately EUR 0.5 billion. Preliminary monthly data show that the reduction in the economy’s debt slowed down during the second quarter. This reduction is linked to the decreasing FDI coupled with net lending which remains elevated.

In accordance with the economy’s high net lending, households’ and corporations’ net savings remain substantial (Chart 5–6). Households’ four-quarter net lending had reached nearly 6 per cent of GDP by 2014 Q1, exceeding the values from recent years. This suggests that households remain prudent and continue repaying their outstanding loans. General government net borrowing remains subdued based on data for the past quarters. Corporations’ net lending did not contract substantially, despite the high utilisation of the Funding for Growth Scheme.

The volume of net external debt continued to drop during the first quarter, in line with the repayment of the economy’s external debt, and fell to below 35 per cent of GDP (Chart 5–7). Although foreign currency bond issuance by the state during the first quarter did not affect net external general government debt due to the similar increase in the foreign exchange reserves, it did lead to a slight rise in gross external debt. However, this rise is only temporary, as the state pre-financed a bond maturing in

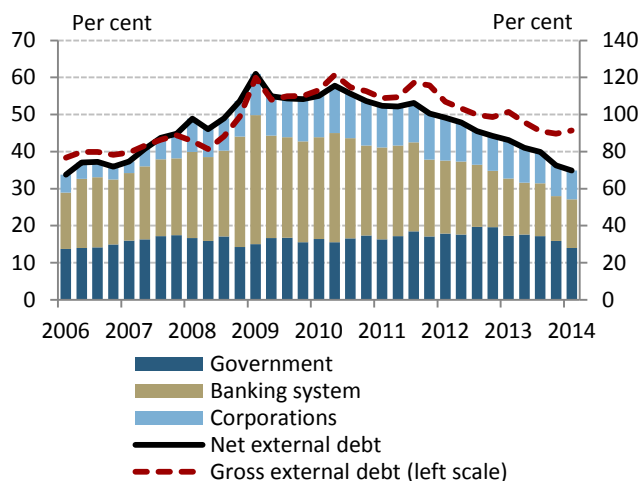
Chart 5-6: Breakdown of external financing capacity by sectors



Note: Four-quarter cumulation as a proportion of GDP.

Source: MNB

Chart 5-7: Breakdown of net external debt by sectors



Note: Excluding intercompany loans. Values as a proportion of GDP.

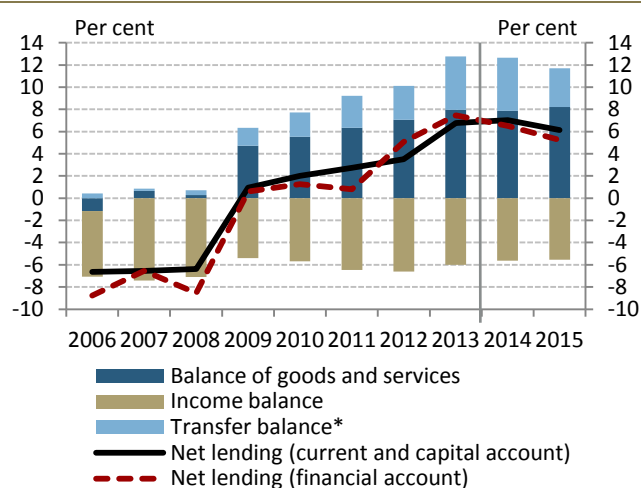
Source: MNB

autumn, which will decrease gross external debt upon maturity.

5.2. Forecast for Hungary's net lending position

In 2014–2015, Hungary's net lending is expected to stabilise at a high level. The trade balance may remain at a level similar to the one seen last year, despite the slowdown in the euro area and the Russia-Ukraine conflict, and may remain high in 2015 in a context of slightly rising domestic absorption and a pick-up in external demand. The transfer account, which primarily includes EU funds, may be similar to last year's, while in 2015, it may shrink slightly in line with the new EU budget period, but it is still expected to contribute significantly to Hungary's net lending capacity. In line with the decline in external debt, the deficit on the income balance may continue to fall. Looking at the saving position of individual sectors, the general government borrowing requirement is likely to remain restrained, due to sound fiscal policy, while the projected net financing capacity of the private sector may remain at a relatively high level. Corporate savings may contract in the coming years owing to increased investment activity, while the net financial savings of households may remain elevated next year, even taking into account the impact of measures on foreign currency denominated debtors.

Chart 5-8: Evolution of net lending (as a proportion of GDP)



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

Source: MNB

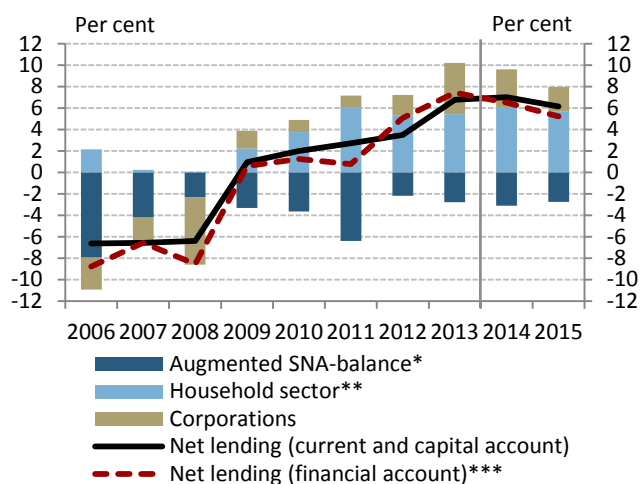
Hungary's net lending may stabilise at high levels in the years ahead. Net exports will remain high in 2014 in the context of falling exports and increasing imports in the wake of the Russia-Ukraine conflict and the slowdown in the euro area, and will continue to contribute significantly to Hungary's net lending alongside the slower rate of domestic absorption growth and slower expansion of its export markets. In 2014–2015, the utilisation of EU transfers also substantially improves the external balance, alongside the trade surplus. In 2014, we expect to see high utilisation, similar to last year, while transfers may decline slightly in 2015, in the context of the new EU budget period. A continuing slight decrease in Hungary's income balance deficit also contributes to its high net lending, primarily linked to declining net external debt, consistent with the high net lending capacity (Chart 5–8).

From the perspective of sectors, **external balance developments** in net lending continue to unfold **in the context of a low general government borrowing requirement and elevated private sector net savings** (Chart 5–9).

At the same time, the net saving position of the corporate sector may start declining slowly in the coming years, reflecting, for the most part, an upswing in investment activity fostered by the Funding for Growth Scheme and decreasing EU transfers.

Based on our expectations, households' net savings may continue rising along with growing employment, increasing real wages and continued cautious consumer behaviour, and may stabilise at a high level next year. Next year, the foreign currency loan package, excluding the one-off decrease in the stock of loans, will not materially affect household savings. This is because, first, the lower debts resulting in lower repayments reduce households' net savings, and higher disposable income may increase financial asset accumulation. As was the case in the previous period, developments in household savings

Chart 5-9: Changes in savings of sectors (as a proportion 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. **Net financial saving of households consistent with the SNA deficit does not contain the pension savings of those who return to the public pension system. The official net saving (shown in the financial account) is different from the data in the chart. ***We expect that 'Net errors and omissions' (NEO) will return to the historical average.

Source: MNB

will be shaped primarily by precautionary motives and deleveraging. Households will set aside a portion of their increased incomes; therefore, the level of household savings may remain persistently high in the next few years even in the context of increased consumption.

The borrowing requirement of general government may remain restrained in the coming years, however, within this the SNA borrowing requirement of the augmented general government sector may increase somewhat in 2014. This small increase stemmed mainly from the recognition of revenues on telecommunications concessions differently than the ESA. Looking ahead, the general government borrowing requirement may remain subdued in 2015.

In parallel with the high external net lending capacity, the outflow of foreign – mainly debt-type – funds may also continue. Accordingly, the high net lending may be also reflected in further reductions in net external debt. The decline in gross external debt may also be fostered by the MNB's self-financing programme. The shift in the financing of government debt from foreign exchange bond issuance toward forint funding and rising domestic financing may reduce gross external debt. In addition, the programme may yield benefits beyond the reduction in gross external debt: it may also have a positive effect on the foreign currency composition of debt, and the fluctuations of the forint exchange rate will be less reflected in debt indicators. At the same time, the programme will not affect the country's net external debt, given that maturing foreign currency debt reduces the level of international foreign exchange reserves in the context of lower foreign currency bond issuance. Furthermore, the country's gross external debt may decline thanks to the Curia's decision on retail foreign currency loans.

5.3. Fiscal developments

According to our forecast, in 2014 and 2015 the budget's ESA deficit may remain below 3 per cent of GDP and the government's deficit target may be achieved in both years. In the case of a disciplined fiscal policy, by complete cancellation of the available free reserves, a deficit of 2.8 per cent in 2014 and 2.6 per cent in 2015 can be achieved, with both of these figures somewhat lower than the government's target. Macroeconomic developments and rising tax revenues point to a smaller deficit in both years; however, the general government expenditures may be higher compared to our June forecast, and according to our partially technical forecast the local government sector's balance may somewhat worsen compared to our previous estimation. The expected accrual adjustments related to European Union funds in 2014 may reduce accrual-based net revenues from the European Union. Overall, our deficit forecast for 2014 has increased slightly, rising by 0.1 per cent of GDP, but remains unchanged for 2015, compared to our June forecast. Based on the foregoing, the demand-increasing effect of fiscal policy may amount to 0.7 per cent of GDP in 2014 and generate a 0.2 per cent decline in demand in 2015. While the gross government debt-to-GDP ratio calculated on the basis of the exchange rate as at end-2013 is expected to decrease over the entire forecast horizon, i.e. the government debt rule will be observed, the actual debt ratio will continue to be significantly exposed to changes in the forint exchange rate and the budgetary advance related to EU transfers.

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

	2013	2014	2015
ESA deficit*	-2.4	-2.8	-2.6
Cyclical component (MNB)	-1.2	-0.8	-0.2
Cyclically-adjusted augmented (SNA) deficit*	-1.6	-2.3	-2.6
Fiscal impulse**	0.5	0.7	-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: CSO, MNB

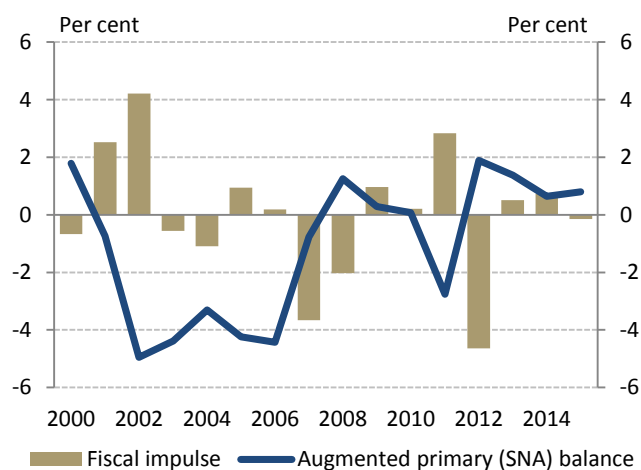
5.3.1. Main balance indicators and the fiscal demand effect

According to our forecast, in the case of a disciplined fiscal policy and cancellation of the available free reserves (National Protection Fund), the general government's ESA deficit may be 2.8 per cent of GDP in 2014 and 2.6 per cent of GDP in 2015, corresponding to a 0.1 per cent increase in 2014 and an unchanged deficit forecast for 2015 compared to the June Inflation Report (Table 5–1). In 2014, the cyclical position of the economy will contribute to the deficit by 0.8 per cent of GDP; however, based on the macroeconomic forecast, the output gap will close further in 2015, and hence the cyclical component of the fiscal deficit will also decrease further. The ESA balance will improve in 2015, driven by the pick-up in economic performance, also contributed to by the extra consumption tax revenue generated by higher consumption in the wake of the Curia's legal uniformity decision on household loans.

Following the rise in demand in 2013, fiscal policy may again contribute to a rise in aggregate demand in 2014.⁸ Fiscal policy will increase households' disposable income through a significant increase in public sector wages, especially in education and in connection to the public work scheme. Subdued growth in social expenditures will have an opposite, albeit less dominant, impact, influenced by – among other factors - the increase of statutory retirement age. EU funding is expected to decrease in 2015 compared to the record high level in 2014, which may decrease the capital expenditure of the government, and thus fiscal impact is expected to be slightly negative in 2015 (Chart 5–10).

⁸ The fiscal impact is quantified 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 other sectors.

Chart 5-10: 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 2014–2015.

Source: MNB

Table 5-2: Decomposition of the change in the 2014 ESA balance forecast (compared to the June Inflation Report; as a percentage of GDP)

	Macro data	Measure	Other
I. Central government revenues	0.3	-	-
Consumption-type tax revenues	0.1	-	-
PIT and SSC	0.2	-	-
II. Central government expenditures	-	0.2	-0.3
Housing subsidies	-	-	0.1
Budgetary organisations	-	0.2	-0.4
III. Further effects	-	-	-0.3
Balance of local governments	-	-	-0.1
Corrections related to EU-funding	-	-	-0.2
Other items	-	-	0.1
Total (I.+II.+III.)	0.3	0.2	-0.6

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

Source: MNB

5.3.2. The balance in 2014

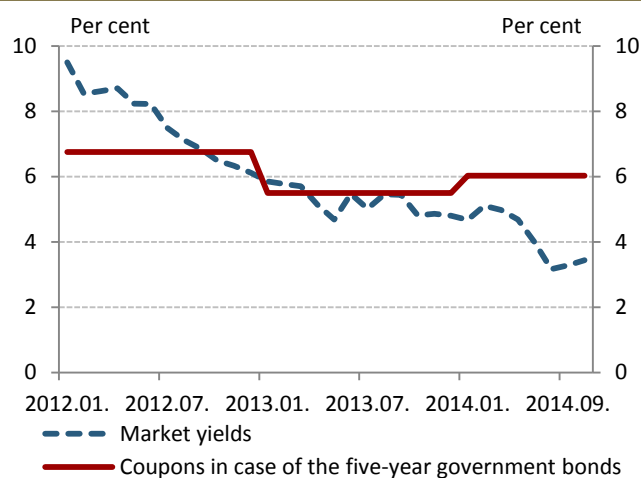
According to our forecast, with cancellation of all of the available free reserves (National Protection Fund), the 2014 ESA deficit will amount to 2.8 per cent of GDP, which is 0.1 per cent higher than our projection in the June issue of the Inflation Report (Table 5–2). On the revenue side, we have revised our projection for labour tax and contribution revenues upwards by 0.2 per cent of GDP in view of the favourable personal income tax and contribution revenue figure for Q3 and the expected dynamic rise in the whole-economy wage bill. Revenues from consumption taxes may exceed our previous expectations by 0.1 per cent of GDP, primarily owing to developments in retail sales and better-than-anticipated Q3 VAT receipts.

On the expenditure side, we increased the expected net expenditures of budgetary organisations based on the incoming monthly data compared to our previous round of forecasts, and also factored in the extra funding requirements that may arise in the case of the Klebelsberg Institution Maintenance Centre. Compared to our June projections, further balance deterioration results from the expected financial adjustments linked to EU funding and the higher own-contribution requirement associated with the higher-than-estimated EU disbursements. The deterioration in the balance of central expenditures is partly offset by the announced cancellation of funds and the smaller-than-expected number of participants in the exchange rate cap scheme, which decreases the budgetary spending on housing subsidies. The net impact of the cancellation of funds may amount to 0.2 per cent of GDP according to our forecast, taking into account the tax component of expenditures and the earmarked Investment Fund amounts exempted from the cancellation.

In addition, based on the adjusted first-quarter cash-flow balance of local governments and preliminary second-quarter financial accounts data, we have revised our partially technical projection pertaining to the local government balance downwards by 0.1 per cent of GDP, and thus currently forecast a balance close to zero (ignoring debt assumption and the impact of the sales of the majority block of Főgáz Zrt shares). The state acquisition of a stake in MKB Bank Zrt., announced since the June Report, will be funded from extraordinary government reserves and will therefore not affect the deficit calculated based on a cash approach and according to the ESA methodology.

Our projection for net interest expenses in cash terms is lower by 0.3 per cent of GDP compared to June forecast,

Chart 5-11: Yields and coupons for five-year government bonds



Source: MNB

Table 5-3: Differences between our forecast and the appropriations set out in the 2014 Budget Act (as a percentage of GDP)

	<i>Difference from appropriation</i>
I. Central government revenues	0.4
Consumption-type tax revenues (VAT, excise duties)	-0.2
Payments of business organizations	-0.3
PIT and SSC	0.9
II. Central government expenditures	-0.4
Budgetary organisations	-0.1
Public work programme	-0.2
Other expenditures	-0.1
III. Further effects	0.1
Balance of local governments	0.1
Cancellation of the reserves	0.3
ESA corrections	-0.3
Total (I.+II.+III.)	0.1

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

Source: MNB

warranted by increasing cash interest revenues due to the gain realised on securities issued above their face value in a low yield environment (Chart 5–11). However, this only has a slight impact on the ESA balance, as on an accruals basis, the exchange rate gains (premium) realised upon issuance must be recognised across the security’s entire maturity, i.e. distributed over several years.

The ESA deficit target set by the Government in the 2014 Budget Act is 2.9 per cent of GDP. Our projection is 0.1 percentage point lower (Table 5–3). In part, the difference stems from the fact that we assumed that the total amount of the National Protection Fund would be cancelled,⁹ which alone would improve the balance by 0.3 per cent. According to our forecast, consumption-related revenues may fall 0.2 per cent of GDP short of the estimate set out in the Budget Act, resulting mainly from the fact that the government forecast assumes a more substantial improvement in the efficiency of VAT collection. As regards revenues from labour taxes and social security contributions, our projection is higher by 0.9 per cent of GDP. This substantial difference is mainly attributable to increasing wages and employment and the lower-than-expected utilisation of small business tax schemes. Partly resulting from the latter, our forecast for revenue generated by corporations is 0.3 per cent of GDP lower than the estimate.

Due to the higher numbers participating in the public work scheme, the higher spending indicated by monthly data for budgetary institutions and the funding needed for the Klebelsberg Institution Maintenance Centre, expenditures may be 0.4 per cent of GDP higher overall compared to the Budget Act estimate, in spite of the announced cancellation of certain expenditures. Additionally, ESA statistical adjustments may fall 0.3 per cent of GDP short of the estimate, primarily due to the refund necessitated by the financial adjustments to EU funding. Based on data released for this year, the balance of local governments may be better than the Government estimate by 0.1 per cent of GDP.

5.3.3. The balance in 2015

At 2.6 per cent, our ESA deficit-to-GDP ratio forecast for 2015 has not changed compared to the June forecast (Table 5–4). On the revenue side, consistent with the change to our 2014 forecast, we have raised our estimate regarding revenues from labour taxes and social security

⁹ According to the Budget Act, the National Protection Fund appropriation may not be used prior to 30 September 2014. The Government may decide to use the reserves if the expected EDP deficit for 2014 – taking into account the amount that is used from the reserve – does not exceed 2.9 percent of GDP.

Table 5-4: Decomposition of the change in the 2015 ESA balance forecast (compared to the June Inflation Report; as a percentage of GDP)

	<i>Macro data</i>	<i>Measure</i>	<i>Other</i>
I. Central government revenues	0.4	-0.1	-
Consumption-type tax revenues	0.3	-	-
PIT and SSC	0.1	-	-
Corporate income tax	0.1	-0.1	-
II. Central government expenditures	-	-	-0.1
Housing subsidies	-	-	0.1
Budgetary organisations	-	-	-0.2
III. Other effects	-	-	-0.2
Balance of local governments	-	-	-0.1
Other items, ESA corrections	-	-	-0.1
Total (I.+II.+III.)	0.4	-0.1	-0.3

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

Source: MNB

contributions and consumption taxes. The change regarding consumption taxes is warranted, in addition to the base effect, by the extra revenue in the wake of increased consumption expected following the Curia's legal uniformity decision on household loans. The bill submitted on September 12¹⁰ has a negative effect on the corporate tax revenue projection for 2015 as the financial institutions involved may decrease their corporate tax obligations in 2015 with the refundable corporate taxes, due to the Curia's legal uniformity decision on household loans. However, this effect is offset by the incoming data of the summary report of the 2013 tax returns, which showed a higher-than-expected corporate tax obligation, while the tax refund claims were less than we expected, which would increase the corporate income tax revenue projections for 2014 and 2015.

On the expenditure side, similarly to 2014, we have reduced our forecast for home construction subsidy expenditures for 2015 due to the weaker-than-anticipated utilisation of the exchange rate cap scheme and raised our forecast for budgetary institution spending. In addition, we adjusted our technical projection for the local government balance in line with our forecast for 2014.

5.3.4. Risks surrounding the baseline scenario

If the refund linked to the financial adjustment of EU funding assumed in our forecast does not materialise this year, our deficit forecast would decrease by 0.2 per cent of GDP, and may contribute to an improvement in the balance. It is particularly difficult to forecast the local government sector's financial management, so our technical assumption for the local government balance is surrounded by symmetrical risks.

An upside risk of 0.2 per cent of GDP may materialise in 2015 affecting material costs because, based on previous experiences and in line with the principle of prudence, we assumed a higher expenditure level than envisaged in the Convergence Programme. However, it may pose a negative risk that we assume only a slight increase regarding the government wage bill in accordance with the Convergence Programme. In addition, for lack of detailed information, over our forecast horizon we did not take into account the drawdown of the loan related to the expansion of the Paks nuclear power plant and the commencement of the project.

¹⁰ Draft bill No. T/1272 on the rules of the settlement laid down in Act XXXVIII of 2014 on certain issues relating to the Curia's legal uniformity decision on household loans and on certain other provisions.

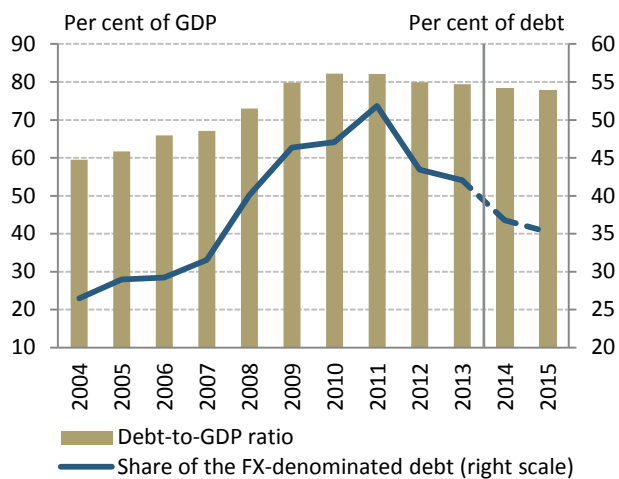
5.3.5. Expected developments in public debt

Based on the MNB's preliminary financial accounts data, gross consolidated general government debt amounted to 85.1 per cent of GDP at the end of 2014 Q2. Compared to the first quarter, the debt ratio rose by 0.7 percentage points, mainly due to transitory factors. The stock of government deposits rose further following a marked expansion in Q1, which temporarily contributed to this increase. Reacting to high demand at the auctions, the Government Debt Management Agency increased its issued quantity compared to the planned figure in order to pre-finance the expected larger volume of government securities maturing during the second half of the year and the repayment of the European Commission loan falling due. The slight increase in debt as a ratio of GDP is also explained to a smaller extent by two additional factors: the weakening forint exchange rate and the fact that three quarters of the annual deficit target was reached during the first half of the year.

In respect of end-of year data, based on the exchange rate as at end-2013, the debt ratio is expected to decline over the entire forecast horizon, i.e. the government debt rule set forth in the Fundamental Law is likely to be met. By the end of 2014, the government debt-to-GDP ratio may reach 78.4 per cent which, taking into account the higher-than-expected GDP growth, is better than our June projection. The debt-to-GDP ratio may fall below 78 per cent in 2015, assuming an unchanged exchange rate (Chart 5–12).

At the same time, our debt forecast is surrounded by risks. If the budgetary advance necessitated by EU funding that is not received before the end of the year exceeds the forecast figure, it will not affect the accrual-based accounting deficit due to the statistical adjustments, but may lead to a rise in the debt ratio by increasing the cash-based deficit. On the other hand, the above specified forecast was made assuming an end-2013 exchange rate, and the foreign exchange ratio within outstanding debt is nearly 40 per cent, therefore a 10 HUF/EUR shift in the forint exchange rate yields a 1.1 per cent change in government debt as a ratio of GDP.

Chart 5-12: Gross public debt forecast – from 2013 at constant, end-2013 exchange rate



Source: MNB

6. SPECIAL TOPICS

6.1. Has the link between unemployment and inflation changed (has the Phillips curve flattened out)?

Although there has been more and more news about mounting deflationary risks in certain regions (mainly in the euro area) in recent months, inflation at the global level has been relatively stable in recent years. While earlier recessions triggered substantial declines in the consumer price index, **in the wake of the 2008 crisis inflation did not fall as significantly as anticipated from the previous experiences, in spite of the substantial economic downturn.** As a result of this phenomenon, an increasing number of analyses on the possible flattening of the Phillips curve¹¹ have appeared in the international literature. In its original form, the Phillips curve is a negative correlation between wage inflation and unemployment. Subsequent interpretations of the curve focused more on inflation instead of wage inflation and on the cyclical position of the overall economy instead of unemployment. Among these, the New Keynesian Phillips curve defines inflation (π_t) based on inflation expectations (π_{t+1}^e) and a variable measuring the cyclical position of the real economy (which can be expressed for example by the level of cyclical unemployment (\tilde{u}_t) or the output gap).

$$\pi_t = \beta\pi_{t+1}^e - \kappa\tilde{u}_t$$

The κ parameter defines the slope of the Phillips curve, which indicates the strength of the correlation between cyclical unemployment (the cyclical position of the economy) and inflation. **Recently, several analyses have raised the possibility of a decrease in this parameter, i.e. a flattening of the Phillips curve.** This phenomenon is of great importance from the perspective of monetary policy, as a consistently flatter Phillips curve could entail a smaller inflationary impact of the closing of the output gap, and thus looser monetary conditions.

Overall, several explanations may be offered for this phenomenon, the most important of which we will discuss in our analysis.

- Inflation has sunk to such low levels in certain countries that the only way to decrease real wages would be to cut nominal wages. As experience has shown both employees and employers resist this option, it can be generally stated that **nominal wages are downwardly rigid.** Nominal wage rigidity further fixes the flat position of the Phillips curve in a low inflation environment.¹² Accordingly, despite a rise in the unemployment rate during the recession, the rigidities prevailing within economies prevent nominal wages, and thus inflation, from falling. Empirical studies confirm that the more rigid the wages, the flatter the Phillips curve.¹³
- **Rising unemployment during times of recession** – which yields an even flatter Phillips curve if coupled with slowing productivity growth¹⁴ – **ensues more from structural reasons** rather than cyclical ones. In case of normal crises, unemployed persons looking for work push wages downward, thereby decreasing the consumer price index. In the event, however, that the unemployed are unable to compete for specific positions – for instance, if they have been unemployed for such a long time that their skills or know-how have become outdated and/or their motivation and self-esteem have been eroded (discouraged workers) and/or labour demand has been completely changed by restructuring in the sector – then this price pressure is far milder. This type of unemployment is referred to as structural. In the wake of the crisis, the number of long-term unemployed and working-age individuals exiting the labour market increased in many economies.
- Individuals' perception of inflation may have changed over time as a result of **central banks appearing more credible** to public opinion and market analysts **and thus a more stable inflationary environment.** As perceptions of the future shape current level of inflation, **more strongly anchored inflation expectations** have stabilised the consumer price index.

¹¹ The economic model of empirical origins is tied to Alban William Phillips, whose 1958 article entitled „*The Relationship between Unemployment and the Rate of Change of Money Wages in the United Kingdom 1861-1957*” examined the link between (wage) inflation and unemployment based on data from the UK.

¹² Marco Del Negro, et al.: Inflation in the Great Recession and New Keynesian models, 2014, Federal Reserve Bank of New York, Staff Reports, pp.29.

¹³ Mary C Daly: Downward nominal Wage Rigidities Bend the Phillips Curve, 2014, Federal Reserve Bank of San Francisco, Working Paper Series, pp.25.

¹⁴ Mary C Daly: Downward nominal Wage Rigidities Bend the Phillips Curve, 2014, Federal Reserve Bank of San Francisco, Working Paper Series, pp.26-27.

- The price-setting actions of corporations also shape inflation. Generally speaking, changing prices is costly (menu costs). Thus, in a **low inflation environment** corporations' price-setting behaviour changes and **the frequency and rate of repricing diminishes**.
- **Globalisation has rendered inflation much more sensitive to the global demand environment and less sensitive to domestic demand conditions.** Following the onset of the crisis, the global output gap was less volatile compared to the cyclical positions characterising individual economies.
- According to empirical estimates, an **issue of non-linearity** may also arise, where **inflation reacts differently to transitory, slight and substantial, persistent output gap**.¹⁵

However, analysts do not agree fully on whether the relationship between inflation and the economic cycle has changed following the crisis, and if so, whether the change is temporary or permanent. Accordingly, analyses have merged in recent months which argue that that the **Phillips curve remains just as steep as in the past** (is steep once again), and therefore the **strong correlation** between the economy's cyclical position in the consumer price index observed in the past **still prevails**. Several explanations have been offered for this phenomenon.

- **Increased competition** resulting from the crisis spurred corporations to raise prices more frequently.
- There is a **negative correlation between demand and the shocks affecting the mark-up**. Greater uncertainty and risk aversion resulting from the crisis led to a rise in corporations' cost of funding, to which they reacted by hiking their mark-ups (the only way for them to remain profitable).
- **The impact of the economy's cyclical position is reflected later in the price index, with a lag.** Therefore participants' price-setting behaviour may have slowed and been delayed somewhat in the wake of the global economic crisis.
- **Marginal costs quickly returned to their equilibrium level** following the crisis, which thanks to the forward-looking Phillips curve prevented the emergence of an enduring deflationary environment.
- **The rising proportion of immigrants.** Their presence slows wage dynamics, as immigrants are willing to do the same work for lower wages compared to the local population.
- Cheap labour in emerging markets has given rise to a **global "wage race"**, which may have restrained the rapid rise in wages, and of inflation as well. Looking forward, the significant wage growth in emerging markets may slow this process, which may trigger steepening of the Phillips curve.

6.1.1. Experiences in Europe and Hungary

Several **euro-area analyses suggest that the steepness of the Phillips curve has changed, i.e. the correlation between the economy's cyclical position (the unemployment rate) and inflation has weakened** (Chart 6–1). The latter can be linked to greater central bank credibility and sticky wage and price dynamics.¹⁶

¹⁵ Mary C. Daly: Downward Nominal Wage Rigidities Bend the Phillips Curve, 2014, Federal Reserve Bank of San Francisco, Working Paper Series, pp.28.; European Commission:2014 Winter forecast, Box 1.4, 2014, pp.39-40.

¹⁶ ECB Monthly Bulletin Article, Potential output, economic slack and the link to nominal developments since the start of the crisis, November 2013

Chart 6-1: Development of the Phillips curve in the euro area

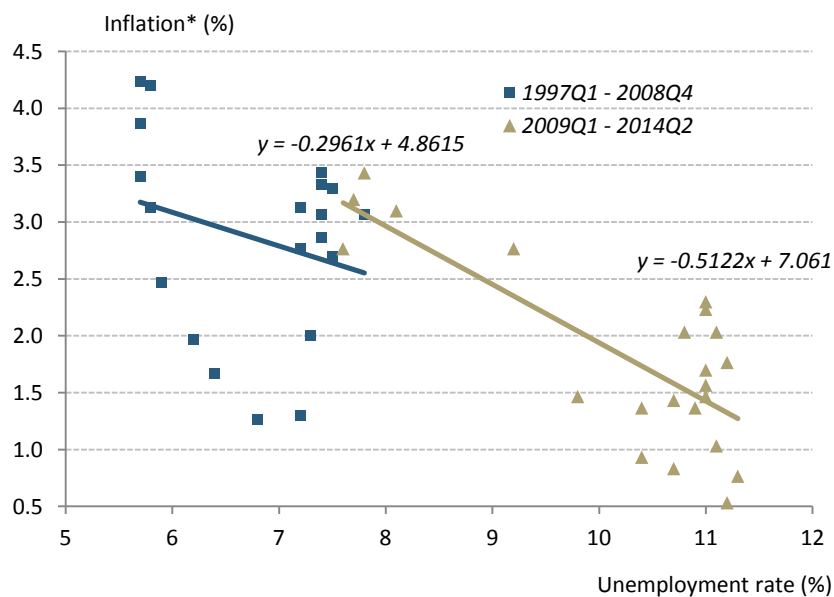


Note: *Overall index excluding energy, food, alcohol and tobacco
Source: Eurostat

Examination of the Phillips curve in Hungary is made difficult by the government measures, which significantly affected the inflation in the 2000's. As a result, it is difficult to identify a market-based link between inflation and the unemployment rate. Consequently, we use demand-sensitive inflation, which could have a stronger link to the cyclical position of the economy, to investigate the Phillips curve in Hungary.

Examining the link between the unemployment rate and demand-sensitive inflation, the co-movement's direction is similar to that seen in other European countries, but its strength is more moderate in Hungary. Compared the years before the crisis, which were characterised by higher inflation and a lower unemployment rate, and after the crisis, a flattening of the Phillips curve for the time being (the extent of movement is statistically insignificant) cannot be identified (Chart 6–2).

Chart 6-2: Development of the Phillips curve in Hungary

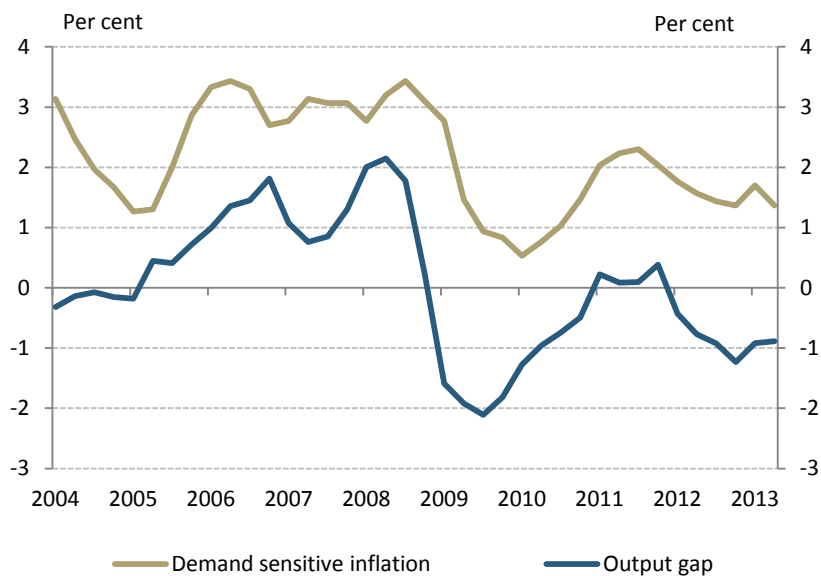


Note: * Demand-sensitive inflation.
Source: MNB

For a more detailed analysis of the issue, we examined the link between inflation and the output gap for Hungary as well (Chart 6–3). Experience from the 2000s shows that the **inflation of demand-sensitive goods rises as the output gap**

increases. This relation seems to have changed over the past few quarters, but no strong conclusions on whether this correlation has really weakened following the crisis can yet be drawn based on the available information.

Chart 6-3: Development of demand-sensitive inflation* and the output gap in Hungary



Note: * Demand-sensitive inflation is delayed by four quarters; an HP filter was applied to the output gap.
 Source: MNB

Overall, we still lack sufficient evidence for Hungary regarding the change in the link between inflation and unemployment rate (the economy's cyclical position) following the crisis. In the case of a declining consumer price index, the strength of the correlation may have decreased in the short term (due to the downward rigidity of nominal wages), however, it may strengthen as wages start to rise in parallel with the upturn in economic activity.

6.2. Macroeconomic impacts of the conflict between Russia and Ukraine

In the wake of the armed conflict in eastern Ukraine, the US, the EU and Japan have implemented several rounds of steadily stricter sanctions against Russia. These initially only targeted a narrow group of leaders involved in the conflict, with the latest round of measures imposing partial restrictions on the transactions in Europe of Russian financial institutions and a suspension of the export of military technology. The Russian response, announced in August mainly resulted in the suspension of food exports from Europe to Russia.

This report scrutinises the exposure of the Hungarian economy to Russia and Ukraine and assesses its potential economic fallout and the expected negative impacts of the restrictive measures announced so far. Worse-than-expected European growth data in Q2 may already incorporate the impacts of slowing Russian trade. **Based on the available monthly foreign trade statistics, exports from Hungary, from the region and from the entire European Union to Russia and to Ukraine slowed down substantially during the first half of the year** (Chart 6–4). This slowdown in exports stems partially from the decline in Russian demand since the second half of 2013, due to the slowing economic activity. In the case of Ukraine, which accounts for a smaller trade volume, the direct economic impact appears more pronounced, but overall, the dip in Russian trade may result in a greater fall in economic activity.

Chart 6-4: Annual change in exports to Russia and Ukraine between January and June in 2014



Source: Eurostat

6.2.1. Channels and potential growth impacts of the conflict

The Russia-Ukraine conflict affects Hungarian economic activity through several channels. **The substantial slowdown in economic activity in Russia and the expected downturn of the Ukrainian economy may exert a negative impact on Hungarian exports through falling import demand.** The Russian and Ukrainian economic outlooks have been gradually revised downwards recently. Along with a direct drop in foreign trade activity aimed at these two countries, **a negative impact may also be exerted indirectly on Hungary's economic performance through supplier relationships.** The role of Germany, Hungary's main trading partner, is predominant in this channel. Besides the general decline in export demand, a particularly powerful economic impact can affect the companies which operate in the sanctioned sectors.

The penalised Russian financial sector could represent a further economic risk; however, the Russian bank sector's exposure in Hungary and in the region is insignificant. **The increase in the financial system's general uncertainty and the continuing outflow of funds from the Russian and Ukrainian region may cause growing volatility on regional markets and may exert a negative economic impact through a growing risk premium.** Among the main actors of the Hungarian bank sector, OTP has exposure to Russia and Ukraine. Through this, negative impacts may affect the bank's performance; the deterioration of Russian economy may make the bank's consumer lending activity riskier. We believe that OTP's capital position, despite the expected losses, is stable; and the negative impacts do not affect its domestic lending activity.

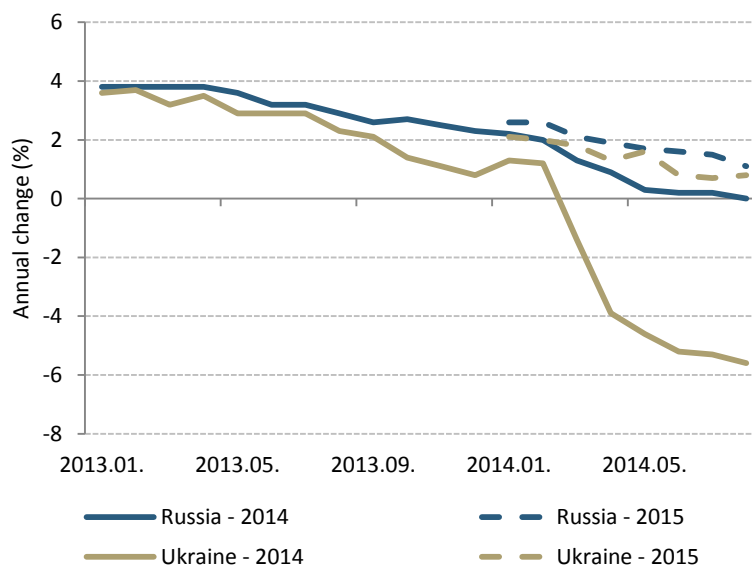
Finally, trade in energy is a key channel for economic relations. Hungary and the region sources a substantial portion of its energy from the East, mainly from Russia and routed through Ukraine. While other countries in the region have alternative transportation routes, transportation through Ukraine is a bottleneck for Hungary. A further deterioration of the relationship between Russia and Ukraine and Russia and the European Union may give rise to the possibility of natural gas and oil transport restrictions which could potentially lead to a natural gas crisis similar to the one in 2009. The shutdown of gas transportation, through the drop in industrial production, would have a severe consequence on growth. **Hungary and its regional neighbours have replenished their natural gas reserves over the past months in the wake of rising uncertainties, which may temporarily buffer the impact of such a sanction. However, the likelihood of this negative scenario remains low for the time being, and the bulk of economic impacts consist mainly of the direct and indirect declines in export performance.**

Short-term expectations regarding the trade in oil suggest that rising supply from the United States and production from OPEC countries may offset the decline in oil supply, while slowing Chinese economic growth may counteract the potential price increase. Thus, no substantial price pressure is expected in the short term. However the conflict may exert long term inflationary pressure on energy prices if export restrictions on deep sea and Arctic drilling technologies used by Russia lead to price hikes.

6.2.2. Growth effects

The identification of the conflict’s impact on the real economy is made more difficult by the fact that it is complicated to filter out exclusively the effects of the crisis from the statistics. The analyses of our prognosis, which examine the two countries’ time-varying forecasts, could be helpful, assuming, that revisions were most likely caused by the incoming information on the crisis. **We substantially revised our forecast for both economies after the outbreak of conflict** (Chart 6–5). Our prognosis for Ukrainian GDP decreased by approximately 6 percentage points in 2014, and approximately by 1–1.5 percentage points in 2015; while the forecasts for Russia were reduced by 1.5–2 percentage points this year and by 1 percentage point next year.

Chart 6-5: Developments in growth expectations for Russia and Ukraine



Note: The chart shows Consensus Economics forecasts for 2014 and 2015 at a monthly frequency.

Source: Consensus Economics

In addition to the direct links, the impacts from foreign trade may be felt through supplier relationships, mainly in relation to Germany. The direct and indirect exposure of the Hungarian economy to Russia (the latter through supplier relationships) can be estimated based on 2011 data from the World Input Output Database (WIOD). Countries in CEE region are more dependent on commercial relations with the East compared to the rest of the European Union due to their geographic proximity and historical ties (Chart 6–6). Lithuania, Estonia and Slovakia feature the most significant total

exports to the Russian market, while Hungary's exports are on par with the Czech Republic, Poland, Latvia and Slovenia. Austria and Romania are the smallest exporters to Russia.

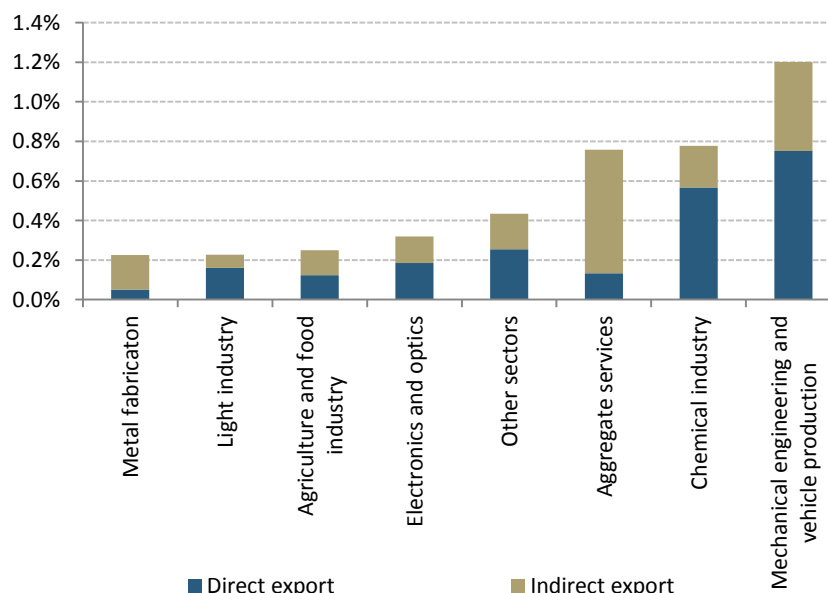
Chart 6-6: Export exposure of Hungary and the region to Russia and Ukraine as a proportion of GDP



Source: WIOD 2011

Direct exports to Russia and exports through supplier relations each amount to 2 per cent of GDP based on WIOD (World Input Output Database) data. The impact on domestic value added can be calculated by subtracting the import content of exports. Overall, the fallout from weakening Russian economic activity, heightened uncertainty and direct economic sanctions restricting exports may impact as much as 1.5 per cent of Hungarian GDP. The **exposure towards Ukraine** can be assessed only with direct export data; these are of **similar magnitude to Russian exports**.

Chart 6-7: Export exposure by sector of Hungary and region to Russia as a proportion of GDP



Source: WIOD 2011.

In addition to the impact from the general economic slowdown, the sanctions on imports implemented by Russia may further strength a slowdown in Hungary's exports on some submarkets. In order to assess this impact, we investigated the product structure of Hungarian exports to Russia. **Chemical industry, machinery manufacturing and automotive industry exports are affected to the greatest extent in Hungary** (Chart 6-7). These sectors account for 60 per cent of total direct exports from Hungary, and they account for half of total exposure.

The sanctions that have already come into effect target the export of agricultural goods. **Hungary's exposure to Russia in the fields of agriculture and food industry is moderate (amounting to 0.24 per cent in 2013)**. The impact of the sanctions on economic growth may be moderate. We summarise the effects on our economic growth at the forecast horizon in the table below. It is important to point out that our results are based on the information available up to August. Therefore the further downward revisions for economic growth in the region since then may exert an influence on the domestic outlook.

Table 6-1: Effects of the Russia-Ukraine conflict on GDP (percentage point)

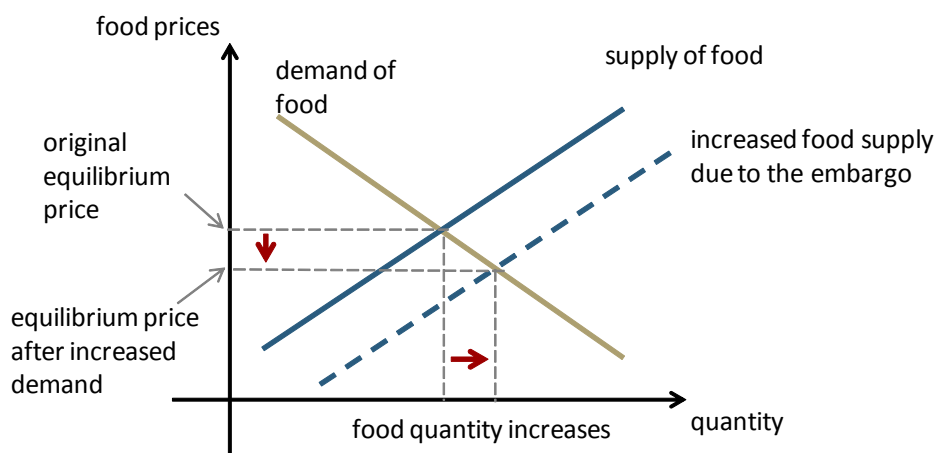
	Changes in imports of Hungary's export markets		Changes in exports		Changes in GDP	
	2014	2015	2014	2015	2014	2015
Expected effect of the announced Russian sanctions	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Effect of weakening Russian and Ukrainian demand	-0.4	-0.6	-0.4	-0.6	-0.1	-0.3
Total	-0.4	-0.6	-0.5	-0.7	-0.2	-0.4

Source: MNB calculations

6.2.3. Inflation effects

The impact of inflation can only be quantified with greater uncertainty. A surplus may emerge on food markets as a result of the Russian embargo if excess inventories cannot be sold off. We illustrate the expected effects on pricing in the following stylised graphic (Chart 6–8). The rightward shift (greater supply) of the food market's supply curve has price-decreasing impact. The degree of the impact on inflation essentially depends on the size of supply growth, and on the price elasticity of food-demand (slope of demand curve).

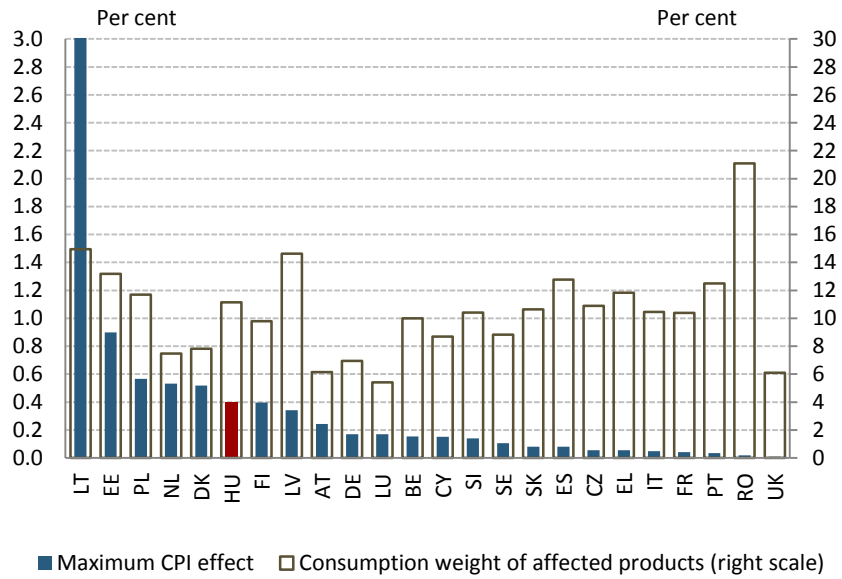
Chart 6-8: Changes in supply on food market due to the Russian embargo



Based on 2013 data, the proportion of exports of the affected goods to Russia compared to domestic consumption is approximately 4 per cent, so taking into consideration their weight in the domestic consumption basket, the maximum technical CPI impact of greater domestic supply is approximately -0.4 per cent (Chart 6–9). It is worth noting that this impact only occurs in an extreme case, if excess supply, which remains in domestic and European markets cannot be sold off on other markets.

In quantifying the expected inflationary impacts, we must take into account the price elasticity of domestic demand for food. As this is presumably less than 1, the actual downward drift in prices, originating domestically may be -0.3 percentage points at most.

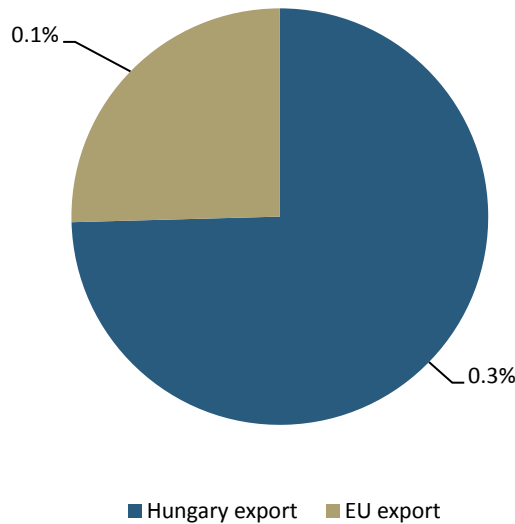
Chart 6-9: Export ratio as a proportion of domestic consumption of the food exports affected by the Russian embargo in EU member states



Source: Eurostat

A moderate disinflationary impact may also materialise through goods imported from the EU (Chart 6–10). Overall, the embargo may entail inflation lower by 0.4 percentage points at most according to our calculations. However, these goods may end up on the Russian market through third countries, or may be sold off on markets outside of Europe, which may mitigate the surplus caused by the sanctions. Therefore, the **sanctions are only expected to have a more moderate disinflationary impact.**

Chart 6-10: Technical CPI impact of Hungarian food exports stuck in the wake of the Russian embargo and inflowing EU imports (percentage point)



Note: When calculating the technical impact, we assume that the Hungarian goods affected by the embargo remains stuck on the domestic market. In case of EU member states, we assume that their goods remain stuck on the EU market, and then quantify to what extent they may appear on the Hungarian market based on the foreign trade structure of the internal market.
Source: MNB calculations

7. BREAKDOWN OF THE AVERAGE CONSUMER PRICE INDEX FOR 2014 AND 2015

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

	Effect on CPI in 2014			Effect on CPI in 2015		
	Carry over effect	Incoming effect	Yearly index	Carry over effect	Incoming effect	Yearly index
Administered prices	-1.0	-0.2	-1.2	-0.2	0.3	0.1
Market prices	-0.2	1.0	0.8	0.5	1.8	2.3
Indirect taxes and government measures	0.7	-0.1	0.5	0.0	0.1	0.1
CPI	-0.6	0.7	0.1	0.2	2.3	2.5

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, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index, and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

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

	2014					2015				
	Average carry over effect	Carry over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index	Average carry over effect	Carry over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	-1.8	0.0	1.4	0.0	-0.5	-0.5	0.0	2.6	0.0	2.1
non-processed	-6.0	0.0	2.4	0.0	-3.8	-2.5	0.0	4.8	0.0	2.1
processed	0.2	0.0	0.9	0.0	1.1	0.5	0.0	1.6	0.0	2.1
Traded goods	0.1	0.0	0.5	0.0	0.5	0.7	0.0	1.1	0.0	1.8
durables	-0.6	0.0	0.1	0.0	-0.5	-0.5	0.0	0.9	0.0	0.4
non-durables	0.3	0.0	0.6	0.0	0.9	1.2	0.0	1.2	0.0	2.4
Market services	1.1	1.0	2.0	-0.8	3.4	1.4	-0.1	2.3	0.0	3.6
Market energy	-0.6	0.0	-1.3	0.0	-1.9	-0.7	0.0	2.0	0.0	1.3
Alcohol and Tobacco	0.0	4.9	1.0	0.3	6.3	0.6	0.0	2.6	1.4	4.7
Fuel	-1.8	0.0	1.4	0.0	-0.4	0.7	0.0	3.6	0.0	4.3
Administered prices	-5.4	0.0	-1.1	0.0	-6.5	-1.1	0.0	1.7	0.0	0.6
Inflation	-1.2	0.7	0.8	-0.1	0.1	0.3	0.0	2.1	0.1	2.5
Core inflation	0.4	1.0	1.1	-0.2	2.4	0.9	0.0	1.8	0.2	2.9

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, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index, and we calculated inflationary effects of the changes in the indirect taxes, the administered prices, and market prices (not administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

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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 1439 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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