INFLATION REPORT

SEPTEMBER

2016

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

Miklós Zrínyi: The Life of Matthias Corvinus

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

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

In order to provide the public with a clear insight into how monetary policy works and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Directorate Economic Forecast and Analysis, the Directorate Monetary Policy and Financial Market Analysis, the Directorate for Fiscal and Competitiveness 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 Barnabás Virág, Executive Director of the Directorate Monetary Policy, Financial Stability and Lending Incentives. The Report was prepared by staff at the MNB's Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate for Fiscal and Competitiveness Analysis and Directorate Financial System Analysis. The Report was approved for publication by Márton Nagy, 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 14 September 2016.

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THE MONETARY COUNCIL'S KEY FINDINGS RELATED TO THE INFLATION REPORT

In the Council's assessment, Hungarian economic growth will continue to pick up in the remaining part of the year following the temporary slowdown at the beginning of the year. There continues to be a degree of unused capacity in the economy and inflation remains persistently below the Bank's target. Looking ahead, the disinflationary impact of the domestic real economic environment is gradually decreasing. The strong external financing capacity and the decline in government's FX debt will further reduce the vulnerability of the country in the forthcoming years.

The fragile growth of the global economy continued in the past months, while inflation rates still fall short of the central bank targets. Following the Brexit referendum, international money market sentiment was first characterised by a rise in risk aversion, then by a major improvement in the sentiment.

Global money market sentiment was volatile in the past quarter. The temporary deterioration in sentiment caused by the UK referendum was followed by an increase in risk appetite and balanced trading. There was an overall decline in emerging bond market spreads, although news related to global oil prices and some country-specific factors temporarily increased the volatility of asset prices. Markets continued to focus on the expectations concerning monetary policy decisions of leading central banks and on macroeconomic developments in developed countries. Following the UK referendum, the Fed and the ECB decided to leave the monetary conditions unchanged, while the decision-makers of the Bank of England decided on comprehensive monetary easing.

In the second quarter of 2016, global economic growth continued to be moderate under persisting regional differences. Developed economies were characterised by a slowdown in the growth rate, while growth prospects were mixed in the emerging regions. Inflation was subdued all over the world. The world's leading central banks maintained their loose monetary conditions. Central East Europe is still the fastest growing economic area in Europe. In line with the globally moderate inflation environment, the countries of the region are also characterised by low inflation rates, which are below central bank targets. Central banks in the region maintained their loose monetary policy stance in accordance with macroeconomic developments.

Inflation remains persistently low, getting close to 3 per cent, which represents price stability, only by the middle of 2018.

Based on the incoming data received in recent months, developments in domestic underlying inflation were in line with the June Inflation Report. The moderate external inflation environment continues to have a strong disinflationary impact, which kept the annual inflation rate in slightly negative territory in the summer months. The increase in commodity prices from the level observed at the beginning of the year and the related base effect will result in a rise in the annual inflation rate starting from the autumn months. Nevertheless, in the Monetary Council's assessment, historically low inflation expectations and the generally moderate level of imported inflation continuously restrain the growth rate of the price level. The dynamic expansion in employment and the tightening labour market lead to a rise in wage dynamics over the forecast horizon. The pick-up in nominal wage growth results in a material increase in household consumption, pointing to a gradual rise in the core inflation rate. The price increasing effect of the excise tax measures will be offset by the cut of the VAT on certain basic food products and services. Looking ahead, inflation will get close to the medium-term target by the middle of 2018.

Relying upon domestic demand items, the dynamic expansion of the domestic economy is continuing as of the second half of 2016.

This year's growth is characterised by duality over time. In line with our expectations, the slowdown in early 2016 was followed by a correction in the second quarter. According to our forecast, the dynamic expansion of the Hungarian economy continues in the second half of 2016. Continued strengthening of domestic demand is playing an increasingly important role in growth. As a result of the rise in employment, the unemployment rate declines to historically low levels. Thus the permanent expansion in household consumption is supported by the labour market prospects and favourable income developments as well as by the second-round effects of the housing market programme, in addition to a pick-up in lending. During 2016, growth is hindered by a significant decline in EU funds, but looking ahead, an upturn in public investment is expected in line with the Government's commitment. With regard to the developments in corporate lending, loans to SMEs are growing dynamically in line with the MNB's intention, and, looking ahead, they are increasingly

stimulated by the Growth Supporting Programme as well. In the case of lending to households, the significant increase in lending for housing purchases is consistent with the turnaround in the real estate market and the continued pick-up in economic activity. As of 2017, development projects in the automotive industry will also contribute to the growth in corporate investment. This year, the expected favourable developments in agricultural crop results significantly increase the growth rate of GDP. Looking ahead, external demand might be somewhat more subdued than our previous expectations, in line with emerging countries' more moderate prospects for economic activity and the negative impact of the Brexit on European economic activity. In the Council's assessment, annual growth of around 3 per cent can be achieved as a result of the MNB's and the Government's growth stimulating programmes.

In line with the external financing capacity of the economy, external debt continues to decline, resulting in a further improvement in Hungary's perception abroad.

From close to 9 per cent in 2015, the external financing capacity of the economy is slightly declining in 2016 and 2017. This decline is attributable to the lower utilisation of transfers related to the new EU budget cycle, which is partly offset in 2016 by the increase in the trade surplus as a result of favourable developments in the terms of trade, while strengthening domestic investment in parallel with subdued external demand will reduce the external financing capacity next year. Nevertheless, the savings position of the Hungarian economy is high over the forecast horizon, reflected in a decline in external debt and thus in a decrease in vulnerability as well. These factors have also contributed significantly to the fact that the S&P – as the second of the large credit rating agencies – has upgraded Hungary's debt rating back to investment grade. In 2016, the budget deficit may be much lower than the target, which is attributable to increasing tax revenues, which reflect previous years' trends, as well as to lower than planned expenditures in certain areas. In the first half of the year, the absorption of EU funds and public investment were lower than estimated on the basis of annual plans. With the low deficit, the government debt ratio may even decline by 1 per cent of GDP this year, depending on the actually evolving budget balance.

Domestic money market developments were mainly influenced by the expectations regarding the modification of central bank instruments. The MNB's announcement in July concerning the restructuring of the set of instruments contributed to the decline in government securities and interbank yields.

In the more stable international sentiment following the Brexit referendum, as a result of the MNB's announcement about the change to policy instruments, both domestic money market yields, which are carefully monitored by the Bank, and CDS spreads declined considerably. The interbank and government securities market yield curves shifted 10–40 basis points downwards following the Bank's announcement. The pricing of forward rate agreements also indicates looser monetary conditions, i.e. market participants expect permanently lower yields over the entire forecast horizon. As a result of the modification of the policy toolkit, the BUBOR rates, which serve as a basis for the major portion of household and corporate loans, also declined significantly, exerting an economy stimulating effect through the decline in credit costs and a pick-up in loan demand.

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

In addition to the baseline projection in the September Inflation Report, the Monetary Council also considered two alternative scenarios. If the alternative scenario which assumes a lower investment path due to the developments in and structural distribution of the disbursements of EU funds occurs, this would mean a lower path for inflation and economic growth than the baseline projection. The alternative scenario assuming faster wage growth and more dynamic expansion in consumption imply stronger domestic economic growth and higher inflation than the baseline forecast. In addition to the key risk scenarios, the Monetary Council also discussed alternative scenarios that assume further monetary easing by the ECB, strengthening second-round effects of Brexit, and higher oil and commodity prices, as well as financial market turbulences.

In the Council's assessment, there continues to be a degree of unused capacity in the economy and inflation remains moderate for an extended period. The disinflationary impact of the real economy is gradually decreasing over the policy horizon. If the assumptions underlying the Bank's projections hold, maintaining the current level of the base rate for an extended period and the loosening of monetary conditions by the limitation of the deposit facility are consistent with the medium-term achievement of the inflation target and a corresponding degree of support to the economy.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Forecast based on endogenous monetary policy)

	2015	2016	2017
	Actual	Projection	
Inflation (annual average)			
Core inflation	1.2	1.4	2.2
Core inflation without indirect tax effects	1.1	1.3	2.2
Inflation	-0.1	0.4	2.3
Economic growth			
External demand (GDP based)	2.1	2.1	1.6
Household consumption expenditure	3.1	4.9	3.8
Government final consumption expenditure	0.6	2.0	0.5
Gross fixed capital formation	1.9	-4.2	8.3
Domestic absorption	1.9	2.4	4.0
Exports	8.4	6.5	5.2
Imports	7.8	6.4	6.5
GDP	2.9	2.8	3.0
External balance[1]			
Current account balance	4.4	6.2	5.4
External financing capacity	8.8	8.3	8.3
Government balance[1,5]			
ESA balance	-2.0	(-1.4) – (-1.5)	(-2.1) – (-2.3)
Labour market			
Whole-economy gross average earnings	4.3	6.1	6.5
Whole-economy employment	2.7	3.1	0.6
Private sector gross average earnings[2]	4.0	5.3	6.0
Private sector employment	2.5	3.2	1.1
Unemployment rate	6.8	5.2	4.8
Unit labour cost in the private sector[3]	2.0	7.1	4.0
Household real income[4]	3.3	5.0	3.5

[1] As a percentage of GDP.

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

[3] Private sector unit labour costs calculated with full time equivalent domestic employees.

[4] MNB estimate.

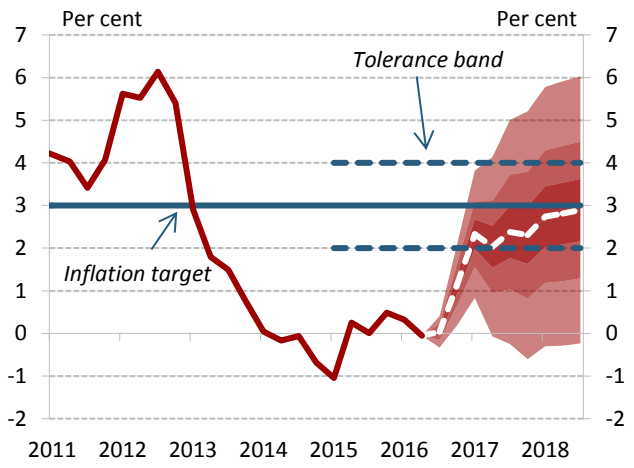
[5] For 2015 preliminary data. For 2016 and 2017, the values can be situated in the given range due to the extent of utilisation of the Country Protection Fund.

1. INFLATION AND REAL ECONOMY OUTLOOK

1.1. Inflation forecast

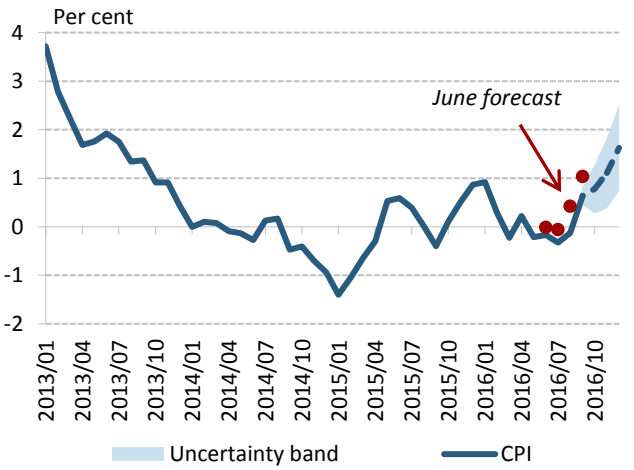
According to our current forecast, inflation will fall short of the medium-term inflation target both this year and next year, and will only approach 3 per cent around mid-2018. Compared to the low early in the year, a slow increase was observed in commodity prices in the past quarters. In line with this, due to the base effect of the oil price changes at the end of last year and beginning of this year, the annual inflation rate is projected to rise over the short run. At the same time, households' moderate inflation expectations and subdued imported inflation continue to reduce the rate of growth in domestic prices. In addition to a significant rise in household consumption, nominal wage growth, which was higher than in the previous years, also contributed to the gradual increase in core inflation excluding indirect taxes.

Chart 1-1: Fan chart of the inflation forecast



Source: HCSO, MNB

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



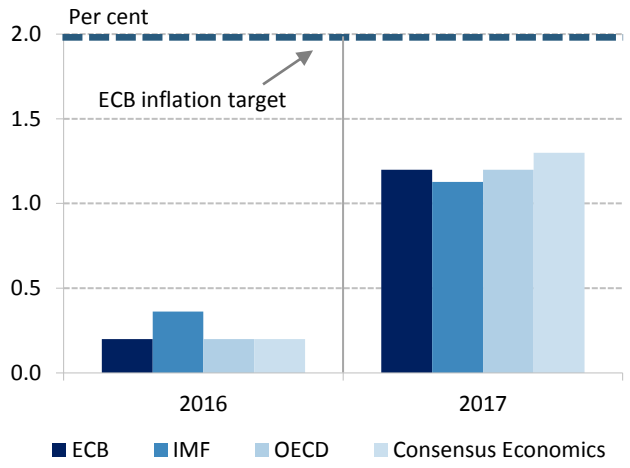
Note: Annual change. The uncertainty band shows the root mean squared error of previous years' near-term forecasts.
Source: MNB

According to our near-term forecast, the annual rate of increase in consumer prices will steadily be in positive territory again in the autumn months (Chart 1-2). Rising inflation at the turn of 2016 and 2017 will mainly result from the drop-out of the earlier decline in fuel prices from the base. **Looking ahead, the disinflationary effect of the real economy will gradually decline.** In line with the low cost environment and the deteriorating economic outlook for Hungary's trading partners, imported inflation is expected to remain subdued. At the same time, the recovery in household consumption will continue to be the most relevant factor in terms of domestic inflationary effects. Consequently, the disinflationary effect of the real economy will gradually decrease. Annual average inflation is expected to be 0.4 per cent this year and 2.3 per cent next year (Chart 1-1 and Table 1-1).

The development of inflation in the euro area, which is Hungary's most important trading partner, also continues to be restrained by the open output gap and the low cost environment, in addition to the slack economic growth. According to the most recent forecast of the European Central Bank, euro-area inflation will be lower than the medium-term target in both 2016 and 2017 (at 0.2 and 1.2 per cent, respectively). As a result, in a historical comparison, imported inflationary pressure will remain subdued over the medium term (Chart 1-3).

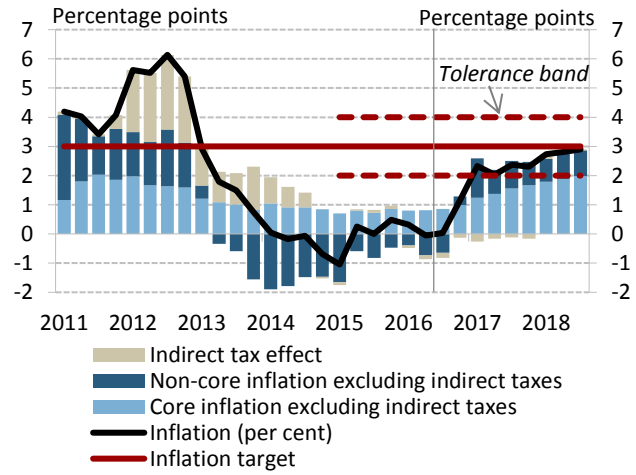
Core inflation excluding indirect taxes is expected to rise gradually over the forecast horizon (Chart 1-4 and Table 1-1), driven by a gradual pick-up in demand and a slow increase in costs. The negative output gap will gradually close over the forecast horizon, and thus the real economy will exert a declining disinflationary effect. In view of the dynamic expansion in employment and tightening conditions on the labour market, unit labour cost will rise in the private sector. However, the inflationary effect of accelerating wage outflows may be moderate, owing to the low wage share, subdued inflation expectations and the negative output gap.

Chart 1-3: Projections for euro-area inflation



Source: ECB, IMF, OECD, Consensus Economics

Chart 1-4: Decomposition of the inflation forecast



Source: MNB

Table 1-1: Details of the inflation forecast

		2016	2017
Core inflation		1.4	2.2
Contribution to inflation		0.9	1.5
Non-core inflation	Unprocessed food	0.7	0.9
	Fuel and market energy	-6.9	5.6
	Regulated prices	0.2	1.5
	Total	-1.8	2.5
Contribution to inflation		*-0.6*	0.8
Inflation		**0.4**	**2.3**

Note: The sum of contributions may differ from the aggregated value because of the rounding.

Source: MNB

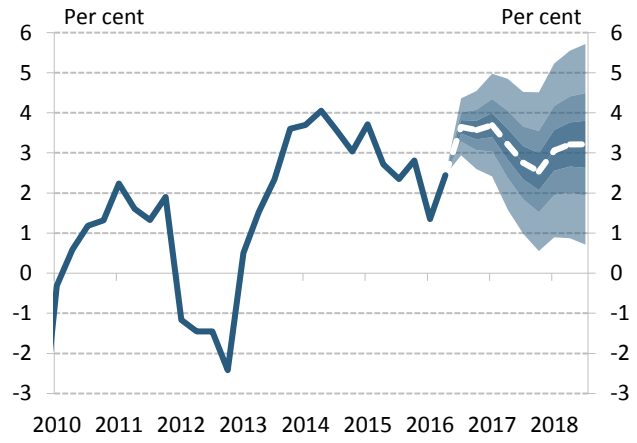
The price index of non-core items is forecast to rise at the turn of 2016 and 2017, but will remain moderate (Chart 1-4 and Table 1-1). Oil prices expressed in euro continue to be at low levels, and futures prices point to a modestly rising path. At the same time, as a result of the earlier decline in fuel prices dropping out from the base, the price index of this product group is expected to rise at the turn of 2016 and 2017, resulting in a substantial increase in the consumer price index as well. In addition, due to the increased supply caused by the favourable yields the quoted prices of wheat and corn declined; looking ahead, the futures market only project a slightly increasing path.

The direct impact of government measures on inflation will remain subdued. The changes in excise taxes announced earlier point to increases in the prices of tobacco products. Inflationary effects from this may be very modest in 2016, while they may increase the consumer price index by 0.3–0.4 percentage points in 2017. Nevertheless, the consumer price index will be reduced by the VAT cuts at the beginning of next year (Internet, eggs, milk, poultry, restaurant services). The total effect of this may amount to 0.4 percentage points. In addition, our forecast is based on the assumption that regulated energy prices will not change until the end of the forecast period, while only moderate price increases are expected in the case of non-energy regulated prices (Table 1-1).

1.2. Real economy forecast

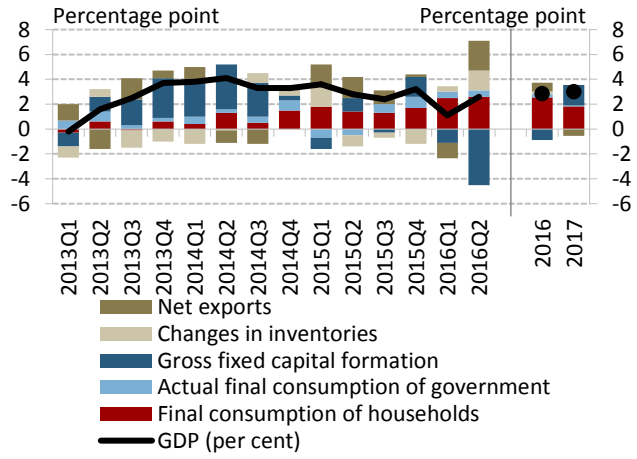
In the second quarter of the year, as anticipated a correction in economic growth was observed. Through the rest of the year, the growth rate of the domestic economy will continue to pick-up, and accordingly, Hungary's economic convergence – which restarted in 2013 – will continue in the forecast period. Over the forecast horizon, growth will mostly be attributable to domestic demand, mainly due to a significant upturn in household consumption, which is also supported by a gradual increase in the willingness to consume, in addition to favourable income and labour market developments. In early 2016, investment was strongly restrained by the sharp decline in EU funds. Nevertheless, in line with the government's commitment, public investment is expected to increase in H2, although most of the projects implemented from EU funds are expected to materialise primarily in 2017. Lending activity, which is recovering as a result of the easing of lending constraints and the Growth Supporting Programme, will support economic growth by stimulating corporate investment. From 2017, development projects in the vehicle industry will also significantly support the pick-up in corporate investment. Moreover, households' investment activity will also increase gradually, due to improving long-term income expectations, the disappearance of the exchange rate risk from their balance sheets and the home creation programme. In view of the more subdued external demand, the growth in Hungarian exports is more moderate. Accordingly, as a result of the increasing import demand, the contribution of net exports to growth will become negative in the second half of the forecast period. As a result of favourable agricultural performance, sector's value added will significantly increase the growth rate of GDP this year. Furthermore, in 2017 the strong demand stimulation from fiscal policy will also foster domestic growth. The Hungarian economy is forecast to grow at a rate of 2.8 per cent in 2016 and 3 per cent in 2017.

Chart 1-5: Fan chart of the GDP forecast



Note: Seasonally adjusted, reconciled data.
Source: MNB

Chart 1-6: Development of GDP growth

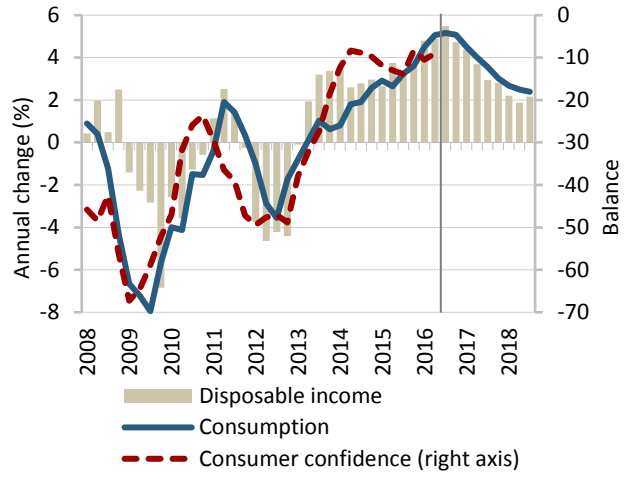


Source: HCSO, MNB

The dynamic upswing in household consumption is expected to continue over the forecast horizon, also supported by an increase in the consumption rate, in addition to significantly improving income developments (Chart 1-6, and Chart 1-7). As a result of the rise in employment, the unemployment rate will decline to a historically low level, and thus the steady expansion in household consumption will be supported by labour market prospects and favourable income developments as well as by the second-round effects from the housing market programme, in addition to a pick-up in lending. In the second half of the forecast period, the increase in consumption will also be supported by public sector wage increases and targeted VAT cuts. Over the forecast horizon, the more favourable consumer confidence and strong rise in households' net financial wealth will also facilitate realisation of consumption which had previously been postponed. Consequently, the financial savings rate is expected to decline from its current high level over the next two years, while consumption and investment rates will increase gradually. From the production side, further growth is expected in sectors related to consumption demand such as commerce and services.

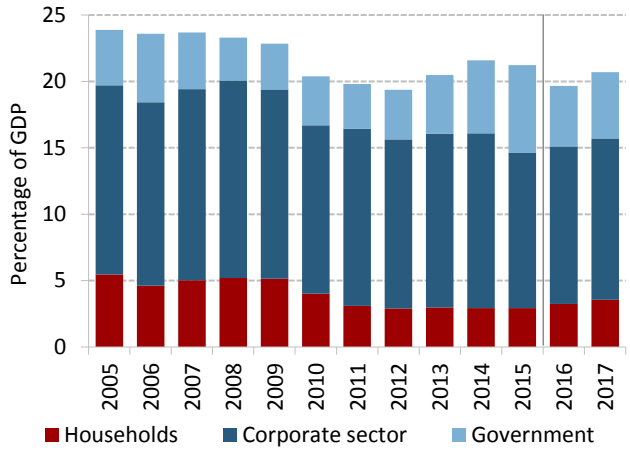
Within output, the share of whole-economy investment will be above 20 per cent over the forecast horizon. Within investments, the focus is gradually shifting towards private investments (Chart 1-8). In parallel with the drawdown of EU funds, government investment is expected to fall considerably compared to last year, which was a record year. Looking ahead, however, in line with

Chart 1-7: Evolution of household income and consumption



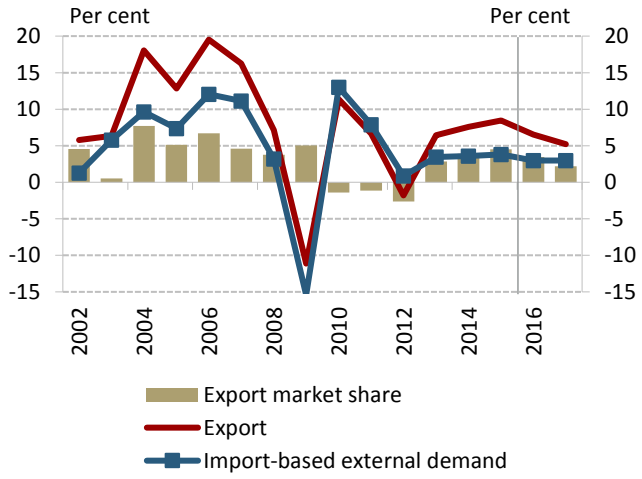
Source: HCSO, MNB

Chart 1-8: Breakdown of gross fixed capital formation



Source: HCSO, MNB

Chart 1-9: Changes in export market share



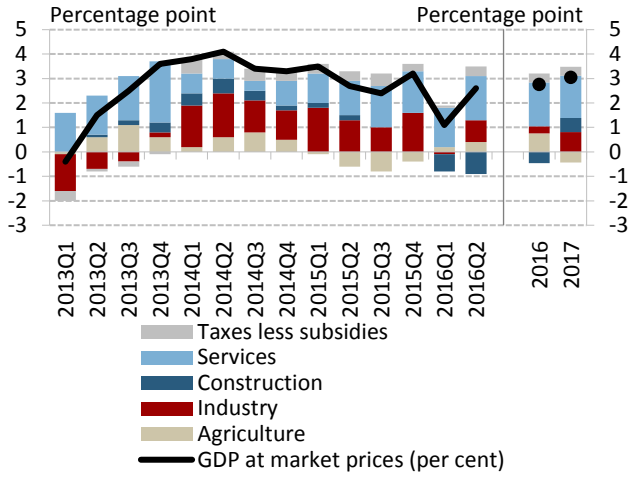
Note: Annual change.
Source: MNB

the government's commitment, public investment is expected to pick up, but the projects implemented from EU funds will primarily materialise in 2017. Due to the improved demand outlook and the intensified competition for labor, sectors producing to the internal market are also expected to begin capacity expanding and efficiency improving investments in an increasing ratio. Corporate investment is supported by the pick-up in lending resulting from the Growth Supporting Programme, by the capacity expanding investment of sectors producing for the domestic market and by an accelerating surge in the EU funds available to companies. From 2017, development projects in the vehicle industry will also significantly support the growth in corporate investment and from 2018 this will also cause another substantial rise in industrial output (see Box 1.1). On the whole, rising investment points to growth in the construction industry from the production side. With rising credit demand, outstanding corporate loans are expected to continue increasing substantially over the forecast horizon. The growth of outstanding loans to small and medium business' loans is forecasted to remain stable in the 5-10 percent range. From the demand side, the low interest rate environment offers a good opportunity for commercial banks to boost their lending activity. In addition, central bank steps to stimulate market-based lending and the gradual phase-out of the bank levy will also contribute to the increase in lending.

Over the forecast horizon, households' investment activity will be boosted by the favourable labour market prospects and improving income developments as well as by the home creation programme. In the case of lending to households, the significant increase seen in the housing segment is in line with the upturn observed in the real estate market and the ongoing acceleration of economic activity. In parallel with the rise in household sector investment, household construction is expected to expand, in line with the increase in building permits and contracts. Taking into consideration the time needed for started constructions to materalize and the bottlenecks created in construction employment, new home transactions' robust growth projected to appear on the market at the end of 2016.

Despite the slower increase in external demand, Hungary's export market share may continue to grow over the forecast horizon (Chart 1-9)**.** In line with lower imports by the emerging countries and the negative impact of the Brexit on European business activity, demand among Hungary's trading partners is expected to increase

Chart 1-10: Contribution of economic branches to annual changes in GDP



Source: HCSO, MNB

Table 1-2: Average yields expectations in agriculture

	Average crop of the last 5 years (thousand tons)	Crop in 2015 (thousand tons)	Expected crop in 2016 (thousand tons)	Change 2015-2016
Corn	7,092	6,633	8,100	*22%*
Wheat	4,754	5,331	5,100	*-4%*
Sunflower	1,466	1,557	1,800	*16%*
Barley	1,146	1,409	1,710	*21%*
Rapeseed	553	590	810	*37%*

Source: HCSO, Research Institute of Agricultural Economics, European Commission

more slowly, and thus Hungary's exports will temporarily grow more slowly compared to the rates seen in previous years (Chart 1-8). As a result of changes in the growth structure of Hungary's export markets, economic growth at the global level will occur with lower import demand. Following the expansion of capacities in the vehicle industry, growth in Hungarian industrial production and exports will continue again at a faster pace from 2018. As domestic demand factors strengthen, the import demand of the Hungarian economy will also rise, and consequently the contribution of net exports will be mildly negative in the second half of the forecast period (Chart 1-6).

As a result of favourable agricultural performance, this year the value added of the sector will significantly increase the growth rate of GDP. Based on currently available estimates of crop yields, the sector's contribution to growth may reach 0.8-1.0 percentage points (Table 1-2).

Potential growth will pick up over the forecast horizon, primarily due to the investment ratio stabilising at a level above 20 per cent and to the increase in labour market activity. The increase in capital stock and dynamic growth in corporate investment to expand capacities are promoted by the Growth Supporting Programme, the declining bank levy and the EU funds available for enterprises. The upswing in lending will contribute to increasing productivity. Activity increases slightly at the beginning of our forecast horizon, before stabilising at a historically high level. In addition to rising demand, investment to expand capacity by firms producing for the domestic market will also contribute to the acceleration of potential growth. Thus, on the whole, economic growth is facilitated by the gradual closing of the output gap and the increase in potential growth.

Box 1-1: Impacts of recently announced vehicle industry projects on growth

In the past period, several announcements were made regarding **intentions to develop the Hungarian vehicle industry**, which influences changes in domestic GDP both over the short and medium term. First, the developments stimulate the economy through new investments, then as new capacities are utilized the effects on industrial production and employment appear also. Considering that it is mainly the former effects that materialise over our forecast horizon, this box provides an overview of the anticipated effects of the development projects on growth.

Based on press reports, Mercedes is planning to build a new manufacturing building and car-body plant, while Samsung will start to produce batteries for electric cars in Hungary. In addition, BYD – a Chinese company that manufactures electric buses – will become involved in production following an expansion of its manufacturing capacities. The American corporation Dana also announced a development of a high-tech investment in Hungary (Table 1-3).

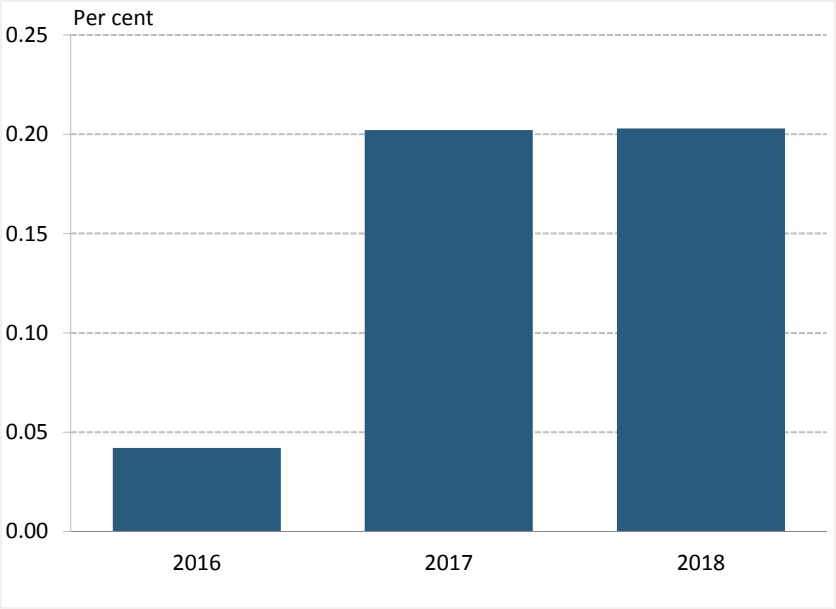
Table 1-3: Announced investments in the vehicle industry

Company	Investment value (bn HUF)	Investment period	Planned start of production	Planned number of new employees (employee)
Mercedes	582	2016-2020	2018	2500
Samsung	100	2016-2018	2018*	600
Dana	15	2017-2020	2020	200
BYD	1.5	2016	2016	300
Total	**698.5**			**3600**

Note: *Reaching full production capacity.
Source: MNB

Overall, the individual **development projects contribute to the performance of the Hungarian economy**. In assessing the planned investment projects, we based the timing profile on previous vehicle industry investment projects, and according to our calculations the planned investments may mainly have an impact on developments in Hungarian GDP starting from next year. Mercedes, the company announcing the largest investment, is expanding its manufacturing capacity between 2017 and 2020 with a total value of nearly HUF 600 billion HUF. **The direct impact of the investment projects on growth may be the strongest in 2017 and 2018.** Then, in parallel with the increase in capacities, **the rising level of production may also gradually contribute to economic growth** (Chart 1-11).

Chart 1-11: First round effects of investments in the automotive industry on GDP



Note: Import-adjusted impacts.
Source: MNB

According to the experiences of previous vehicle industry investments the announced projects may materialize with high import contents. Solely the capacity expanding investments increase domestic GDP with 0.5 percentage points over our forecast horizon. New manufacturing units typically reach their full capacity in the second year following commissioning; therefore, the **increase in production may be gradual**.

Based on preliminary information, the annual production capacity of Mercedes may nearly double in the coming years, significantly contributing to Hungarian industrial production and export sales. **In addition to the direct increase in production in vehicle manufacturing, the development projects add to the economic performance through second-round effects as well.** In parallel with a pick-up in demand, the supplier network closely related to the sector (rubber and metal industries, electronics) expands, and the value added of the related market services also increases. Employment will grow not only at the companies that invest, but also in the supplier network and at service providing companies in the period to come.

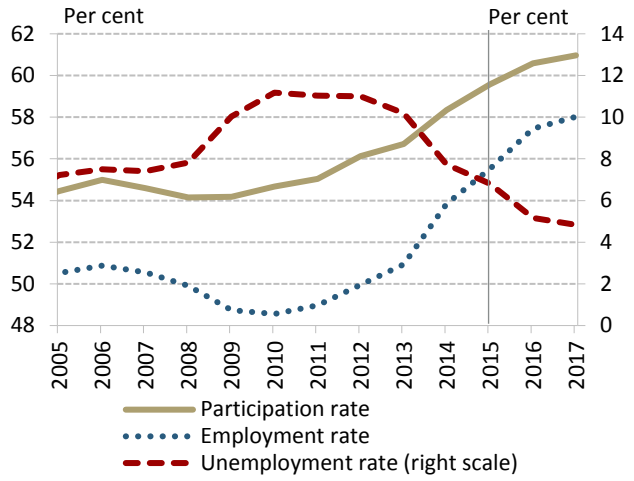
The developments that concern the Hungarian vehicle industry typically support the introduction of new technologies and the shift in the direction of production with higher value added. Considering that the productivity of new manufacturing capacities is higher than the average, the investment projects that materialise this way **may add to the potential growth of the Hungarian economy** through an increase in productivity as well, in addition to the growth in fixed assets. Looking ahead, the adjustment of the Hungarian vehicle industry to changing global requirements may strengthen the connection to global value chains and increase the competitiveness of the Hungarian vehicle industry.

Thanks to the announced investments the weight of vehicle production in GDP grows further and the sector's production may become more concentrated. Considering that most of the vehicle firms involved in the investments are interested in the premium category, the cycle sensitivity of domestic industrial production will not change. At the same time, the significance of individual company decisions will increase, that could affect the volatility of domestic value added (e.g. factory stoppages, model changes). For instance, the announcement of Audi related to a model change this year moderated domestic industrial production temporarily.

1.3. Labour market forecast

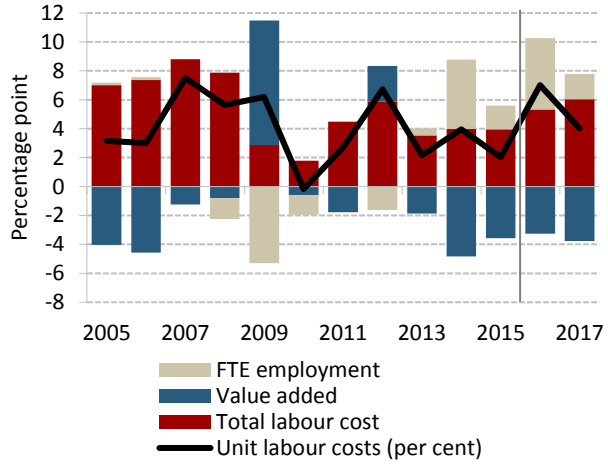
The continued rise of employment in the national economy is driven by the increase in private sector employment. Looking ahead, from its current historically low level, the unemployment rate will decline further over the forecast horizon, and thus the intention of companies to increase the number of their employees and the tight labour market conditions will result in rising wage dynamics. However, over the long term the degree of pay rises is limited by the fact that productivity growth is slower than prior to the crisis. As a result of all of these impacts, the nominal wage dynamics of the private sector will increase gradually over the forecast horizon.

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



Source: MNB calculations based on HCSO data

Chart 1-13: Decomposition of unit labour costs in the private sector



Note: FTE – Full-time equivalent.

Source: MNB calculations based on HCSO data

The activity rate will increase slightly in the first half of the forecast period, before stabilising at a high level. Looking ahead, demographic developments have increasingly strong effects on labour market participation. At the same time, due to increasing labour demand, this is offset by the inflow into the labour force of participants who became inactive during the crisis, but who still have a close connection to the labour force (Chart 1-12).

Over the forecast horizon, labour demand in the private sector will increase gradually, in parallel with continued economic growth. However, due to the tight labour supply, following the strong headcount increases seen in recent years, the number of employees in the private sector will grow at a gradually slowing rate in the second half of the forecast period. Companies will temporarily react to the increasingly tight labour market by raising the average number of hours of staff as well, both for full-time and part-time employees. As a result of the aforementioned factors, the number of hours worked will already significantly exceed its pre-crisis level in the second half of the forecast period. No further expansion in public employment programmes has been taken into account in our projection; the annual average number of public workers will be around 220,000.

Our forecast is based on the assumption that, as a result of the increase in employment, the historically low level of unemployment will continue to decline. Due to the tight labour supply, increasing wage competition is evolving both among companies and sectors in order to fill open positions and to keep the current workforce. However, the degree of pay rises is limited by the fact that productivity growth is slower than before the crisis (Chart 1-13). Overall, in parallel with the increasingly tight labour market conditions, nominal wage growth in the private sector will rise gradually over the forecast horizon.

Box 1-2: Main assumptions applied in the forecast

Hungary is a small, open economy, and as such our forecasts for the most important macroeconomic variables are fundamentally influenced by developments in external factors and changes in the assumptions concerning their paths. The purpose of this brief presentation of the changes in the external assumptions published in the chapter on the projections is to make the Bank's forecasts more transparent.

Table 1-4: Main external assumptions of the projections

Technical Assumptions	2016		2017		Change	
	June	September	June	September	2016	2017
EUR/USD	1.11	1.12	1.12	1,12	0.9%	0.0%
Oil (USD/barrel)	45.3	43.5	52.4	50.6	-4.0%	-3.4%
Food prices						
Wheat (USD/bushel)	4.75	4.48	5.29	4.89	-5.7%	-7.6%
Maize (USD/bushel)	3.85	3.60	4.05	3.68	-6.5%	-9.1%
Euro area inflation (%)	0.2	0.1	1.4	1.2	-0.1 szp.	-0.2 szp.
GDP growth of our main trading partners* (%)	1.9	2.1	2.1	1.6	0.2 szp.	-0.5 szp.

Note: * Growth rate of Hungary's 21 most important export target countries, weighted by shares in exports.
Sources: CBT, Bloomberg, OECD, Consensus Economics, MNB calculations

The upward trend in **the per barrel price of the Brent crude oil** in the first half of the year broke during the summer, and **fluctuated between USD 40–50**. As a result of global oversupply and a slower-than-expected decline in reserves this year, prices fell in July, and thus **a lower oil price path is expected compared to the assumption in the June Inflation Report**. During the summer, the production of US shale oil fields did not decline further, as the producers adjusted to the low oil price by improving efficiency. The significant increase in Iran's production following the lifting of the embargo also adds to the supply. As a response to that, Saudi Arabia, the world's largest oil producer, increased its production to a historic high in order to protect its market share. On the whole, futures prices continue to point to a moderate increase in the coming period. The uncertainty around expected oil price developments remains high among analysts, and oil prices for break-even points are distributed in a wide band.

There was no major change in our technical assumption for the EUR/USD cross rate compared to our June assumption. Looking ahead, we assume that the euro will remain persistently weak against the US dollar, which is probable in light of the expected difference in the monetary policy stances of the European Central Bank and the Federal Reserve.

Compared to the assumption applied in the June Inflation Report, the expected path of grain prices has declined in the past months. Global inflation has been at low levels for a long time, and similar subdued price increases are expected in the future as well. Looking ahead, imported inflation will only rise gradually.

Our assumption for GDP growth in Hungary's export markets is somewhat lower than in our June forecast. In line with expectations, the euro-area economy continued to expand in Q2, and growth in the countries of the region was also dynamic. Looking ahead, however, external demand may be somewhat more subdued than our expectation, in line with the negative impact of Brexit on European economic activity.

Compared to the bill submitted earlier, the tax laws related to the excise tax were adopted in a different form in June. In the June Inflation Report we expected the amendments indicated in the submitted bill, and thus the changes that have taken place since then affect the current forecast. One of the main changes is that the 1 January 2018 tax increases will already take place on 1 July 2017. However, the magnitude of the tax increases will be below the level planned earlier. **In several steps until the middle of next year, the specific tax on cigarettes will only increase by 3 per cent instead of 17 per cent, its minimum tax will rise by 4 per cent instead of 18 per cent, the tax on smoking tobacco will rise by 24 per cent instead of 29 per cent, while – contrary to previous plans – the tax on cigarillos will rise by 5 per cent.** The rule that requires the rise in the excise tax on fuel if the world market price of oil does not reach USD 50 will enter into force in October this year already, i.e. earlier than suggested in the submitted bill.

Table 1-5: Changes in the projections compared to the previous Inflation Report

	2015	2016		2017	
	Actual	Projection			
		June	Current	June	Current
Inflation (annual average)					
Core inflation	1.2	1.5	1.4	2.9	2.2
Core inflation without indirect tax effects	1.1	1.4	1.3	2.4	2.2
Inflation	-0.1	0.5	0.4	2.6	2.3
Economic growth					
External demand (GDP-based)	2.1	1.9	2.1	2.1	1.6
Household consumer expenditure	3.1	4.3	4.9	3.6	3.8
Government final consumption expenditure	0.6	1.2	2.0	0.5	0.5
Gross fixed capital formation	1.9	-2.0	-4.2	4.8	8.3
Domestic absorption	1.9	2.6	2.4	3.0	4.0
Exports	8.4	6.3	6.5	6.4	5.2
Imports	7.8	6.6	6.4	6.7	6.5
GDP	2.9	2.8	2.8	3.0	3.0
External balance[1]					
Current account balance	4.4	5.6	6.2	5.2	5.4
External financing capacity	8.8	7.6	8.3	7.7	8.3
Government balance[1,5]					
ESA balance	-2.0	(-1.6)–(-1.8)	(-1.4)–(-1.5)	-2.4	(-2.1)–(-2.3)
Labour market					
Whole-economy gross average earnings	4.3	6.0	6.1	6.1	6.5
Whole-economy employment	2.7	1.6	3.1	0.7	0.6
Private sector gross average earnings[2]	4.0	5.3	5.3	5.8	6.0
Private sector employment	2.5	1.7	3.2	1.3	1.1
Unemployment rate	6.8	5.8	5.2	5.3	4.8
Private sector unit labour cost[3]	2.0	3.7	7.1	3.8	4.0
Household real income[4]	3.3	4.3	5.0	3.1	3.5

[1] As a percentage of GDP.
[2] According to the HCSO data for full-time employees.
[3] Private sector unit labour cost calculated with full-time equivalent domestic employment.
[4] MNB estimate.
[5] For 2015 preliminary data. For 2016 and 2017, the values can be situated in the given range due to the extent of utilisation of the Country Protection Fund.

Table 1-6: MNB baseline forecast compared to other forecasts

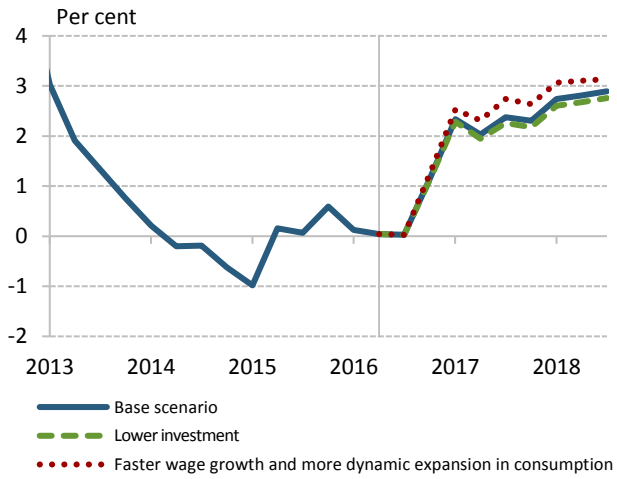
	2016	2017
Consumer Price Index (annual average growth rate, %)		
MNB (September 2016)	0.4	2.3
Consensus Economics (August 2016)[1]	0.1 – 0.5 – 0.8	1.2 – 1.9 – 2.8
European Commission (May 2016)	0.4	2.3
IMF (April 2016)	0.5	2.4
OECD (June 2016)	0.1	1.7
Reuters survey (September 2016)[1]	0.1 – 0.4 – 0.7	1.2 – 1.9 – 2.4
GDP (annual growth rate, %)		
MNB (September 2016)	2.8	3.0
Consensus Economics (August 2016)[1]	1.2 – 1.9 – 2.4	1.2 – 2.5 – 3.3
European Commission (May 2016)	2.5	2.8
IMF (April 2016)	2.3	2.5
OECD (June 2016)	1.6	3.1
Reuters survey (September 2016)[1]	2.0 – 2.2 – 2.3	2.4 – 2.8 – 3.3
Current account balance[3]		
MNB (September 2016)	6.2	5.4
European Commission (May 2016)	5.6	6.3
IMF (April 2016)	5.4	5.2
OECD (June 2016)	4.9	4.6
Budget balance (ESA 2010 method)3,4		
MNB (September 2016)	(-1.4) – (-1.5)	(-2.1) – (-2.3)
Consensus Economics (August 2016)[1]	(-2.8) – (-2.1) – (-1.2)	(-2.9) – (-2.5) – (-2.0)
European Commission (May 2016)	-2.0	-2.0
IMF (April 2016)	-2.1	-2.2
OECD (June 2016)	-1.9	-2.6
Reuters survey (September 2016)[1]	(-2.0) – (-1.9) – (-1.6)	(-2.7) - (-2.3) - (-1.9)
Forecasts on the size of Hungary's export markets (annual growth rate, %)		
MNB (September 2016)	3.0	3.0
European Commission (May 2016)[2]	4.6	5.5
IMF (April 2016)[2]	4.2	4.9
OECD (June 2016)[2]	5.0	4.0
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)		
MNB (September 2016)	2.1	1.6
Consensus Economics (August 2016)[2]	2.0	1.8
European Commission (May 2016)[2]	2.1	2.2
IMF (July 2016)[2]	2.1	1.9
OECD (June 2016)[2]	1.9	2.1

[1] For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the median value), we also indicate the lowest and the highest values to illustrate the distribution of the data.
[2] Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the Bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.
[3] As a percentage of GDP.
[4] In 2016 and 2017, the values of the balance indicators may develop in the given range, depending on the use of the Country Protection Fund.
Source: Consensus Economics, European Commission, IMF, OECD, Reuters poll

2. EFFECTS OF ALTERNATIVE SCENARIOS ON OUR FORECAST

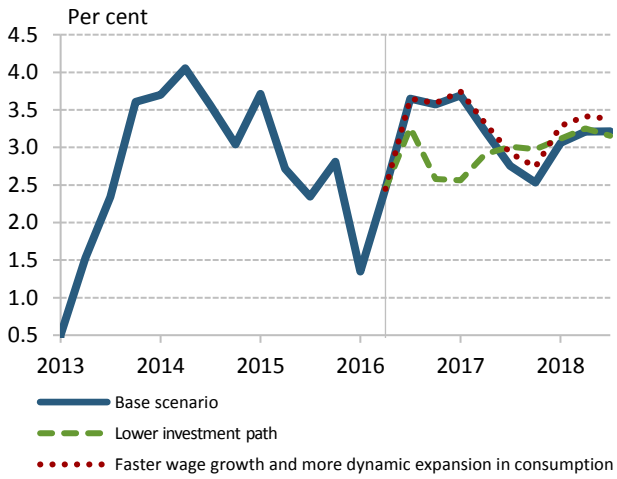
In addition to the baseline projection in the September Inflation Report, the Monetary Council also considered two alternative scenarios. If the alternative scenario which assumes a lower investment path due to the developments in and structural distribution of the disbursements of EU funds occurs, this would mean an inflation path which is lower than the baseline projection, while faster wage growth and more dynamic expansion in consumption may result in a higher inflation path than in the baseline scenario. As a result of lower investment due to the developments in and structural distribution of the disbursements of EU funds, domestic economic growth is lower than indicated in the baseline scenario, while faster wage growth and more dynamic expansion in consumption imply stronger domestic economic growth than the baseline forecast. In addition to the key risk scenarios, the Monetary Council also discussed alternative scenarios that assume further monetary easing by the ECB, strengthening second-round effects of Brexit, and higher oil and commodity prices, as well as financial market turbulences.

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



Source: MNB

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



Source: MNB

Lower investment path

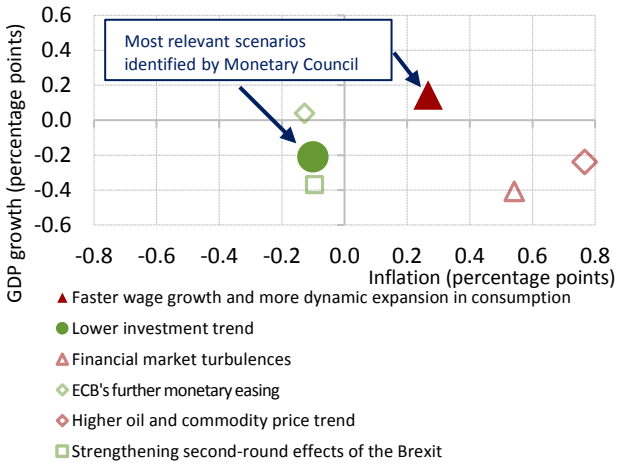
In past years, the funds received from the European Union had a major impact on the dynamics of investment. The public investment ratio increased significantly, which was mainly attributable to high inflows of EU funds. Looking ahead, **growth in corporate investment is supported by the pick-up in lending resulting from the Growth Supporting Programme, by capacity expansion investment of the sectors producing for the domestic market as well as by the EU funds that can be drawn down by companies starting from the second half of the year**.

However, in the case of the disbursement of EU funds this year, the magnitude of the actual investment performance associated with these funds poses a risk. If, despite the high rate of advance payments investment is not yet launched in 2016, **the government sector's investment activity this year may fall significantly short of our expectations**. In addition to the above, a further risk is posed by the structural distribution of EU fund disbursement. In the event that **only a smaller-than-expected portion of the EU funds is allocated to the corporate sector, the sector's capacity increasing and efficiency improving investment may fail to materialise**. As a consequence of the missing investment, lower employment growth will take place, resulting in a more moderate consumption path over the forecast horizon. **Overall, this scenario entails slower closure of the output gap, and consequently achieving the inflation target is ensured by monetary conditions which are looser than projected in the baseline scenario.**

Faster wage growth and more dynamic expansion in consumption

In recent years, in parallel with an upturn in economic activity, the demand for labour has increased steadily, but the growing demand tends to encounter supply

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



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

Source: MNB

bottlenecks. In addition to the slower adjustment of the supply side, **an adjustment of wages to tightening labour market circumstances may take place over the short run**. **According to the baseline projection**, as a result of rising wage growth, household consumption will pick up over the forecast horizon, but the inflationary pressure from the labour market will remain moderate.

According to the assumption of the alternative scenario, the labour market environment, which is tighter than in the previous years, **may force private sector companies to implement higher pay rises.** At the same time, the higher nominal wages paid by companies may add to the household sector's consumption expenditures – mainly in the case of those with lower income, due to the higher marginal propensity to consume. Overall, this will result in a higher consumption path than projected. **Rising domestic demand entails faster closure of the output gap.** Overall, **achievement of the inflation target is ensured by a monetary policy that is tighter than projected in the baseline scenario**.

Other risks

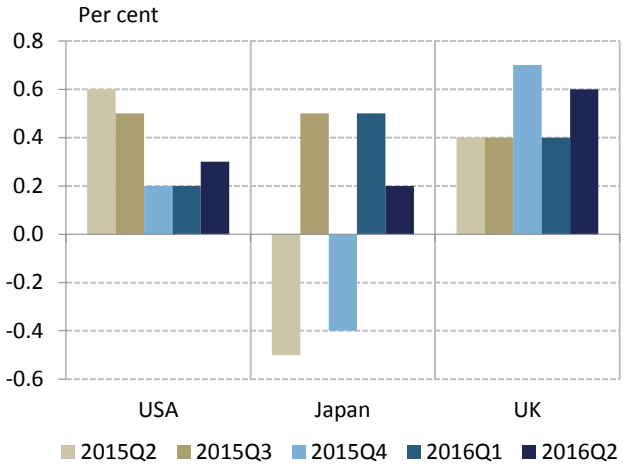
In addition to the key risk scenarios, the Monetary Council considered an additional four risks. In the case of the ECB's further monetary easing, inflation will be lower than forecast in the baseline scenario, while it will have no material impact on domestic economic growth. Stronger second-round effects of Brexit point to lower inflation and weaker growth than assumed in the baseline scenario. Higher oil and commodity prices as well as financial market turbulences result in higher inflation and lower growth.

3. MACROECONOMIC OVERVIEW

3.1. Evaluation of international macroeconomic developments

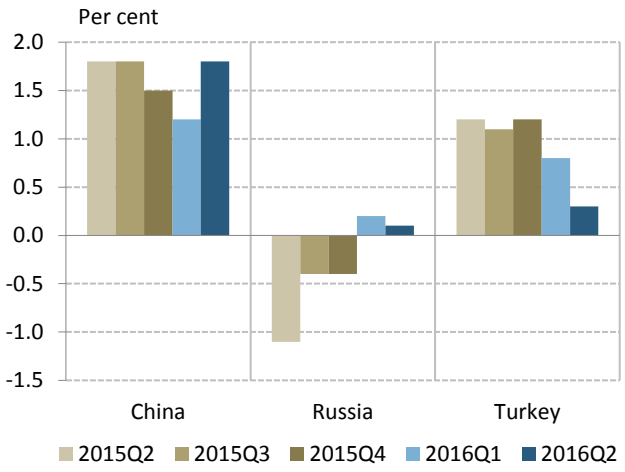
Global economic growth continued in 2016 Q2, although it still remains fragile. Considerable growth disparities continue to exist across regions. The referendum on the United Kingdom's European Union membership was followed by an overall deterioration in global growth prospects. The slowdown stemming from the uncertainty may primarily affect the developed economies, while there was some improvement in the growth situation in the case of certain emerging economies. Inflation rates remained moderate, while the monetary policies of the world's leading central banks continue to be extremely accomodative.

Chart 3-1: Quarterly GDP growth in some key global economies



Note: Seasonally adjusted series.
Source: OECD

Chart 3-2: Quarterly GDP growth in some emerging economies



Note: Seasonally adjusted series.
Source: OECD, Rosstat

3.1.1. Developments in globally important economies

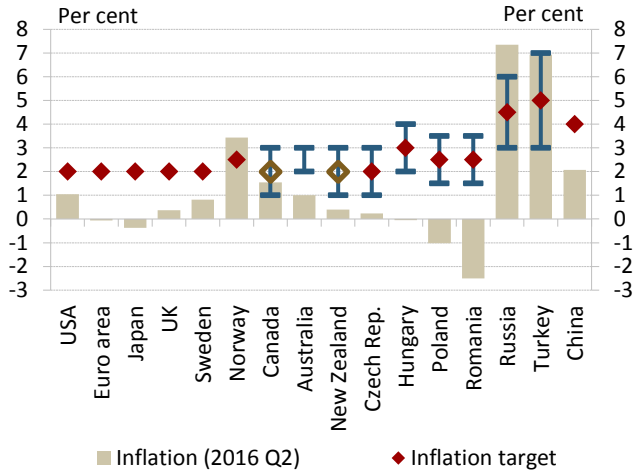
Compared to the same period of the previous year, a deceleration in economic growth was observed in the United States in 2016 Q2. This slowdown was mainly attributable to a downturn in investment, and government consumption also declined. **Looking at the UK economy, expansion accelerated on the whole,** but following the referendum for exiting the EU, growth prospects deteriorated considerably over both the short and medium term. **The Japanese economy expanded slightly compared to the previous quarter**, supported by household consumption and government expenditures (Chart 3-1).

Of the major emerging countries, the Chinese economy recorded 6.7 per cent year-on-year growth in 2016 Q2 (Chart 3-2). The performance of the industry and retail sales expanded to a greater degree than expected, although the growth rate of investment somewhat decelerated. Growth dynamics in Russia and Turkey decreased compared to previous quarters; in the case of the latter this was mainly due to declining gross fixed capital formation. Looking at the growth forecasts for the major emerging economies, prospects improved for Brazil, Russia and China compared to the previous quarter, while expectations deteriorated somewhat in the case of India and South Africa.

The rate of increase in consumer prices remained below the central bank targets in most of the developed countries (Chart 3-3), and based on central bank forecasts it may remain below target for a prolonged period in many cases. Developed countries are still generally characterised by negative output gaps and moderate demand-side inflationary pressure. Average inflation in developing countries remains at low levels, with the only exceptions of Russia and Turkey, where the price indexes are higher than the central bank targets.

The Bank of Japan did not change its interest rate conditions, and at the same time it continued its Quantitative and Qualitative Easing Programme at an

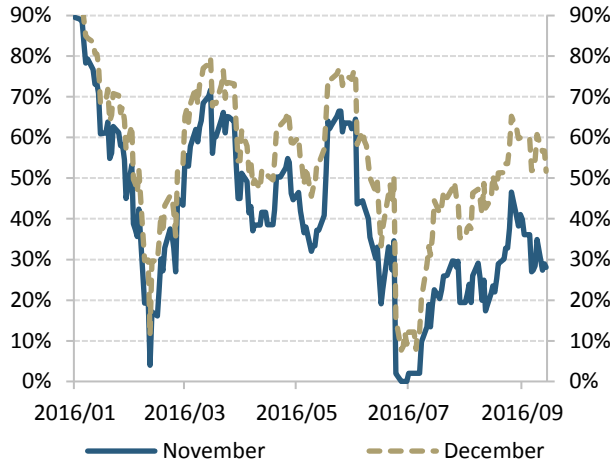
Chart 3-3: Inflation targets in central banks and actual inflation



Note: The blue lines represent the inflation control range in Australia, Canada and New Zealand, while in other countries they mark a permissible fluctuation band. In Canada and New Zealand the mid-point of the target band is accentual, which is marked by empty diamond.

Source: Databases of central banks, OECD

Chart 3-4: Cumulated probability of interest rate increase expectations in the USA according to market pricing



Source: Bloomberg

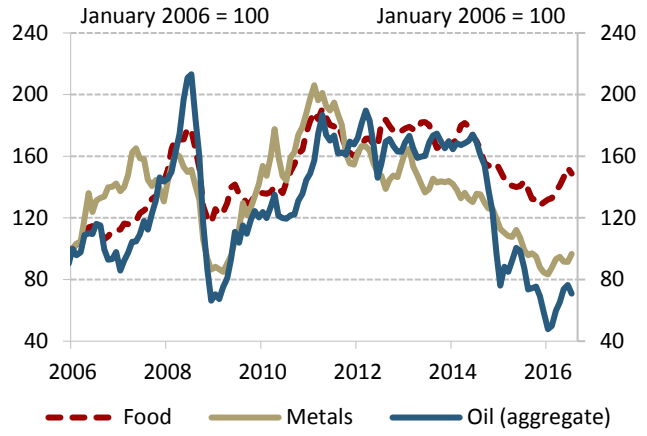
unchanged pace in the past quarter. However, at the July meeting of the Bank of Japan, the decision-makers increased the amount to be spent on the securities of exchange-traded funds (ETFs) from JPY 3.3 trillion to JPY 6 trillion. As a result of the asset purchases, the balance sheet total of the Bank of Japan exceeded 90 per cent of GDP. Bank of Japan Governor Haruhiko Kuroda said in August that the Bank might decide on further monetary policy easing if necessary.

In August, the decision-makers of the Bank of England voted for a comprehensive monetary easing designed to provide additional support to growth and achieve a sustainable return of inflation to the target. Accordingly, they decided to cut the Bank Rate by 25 basis points, launch the Term Funding Scheme (TFS), purchase corporate bonds in an amount of GBP 10 billion, and they expanded the amount allotted to government securities purchases by GBP 60 billion. At its September meeting, the Monetary Policy Committee decided to leave the Bank Rate unchanged and continue with the programmes announced in August. According to the announcement following the decision, the majority of decision-makers may support a further interest rate cut during the year. Of the central banks of developing countries, the People's Bank of China continued its liquidity increasing measures in the past months as well, and at the September meeting the decision-makers of the Bank of Russia reduced the key rate by 50 basis points to 10 per cent.

At the July rate-setting meeting, the Fed's decision-makers decided to keep the policy rate unchanged. The press release indicated an improvement in the economic situation, as short-term risks affecting economic prospects eased, although inflation remains below the central bank target. At end-August, several Fed decision-makers made statements about tightening monetary conditions, as a result of which the probability of an interest rate hike this year calculated from market pricing increased, but by the end of the period it decreased back to its initial level (Chart 3-4). Reacting to the expectations concerning increased central bank tightening, overseas yields rose, while stock exchange price indices declined slightly, and a correction was seen in early September.

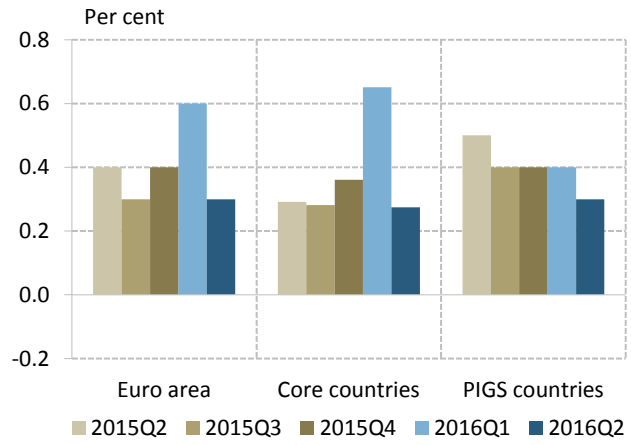
Changes in global commodity prices continued to be moderate (Chart 3-5). As a result of the slow increase in the past months, per barrel world market prices of Brent and WTI crude oil were around USD 50 again in August. The crude oil market continues to be characterised by

Chart 3-5: Major commodity price indices



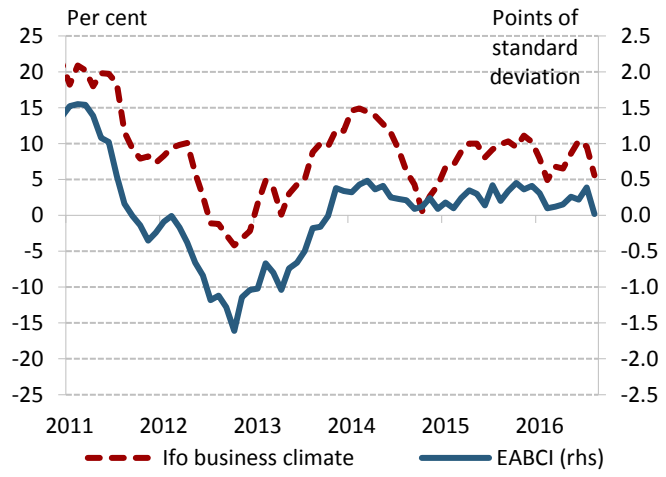
Note: Calculated from prices in USD.
Source: IMF

Chart 3-6: Quarterly GDP growth in the euro area



Note: Seasonally adjusted series, weighted mean by GDP. PIGS countries (Portugal, Italy, Greece, Spain), Core countries (Belgium, Germany, France, Latvia, Lithuania, Netherlands, Austria, Slovenia).
Source: Eurostat

Chart 3-7: Business climate indices for Germany and the euro area



Source: European Commission, Ifo

oversupply, indicating that prices will remain subdued. Some analysts, however, expect that the informal meeting planned to be held at end-September may bring a turn in oil price developments, because the OPEC and Russia may come to an agreement on curtailing production. In the past period, there was no major change in global agricultural commodity prices, while metal prices increased slightly.

In the past quarter, following the volatility observed after the referendum in Britain, global money markets were characterised by favourable sentiment and balanced trading. In parallel with a rise in developed market stock exchange price indices, for most of the period the VIX index, which captures the US stock market volatility, was at the historically low level observed prior to the referendum as well. With the favourable risk-taking sentiment, in the period under review there was an overall decline in the EMBI Global spread, which characterises the emerging bond markets, although the news related to the price of oil and some country-specific factors resulted in temporary volatility.

3.1.2. Developments in the euro area

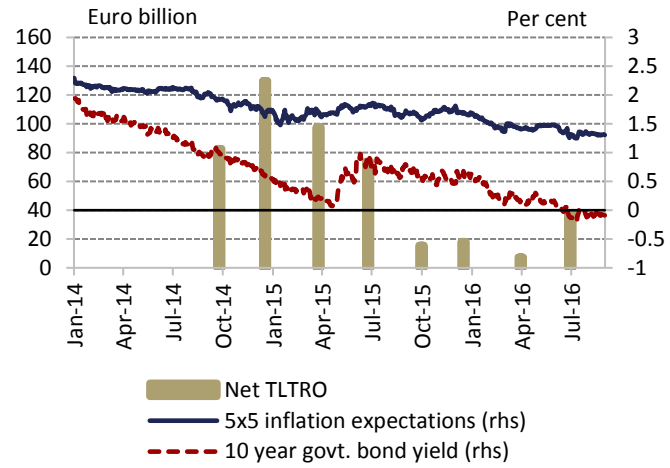
In 2016 Q2, euro-area growth decelerated compared to the previous quarter (Chart 3-6). Growth in Germany, which is Hungary's most important trading partner, amounted to 0.4 per cent on a quarterly basis, primarily driven by domestic consumption and net exports, while investment reduced the rate of growth compared to the previous quarter. The French economy stagnated compared to the previous quarter, mainly as a result of the continued weakness of domestic demand. Uncertainty stemming from Britain leaving the EU and the slowdown in trade pose the main downside risks to euro-area growth.

Growth in the periphery countries remained subdued in Q2. The slow growth is still a result of weak domestic demand and the protracted balance sheet adjustment process following the crisis.

Forward-looking indicators of economic activity were volatile in the past period (Chart 3-7). In August, the business confidence index capturing the euro-area outlook (EABCI) declined to the level observed at the beginning of the year. Responding corporate executives' opinions concerning export orders deteriorated considerably. In addition, expectations regarding the German economy (Ifo) were also less favourable following an improvement in the previous months. As a result, the indicator is at a lower level than the values

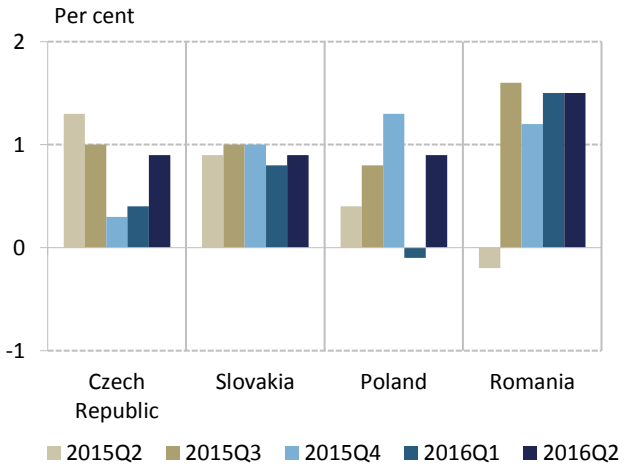
typical of last year.

Chart 3-8: Inflation expectations and long term yields in euro area



Source: Bloomberg

Chart 3-9: Quarterly GDP growth in other CEE countries



Note: Seasonally adjusted series.
Source: Eurostat, OECD

The rise in euro-area inflation was below expectations in the past months. A slight increase was observed in the largest euro-area economies in the past period, but while the rate of consumer price increases is already positive in Germany and France, year-on-year inflation remained in negative territory in Spain and Italy. Euro-area inflation expectations continued to decline, and thus still remain below the ECB's inflation target (Chart 3-8).

At its September meeting, the Governing Council of the ECB decided to leave monetary conditions unchanged. In line with the schedule announced earlier, in June the ECB launched its bond purchase programme, and held the first tender of the targeted longer-term refinancing operations (TLTRO II). At its July and September meeting, the Governing Council left the key interest rate and the bounds of the interest rate corridor unchanged, and also did not change its securities purchase programme.

3.1.3. Developments in the CEE region

Average growth in the Central and Eastern European region was higher than in the previous quarter, and the performance of the region can still be considered favourable by European standards (Chart 3-9). Of the countries in the region, Romania showed the most dynamic growth in the past quarter as well, which – similarly to the other countries of the region – was primarily attributable to a pick-up in domestic demand.

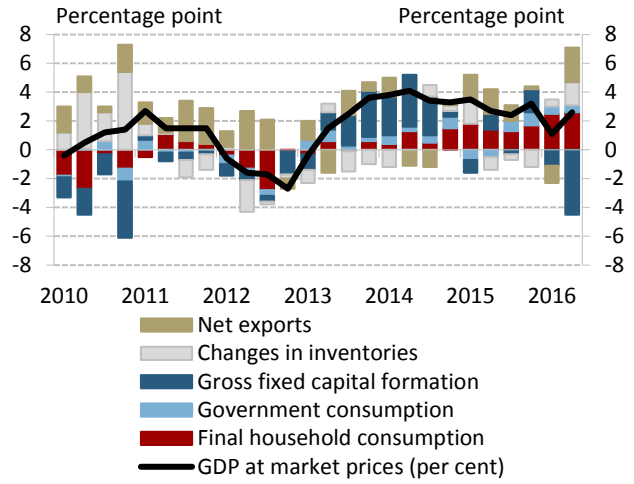
Inflation remained low and was below the central bank target levels in the Central and Eastern European region. Average inflation in the region continues to be in negative territory as a result of moderate imported inflation and households' subdued inflation expectations. In Romania, however, with the fading of the first-round effects of the VAT cut in June last year, the price index increased significantly in the past months.

Central banks in the Central and Eastern European countries maintained loose monetary conditions in line with the macroeconomic developments. In the opinion of the decision-makers of the Polish central bank, deflation has not had an adverse effect on economic agents' decisions to date; therefore, most of them still consider the current level of the policy rate adequate.

3.2. Analysis of the production and expenditure side of the Hungarian GDP

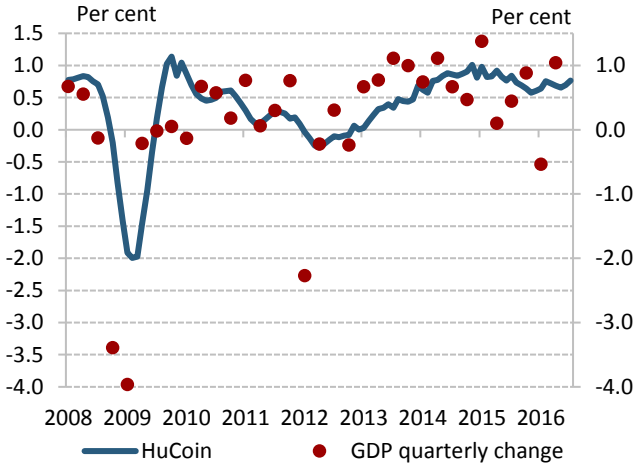
Following a temporary slowdown in growth in Q1, the performance of the Hungarian economy improved as expected in 2016 Q2. The gross domestic product increased by 2.6 per cent year on year, while compared to the previous quarter it was up 1.0 per cent. This growth was primarily attributable to buoyant household consumption.

Chart 3-10: Contribution to annual GDP growth



Source: HCSO

Chart 3-11: Evolution of the HuCoin indicator



Note: Due to the revision of GDP, the past values of the HuCoin indicator have also changed.
Source: HCSO, MNB calculations

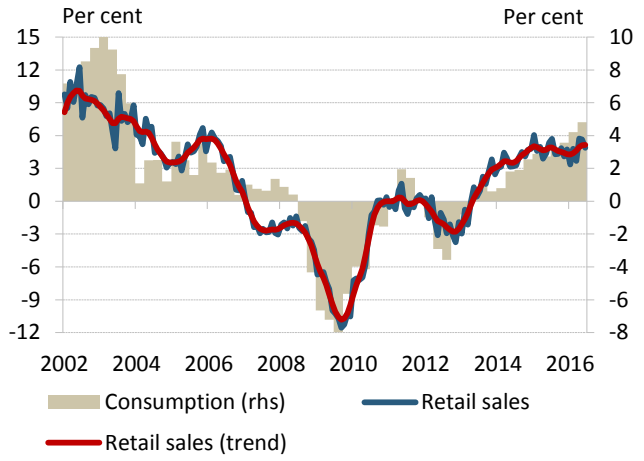
In 2016 Q2, the gross domestic product grew by 2.6 per cent year on year (Chart 3-10)**.** Compared to the previous quarter, GDP increased by 1.0 per cent, and thus, following a temporary slowing of growth in Q1, **the performance of the Hungarian economy improved as expected**. The underlying trends of economic activity remained unchanged compared to the previous period, which is also corroborated by the stability of the HuCoin indicator, which captures medium-term prospects (Chart 3-11).

In 2016 Q2, domestic demand continued to accelerate, due to a considerable increase in household consumption. The rise in households' consumption expenditure was supported by high wage outflows and an improvement in underlying income trends as a result of the low inflation. **The increase in consumption is also corroborated by the steady pick-up in retail sales since the end of 2012.** The volume of retail sales grew by 5.9 per cent compared to the same period of the previous year (Chart 3-12). **An increase in sales was observed in a wide range of products**; within that, there was also a significant rise in sales of durables as well. In addition to the favourable developments, **households' net financial assets, which has risen significantly in recent years, also contributed to the increase in the willingness to consume.** Since 2010, Hungarian households' net financial wealth has increased by some HUF 16,000 billion, reaching nearly 100 per cent of GDP by the end of 2016 H1. Due to the phase-out of foreign currency debt last year, the importance of the exchange rate risk declined significantly in consumption-savings decisions, resulting in a further increase in households' willingness to consume.

In 2016 Q2, the household sector was still a net loan repayer vis-à-vis the domestic financial intermediary system. **At the same time, the volume of new loans continued to expand, mainly as a result of the dynamic increase in housing loans.** All of this can primarily be explained by the gradual increase in demand for loans, which is due to the low interest rate environment, strengthening competition between banks and the rise in households' real wage bill. On the supply side, the easing of lending conditions was also typical of the period under review.

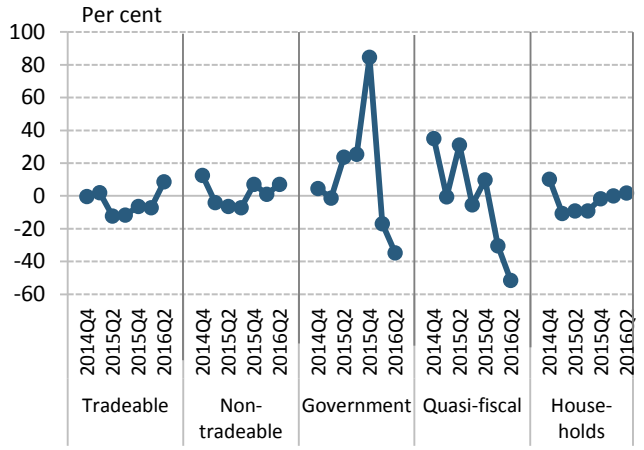
Similarly to past periods, market services contributed significantly to economic growth in Q2 as well. In addition

Chart 3-12: Developments in retail sales and consumption



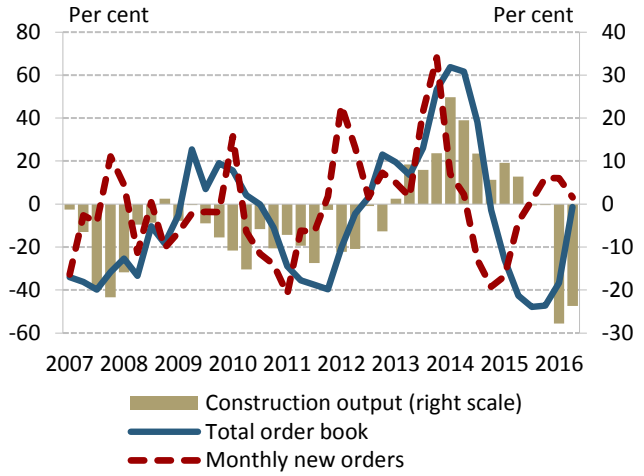
Note: Seasonally adjusted data, annual change.
Source: HCSO

Chart 3-13: Development of sectoral investments



Note: Annual change.
Source: HCSO

Chart 3-14: Annual changes in construction output, orders and new orders



Source: HCSO

to the steady expansion in retail sales, a general expansion was observed in the subsectors. Growth in the catering and tourism sectors slowed in Q2, but the performance of these sectors remains favourable due to the ongoing upswing in demand. The number of tourism nights spent increased by 1.9 per cent in year-on-year terms, in which the main role was played by the overnight stays by foreign tourists. Among market services only the performance of the finance and insurance sector decreased slightly in year-on-year terms.

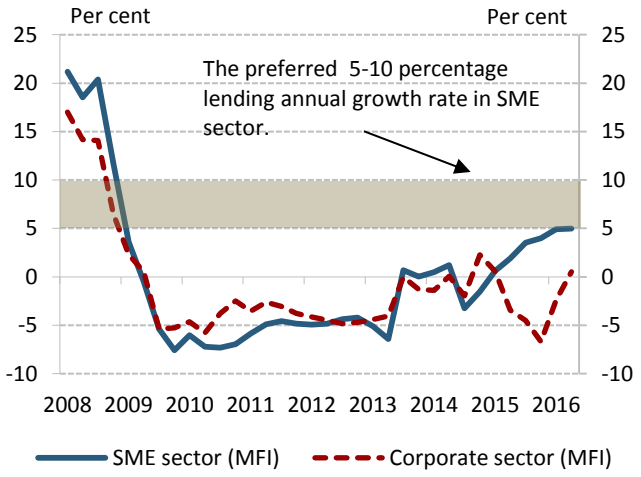
Along with households' consumption expenditures, the increase in public consumption and transfers in kind from the government contributed to the expansion in final consumption, in which the wide scope for action due to the favourable position of the budget may have played a role as well.

As a result of the decline in funding from the EU, whole-economy investment fell by 20.3 per cent in 2016 Q2 on a year-on-year basis. At the same time, the performance of individual sectors varied in the period under review. There was a significant fall in public and government-related investment, and construction output also declined considerably in parallel with that. **Following declines in the previous quarters, corporate investment increased again, also supported by a repeated rise in the activity of manufacturing investment.** In the case of the latter, greenfield investments also contributed to the expansion. **In addition to the rise in investment in the manufacturing corporate sector that produces for exports, the investment activity of companies producing and providing services for the domestic market also increased** (Chart 3-13)**.**

Although in 2016 Q2 there was a minimal decline in loans to non-financial corporations on a transaction basis, a year-on-year increase was observed in the period under review (Chart 3-15). Within that, **outstanding loans to the SME sector were up by a total of 5.0 per cent year on year**, with considerable support from the Funding for Growth Scheme. From the supply side, the easing of lending conditions facilitates the pick-up in lending, while on the demand side, banks primarily perceive an upturn in the activity of small and micro enterprises, mainly meaning a demand for long-term loans.

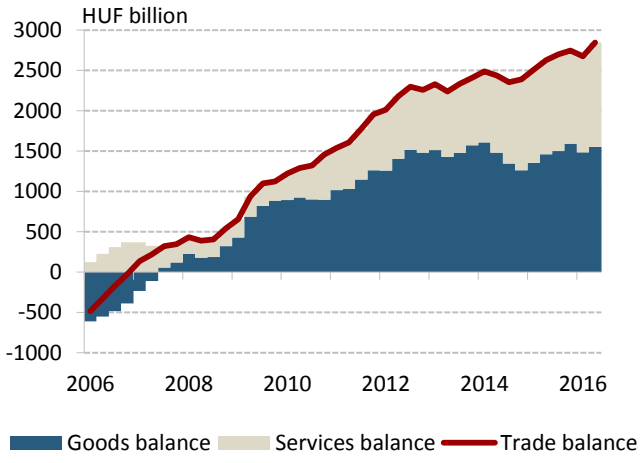
In line with the moderate housing market turnover, **household investment increased slightly compared to the same period of the previous year**. Home construction remained subdued, which may be justified by housing market participants' wait-and-see attitude with regard to the home creation programme. **Nevertheless, the**

Chart 3-15: Annual growth rate of lending to non-financial corporates and SMEs



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

Chart 3-16: External trade in goods



Note: Seasonally adjusted, trend data, in 2005 price.
Source: HCSO

significant increase in the number of building permits issued continued in Q2, contributing to the growth in the volume of construction contracts as well as pointing to a further pick-up in new home construction and households' investment activity starting from the end of the current year (Chart 3-14). The improvements in the underlying trends in the housing market are still mainly attributable to the upswing in the market of pre-owned homes, which raised the performance of the real estate sector as well.

From the external demand side, the contribution of net exports to GDP was positive in Q2, which was reflected in the increase in industrial production from the production side. Industrial production and sales rose compared to the previous quarter, and thus somewhat recovered after the downturn in Q1. **In parallel with the adjustment in the industry, goods exports accelerated, and the steady rise in services exports continued.** Growth in goods imports was subdued compared to previous quarters, which was explained by the decline in investment with high import content.

Developments in Hungary's trade surplus were determined by both the increase in the goods balance and the services balance (Chart 3-16)**.** The increase in the goods balance was driven by the increase of industrial export performance, in parallel with the adjustment of the industry. The development in the services balance was determined by the dynamic rise in services exports, which were up 13.2 per cent compared to the same period of the previous year. Developments in this year are in line with the fact that the domestic foreign trade sector is gradually and increasingly integrating into global services trade. In the second quarter of 2016, the year-on-year improvement in the terms of trade continued, primarily reflecting the positive contribution of low oil prices.

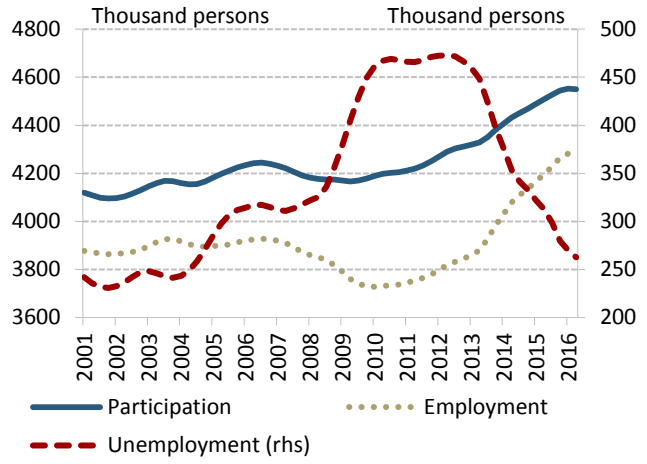
Following last year's weak harvest results, value added in agriculture increased in Q2 compared to the same period of the previous year. Based on this year's preliminary, incomplete grain crop data, **agriculture may contribute significantly to GDP growth in 2016.**

In the first half of this year, changes in inventories made a positive contribution to economic growth. In Q1, the changes in the volume of inventories were primarily attributable to expanding imports, in parallel with a significant slowdown in export growth. In line with the favourable performance of agriculture, the contribution of changes in inventories increased in Q2.

3.3. Labour market

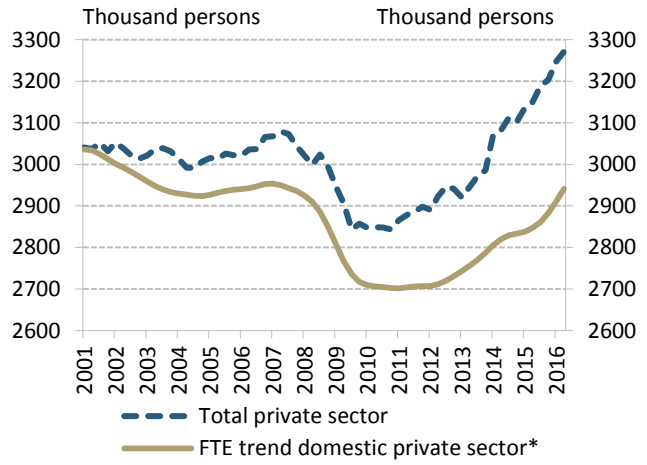
Private sector employment continued to rise in 2016 Q2. The increase in the number of employees was mainly attributable to the market services sector, while the number of employees in manufacturing remained practically unchanged. The unemployment rate declined to 5.1 per cent in Q2, with continued tightening of the labour market.

Chart 3-17: Activity, employment and unemployment, total economy



Source: HCSO

Chart 3-18: Evolution of the employment trend in the private sector



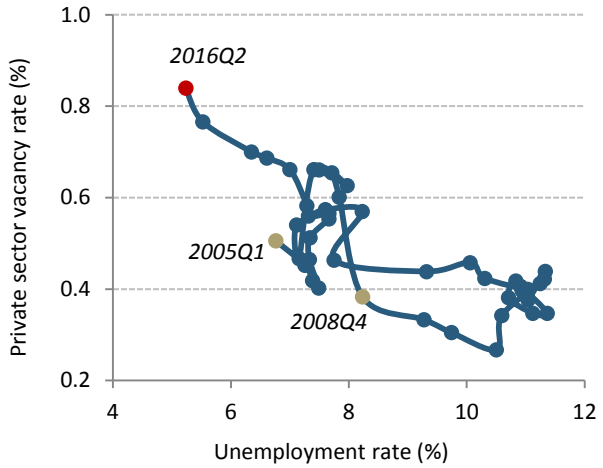
Note: * Full-time equivalent without workers employed abroad.
Source: HCSO, MNB

The number of active employees continued to increase in 2016 Q2, and the activity rate for the 15–74 age group rose to 61 per cent. In the same period, this ratio was 70 per cent for the 15–64 age group.

Based on seasonally adjusted data, **whole-economy employment increased slightly**, with contributions from the labour demand of both the private and public sectors. The increase in the number of employees in the latter sector is mainly attributable to the growth in the number of those involved in the public employment programme.

Employment in the private sector increased considerably. Within the sector, an increase in the number of employed was mainly observed in the market services sector, while the number of employees in manufacturing remained practically unchanged. In Q2, the number of employees increased both within the full-time and part-time employment. Accordingly, the ratio of part-time employees within the private sector was nearly 6 per cent. In terms of hours worked, the average number of working hours increased in the case of both full-time employees (from 39 to 40 hours) and part-time employees (from 20 to 21 hours), which can be interpreted as a response to the tight labour market perceived by enterprises. Accordingly, in Q2, both extensive and intensive expansions were typical of the labour market, resulting in an accelerating increase in the full-time equivalent number of employees adjusted for hours worked.

Chart 3-19: Development of the Beveridge-curve



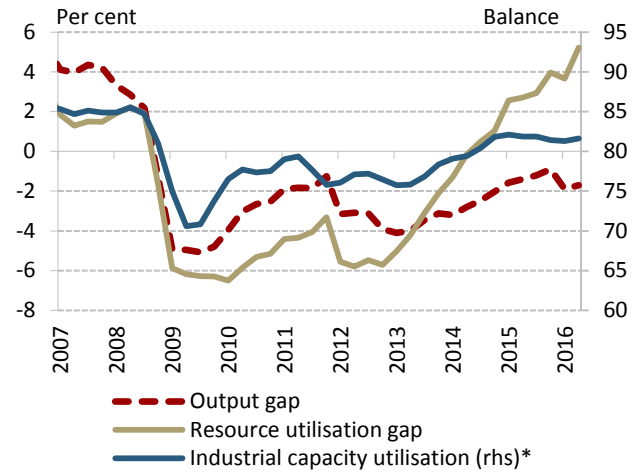
Note: The private sector vacancy ratio indicates the ratio of private sector vacancies to active workers in the quarter.
Source: MNB calculation based on HCSO data

The unemployment rate declined to 5.1 per cent 2016 Q2. The number of reported non-subsidised new jobs as well as of non-subsidised vacancies grew. Based on tightness indicators calculated according to various statistics, labour market tightness increased considerably in Q2.

3.4. Cyclical position of the economy

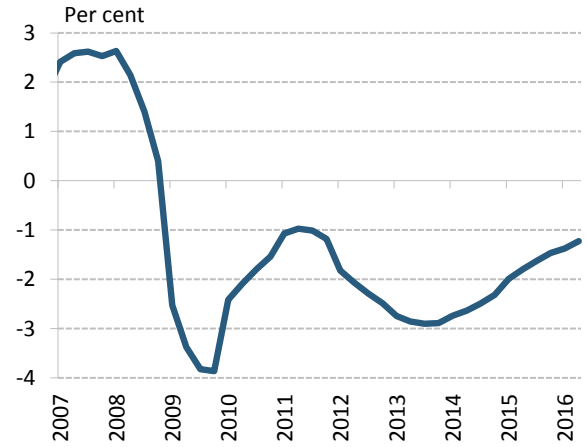
According to our estimate, the output gap remained in negative territory in 2016 Q2 as well. Capacity utilisation in the construction and industrial sectors decreased, leading to the output gap widening.

Chart 3-20: Evolution of the output gap and capacity utilisation indicators



Note: * Trend.
Source: MNB, ESI survey

Chart 3-21: Evolution of the output gap in the euro area



Source: European Commission

According to our estimate, the output gap remained in negative territory in 2016 Q2 (Chart 3-20)**.** In terms of the assessment of the output gap, it is essential to take into account changes in the cyclical position of import markets and household indebtedness. Based on the European Commission's estimate, the output gap of the euro area, which is Hungary's most important trading partners, has been in negative territory since the crisis, exerting a significant impact on the domestic output gap (Chart 3-21). The development of the output gap calculated by standard estimation techniques is influenced by agricultural performance, which is very volatile.[1] Fluctuations in this sector cannot be tied to classical business cycles, and thus excluding the deviations from average agricultural performance may improve the assessment of the cyclical position.

The indicator of corporate resource utilisation continued to rise in 2016 Q2. Accordingly, the indicator, which uses the information content of confidence indicators and corporate surveys, continued to signal high capacity utilisation. In the past years, there was a broadly significant increase in the indicators that reflect corporate business sentiment and capacity utilisation, and thus they were mostly above their historical average, coming close to their pre-crisis levels. There was no major change in the assessment of demand. However, according to responding companies, workforce was a bottleneck in certain sectors. High capacity utilisation is corroborated by labour market indicators as well, which suggest an increasingly intensive utilisation of the labour factor. The labour market gap continued to narrow and employment is near to its equilibrium level.

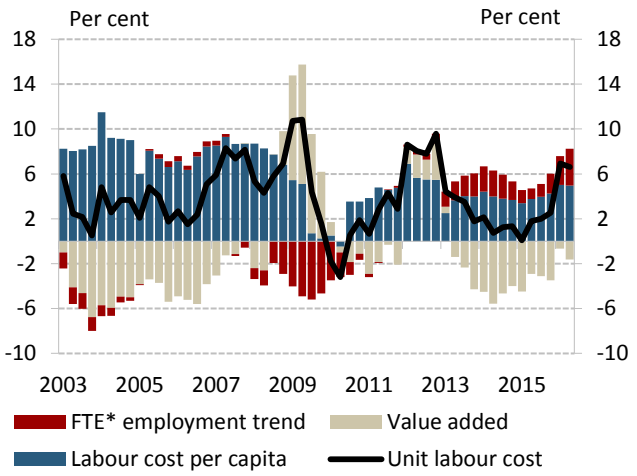
In the past period, the resource utilisation gap overestimated the degree of the inflationary pressure of domestic origin. This is explained by the fact that corporate surveys are based on subjective value judgment, the composition of the group of participating companies changes regularly, and in the post-crisis years companies utilised their production capacities in a more intensive manner than before.

[1] The reasons behind the volatility of agricultural performance are discussed in more detail in Box 3-3 of the March 2016 Inflation Report.

3.5. Costs and inflation

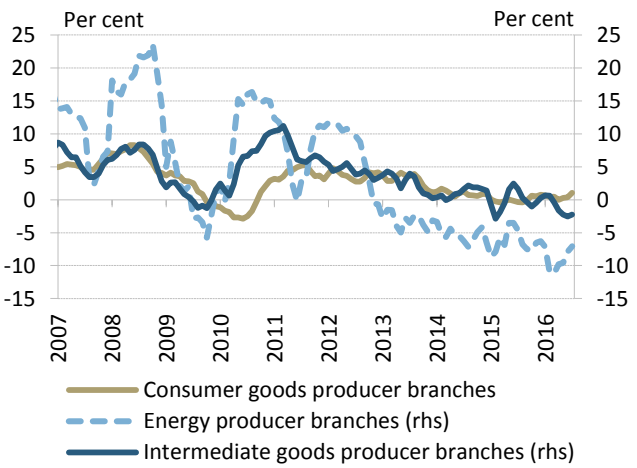
Inflation remained moderate, at levels substantially below the 3 per cent target in the past months. The restrained price growth reflects subdued commodity price levels, low imported inflation and inflation expectations becoming stable at a restrained level. Private sector wage growth, which was faster than last year, continued in Q2 as well.

Chart 3-22: Annual changes and components of unit labour cost in private sector



Note: * Full-time equivalent. Seasonally adjusted data.
Source: MNB calculation based on HCSO data

Chart 3-23: Annual change in industrial producer prices



Source: MNB calculation based on HCSO data

3.5.1. Wages

In 2016 Q2, gross average earnings in the private sector rose by 5.2 per cent year on year. The growth rate of gross average earnings accelerated compared to the previous year, which is attributable to the impact on wages of the labour market tightening observed in the past quarters. The bonuses paid by companies corresponded to the amounts usual in Q2.

Unit labour cost calculated using full-time equivalent employment remained at high levels (Chart 3-22)**.** The dynamics of the indicator can be attributed to the rise in full-time equivalent employment, which exceeded the increase in value added. The high level of unit labour cost is also driven by labour cost per capita, which did not change considerably in 2016 Q2.

3.5.2. Producer prices

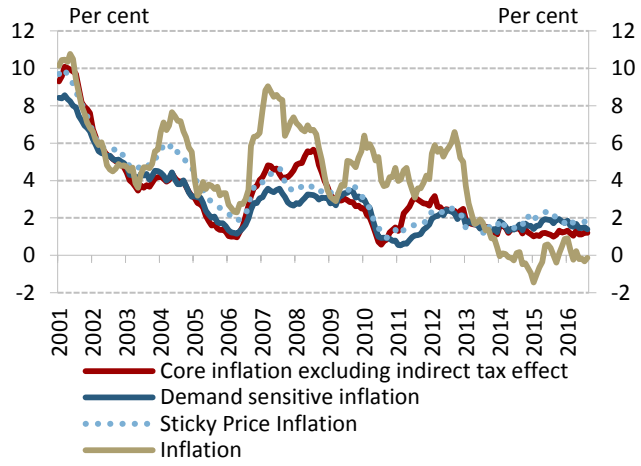
Agricultural producer prices increased slightly in the past period, but remain at low levels. The price increase is related to products of animal origin and seasonal products (fresh fruit and potatoes), while grain prices continued to decline. The producer price of milk also continued decline in 2016 Q2, albeit at a slower rate. The price dynamics of agricultural products is mainly explained by the more rainy weather in recent months, which contributed to the higher grain yields, but at the same time had a negative impact on fruit and vegetable growers' crop results and made harvesting more difficult.

Industrial producer prices remain at moderate levels (Chart 3-23)**.** The annual price index of the energy producing sectors increased, but stayed in negative territory in Q2 as well, due to low oil prices. The price dynamics of the sectors producing goods for further processing continued to decline, while the price index of sectors producing consumer goods remained practically unchanged, staying in slightly positive territory. Changes in domestic producer prices were in line with the trends observed in the euro area.

3.5.3. Consumer prices

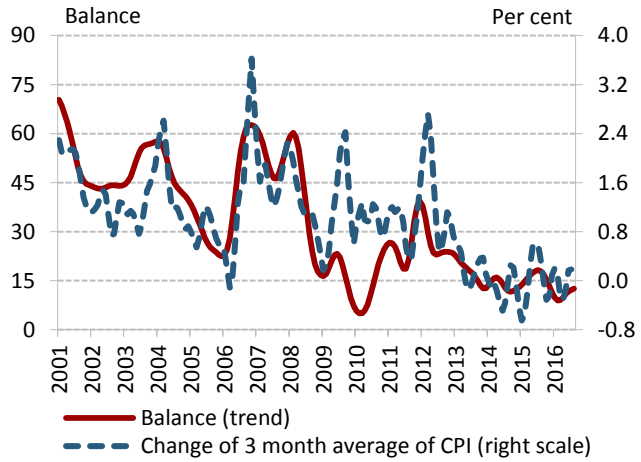
Inflation was around 0 per cent in the past months, still falling short of the 3 per cent inflation target (Chart 3-24)**.** The low price dynamics are attributable to subdued commodity prices as well as to the joint effect of the

Chart 3-24: Development of inflation and underlying inflation indicators



Source: MNB calculation based on HCSO data

Chart 3-25: Expected changes in retail sales prices in the next 3 months* and actual inflation



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

moderate international inflation environment and the restrained inflation expectations. Generally, the contribution of demand sensitive products to inflation did not changed, while the impact of more volatile, cost-sensitve food and energy prices remained negative.

Last month's values of the consumer price index were slightly lower than the forecast in the June Inflation Report. The difference was due to the unexpected drop in fuel prices and the lower-than-forecast price dynamics of unprocessed food.

Indicators capturing longer-term inflation trends (inflation of demand-sensitive and sticky-price products) **remained practically unchanged in the past period**. The level of these indicators continues to suggests a moderate inflation environment, which is primarily explained by the subdued cost level.

The price increases for industrial goods were restrained in the past months. The prices of consumer durables fell slightly, while those of non-durable items increased somewhat. Changes in the price index of the latter product group are mainly explained by the increase in the volatile prices of flight tickets. In addition to the price-reducing effect of moderate import prices, the continuous acceleration in domestic demand also had an overall influence on industrial goods prices during the past quarter.

The inflation of market services remained practically unchanged in the past period. Similarly to previous years, the price index of this group remained subdued. A slight price increase was typical of a wide range of products.

Processed food prices remained practically unchanged in the last quarter. In line with producer prices, consumer prices of milk and dairy products declined slightly. The seasonally adjusted price level of unprocessed food did not change significantly.

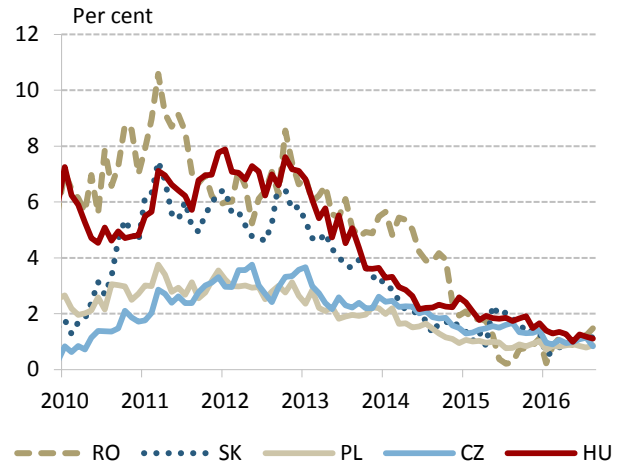
Fuel prices decreased in the summer months in parallel with the decline in the world market price of oil, and thus they are still more than 10 per cent lower than in the same period of last year.

Regulated prices remained practically unchanged in the past months.

3.5.4. Inflation expectations

The expectations of the retail trade sector concerning prices increased slightly in the past quarter. The changes in the indicator observed in past months offset the decline seen early in the year, and thus at present the sector's

Chart 3-26: Inflation expectations in the region



Source: MNB calculations based on data of the European Commission

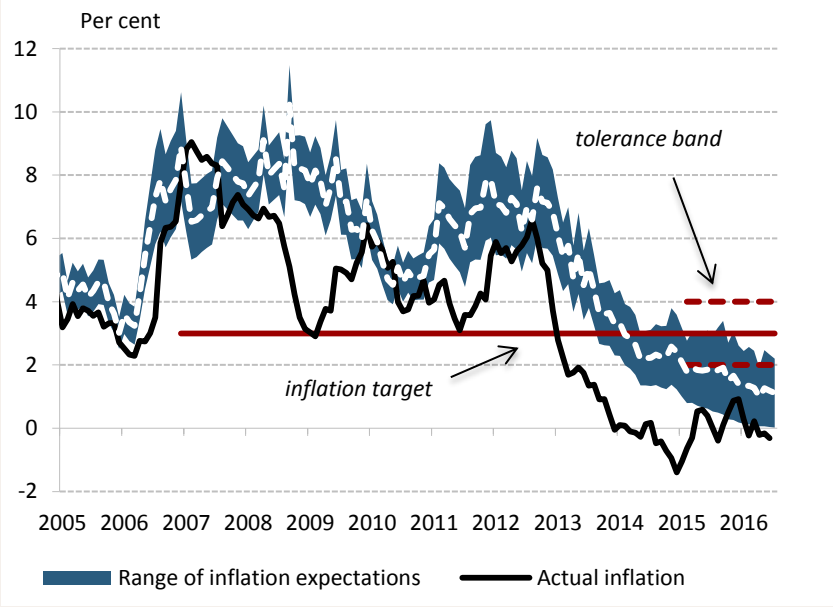
expectation concerning prices is at the same level as last year (Chart 3-25).

Hungarian households' inflation expectations remained practically unchanged, and they continue to expect a low inflation environment. In a regional comparison, expectations in Hungary were in line with the expectations observed in countries characterised by permanently low inflation in the past as well (Chart 3-26).

Box 3-1: Determinants of changes in inflation expectations

In terms of inflation targeting, households' inflation expectations are of special importance. Through consumption-savings decisions and wage negotiations they may have a substantial impact on changes in consumer prices, and thus – from a monetary policy aspect – it is worth monitoring them continuously. **Households are very heterogeneous, and many of them have only incomplete and sometimes distorted information regarding macroeconomic developments. Therefore, responses to the survey are dispersed and provide extremely noisy information.** Although households' inflation expectations are often distorted, changes in expectations may provide important information concerning short-term inflationary pressures. Therefore, it is worth examining what factors and product groups have an impact on households' inflation expectations and to what extent these factors are able to influence them.

Chart 3-27: Households' inflation expectations in Hungary



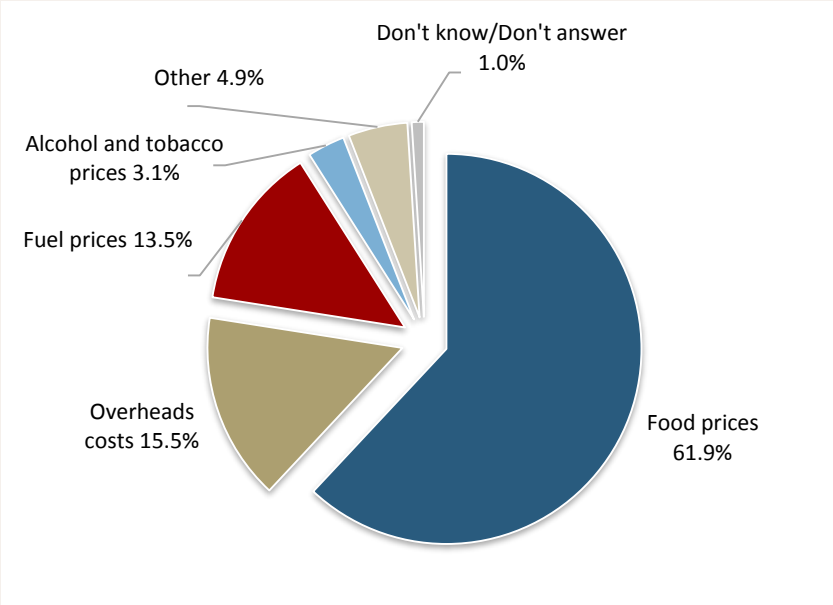
Source: HCSO, MNB calculations based on European Commission data

Based on estimates, domestic inflation expectations are basically retrospective,[2] i.e. they are significantly influenced by past inflation. The households' infaltion expectations are also influenced both by the monetary policy and the central

[2] See: Gábriel, P. – Várhegyi, J. (2014): Inflation expectations in Hungary. MNB Occasional Papers, 113.

bank's inflation forecasts. The weights of these factors increase in line with the rise of central bank's credibility. Additionally, households weight individual products differently from the consumer basket given by the HCSO. **Therefore, the products (e.g. food and fuel) that are purchased more often or consumed every day by households represent a greater weight in inflation expectations**, and thus their price dynamics have a substantial impact on households' price expectations. Generally, the prices of these products change often (MOL announces wholesale price changes for fuel twice a week) and to a great extent (in the case of food, *inter alia*, as a result of changes in the weather, prices in the product group may be highly volatile). Regulated price products are similarly overrepresented compared to the official consumer basket. By contrast, the weight of less frequently purchased consumer durables – the prices of which usually change to a lesser extent – is smaller within the expectations. These are confirmed by the household survey on 1500 people of Századvég,[3] which showed that the evolution of food prices is the main determinant of inflation expectations at the 61.9 per cent of questioned, while the influence of products and services with same weight in the consumer basket is lower (Chart 3-28). As a result, **household expectations react to the changes in the prices of frequently purchased products and in regulated prices more sensitively than the actual inflation**. In addition, when regulated prices or the VAT rate change, expectations may alter already upon the announcement of the measure.

Chart 3-28: Key determinants of household inflation expectations



Source: Századvég Foundation

Overall, in addition to past changes in prices, the dynamics of Hungarian households' inflation expectations are influenced by the price dynamics of frequently purchased products (food and fuel) and regulated-price products as well as by information obtained from the media.

[3] The question asked in the survey: „Which product group's price changes influences your opinion about inflation the most? (choose only one product group)". The sample of 1500 people is representative to the Hungarian population in the main sociodemographic characteristics (sex, age, education level, type of locality), the sampling error is maximum 2.5 percentage points. The data collection by phone was taken place between 4 and 15 July 2016.

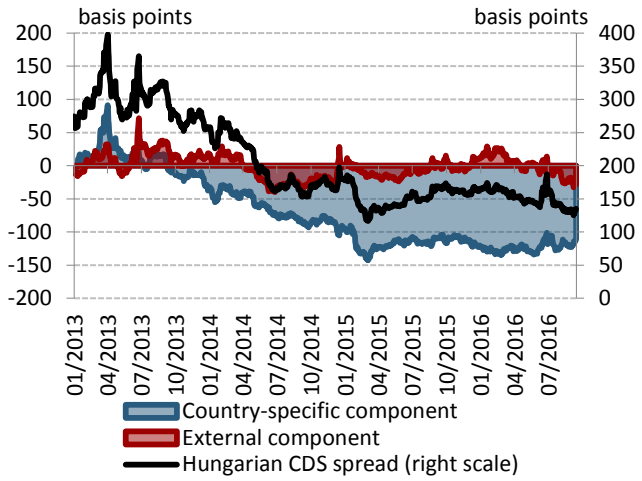
4. FINANCIAL MARKETS AND INTERES RATES

4.1. Domestic financial market developments

International investor sentiment deteriorated significantly after the UK referendum, followed by steady improvement in the remaining part of the period under review. Thus, all in all, money and capital markets were characterised by smooth trading. The atmosphere was mainly determined by the information concerning leading central banks' monetary policies as well as by macro data, causing temporary periods of volatility. Risk indices remained at historically low levels; the main stock exchange price indices rose, while developed market bond yields increased slightly. Although several decision-makers had indicated that the Fed would tighten in the near future, the probability of an interest rate hike before December declined again by the end of the period. Contrary to expectations, the European Central Bank did not change the monetary conditions in September either, leaving both the interest rates and the asset purchase programmes unchanged. The decision resulted in a temporary appreciation of the euro and a weakening of European stock exchanges.

The improvement in the risk assessment of domestic assets was determined by both country-specific and international factors. In the domestic government securities market, yields up to 3 years declined following the announcement of the changes to monetary policy instruments, while long-term yields in the favourable external environment declined even more strongly already until mid-July, and thus the yield curve became flatter. As a result of the changes implemented by the central bank, interbank yields also declined considerably. At the beginning of the period, the CDS spread, which reflects the country's risk assessment, was raised by investors' risk aversion related to the Brexit, and then declined significantly for the rest of the period under review. The exchange rate of the forint against the euro fluctuated within a band of 309–317, slightly appreciating compared to the beginning of the period.

Chart 4-1: 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).

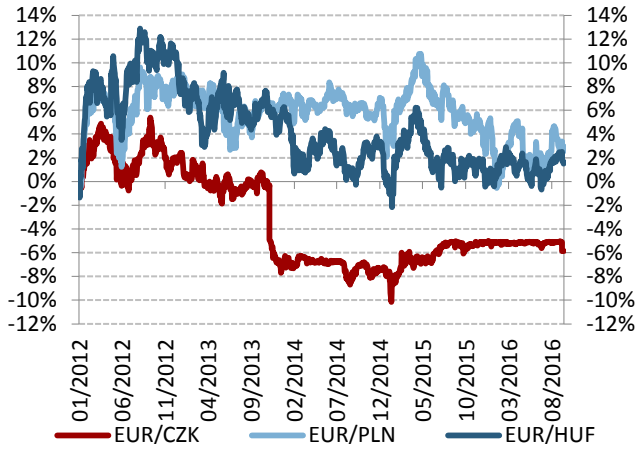
Source: Bloomberg

4.1.1. Risk assessment of Hungary

Compared to mid-June, Hungary's risk indicators improved clearly (Chart 4-1)**.** The Hungarian 5-year sovereign CDS spread declined practically continuously, falling nearly by 30 basis points. There was a major fall in government securities market yields, while mostly sound demand was seen at the auctions. In the first half of the period, the domestic currency appreciated significantly from the level of 317, before stabilising with low volatility. The dynamics of CDS spreads and long-term yields were somewhat different in the neighbouring countries, mainly due to country-specific factors: in Poland, yields increased until the middle of the period due to the uncertainty related to FX loans, while yields in Romania declined to a slightly greater extent than in Hungary.

In the first half of the period, Hungary's CDS spread was mainly determined by domestic factors, while international factors were the driving force in the second half. The increase in the spread observed early in the period was attributable to the unfavourable atmosphere due to Brexit, whereas the significant fall in the spread was explained by the improving investment environment. According to our decomposition methodology, the decline was attributable to the international factor in the period as a whole, while the domestic component reduced the spread only following the restructuring of the monetary policy instruments. In line with this picture, regional spreads declined with similar dynamics, but to a lesser

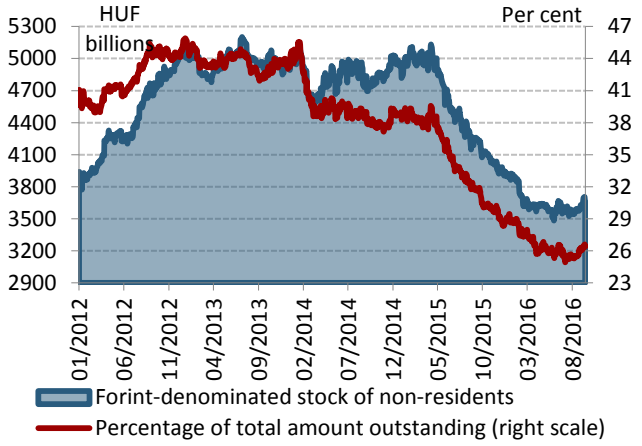
Chart 4-2: Exchange rates in the region



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

Source: Bloomberg

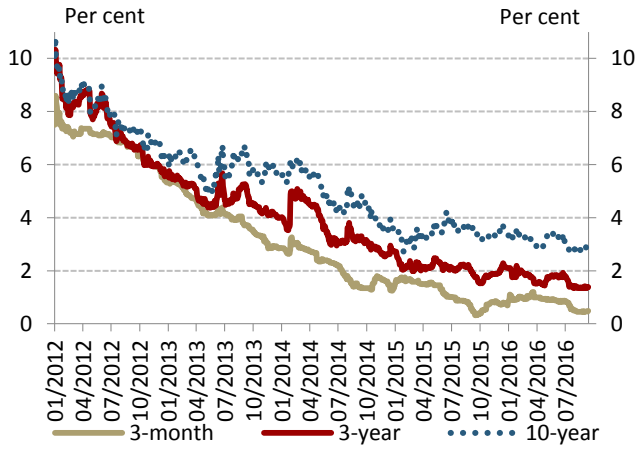
Chart 4-3: Hungarian forint-denominated government securities held by non-residents



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

Source: MNB

Chart 4-4: Yields of benchmark government securities



Source: ÁKK

extent than the Hungarian spreads during the period.

4.1.2. Developments in foreign exchange markets

During the period, the exchange rate of the forint against the euro appreciated by 1 per cent with low volatility (Chart 4-2)**.** The exchange rate of the forint fluctuated in a range of 308–317 during the period, showing low volatility. At the beginning of the period, the exchange rate depreciated by nearly 1.5 per cent, but this was followed by gradual strengthening. For most of the period, the exchange rate of the forint was affected by international factors.

In line with that, there are regional developments as well: both the Polish zloty and the Romanian leu have appreciated by a total of 2 per cent since mid-June. At the same time, mainly as a result of country-specific factors, the zloty fluctuated in a more volatile manner, while the exchange rate of the Romanian leu changed similarly to that of the forint.

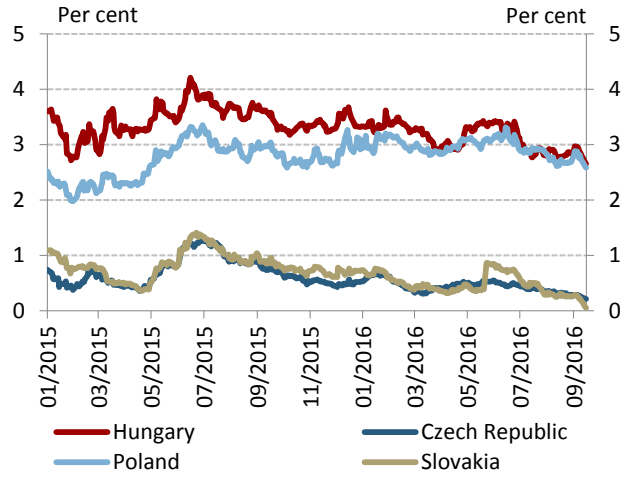
4.1.3. Government securities market and changes in yields

Non-residents' forint-denominated government securities holdings declined at the beginning of the period and then increased again (Chart 4-3). The steady decline in non-residents' forint-denominated government securities holdings, which had started last year, continued in the beginning, until these holdings stabilised at around a level of HUF 3,600 billion as of July. Non-residents' holdings increased at the end of the period, and thus returned to the level observed early in the period. As a result, the share of non-residents declined from 26.5 per cent to nearly 26 per cent.

Demand varied in the primary market of government securities, but a significant decline in yields was observed on the whole during the period (Chart 4-4)**.** Looking at short-term securities, demand for the 3-month maturity was sound, while in the case of the 1-year treasury bill it was weak. Nevertheless, yields decreased considerably. Looking at longer-term securities, oversupply was most significant in the case of variable-rate securities and five-year auctions.

The government securities yield curve flattened out during the past quarter. Short-term secondary market yields fell by 25–40 basis points. There was a downward shift of 45–50 basis points in the over-3-year section of the yield curve during the period under review. Although the overall magnitude of the decline in short-term and long-term yields was similar, there was a difference in the timing of the changes: while long-term yields mostly

Chart 4-5: 10-year government benchmark yields in CEE countries



Source: Bloomberg

decreased at the beginning of the period, yields on shorter maturities declined considerably following the announcement on the restructuring of the instruments. The dynamics of domestic 10-year yields roughly corresponds to that of the countries in the region. Following the UK referendum, both Polish and Hungarian 10-year yields rose by some 20 basis points. In the following couple of days, together with a significant decline in emerging market bond spreads, Polish and Hungarian yields fell by 26 and 42 basis points, respectively. Yields declined much more slowly after July. As a result, in total, Polish and Hungarian yields were down by 36 and 47 basis points, respectively. Czech and Slovak yields also fell, although after the referendum long-term yields in these countries declined to a small extent (Chart 4-5).

After the announcement of the restructuring of the instruments, not only did short-term government securities market yields fall, interbank and forward yields also decreased. Market participants interpreted the changes as further monetary policy easing, and they expect the stabilisation of yields at a permanently lower level (See Box 4.1).

Box 4-1: Market reception of the announcement regarding the limitation on the use of the central bank's main policy instrument

At its meeting on 12 July, the Monetary Council of the Magyar Nemzeti Bank decided to alter the main policy instrument: in lieu of the earlier weekly, unlimited recourse, now it is available for the Bank's counterparties only on a monthly basis and starting from October 2016 only in a limited amount. This targeted, non-conventional step supports the MNB's lending stimulus and self-financing programmes by channelling bank liquidity. The liquidity forced out of the 3-month instrument may flow into the government securities market and the interbank market, exerting a yield-reducing effect there. A lasting decline in the government securities and interbank market yield curves results in an easing of monetary conditions, supporting the achievement of the central bank inflation target through the stimulation of lending and growth.

After the announcement, domestic financial markets almost immediately reacted in the expected manner, followed by further intensification of the yield-reducing effects. Market yields on medium-term government securities and forward rate agreements already declined by some 5 basis points on the day of the announcement. One month after the announcement, declines of already 20–40 basis points were observed in the short-term and medium-term government securities market yields. Accordingly, a major drop of around 10–15 basis points took place in the case of interbank yields, including the 3-month BUBOR rates as well, which are determinants for loan products.

The long-run impact estimated by market participants is shown by the BUBOR futures, derivative interest rate products and the interbank yields that can be calculated from them. Overall, at the one-year forward-looking maturities they show an expected interest rate level that is 10–15 basis points lower than the level upon announcement, and even on the 2-year horizon of the central bank monetary policy they signal a permanent decline of similar magnitude. For the time being, these effects show only the expected impact of the central bank's non-conventional step, which may still change as a result of the crowding out that is to take place as of October.

Table 4-1: Interbank and government securities market yields following the announcement

	level before the announcment	1-day change	total change	current level
3-month T-bill yield	0.87%	-1 bp	-41 bp	0.47%
1-year government bond yield	0.96%	-3 bp	-34 bp	0.62%
3-year government bond yield	1.63%	-6 bp	-28 bp	1.35%
1-year IRS	0.90%	-4 bp	-16 bp	0.74%
3-year IRS	0.97%	-5 bp	-8 bp	0.88%
BUBOR 3M	1.02%	-1 bp	-14 bp	0.88%
BUBOR 6M	0.97%	-1 bp	-13 bp	0.84%
FRA 3x6	0.89%	-6 bp	-20 bp	0.69%
FRA 9x12	0.80%	-1 bp	-18 bp	0.62%

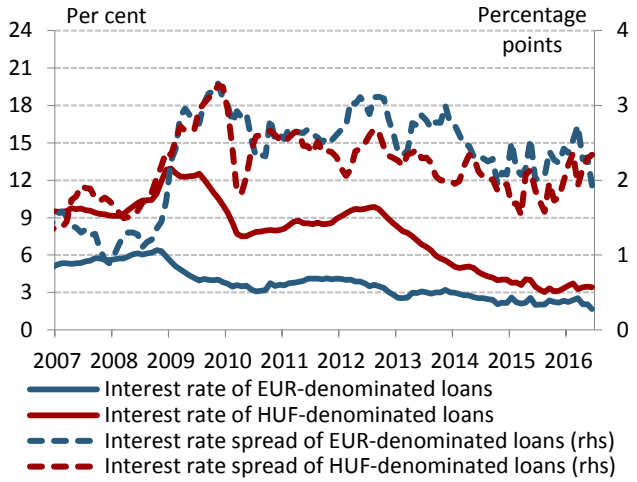
Note: FRA: forward rate agreement; IRS: interest rate swap.

Source: Bloomberg

4.2. Credit conditions of the financial intermediary system

In 2016 Q2, credit conditions eased in both the corporate and household sectors. As indicated by the banks participating in the Lending Survey, market competition and improving economic prospects were the main factors contributing to the easing. The easing primarily concerned price conditions, although financing costs still did not seem to decline significantly during the quarter under review. The underlying reason in the case of both segments is that the average spread level of transactions increased, due to the composition effect. The one-year forward-looking real interest rate declined again in the quarter under review, in spite of an increase in inflation expectations.

Chart 4-6: Smoothed interest rates and spreads on corporate loans by denomination



Note: Interest rates smoothed by the 3-month moving average. The spread on the moving average of the 3-month BUBOR and EURIBOR, respectively. Loans with floating interest rates or with up to 1-year initial rate fixation.
Source: MNB

4.2.1. Corporate credit conditions

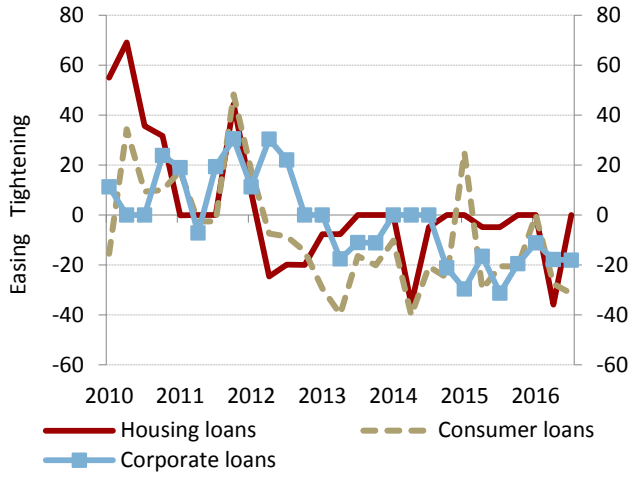
The average financing cost of corporate forint loans increased in 2016 Q2. Excluding money market transactions, the average interest rate level on new HUF loans with floating interest rates or with up to one-year initial rate fixation[4] rose by 0.2 percentage point to 3.4 per cent during the quarter (Chart 4-6). This rise was mainly the result of an increase in spreads on high-amount loans, while both the average spread on low-amount loans and the reference rate declined in the period under review. At the same time, the composition of newly granted loans may have played a significant role in the changes in the average spread, as a large number of banks participating in the Lending Survey indicated an easing of price-related standards: the ratio of investment loans granted with typically higher interest rates increased compared to both the previous quarter and the same period of the previous year. The average interest rate level of euro-denominated loans decreased by some 0.9 percentage point to 1.7 per cent in the period under review, accompanied by a 0.8 percentage point decline in spreads. By the end of the period, the average level interest rate spreads amounted to 2.3 percentage points in the case of new forint loans and to 1.9 percentage points in the case of euro loans.

Corporate credit conditions eased in Q2 as well. The Lending Survey revealed that, in net terms, [5] 18 per cent of banks eased their corporate credit conditions (Chart 4-7). Responding institutions mainly eased conditions on loans to large and medium-sized enterprises and on commercial real estate loans. Banks primarily explained the easing with the competitive situation and improving economic prospects. In the latter case, the impact of the Market-Based Lending Scheme may also appear in an indirect manner through the commitments made in connection with the interest rate swap conditional on lending activity (LIRS). As a result of all this, responding banks eased their price conditions. Looking ahead, a similar ratio of banks

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

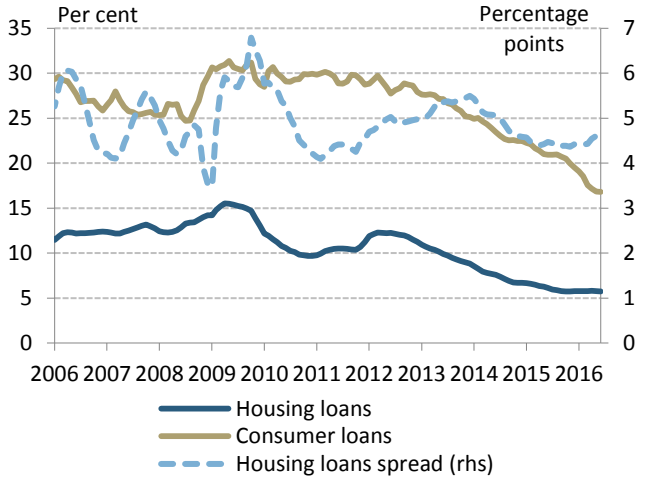
[5] Net percentage balance of respondents reporting tightening/easing credit conditions weighted by market share.

Chart 4-7: Changes in credit conditions in the corporate and household sectors



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

Chart 4-8: Smoothed annual percentage rate of charge (APRC) and spreads on 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

indicated further easing in corporate credit conditions, primarily also in terms of price conditions.

4.2.2. Household credit conditions

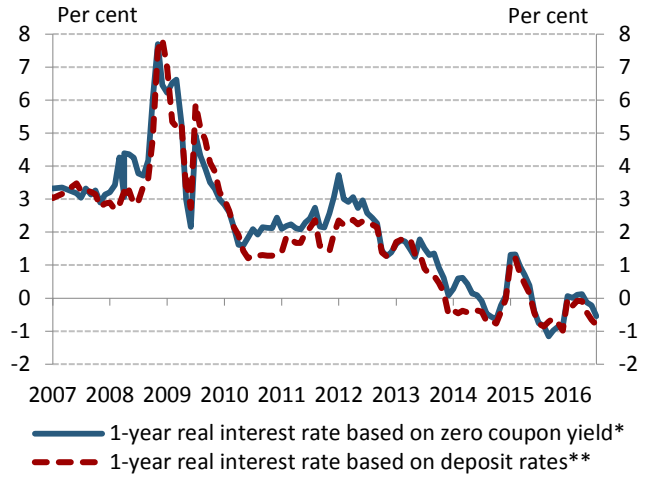
Housing loan interest rates remained unchanged, while spreads increased in Q2. The APR on newly granted loans declined by 0.7 percentage point to 16.8 per cent in the case of consumer loans in 2016 Q2 (Chart 4-8). At end-June, similarly to the previous quarter, the average interest rate on housing loans amounted to 5.7 per cent, but credit costs varied according to interest conditions: the APR on variable-rate housing loan products declined by 0.2 percentage point to 4.7 per cent, while the average APR on fixed-rate loans rose by 0.1 percentage point to 6.4 percent by the end of the quarter. At the same time, the average interest rate spread on housing loans increased by 0.2 percentage point to 4.7 percentage points in the period under review.

Lending conditions eased in both household product groups during the quarter. Banks responding to the Lending Survey eased conditions on both housing and consumer loans in 2016 Q2 (Chart 4-8). In the case of housing loans the easing – observed for the first time in two years – was justified by housing market developments and the changes in market competition, and mainly concerned price conditions. This seems to contradict the increase in average interest rate spreads, but according to responding banks, some slight easing was also implemented in terms of the minimum required creditworthiness level. Accordingly, a composition effect may explain the rise in spreads: credit spreads for clients that had been creditworthy before as well declined, but new riskier clients face a higher spread on average. According to banks, the easing in consumer credit conditions was justified by the economic prospects, competition and market share objectives, and looking ahead they held out the prospect of further easing in this product group, while they do not plan any further easing in housing loan conditions in 2016 H2.

4.2.3. Changes in real interest rates

In 2016 Q2, the level of the one-year forward-looking real interest rate declined again. Compared to March, in July 2016, on the basis of the yield estimated from government securities yields, the real interest rate level reduced by inflation expectations stood at –0.5 per cent, after a decline of 0.6 percentage point. Following a similar decrease of 0.6 percentage point, the real interest rate calculated on the basis of the deposit interest rates reached a level of –0.8 per cent in July (Chart 4-9). The

Chart 4-9: 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

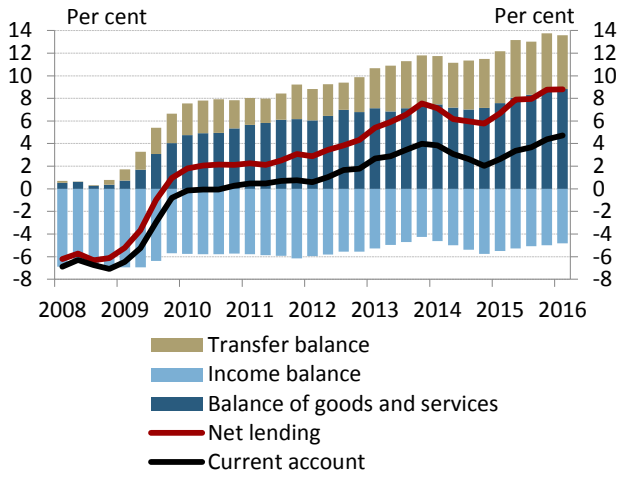
decline in real interest rates – observed in spite of a 0.4 percentage point rise in inflation expectations – is attributable to the fall in deposit rates and government securities yields.

5. THE BALANCE POSITION OF THE ECONOMY

5.1. External balance and financing

In 2016 Q1, the net lending of the Hungarian economy stabilised at a high level of nearly 9 per cent of GDP. The balance of goods increased slightly as a result of an improvement in the terms of trade due to moderate oil prices, while export dynamics fell somewhat short of the expansion in imports. The deficit on the income balance continued to decline, while the transfer balance was low in view of the start of the new programming period of EU. Based on preliminary monthly data, the net lending of the economy was at a similarly high level in Q2 as well. According to the financing approach, the net external debt of the economy declined only to a lesser extent, while foreign direct investment continued to increase slightly. The decline in external debt ratios decelerated; its sectoral distribution was significantly influenced by the liquidity provided to banks by the central bank in connection with the conversion of FX loans into forints. The high net lending evolved in parallel with a decrease in the budget deficit and a decline in private sector financial savings.

Chart 5-1: Changes in net lending as a proportion of GDP



Note: Cumulated four-quarter values.
Source: MNB

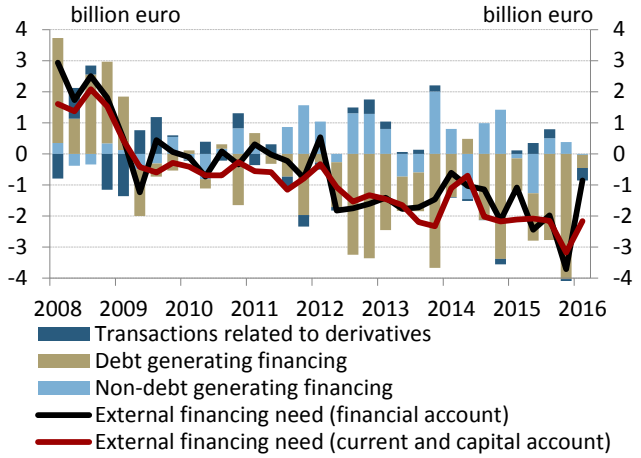
5.1.1. Developments in Hungary's external balance position

In 2016 Q1, net lending according to the real economy approach stabilised at a high level, while the current account surplus continued to increase (Chart 5-1). Reaching a historical high, the **balance of trade** was around 9 per cent of GDP, which is attributable to a rise in net export of goods and a consistently high balance of services. The increase in the balance of goods was a result of the improvement in the terms of trade due to moderate oil prices, while exports dynamics fell slightly short of the expansion in imports. In parallel with the exhaustion of the funds from the 2007–2013 EU programming period, the **transfer balance** surplus declined. The **deficit on the income balance** was down, which is mainly attributable to an improvement in the interest balance of foreign loans. Based on preliminary monthly data, there was no major change in the net lending of the economy in Q2, as the expansion in the trade balance was offset by the low EU transfers.

5.1.2. Developments in financing

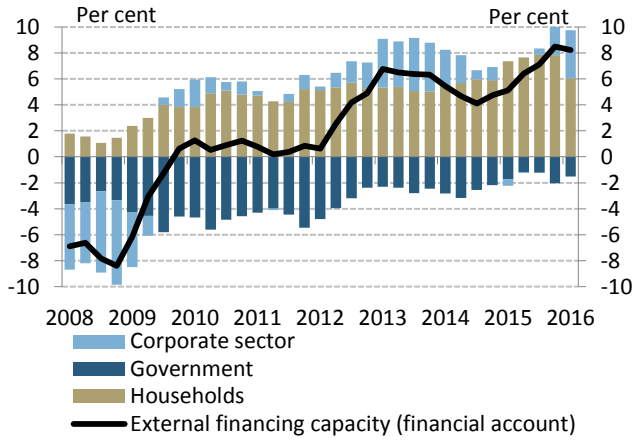
Net lending calculated from the financing side fell considerably in 2016 Q1. As a result, the net external debt of the economy declined by EUR 900 million (Chart 5-2). The major decline at the beginning of the year was presumably a seasonal phenomenon, as the first quarter's net lending was lower than the net lending observed later in the year in the previous years as well. Net external debt continued to decline, albeit only modestly. Within non-debt liabilities, the slight increase in direct investment was offset by the fall in non-residents' net equity investment. It is worth noting that – similarly to the previous quarter – the significant decline in the gross components of foreign direct investment was related to capital-in-transit transactions.

Chart 5-2: Structure of net lending



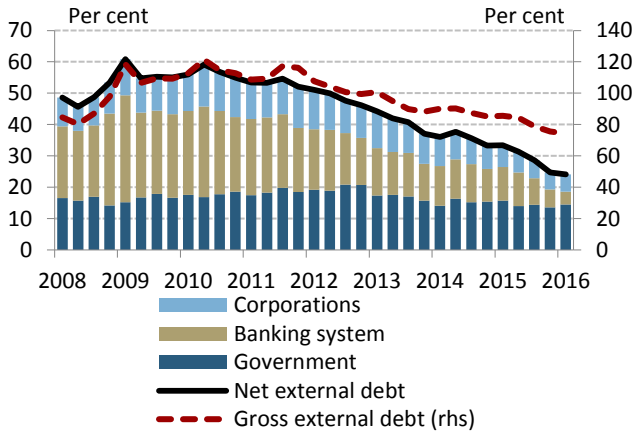
Note: The financing requirement calculated by a bottom-up method corresponds to the total of the external financing requirement and the BOP balance of statistical errors and residuals. Source: MNB

Chart 5-3: Breakdown of net lending by sectors as a proportion of GDP



Note: Four-quarter cumulation. Source: MNB

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



Note: Excluding intercompany loans.
Source: MNB

The decline in net external debt decelerated considerably in Q1, and the FX liquidity provided for the conversion into forints had a major impact on its structure. The EUR 1.8 billion fall in the banking sector's net external debt was almost entirely reflected in the increase in foreign assets. Although the net external debt of the consolidated general government rose, this was mainly attributable to the decline in foreign exchange reserves, while the decline in non-residents' securities holdings continued in Q1 as well. According to preliminary Q2 data, net external debt – in relation to companies – continued to decline, while the decrease in the banking sector's external debt was offset by a similar increase in the net external debt of the state (the latter is in connection with the maturity of the swaps related to the conversion of FX loans into forints).

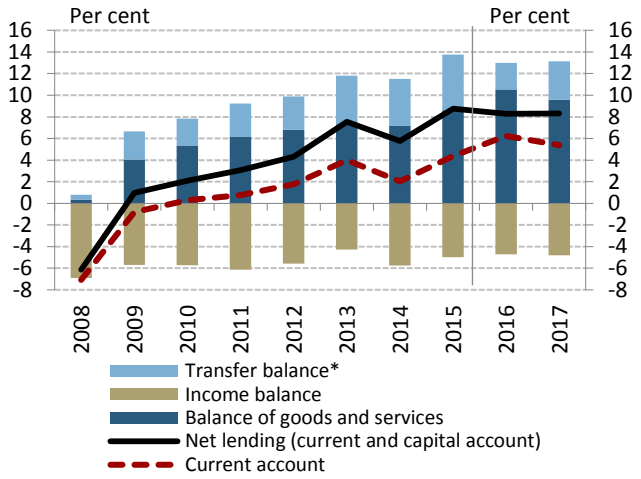
The high net lending evolved as the result of the private sector's declining net savings and the state's lower need for funds (Chart 5-3). The low budget deficit is partly attributable to the impact of rising employment and consumption in terms of boosting tax income as well as of the measures aimed at whitening the economy, while on the revenue side the tax credit for growth also had a considerable effect. On the expenditure side, the state's lower own contribution to the declining EU transfers as well as the decreasing interest expenditure reduced the net borrowing of the state. The one-off effect of the settlements related to FX loans fell out of the indicator in Q1, resulting in a decline in households' net savings and an increase in companies' net lending; apart from that, the level of households' financial savings remained unchanged. Based on Q2 data, household savings stabilised at a high level, while the net borrowing of the state remained low as a result of the aforementioned factors.

The net external debt-to-GDP ratio declined to nearly 24 per cent in Q1 (Chart 5-4). The net external debt ratio continued to decline as a joint result of an increase in nominal GDP, revaluation effects and fund outflows. The maturity of the FX swaps related to the conversion into forints somewhat restructured net external debt; the net external debt of the banking sector declined as a result of an increase in foreign assets, while the net external debt of the general government grew, in view of the fall in FX reserves. Following a major decline, gross external debt was close to 74 per cent at the end of Q1.

5.2. Forecast for Hungary's net lending position

In 2016–2017, the net lending of the economy will stabilise at a high level of around 8 per cent of GDP, resulting in a further decline in Hungary's vulnerability through the decrease in external debt. Although in 2016 the utilisation of EU transfers will drop significantly, this will be offset by the increase in the trade surplus as a result of an improvement in the terms of trade. The major expansion in consumption observed in 2016 will continue in 2017 as well, while investment will also grow considerably again, resulting in a decline in the trade surplus due to increasing imports. Nevertheless, the net lending of the economy will be around 8 per cent of GDP in 2017 as well, because EU transfer utilisation will be up again. From the sectors' savings side, the continued high net lending will evolve as the result of households' slightly declining financial savings as well as of the fiscal deficit, which will increase in 2017 but will still remain subdued, and rising corporate savings. Overall, Hungary's external position will be stable at a high level, leading to a further decline in external vulnerability with the expected fall in external debt and in the foreign currency debt of the state.

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



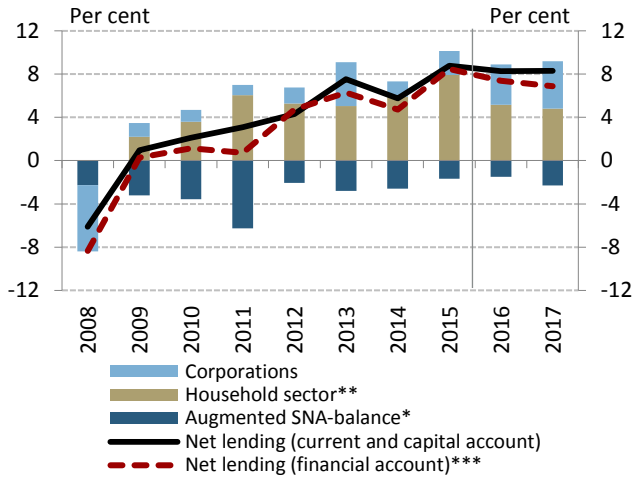
Note: * The sum of the balance of the current transfers and the capital account balance.
Source: MNB

In 2016 and 2017, net lending will stabilise at a high level of around 8 per cent of GDP (Chart 5-5). This year, no significant change is expected in the net savings of the economy, as the decline in the transfer balance is offset by the expansion in the trade balance, which is primarily attributable to the improvement in the terms of trade resulting from the low oil prices. Looking ahead, growing domestic demand will play an increasingly important role in growth: the trade surplus will be reduced by the rise in imports attributable to household consumption this year and to an increase in investment next year. In relation to the exhaustion of funds of the 2007–2013 EU budget cycle, the transfer balance will be lower in 2016 than in the previous years, although expansion is expected for next year again. Due to contrasting effects, the deficit of the income balance will remain nearly unchanged: economic growth will result in a further expansion in foreign-owned companies' profits, offset by the lower interest expenditure of the declining external debt.

Looking at the savings of sectors, the high financing capacity of the economy is evolving against the background of **different developments in the financial savings of the individual sectors**: in parallel with households' declining net savings and the state's slightly increasing net borrowing, companies' net financial savings will increase (Chart 5-6).

According to underlying developments, households' high financial savings may decline slightly in 2016 and 2017. With the end of the temporary impact of FX loan settlement, households' net savings will follow a modestly declining trend as a result of increasing consumption and rising housing investment facilitated by government incentives. At the same time, strengthening wage outflows will moderate the expected decline in net savings through the increase in financial asset accumulation.

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



Note: * In addition to the central government, the augmented general government includes local governments, MNV Inc., institutions discharging quasi-fiscal duties (MÁV, BKK), and the MNB. The augmented SNA deficit takes into account private pension savings. ** 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 is different from the data in the chart. *** We expect that 'Net errors and omissions' (NEO) will return to the historical average.
Source: MNB

There will be a large rise in corporate net savings over the forecast horizon. Excluding the one-off effect of FX loan settlements that affects the 2015 data, corporate net lending will decline in 2016, which is attributable to the lower EU transfer utilisation compared to the previous years. The increase in transfers in 2017 and the income-increasing impact of fiscal expansion will result in an expansion in net corporate savings.

Government net borrowing, which has been historically low in 2016, will increase as a result of growth-stimulating measures in 2017, but will still reach a low level. The favourable developments expected in the general government deficit in 2016 are attributable to the higher tax revenues related to the increasing wage bill, to more favourable revenues from land auctions and to lower interest expenditures. In 2017, the previously announced demand-increasing measures will add to the total net borrowing of the general government, but at the same time the budget management of the state may remain disciplined, partly as a result of rising tax revenues and declining interest expenditures.

As a result of the high net lending of the economy, external debt indicators may continue to decline. Further strong decreases in Hungary's external debt are expected over the forecast horizon as a result of the continued outflow of funds. In addition, the expected further decline in the share of foreign currency within government debt may also reduce the country's external vulnerability.

5.3. Fiscal developments

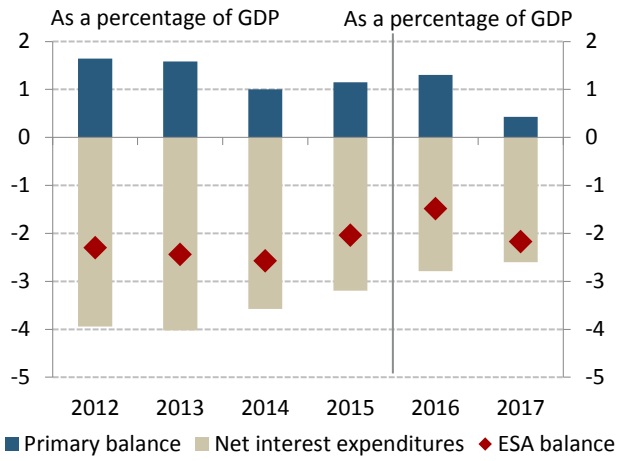
From the low level observed in previous years, the government sector's ESA deficit declined further in 2016. As a result of fiscal steps to stimulate the economy, it will rise to slightly above 2 per cent in 2017. According to our forecast, the deficit in 2016 may be lower than the 2 per cent deficit target by 0.5–0.6 per cent of GDP, allowing considerable room for manoeuvre. As a result of the low deficit, the demand-stimulating effect of fiscal policy may be neutral in 2016, and thus the fiscal impulse falls short of earlier expectations. Nevertheless, fiscal policy is expected to provide significant stimulation in 2017. Compared to our June projection, a lower deficit is expected in both years as a result of a dynamic increase in tax bases and a decline in interest expenditures. The declining trend of the gross government debt-to-GDP ratio is expected to continue over the forecast horizon, meeting domestic and international requirements. Based on our projection, the ratio will decline from its end-2015 value of 75.3 per cent to around 74.5 per cent by end-2016, and approximately 73.5 per cent by end-2017.

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

	2015	2016	2017
ESA deficit	-2.0	(-1.4) - (-1.5)	(-2.1) - (-2.3)
Cyclically adjusted ESA-balance	-1.5	(-1.3) - (-1.4)	(-2.1) - (-2.3)
Primary ESA-balance	1.2	1.3 - 1.4	0.3 - 0.5
Fiscal impulse*	-0.6	0.0 - 0.1	1.1 - 1.3

Note: In 2016 and 2017, the balance indicators can be situated in the given range due to the extent of utilisation of the Country Protection Fund. * Change in the augmented (SNA) primary balance.
Source: HCSO, MNB

Chart 5-7: Changes in the primary balance and interest expenditures



Note: The numbers do not include the imputed interest expenditures from 2012 related to the reform of the pension system.
Source: Eurostat, MNB

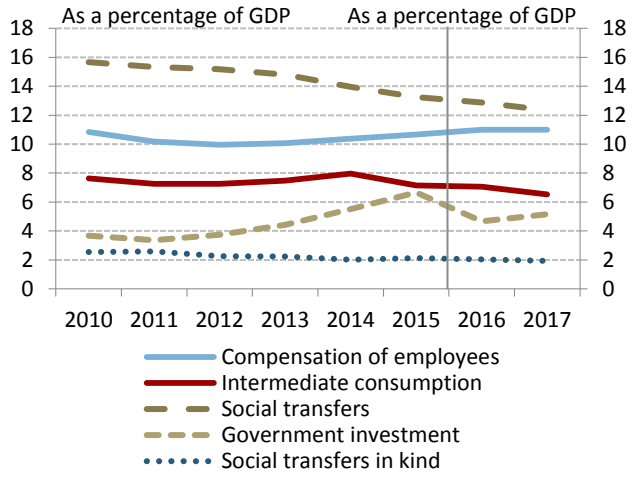
5.3.1. Main balance indicators and the fiscal demand effect

The ESA deficit of the government sector as a proportion of GDP is projected to amount to 1.4–1.5 per cent in 2016 and to 2.1–2.3 per cent in 2017 (Table 5-1). Increasing employment, high wage dynamics and some extraordinary items will result in an increase in revenues. In terms of primary expenditures, continued disciplined financial management is observed, and interest expenditures also decline year by year as a result of the permanently low interest rate environment and the gradual repricing of debt (Chart 5-7). If the still available free reserves (Country Protection Fund) were utilised in 2016, the deficit would amount to 1.5 per cent, while it would be 1.4 per cent if the reserves were preserved. According to our forecast, the deficit of the government sector may amount to 2.1–2.3 per cent in 2017, depending on the spending of the Country Protection Fund. In spite of the still negative output gap in 2016, the impact of the cyclical position of the economy on the budget balance may be minimal, because of the strong upturn in the labour market, to which a considerable portion of tax revenues is related.

In 2016, fiscal policy may be almost neutral for aggregate demand, representing a smaller impulse than the one expected in June.[6] Our estimate for the fiscal impulse was reduced by the higher tax revenues and the slower-than-expected rise in the use of housing subsidies. On the one hand, aggregate demand is increased by the tax cuts implemented in 2016 and the rise in government wages, but it is offset by the additional tax payments related to the tax credit for growth, the payments related to the selling of state-owned land and the decline in financial transfers as a proportion of GDP.

[6] 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 the other sectors.

Chart 5-8: Primary expenditures of the government sector



Source: HCSO, MNB

Table 5-2: Decomposition of the change in the 2016 ESA balance forecast (compared to the June Inflation Report; as a percentage of GDP)

	Economic developments	Measure and other
I. Central government revenues	0.2	0.1
Payment by economic units	0.1	
Labour taxes	0.1	
Payments related to state property		0.1
II. Central government expenditures	0.1	-0.3
Net expenditures of budgetary organisations		-0.3
Housing grants	0.1	
III. Other effects	0.1	0.2
Net interest expenditures	0.1	
Local governments		0.1
Other items		0.1
Total (I.+II.+III.)	0.4	-0.1

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively. The sum of partial data may differ from the aggregated value because of the rounding.
Source: MNB

2017 is forecast to bring substantial demand stimulus, which will also be reflected in an increase in the budget deficit. In 2017, households' disposable income, and thus aggregate demand, will be increased by the extension of the family tax base allowance and the targeted VAT cut. The tax burden on the banking sector will also ease with the reduction of the bank levy and the cancellation of credit institutions' contribution. On the expenditure side, government career path models will continue and be expanded, and the increase of investments from the government's own sources will also generate a further pick-up in demand. The positive effects of these measures on growth will only be slightly offset by the rise in excise duties.

In 2017, cash transfers and material expenditures as a proportion of GDP will continue to decline, while investment and personnel expenditures will rise (Chart 5-8). The former is attributable to the decrease in pension and social spending relative to GDP, while the drop in material expenditures results from the disciplined financial management of the government. The rise in the level of the investment-to-GDP ratio in 2017 will be attributable to the upswing in the Modern Cities Programme and the programme aiming at the development of the public road network as well as to an increase in the utilisation of EU funds. According to our projection, as a result of the pay rises implemented within the frameworks of the sectoral career path models, after 2016, the increase in the government sector's personnel expenditures as a proportion of GDP will continue in 2017 as well.

5.3.2. Budget balance in 2016

According to our forecast, depending on the utilisation of the Country Protection Fund, the ESA deficit of the general government in 2016 may amount to 1.4–1.5 per cent of GDP, i.e. lower than the forecast prepared for the June Inflation Report (Table 5-2). The cash-based budget deficit in first eight months was a mere HUF 274 billion, marking the most favourable figure in recent years. Based on H1 financial account data, in the past four quarters the deficit-to-GDP ratio was 1.1 per cent, which is also the historically lowest level.

The higher-than-expected rise in the wage and earnings bill adds to the revenues from personal income tax and contributions (our projection for the expansion in employment in the private sector rose from 1.7 per cent in June to 3.2 per cent). In addition, we slightly increased the revenues from the road toll and the sales of state-owned land on the basis of incoming data and

Table 5-3: Differences between our forecast and the appropriations set out in the 2016 Budget Act (as a percentage of GDP)

	Difference from appropriation
I. Central government revenues	0.8
Payment by economic units	0.2
Labour taxes	0.3
Payments related to state property	0.3
II. Central government expenditures	-0.7
Net own expenditures of budgetary organisations	-0.5
Net expenditures related to EU-funding	-0.2
Housing subsidies	-0.1
START public work scheme	0.1
Medical and preventive care	-0.1
III. Other effects	0.3 – 0.4
Net interest expenditures	0.2
Balance of local governments	0.2
Cancellation of Country Protection Fund	0.0 – 0.1
Other items	0.0
Total (I.+II.+III.)	0.5 – 0.6

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively. The sum of partial data may differ from the aggregated value because of the rounding.
Source: MNB

Table 5-4: Differences between our forecast and the appropriations set out in the 2017 Budget Act (as a percentage of GDP)

	Difference from appropriation
I. Central government revenues	0.1
Payment by economic units	0.1
Consumption taxes	-0.3
Labour taxes	0.3
II. Central government expenditures	-0.1
Housing subsidies	-0.2
Net expenditures related to EU-funding	0.1
III. Other effects	0.2 - 0.3
Net interest expenditures	0.1
Cancellation of Country Protection Fund	0.0 - 0.2
Other items	0.1
Total (I.+II.+III.)	0.1 - 0.3

Note: The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively. The sum of partial data may differ from the aggregated value because of the rounding.
Source: MNB

information. The 0.2-percentage point increase in our projection for the expenditure side is the result of various contrasting factors. An increase in net expenditures of budgetary institutions may be the result of a partial utilisation of remaining appropriations accumulated from previous years and the expected exceeding of the appropriation of human services for educational purposes (allowed by the high revenues), while investment performance will probably be lower than previously expected. Compared to preliminary expectations, the upturn in the family home creation allowance in 2016 will entail fiscal expenditures later. As a result of the significant fall in yields taking place in the government securities market in recent months, the amount of net interest expenditures may also be lower than our June forecast. In addition, in the light of actual H1 data, the balance of local governments may be higher than our previous projection.

According to our forecast, this year there is significant room for manoeuvre compared to the deficit target set out in the Budget Act (Table 5-3). This room for manoeuvre stems from the more favourable-than-expected developments in tax and contribution bases. Lower net interest expenditure is also expected, and significant savings are seen in the case of local governments as well compared to the Budget Act based on actual H1 data. Our projection for expenditures exceeds the budget appropriation, but it falls short of the room for manoeuvre stemming from the above factors. The largest difference is caused by the utilisation of EU funds, which is higher than in the Budget Act, and the different assessment of the upswing in housing subsidies. In addition, our forecast also takes account of the pay rise in the health sector announced in June and to be implemented in several steps. At the same time, based on last year's data, public spending on the START labour programme is projected to be lower than the appropriation.

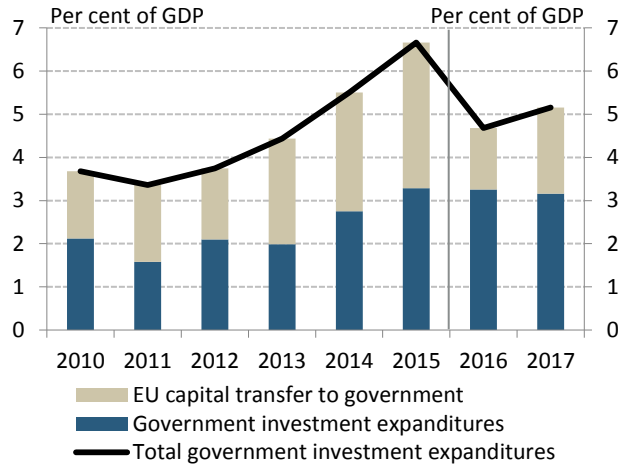
5.3.3. Budget balance in 2017

According to our forecast, depending on the utilisation of the Country Protection Fund, the ESA deficit of the general government in 2017 may amount to 2.1–2.3 per cent of GDP, i.e. lower than the forecast prepared for the June Inflation Report. Similarly to 2016, the largest change is caused by the significant growth in tax revenues related to wages, which is attributable to wage dynamics exceeding earlier expectations. Within our projection for the expenditures of budgetary institutions, the spending related to public education and human services may be

higher than the previous forecast. In addition, the drawdown of EU funds may be higher than was expected in June, requiring higher domestic co-financing.

Overall, according to our forecast, the fiscal deficit will be lower than the target set out in the 2017 Budget Act (Table 5-4). In spite of the dynamic expansion in consumption, revenues from consumption taxes are estimated to be lower, which is attributable to the different estimate concerning the expected impact of the measures aiming at the improvement of the efficiency of tax collection. This is completely offset by our higher projection for taxes on labour, which is justified by the growth in wages that is expected to exceed the target set out in the Budget Act. On the expenditure side, however, we expect that the use of the family home creation allowance will exceed the appropriation. According to our forecast, the amount of net interest expenditures will be lower, which is justified by the fact that a decline in yields took place in the government securities market in the period between approval of the budget and the preparation of our forecast.

Chart 5-9: Composition of government sector investment expenditures (as a per cent of GDP)



Source: HCSO, MNB

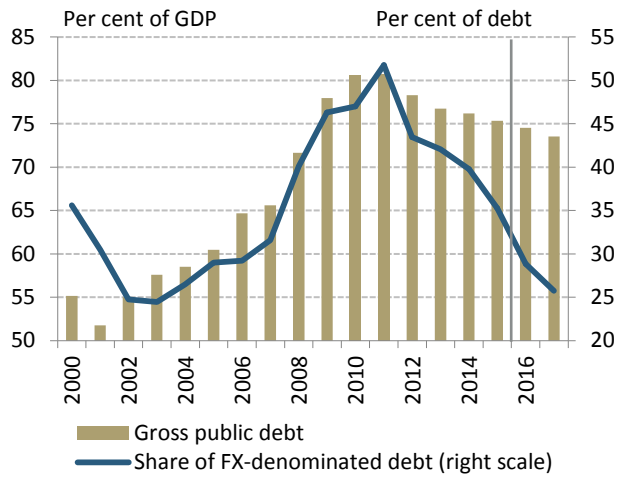
5.3.4. Risks surrounding the baseline scenario

Based on actual H1 data, the magnitude of government investment in 2016 is surrounded by risks, which may reduce the deficit, but its impact on the real economy is unfavourable. A sharp downturn in government investment is expected in 2016, mainly caused by the closing of the 2007–2013 EU cycle last year (Chart 5-9). In order to soften the downswing, the government planned to carry out several large-volume investment projects in 2016, and it is also accelerating the drawdown of funds from the 2014–2020 cycle using various measures. Nevertheless, based on H1 data, the downturn in public investment was very strong. Therefore, in our forecast we expect weaker investment performance than our June projection and see further negative risks concerning its realisation.

5.3.5. Expected developments in public debt

The government debt-to-GDP ratio declined to 75.5 per cent by the end of Q2, according to the MNB's preliminary financial accounts data. The level of the debt ratio in Q2 this year is slightly (0.2 per cent) higher than the value observed at the end of last year, but more than 3 percentage points lower than its level in the middle of last year. In Q2, the repayment of the last instalment of the EU–IMF loan reduced the debt ratio by 1.4 per cent of GDP.

Chart 5-10: Gross public debt forecast – calculated with unchanged (end-of-2015) exchange rate over the forecast horizon



Source: MNB

Until the end of 2017 – assuming a constant, end-2015 HUF exchange rate – we forecast that the public debt ratio will continue to fall, and that the debt rule set forth in the Fundamental Law will be complied with (Chart 5-10). According to our forecast, the downward trend in the end-of-year debt ratio seen in recent years will continue, which is supported by the low financing requirement, the rising interest savings of the state due to the favourable interest rate environment and by the economic growth. Based on our projection, the debt ratio will fall to around 74.5 per cent this year, and approximately 73.5 per cent by end-2017. As a result of financing the foreign currency debt maturing this year from forints, the share of foreign currency within government debt may continue to decline, thus contributing to the reduction of the external vulnerability of the economy.

6. SPECIAL TOPICS

6.1. Analysis of labour market developments in relation to rising wage dynamics

6.1.1. Tightening labour market conditions

In recent years, in parallel with a strengthening in economic activity, the demand for labour has steadily increased, entailing a dynamic expansion in employment. Looking ahead, based on the ESI (Economic Sentiment Indicator) survey, companies expect further growth in employment in the coming period, i.e. the questionnaire survey suggests a further increase in labour demand (Chart 6-1). The rise in demand was not followed by sufficient expansion in supply. Therefore, it became increasingly difficult for companies to hire new employees (Chart 6-2). In a situation like this, it is extremely important to identify the workforce that can be primarily involved and also to take into account the possible macroeconomic effects of accelerating wage outflows.

Chart 6-1: Expectations for changes in employment

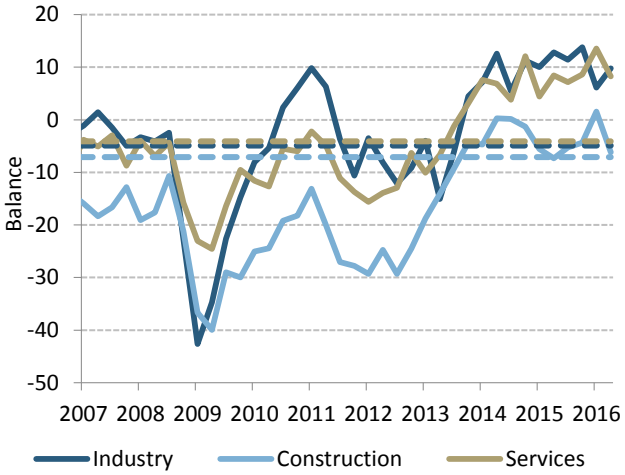
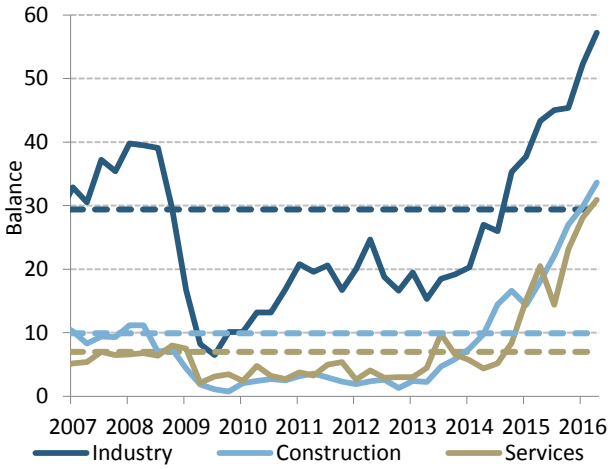


Chart 6-2: Labour shortage as the main factor limiting production



Note: The dashed lines indicate historical averages.

Source: European Commission

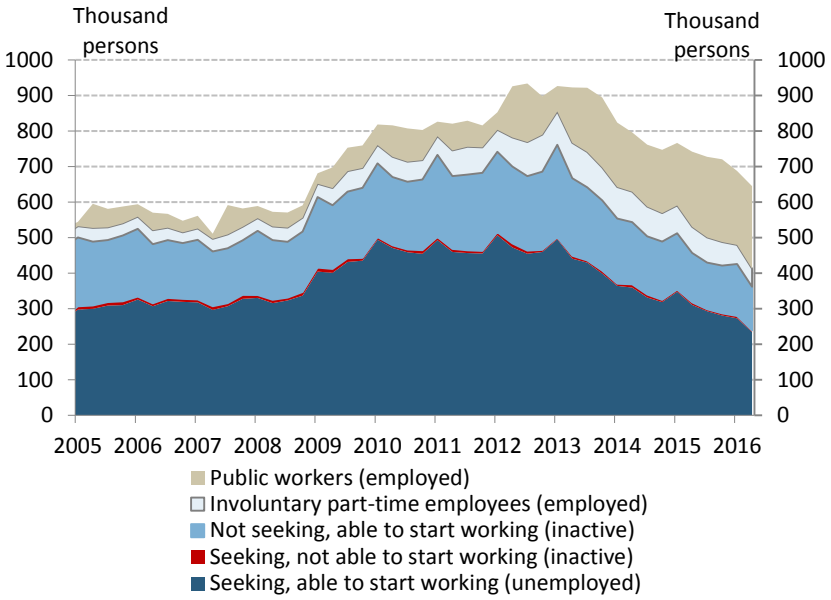
6.1.2. Unutilised labour capacity in the economy

In parallel with the dynamic expansion of employment, free labour market capacities have declined considerably in recent years; the magnitude of this decline has a substantial impact on the wages evolving in the labour market. The primary group of unutilised labour capacity is that of the **unemployed**. Those are considered unemployed who do not have a job, but seek actively one, and would be able to take up work within two weeks, i.e. who are available in the short run as well.

As unutilised labour capacity means all those who can potentially be involved in production, irrespective of whether they meet the definition of unemployment, in addition to the unemployed, there may be potentially available labour reserves among the inactive as well. **Firstly, this means the inactive who are seeking a job, but cannot take up work within two weeks. In 2016 Q2, only 4,000 people belonged to this group**, which cannot be considered significant. **Secondly, it means the inactive who could take up work, but for some reason are not seeking a job at present. The number of passive jobseekers was 123,000 in 2016 Q2.**

Of the inactive mentioned above, most of the labour reserve that could primarily be involved is located in the eastern counties and in the counties around Budapest (Chart 6-4). These groups have mostly finished primary education or obtained qualifications in secondary education. In terms of age groups, more than 80 per cent of them are more than 25 years old.

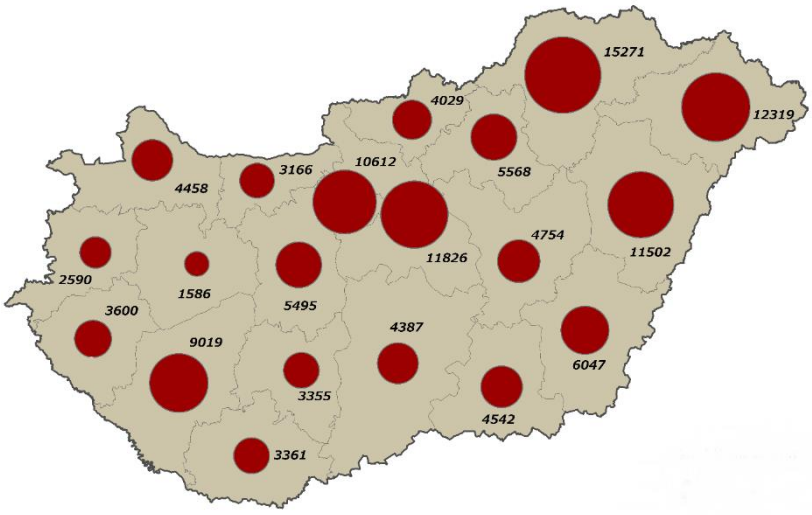
Chart 6-3: Development of public employment and available labour capacity that can primarily be involved in market-based employment



Source: HCSO

In addition to extensive adjustment through changes in employment, it is also important to pay attention to the potential inherent in intensive adjustment. Accordingly, involuntary part-time employees must also be partially taken into account as free labour capacity which can primarily be involved. This group consists of part-time employees who say that they would like to work longer working hours. One way for companies to adjust to the increase in labour capacity utilisation is to increase the number of hours worked by part-time employees.

Chart 6-4: Labour reserve of the inactive that can primarily be involved, by counties (2016 Q2)



Source: HCSO

Overall, **unutilised labour capacity** – also taking into account the labour reserve of the inactive that can primarily be involved – **has already declined to the pre-crisis level** (Chart 6-3), which is exacerbated by the fact that the decreased level of unutilised labour capacity is not necessarily able to satisfy corporate labour demand, due to structural (qualifications, occupational and geographical) mismatches between labour demand and supply.[7]

[7] See Inflation Report (December 2015), Special topic 6-1

In statistical terms, public workers must be considered as employed; therefore, it is a question what portion of these groups can be considered unutilised labour capacity that can primarily be involved from domestic companies' point of view. According to the findings of analyses,[8] public work programmes did not result in a return to the primary labour market, but prevented participants' work experience from becoming outdated. Public workers' closer commitment to the labour market may be reflected by the fact that according to Labour Force Survey data the vast majority of them (this ratio has been above 90 per cent since 2015) would like to work on the basis of an employment agreement for an indefinite period of time.

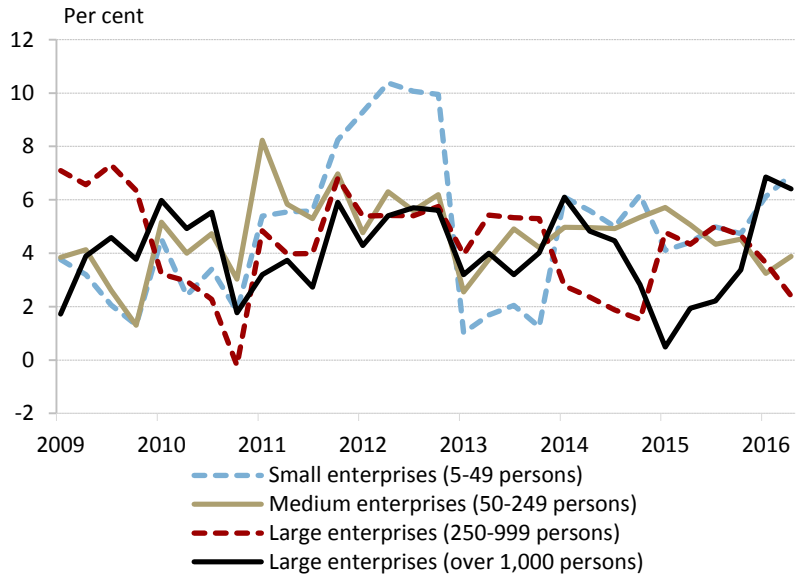
6.1.3. Heterogeneity of wage dynamics

The nominal wage dynamics of the private sector were stronger in the first half of this year than in previous years. Strengthening wage dynamics is partly attributable to the tight labour market conditions, but also to the minimum wage increase, which was larger than last year. Our forecast is based on the assumption that in the current tightening labour market environment, increasingly intense wage competition will evolve both between companies and between sectors in order to make up for and keep the workforce, and thus the nominal wage dynamics of the private sector will rise further over our forecast horizon.

If we examine only the wage dynamics for the private sector as a whole, a loss of information takes place stemming from the aggregation. Therefore, it is important to analyse the changes in gross average earnings in the private sector in a more detailed breakdown. Groups that contribute to a greater extent to the wage increases in the private sector can be identified along various dimensions.

Based on the classification of companies according to size classes, large enterprises pay higher wages to their employees on average, i.e. due to differences in both number of employees and wage level they play a defining role in developments in wage dynamics. Within large enterprises, two heterogeneous groups can be distinguished: companies with 250–1,000 employees and companies that employ more than 1,000 people. In the past quarters, there were contrasting shifts in the wage dynamics of the two groups of large enterprises; large companies with less than 1,000 employees were characterised by declining wage growth. In parallel with that, wage dynamics at companies with at least 1,000 employees have been rising gradually since early 2015, and at present this size class's contribution to the wage dynamics of the private sector is the highest (Chart 6-5). If these companies adjust to the tighter labour supply by further pay rises, it suggests continued strengthening in overall wage dynamics. Strengthening wage dynamics was observed in small companies, in addition to largest companies.

Chart 6-5: Annual dynamics of gross average wages at enterprises of various size classes

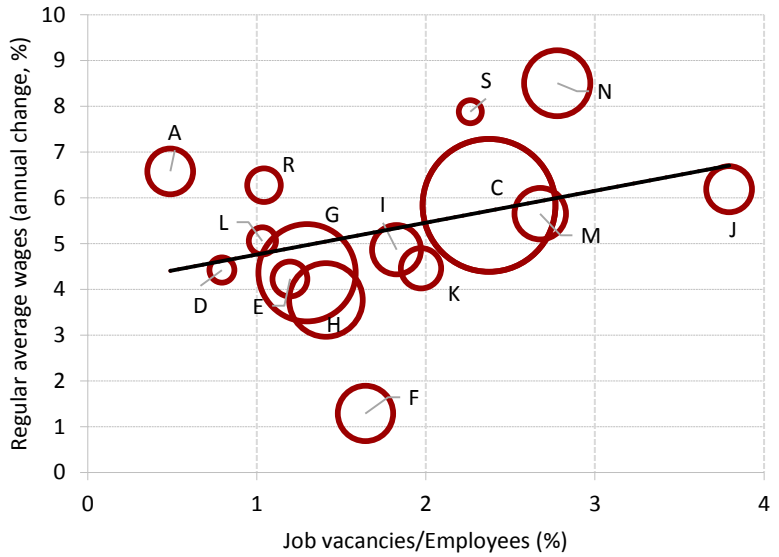


Source: HCSO

[8] Cseres-Gergely, Molnár (2015)

Based on companies' economic activity, three sectors can be identified where the contribution to wage dynamics has been high since 2013, while another five sectors have had a medium influence on changes in wage dynamics. As the remaining sectors have been characterised by lower average earnings and lower wage growth in recent years, these sectors have not had a significant impact on wage dynamics as a whole. At present, the annual wage increase is higher in the sectors where the rate of job vacancies is high compared to the employment in the sector (Chart 6-6). **Manufacture of machinery and equipment (part of C in the chart), wholesale and retail trade (G) and the sector of professional, scientific and technical activities (M) were among the ones that contributed strongly to the rise in wage dynamics.** Sectors with medium contribution include other manufacturing branches (within C) where there is a shortage of labour (basic metal products and chemical industry) and market services branches (transportation and storage (H); information and communication (J); administrative and support service activities (N)).

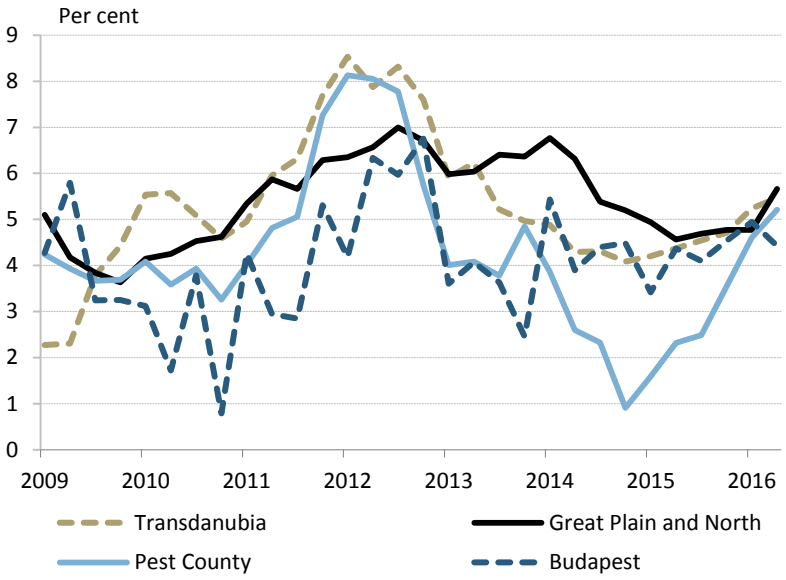
Chart 6-6: Correlation between annual wage dynamics and sectoral labour demand in 2016 Q2



Note: The size of the circle indicates the weight of sectors in employment. The letters in the chart indicate economic branches on the basis of the NACE. A: Agriculture, forestry and fishing, C: Manufacturing, D: Electricity, gas, steam and air conditioning supply, E: Water supply; sewerage; waste managment and remediation activities, F: Construction, G: Wholesale and retail trade; repair of motor vehicles and motorcycles, H: Transporting and storage, I: Accommodation and food service activities, J: Information and communication, K: Financial and insurance activities, L: Real estate activities, M: Professional, scientific and technical activities, N: Administrative and support service activities, R: Arts, entertainment and recreation, S: Other services activities.
Source: HCSO, MNB

According to companies' geographical locations, wage setting at firms located in Budapest has a major impact on the wage dynamics of the private sector. Average wages in Budapest exceed the average wages in counties by HUF 110,000, and more than one third of the employees of companies with more than 5 employees work in Budapest. Accordingly, the wage dynamics of Budapest have a substantial impact on the average wage increase in the private sector stemming from both the high level of average wages and the weight of the private sector employment. Overall, the wage dynamics, which are stronger than last year, are explained by the rise in average earnings in Budapest (Chart 6-7). Among the regions within the country, Budapest is one of those characterised by the highest degree of tightness, i.e. compared to the labour supply, the demand of companies for the expansion of labour capacity is the highest here.

Chart 6-7: Annual wage dynamics within the private sector in regions of the country

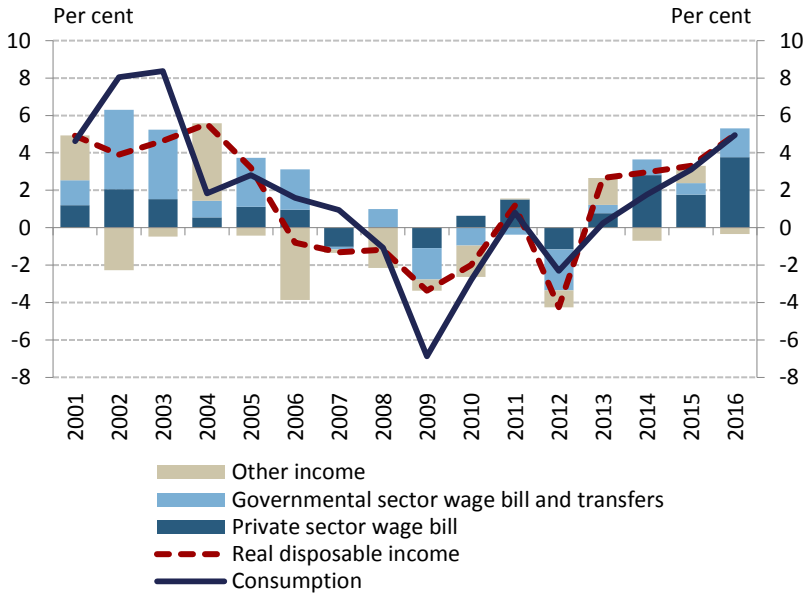


Source: HCSO

6.1.4. Impact of strengthening wage dynamics

Rising nominal wage dynamics in the current low inflation environment means high real wage growth. This results in a pick-up in household consumption, which is also corroborated by the actual data of the past quarters (Chart 6-8).

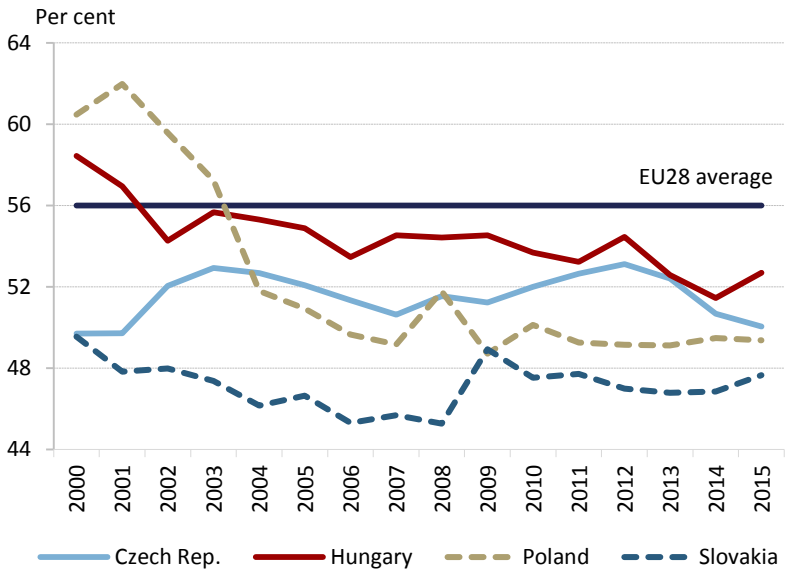
Chart 6-8: Decomposition of disposable income and changes in consumption



Source: HCSO, MNB

As a result of the tightening labour supply and low inflation, real wages have risen strongly in recent years, while the increase in productivity remained subdued. If the increase in companies' wage cost permanently exceeds that of productivity, it may lead to a deterioration in their competitiveness. However, according to recent research the role of quality features appreciated in terms of competitiveness, especial-ly labour skills. In parallel with strong labor market mobility between countries the low level of wages quickly leads to scarcity of skilled labour and through this to reducing competitiveness. Accordingly, in recent years the role of wage level moderated in terms of competitiveness. (Chart 6-9).

Chart 6-9: Wage share adjusted for mixed income in the countries of the region

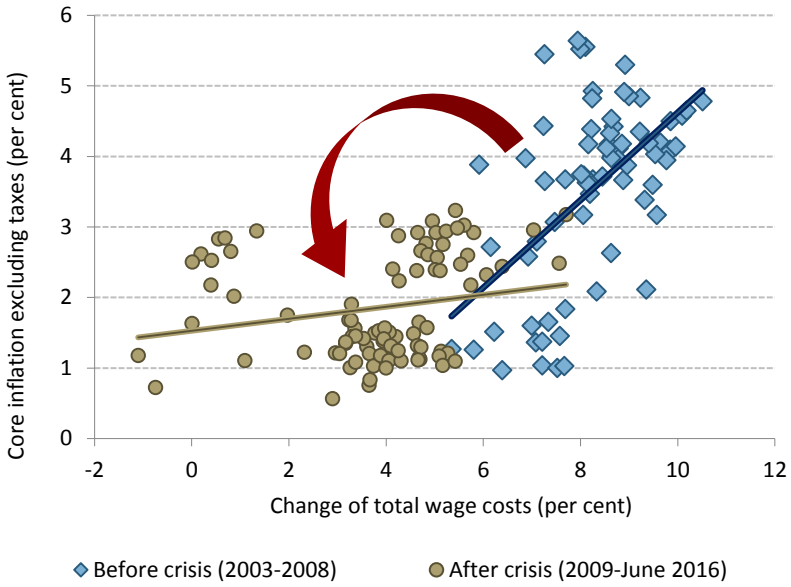


Source: Eurostat, MNB calculation

Increased wage costs at the company level may result in a reduction of production and postponement of investment. However, it may also motivate companies to develop their technology, thus increasing their productivity. Nevertheless, the simplest way for companies to adjust to the increased wage costs is to raise prices. In this case it is worth mentioning that based on previous years' experiences it is conceivable that companies wait with their price increase until one of their competitors takes this step (or an external circumstance allows it – 'big push'). Following that, however, many of them may raise their consumer prices, which may result in a serious inflationary effect. In our forecast we expect the inflationary effect coming from the labour market to remain moderate in spite of the strengthening corporate wage cost increases. This may be attributable to the fact that, compared to the pre-crisis period, the earlier strong correlation between wage increases and inflation has weakened significantly[9] (Chart 6-10). In addition, in the recent period other costs associated with the production – such as commodity prices and interest expenditures – decreased significantly, so companies can have room for the management of higher wages. In parallel with generally low inflation expectations companies can improve their profitability with more efficient production and increasing sales instead of price increases.

[9] See Inflation Report (June 2015), Special topic 6-2

Chart 6-10: Changes in the correlation between wages and inflation



Note: Monthly data, year-on-year changes. In order to identify the market-based correlation between wages and inflation, instead of the consumer price index it is more expedient to use the so-called core inflation excluding indirect taxes, which is an underlying inflation indicator, net of one-off, extremely volatile items that result in noise in the short run as well as of non-market-priced items (regulated prices, VAT). In the case of wages, we took into account changes in the so-called total wage cost, which represents effective wage-type costs for a company, and – in addition to the gross wage – also contains the taxes and contributions to be paid for an employee.
Source: HCSO, MNB

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MNB June 2015 Inflation Report, Special topic 6-2

MNB December 2015 Inflation Report, Special topic 6-1

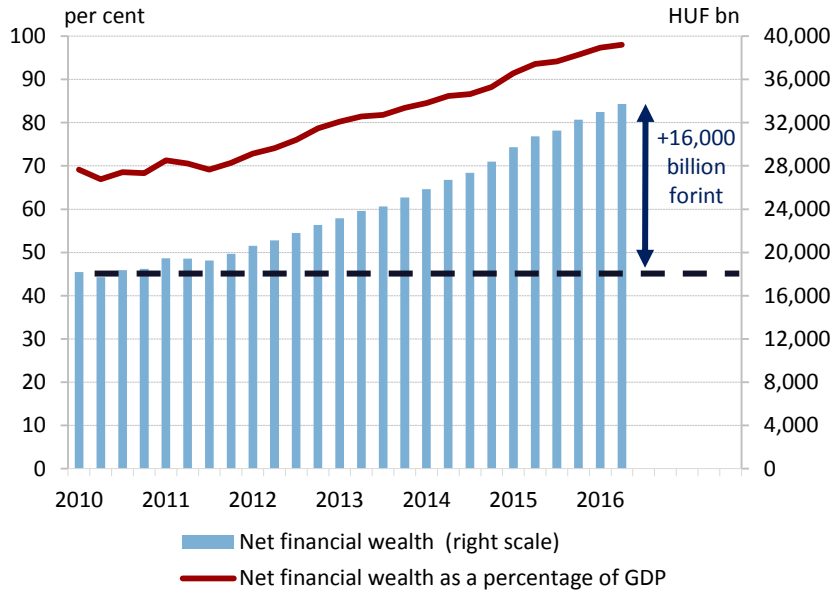
6.2. Changes in households' net financial wealth

Developments in households' net financial wealth are of key importance in terms of a country's sustainable economic growth. This is because the accumulated financial savings of households represent an important source for the implementation of investments necessary for ensuring long-term growth. Through the decrease in external debt and in the exchange rate exposure of sectors, a higher ratio of financing from domestic sources contributes to the decline in the external vulnerability of the economy. In addition to the size of households' financial wealth, its structure is also important, because, for example, both the exchange rate exposure and the composition of the financial assets of households affect the external vulnerability of the sector – and thus of the economy as a whole – as well as the supply with funds of the sectors. The following presents an overview of the developments in households' financial wealth after the crisis as well as of the main determinants of the changes in its composition.

6.2.1. Favourable developments in savings after the crisis

Since 2010, Hungarian households' net financial wealth has increased by some HUF 16,000 billion, reaching nearly 100 per cent of GDP by the end of 2016 H1 (Chart 6-11)**.** Both the changed savings behaviour after the crisis (a decline in household borrowing followed by an expansion in financial asset accumulation) and revaluation effects contributed to the increase in households' wealth, and the composition of wealth also changed considerably. As a result of the declining yield environment and government measures (e.g. restructuring of the tax system, preference for domestic financing), significant restructuring took place in households' financial assets: in parallel with a reduction of bank deposits, retail securities and liquid savings forms became more popular. Households' balance sheet adjustment as well as the early repayment at preferential exchange rates and later the settlement resulted in a significant decline in loans outstanding, while their currency composition became more favourable as a result of the conversion into forints. **The decline in households' foreign currency exposure reduced the exchange rate risk assumed by the sector, while households' portfolio restructuring facilitated the financing of the general government from domestic sources through the spread of retail government securities.**

Chart 6-11: Changes in households' net financial wealth



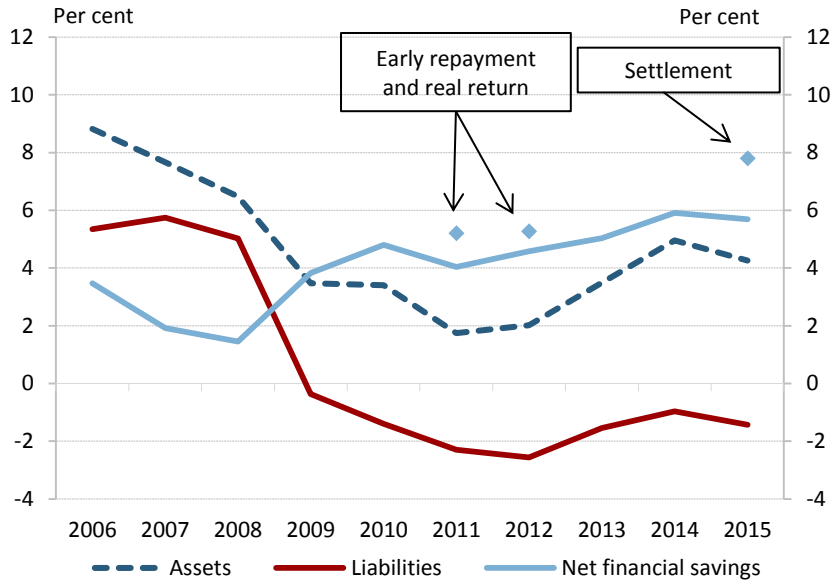
Source: MNB

6.2.2. Changes in the net financial worth of households

Following the crisis, it was first the significant loan side adjustment and then the rising accumulation of financial assets which also contributed to the increase in households' net financial wealth (Chart 6-12)**.** In the pre-crisis years, households' net lending reached a low level, which was attributable to households' high indebtedness. The high net borrowing took place with a significant expansion in financial assets, which could also be attributable to the fact that the loans borrowed for purchasing pre-owned homes increased the financial assets of the previous owner. Following the crisis, as a result of the downturn in real economy, major changes took place in the savings behaviour of the household

sector: in view of worsening income prospects and increased unemployment, households' credit demand fell considerably. In addition, on the supply side, borrowing was also limited by banks' tightening lending conditions. The change in households' savings behaviour was perceivable not only in the lower demand for loans, but also in the accumulation of financial assets. The elevated net repayment of loans following the outbreak of the crisis resulted in lower accumulation of financial assets, to which the ceasing of the asset increasing effect of the purchasing of pre-owned homes may also have contributed. In addition, the early repayment at end-2011 entailed a decline in financial assets. However, starting from 2012, households' financial assets gradually expanded again – also supported by the restructuring of the tax system, which was favourable for savings – while the reduction of loans in the context of the lower loans outstanding following the early repayment continued at a slower rate. In 2015, in parallel with an increase in consumption, households' financial savings remained significant, which, in addition to favourable labour market developments and income prospects, was also mainly attributable to the one-off effect of the settlement, due to the spread and the unilateral contract amendment by banks.

Chart 6-12: Households' financial savings (data as a percentage of GDP)



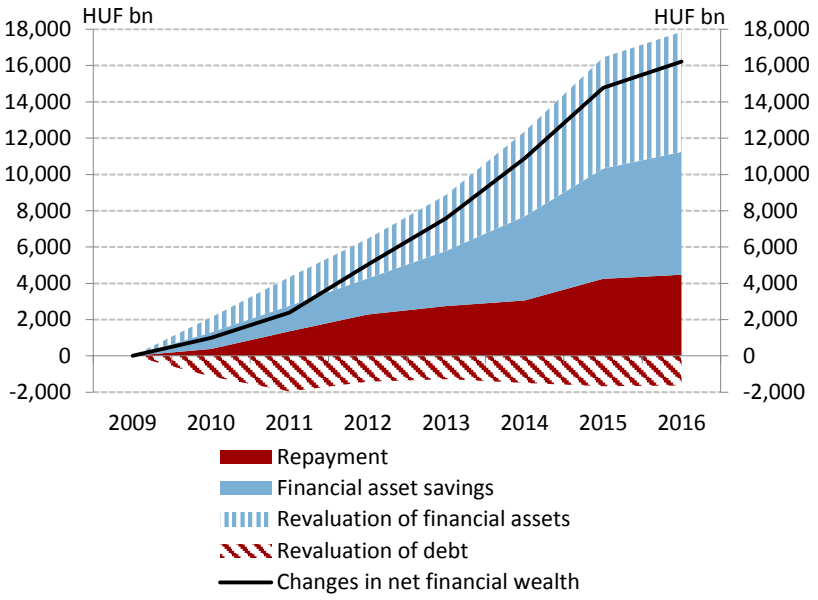
Source: MNB

In addition to the population's savings decisions, the significant revaluation of the asset side also played an important role in the expansion of households' financial wealth (Chart 6-13). Between 2010 and 2016 H1, households' net financial wealth increased by some HUF 16,000 billion. In this period, households' financial asset accumulation and loan repayment contributed to the growth in net wealth by more than HUF 6,700 billion and approximately HUF 4,500 billion, respectively. In addition to the changed savings behaviour, the significant revaluation of the assets held by households also played a role in developments in financial wealth. As a result, the value of households' financial assets increased by more than HUF 6,500 billion. The revaluation primarily concerned equities: with an upturn in Hungarian economic growth, in addition to an increase in share prices, the produced but not disbursed profit of domestic small enterprises owned by the population was reflected in the growth in the company's own capital, and thus in the owner households' financial wealth.

For a long time, the increase in net financial wealth was restrained by the revaluation of FX loans, although it was facilitated significantly by the restructuring of the outstanding loans as a result of economic policy measures. The revaluation of outstanding loans due to weakening in the forint exchange rate restrained the expansion in financial wealth by some HUF 1,600 billion in total. The conversion of FX loans into forints resulted in a fundamental change in the composition of loans outstanding: FX loans fell to a level close to zero, and forint loans increased in parallel with that. As a result of the measures, households' FX position has reversed, i.e. FX assets exceed FX loans, and the sector's exchange rate exposure is just a fraction of the level observed prior to the conversion of FX loans into forints. As a result of the timing of the conversion into forints, the cancellation of the Swiss franc threshold in early 2016 – which would have

meant a revaluation of HUF 300–400 billion – already did not reduce the value of net financial wealth, and further changes in the exchange rate of the forint no longer entail a revaluation of the liabilities side.

Chart 6-13: Financial transactions and revaluations of household's financial assets and liabilities

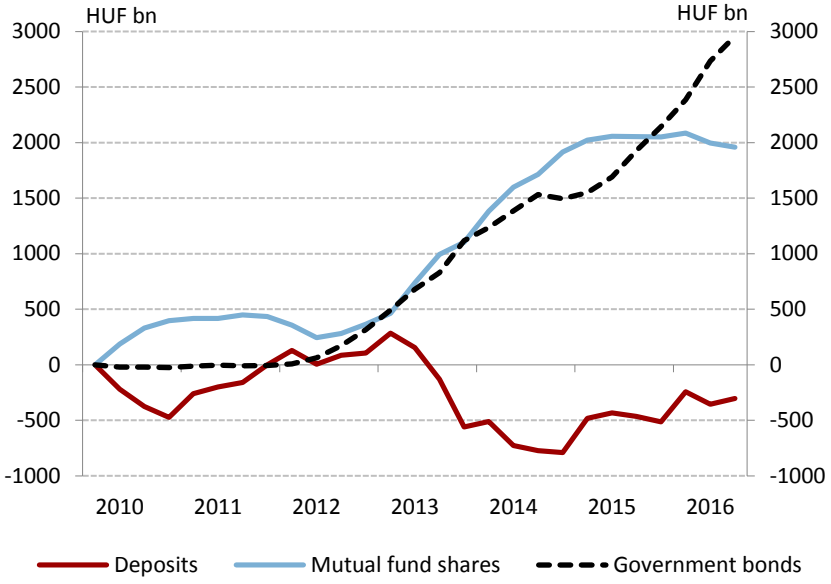


Source: MNB

6.2.3. Changes in the composition of net financial wealth

In the years following the crisis, not only the holdings of financial assets increased, but they were also considerably restructured, significantly contributing to the decline in the vulnerability of the state. In addition to the central bank base rate cuts in parallel with the decline in inflation, banks' interest rates also reached lower and lower levels. As a result, households turned from bank deposits to investment possibilities that offer higher yields (mainly securities) (Chart 6-14). Of the securities, buoyant demand was first observed for mutual fund shares (mainly bond funds), which may be explained by the fact that the price of securities increased steadily in the declining yield environment, and thus the achievable capital gain made these types of investment instruments more attractive. As the state put increasing emphasis on household financing, households' government securities holdings also started to increase sharply. In addition to a significant yield premium compared to bank deposits, the spread of government securities was also facilitated by the fact that, in line with the intentions of the Government Debt Management Agency, the availability of the securities improved, and they became more widely known as a result of strong marketing activity. Overall, households' direct and indirect government securities holdings (through investment funds, insurance companies and pension funds) contribute significantly to financing the state from domestic sources. As a result, the dependence of the economy on external funds – and thus the external vulnerability of the country – declined considerably. The increase in mutual fund shares decelerated at end-2014, but the expansion in government securities savings has remained unbroken: holdings have grown by some HUF 3,000 billion since 2012. In the low yield environment, not only has the popularity of the of savings offering higher yields increased, there has also been an upturn in demand for more liquid assets (cash and sight deposits), because with the low yields of time deposits at banks, the opportunity cost of holding cash and sight deposits has declined.

Chart 6-14: Changes in households' selected financial assets (quarterly cumulative transactions)

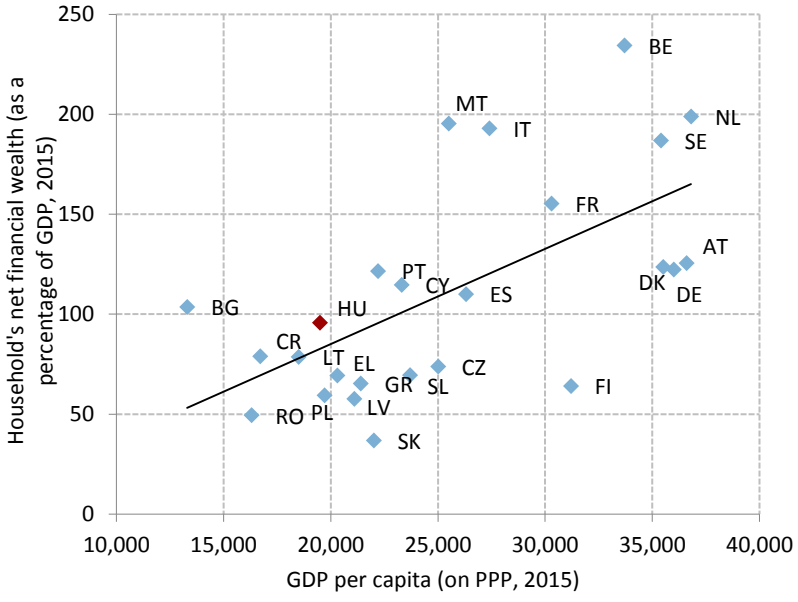


Source: MNB

6.2.4. Hungarian households' net financial wealth in international comparison

Based on an international comparison, the size of households' financial wealth is in line with the level of development of the economy, and can be considered high within the region. In the EU countries, a relatively strong correlation can be observed between per capita GDP and households' net wealth: in the countries that are considered more developed and have a higher per capita GDP, net financial wealth as a proportion of GDP also reaches a higher level, which is attributable to several factors. Firstly, in the countries of the region, significant accumulation of financial assets was only able to start after the transition. Secondly, households in more developed economies are able to save a higher portion of their higher income. In addition, the lower financial wealth of the region may also be attributable to the fact that in the more developed countries, higher-yield financial assets also have a greater weight among households' financial assets, and their higher profit may also add to the level of financial assets. Of the V4 countries, Hungarian households' financial wealth as a proportion of GDP is the highest, and Hungary is ahead of the region compared to the level of development as well.

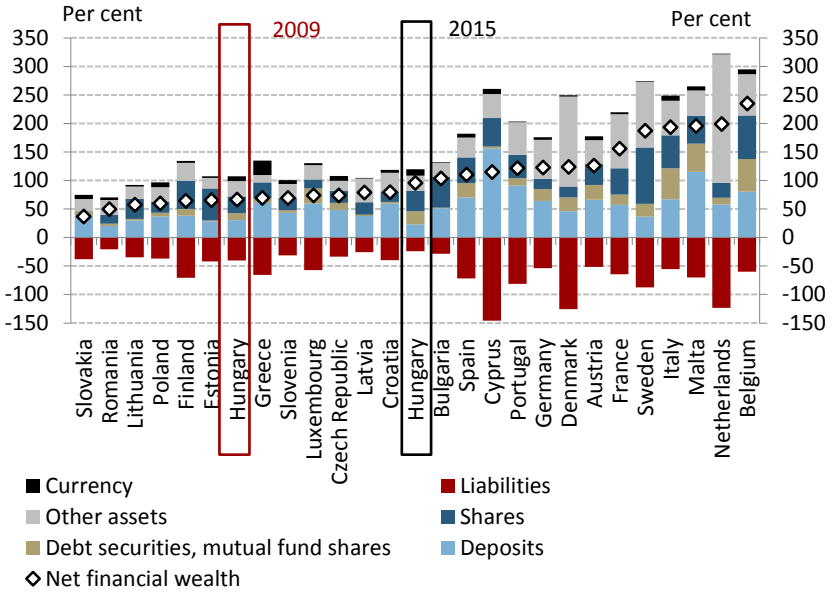
Chart 6-15: Correlation between households' net financial wealth and the level of development of the economies



Source: Eurostat

In EU countries, savings in bank deposits account for a major portion of households' financial wealth, and business shares (small enterprises, private entrepreneurs own capital) are also important components. **In international comparison, Hungarian households' bank deposit savings are considered low, but at the same time savings held in securities as a percentage of GDP are significant – the highest in the region.** The relatively high ratio of securities reflects the Hungarian population's considerable savings in mutual fund shares and government securities. Of the other assets, the proportion of wealth held in insurances and pension funds is considerable, which mainly represents a greater weight among the assets of more developed economies' households, which have higher net wealth. Similarly to the V4 countries, the debts of Hungarian households can be considered low compared to EU countries, which may be related to the earlier high nominal interest rates in parallel with the relatively high inflation and to the financial intermediary system, which is young compared to developed countries. In Hungary, the strong debt reduction of recent years and the Hungarian population's significant asset accumulation contributed to the decline in household debt to a level that is lower than in the region, while there was a favourable change in the composition of financial assets as well.

Chart 6-16: Distribution of households' financial assets and liabilities (as a proportion of GDP, 2015)



Note: As a percentage of GDP, 2015.
Source: Eurostat

6.2.5. Summary

In the years following the crisis, increasing attention was paid to the importance of internal financing of companies and the state, the main sources of which are the accumulated financial savings of households. As a consequence of the crisis, the savings habits of households changed significantly, due to the economic downturn, the rise in unemployment, the worsening of income prospects and the rise in repayment burdens as a result of the depreciation of the exchange rate of the forint. In recent years, against the background of considerable asset accumulation and high debt repayment, households' financial savings have increased, contributing to the improvement in the external balance position of the economy. Meanwhile, in parallel with the recovery in economic growth, the value of assets held in business shares has also increased. As a result of these impacts, net financial wealth, which is of key importance in terms of the sustainable growth of the Hungarian economy and the reduction of the country's external vulnerability, has expanded gradually in recent years, coming close to 100 per cent of GDP in 2016 H1. Households' savings behaviour and – as a result of government measures – the composition of financial wealth have also changed. In an international comparison, of the countries of the region, the Hungarian population's financial wealth is the highest, corresponding to the level of development of the economy. Overall, households' net financial wealth plays a significant role in the sound structure of the financing of the economy and in reducing the external vulnerability of the country.

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7. BREAKDOWN OF THE AVERAGE CONSUMER PRICE INDEX FOR 2016 AND 2017

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

	Effect on CPI in 2016			Effect on CPI in 2017		
	Carry-over effect	Incoming effect	Yearly index	Carry-over effect	Incoming effect	Yearly index
Administered prices	0.0	0.0	0.0	0.0	0.2	0.2
Market prices	-0.4	0.9	0.5	0.9	1.4	2.3
Indirect taxes and government measures	0.0	-0.1	-0.1	0.0	-0.2	-0.2
CPI	**-0.4**	**0.8**	**0.4**	**0.9**	**1.4**	**2.3**

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 calculated the inflationary effects of changes in the indirect taxes, administered prices, and market prices (not administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

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

	2016					2017				
	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	-0.6	0.0	0.4	0.0	-0.2	-1.4	0.0	4.6	-1.4	1.8
non-processed	-0.7	0.0	4.6	-3.2	0.7	-0.9	0.0	4.7	-2.9	0.9
processed	-0.5	0.0	0.6	0.0	0.1	0.8	0.0	2.2	-0.7	2.3
Traded goods	0.6	0.0	0.5	0.0	1.1	0.3	0.0	0.3	0.0	0.6
durables	0.7	0.0	-0.3	0.0	0.4	-0.8	0.0	0.6	0.0	-0.2
non-durables	0.6	0.0	0.6	0.0	1.2	0.4	0.0	0.5	0.0	0.9
Market services	0.5	0.0	1.5	0.0	2.0	0.9	0.0	2.3	-0.4	2.8
Market energy	0.3	0.0	-1.3	0.0	-1.0	-0.4	0.0	0.0	0.0	-0.4
Alcohol and Tobacco	0.3	0.4	1.1	0.6	2.4	1.6	0.0	0.7	2.0	4.3
Fuel	-6.4	0.0	-1.1	0.0	-7.5	5.9	0.0	0.4	0.0	6.3
Administered prices	0.0	0.0	0.2	0.0	0.2	0.0	0.0	1.5	0.0	1.5
Inflation	**-0.4**	**0.0**	**0.9**	**-0.1**	**0.4**	**0.9**	**0.0**	**1.6**	**-0.2**	**2.3**
Core inflation	0.3	0.1	0.9	0.1	1.4	0.7	0.0	1.0	0.5	2.2

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 calculated the inflationary effects of changes in the indirect taxes, administered prices, and market prices (not administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

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Mátyás Hunyadi

(23 February 1443 – 6 April 1490)

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

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

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

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

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

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