



INFLATION

REPORT



JUNE
2017

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

Miklós Zrínyi: The Life of Matthias Corvinus



INFLATION REPORT

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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 percent 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 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 16 June 2017.

CONTENTS

The Monetary Council's key findings related to the Inflation Report	7
1. Inflation and real economy outlook	11
1.1. Inflation forecast	11
1.2. Real economy forecast	14
1.3. Labour market forecast	17
2. Effects of alternative scenarios on our forecast	22
3. Macroeconomic overview	24
3.1. Evaluation of international macroeconomic developments	24
3.2. Analysis of the production and expenditure side of GDP	30
3.3. Labour market	37
3.4. Cyclical position of the economy	38
3.5. Costs and inflation	39
4. Financial markets and interest rates	44
4.1. Domestic financial market developments	44
4.2. Credit conditions of the financial intermediary system	48
5. The balance position of the economy	50
5.1. External balance and financing	50
5.2. Forecast for Hungary's net lending position	52
5.3. Fiscal developments	54
6. Breakdown of the average consumer price index for 2017	58
List of charts and tables	59

LIST OF BOXES

Box 1-1: Assumptions applied in our forecast	12
Box 1-2: Expected balance sheet policy of major central banks	18
Box 3-1: Changes in the forecasting ability of confidence indicators	28
Box 3-2: Developments in e-commerce in Hungary	33
Box 3-3: The role of services in consumption and foreign trade	35
Box 3-4: Presentation of developments in regional inflation	42
Box 4-1: Changes in money market and government securities market yields following the modification of central bank instruments	46

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

In the Council's assessment, Hungarian economic growth picks up over the forecast horizon. Some degree of unused capacity has remained in the economy, but this is likely to be gradually absorbed as output grows dynamically. The inflation target is expected to be achieved in a sustainable manner half a year later, from early 2019. In the coming years, Hungary's strong external financing capacity will continue to reduce the vulnerability of the country.

Global economic growth continued in the past months, and the rise in inflation which started towards the end of 2016 came to a halt. Inflation rates were within a range close to the central bank targets in several countries. Inflation expectations continue to indicate a moderate inflation environment. International financial markets were characterised by improving, sometimes cautious investor sentiment for most of the period under review.

Global economic growth continued in the first quarter of 2017, but a considerable degree of growth disparity persists between regions. The rise in inflation at the beginning of the year came to a halt, and for the most part inflation rates were close to the range of central bank targets. Although core inflation rose in most countries, inflation expectations remained moderate. The Fed continued its cycle of interest rate hikes started in December 2015. At the same time, as a result of fragile economic activity and moderate inflation expectations, most of the world's leading central banks may continue to pursue persistently loose monetary policy to support economic growth. Following a sharp rise at the beginning of the year, inflation faltered and declined perceptibly across the euro area. Growth remained dynamic in the Central European region. In line with the global inflation environment, the countries in the region are also characterised by inflation rates close to central bank targets. Central banks in the region maintained their loose monetary policy stance.

International financial market sentiment improved moderately in the past quarter. Market developments were mostly influenced by the French presidential election, the extension of OPEC's production cap, expectations about the economic policy of the United States, and the monetary policy statements of the Fed and the ECB. The ECB revised its inflation projection considerably downwards; consequently, market expectations point to persistently loose monetary conditions. Major risk indicators for equity and bond markets reflected a slight improvement in investor sentiment. As a result, stock market indices rose further, with the S&P 500 and DAX indices advancing to new peaks. In the past quarter the euro strengthened against most currencies. Oil prices were volatile during the period, but closed the quarter with a moderate decline overall. The latter can be partly attributed to growing US oil production and partly to the fact that the extension of OPEC's production cap to March 2018 had been already factored into market expectations.

Inflation is expected to reach the 3 percent level consistent with price stability in a sustainable manner half a year later, from early 2019.

In the spring months, inflation decelerated at a faster pace than expected in our March Inflation Report. In the case of core inflation, the difference resulted from the subdued monthly price dynamics of tobacco products, despite the excise tax increase, while in the case of non-core items, it reflected the lower-than-expected increase in prices of highly volatile seasonal foods. In line with expectations, the measures of underlying inflation remained stable. The expansion in domestic employment, the tight labour market as well as the increases in the minimum wage and the guaranteed minimum wage at the start of the year led to a general, dynamic rise in whole-economy wages. Over the forecast horizon, however, the cost-increasing effect of the rise in the minimum wage and in the guaranteed minimum wage is partly offset by the reduction of the corporate income tax rate and the employer's social contribution at the beginning of the year. In line with the central bank's expectations, these pay increases did not imply a perceivable inflationary effect. Services price inflation was broadly in line with that observed in the previous year. Households' inflation expectations remained at historically low levels. Based on the latest forecast of the European Central Bank, inflation in the euro area may prove to be considerably lower than previously forecast and is not expected to reach the 2 percent target even in 2019. Accordingly, the MNB foresees slightly more moderate domestic underlying inflation developments than expected previously. According to our current forecast, inflation may remain below the level indicated in our March projection both this year and next year. Inflation is expected to reach the 3 percent level consistent with price stability in a sustainable manner half a year later, from early 2019. The dynamic wage increase will result in a significant expansion in household consumption. In the assessment of the Monetary Council, in line with the pick-up in internal consumption core inflation will edge up gradually, but the moderate imported inflation and the historically low inflation expectations will slow the rise in the domestic price level.

Driven by the continued expansion in household consumption and the pick-up in investment activity, domestic demand will play an increasing role in economic growth.

We expect to see buoyant economic growth in the coming years accompanied by a continuous decline in the unemployment rate. In addition to rising employment, the prolonged expansion in household consumption is supported by dynamic real wage increases, historically high consumer confidence, previously accumulated net financial worth, the upswing in household lending and the second-round effects of the housing market recovery. Overall, the budget will exert a demand stimulating effect over the forecast horizon. We expect a general upswing in investment, which will be driven by the increase in the absorption of EU transfers and the pick-up in household investment. The dynamic increase in wages will encourage companies to invest in improving their efficiency. In addition, the expansion in investment will also be supported by vehicle industry developments, growth in the corporate loan portfolio and housing market processes. From the end of 2015, the expansion in lending to SMEs moved within the targeted 5–10 percent range. We expect a continued increase in total corporate lending, which will already be supported by the second phase of the Market-Based Lending Scheme this year.

We expect more dynamic growth in Hungary's key export markets and a marked upturn in external demand. From 2018, the build-up of new vehicle industry capacities will also buoy export dynamics, facilitating a further improvement in Hungary's export market share. The growth stimulating programmes of the MNB and the Government will result in stable annual economic growth of 3 to 4 percent over the coming years. With the gradual closure of the output gap, improving productivity and competitiveness will play an increasingly important role in the dynamic growth of the economy.

Owing to the strengthening of internal demand and the increasing use of EU funds, Hungary's net lending will stabilise at high levels, which continues to improve the external perception of the economy and contributes to a further decline in Hungary's vulnerability.

At the end of 2016, the external financing capacity of the economy dropped below 6 percent of GDP. This was mainly due to the subdued absorption of EU transfers, the impact of which was mitigated by the considerable surplus of goods and services and the decreasing deficit of the income balance. Looking ahead, internal demand and the rising transfer balance will play a key role in maintaining net lending at the current level over the long term. The surge in household consumption and private investment stimulates imports, which will facilitate a gradual decline in the trade balance and current account surplus. At the same time, the increased absorption of EU transfers will improve Hungary's external financing capacity significantly, providing a stable background for the further reduction of external vulnerability. Based on the developments observed at the beginning of 2017, the budget deficit may undershoot the target this year, while in 2018 we expect a deficit corresponding to the level indicated in the Budget Act. We continue to project an annual debt path that declines over the forecast horizon in accordance with the Fundamental Law and EU rules, supported both by economic growth and the moderate general government deficit.

Developments on the domestic financial market were primarily shaped by central bank measures, along with international bond market sentiment. In March, the MNB introduced new central bank instruments and expanded the forward guidance on monetary policy. As a result, market expectations point to the maintenance of the existing loose monetary conditions for a longer period than previously expected.

In March, the MNB decided to introduce swap instruments with an extended maturity of 6 and 12 months. Moreover, in its forward guidance it stressed that it intends to maintain the loose monetary conditions achieved through the change in monetary policy instruments for an extended period. Consequently, interest rate expectations for the coming years shifted downwards as market participants expect that the low interest rate environment will persist longer than expected before. The swap market implied forint yield curve also shifted downwards. Demand at government bond auctions was adequate, developments in yields were similar to secondary market trends, and issues exceeding the planned level took place in the case of longer-term securities. Primarily owing to the favourable European investor sentiment, by the end of the period the exchange rate of the forint against the euro appreciated slightly. Euro-area monetary conditions – the key determinants of domestic monetary policy – are expected to remain steadily accommodative.

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

In addition to the baseline projection in the June Inflation Report, the Monetary Council perceived downside risks that may arise primarily from the lower external inflation environment. In the assessment of the Monetary Council, stronger investment activity than assumed in the baseline scenario implies a positive risk to growth, resulting in faster-than-expected economic growth. In terms of inflation, this carries a neutral risk. In addition to the key risk scenarios, among possible further risks the Monetary Council discussed a number of alternative scenarios that envisage tighter-than-expected global monetary conditions, a more dynamic increase in consumption and more moderate external demand.

In the Council's assessment, some degree of unused capacity has remained in the economy, but this is likely to be absorbed gradually as output grows dynamically. Over the forecast period, the inflation target is expected to be achieved in a sustainable manner half a year later, from early 2019. If the assumptions underlying the Bank's projections hold, maintaining the current level of the base rate and loose monetary conditions achieved through the change in monetary policy instruments for an extended period is 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)

	2016	2017	2018	2019
	Actual		Projection	
Inflation (annual average)				
Core inflation	1.4	2.3	2.8	2.9
Core inflation without indirect tax effects	1.3	2.1	2.8	2.9
Inflation	0.4	2.4	2.8	3.0
Economic growth				
Household consumption expenditure	4.9	4.4	3.7	3.0
Government final consumption expenditure	0.6	0.5	1.0	1.0
Gross fixed capital formation ⁵	-12.6 (-15.5)	15.8	11.1	4.3
Domestic absorption ⁵	1.8 (1.5)	5.1	4.6	2.9
Exports	5.8	7.2	7.4	7.0
Imports ⁵	5.8 (5.7)	9.3	8.6	6.9
GDP ⁵	2.2 (2.0)	3.6	3.7	3.2
External balance¹				
Current account balance	4.9	3.1	1.8	2.2
External financing capacity	5.4	5.1	4.2	4.8
Government balance^{1,4}				
ESA balance	-1.8	(-1.8) – (-2.1)	(-2.4) – (-2.6)	(-2.0) – (-2.2)
Labour market				
Whole-economy gross average earnings ²	6.2	10.0	8.9	6.6
Whole-economy employment	3.4	1.9	0.8	0.3
Private sector gross average earnings ²	5.4	10.0	7.5	6.9
Private sector employment	3.4	2.3	1.6	0.5
Unemployment rate	5.1	4.2	3.8	3.8
Unit labour costs in the private sector	5.3	4.8	3.6	3.9
Household real income ³	4.2	4.7	3.8	2.5

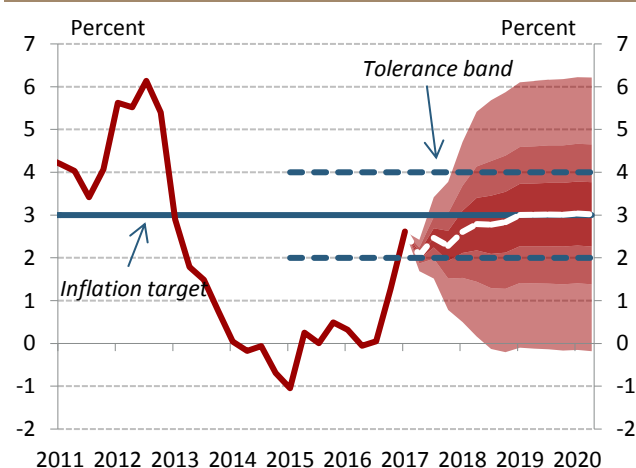
¹ As a percentage of GDP.² According to the original HCSO data for full-time employees.³ MNB estimate.⁴ The lower value of the forecast band shows the ESA balance if the Country Protection Fund will be used while the higher value shows the ESA balance if the Country Protection Fund is not used.⁵ Actual figures related to the year 2016 take into account the expected routine (excluding the effect of methodological changes) revision. The values in parentheses shows official data published on June 2017 by HCSO.

1. INFLATION AND REAL ECONOMY OUTLOOK

1.1. Inflation forecast

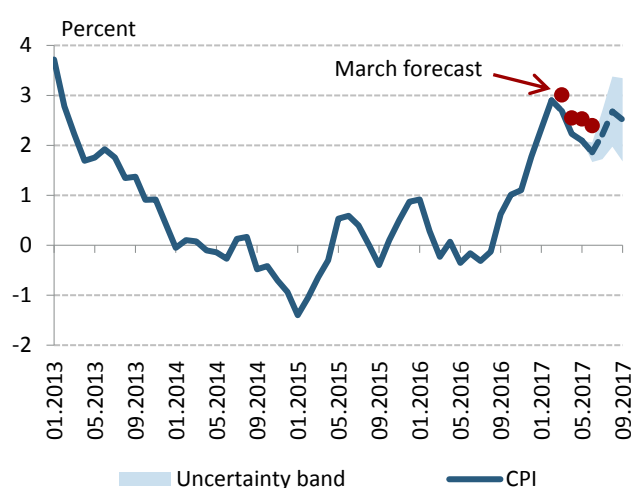
According to our current forecast, for both this year and next year we expect that inflation will be lower than projected in our March forecast. Compared to that forecast, achieving the inflation target was delayed by half a year, and the price index will reach the inflation target of 3 percent in a sustainable manner from the beginning of 2019. Based on the latest – downward revised – forecast of the European Central Bank, inflation in the euro area will be below the target this year, next year and in 2019 as well. Over our forecast horizon, the core inflation rate rises gradually, primarily owing to the dynamic expansion in household consumption resulting from an increase in incomes. However, the historically low expectations and moderate imported inflation restrain the increase in the price index.

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

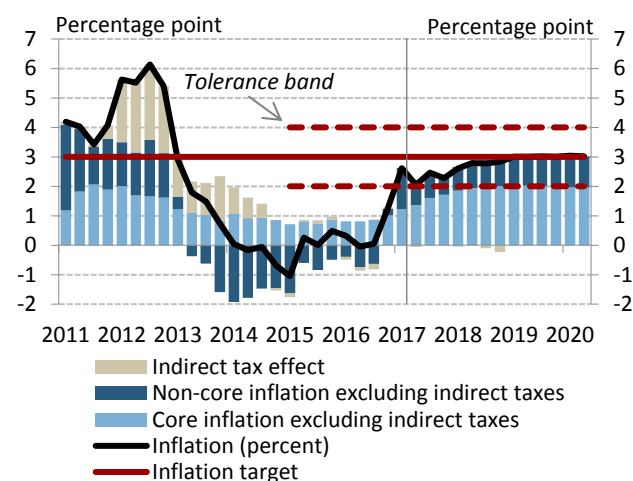
Based on our short-term forecast, inflation will be around 2-2.5 percent in the next months (Chart 1-2). The growth rate of prices will reach the inflation target of 3 percent of the central bank in a sustainable manner from the beginning of 2019 (Chart 1-1), and the timing of reaching this target was delayed by half a year compared to our March forecast. In line with the more subdued imported inflation compared with our previous expectation, a slightly lower inflationary basic process is estimated.

In the case of inflation in the euro area, which is Hungary's main foreign trade partner, the forecasts have decreased compared to previous expectations. Based on the latest forecast of the European Central Bank, inflation in the euro area will be below target this year, next year and even in 2019 as well. The ECB substantially lowered its forecast for inflation in the euro area compared to its previous forecast and now expects inflation of 1.5 percent this year followed by a further decrease next year. After this, moderate inflation of only 1.6 percent is expected in 2019 (Table 1-2).

Over the forecast horizon, the core inflation rate excluding indirect taxes will increase (Chart 1-3 and Table 1-1). The reason for this is that, as an effect of the rising incomes, the dynamic expansion in household consumption raises the pricing power of companies. At the same time, based on domestic and international experiences since the crisis, the inflationary effect of the faster consumption growth remains moderate. In our forecast, we project a slow rise in raw material costs, the second round effects of which might also appear in core inflation. Because of the administrative wage increases and the tight labour market conditions, the nominal wage dynamics of the private sector will be stronger than experienced in recent years, whereas the total labour cost of companies will increase by a smaller extent, as a result of the decrease in contributions at the beginning of the year. Thus, the inflationary effect of wage growth remains moderate.

In the case of the price index of non-core items, we expect a decrease in the price index in June (because of the base

Chart 1-3: Decomposition of the inflation forecast



Source: MNB

Table 1-1: Details of the inflation forecast

		2017	2018	2019
Core inflation		2.3	2.8	2.9
<i>Contribution to inflation</i>		<i>1.6</i>	<i>1.9</i>	<i>2.0</i>
Non-core inflation	Unprocessed food	0.7	5.4	7.8
	Fuel and market energy	6.9	3.1	3.3
	Regulated prices	0.5	1.6	1.5
	Total	2.4	2.7	3.2
<i>Contribution to inflation</i>		<i>0.8</i>	<i>0.9</i>	<i>1.0</i>
Inflation		2.4	2.8	3.0

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

Source: MNB

effect), but over the short-term price dynamics will remain moderate (Chart 1-3 and Table 1-1). Based on futures prices, a significant change in the price of oil, which fundamentally influences price dynamics for this product group, cannot be forecast. Future changes in unprocessed food prices are affected by the price reducing effect of last year's favourable harvest results and this year's agricultural performance, which is expected to be more subdued than last year. Furthermore, in our forecast regulated energy prices are not expected to change over the entire forecast horizon (Table 1-1).

All in all, the effects of indirect tax changes will offset each other in 2017, whereas in 2018 they point in the direction of a slight decrease in inflation. The effect on inflation from the changes in excise duty affecting tobacco products in January and July 2017 – (to be) implemented as a result of the legal harmonisation of the EU – are offset by the VAT decreases effective from January and the excise duty of fuels that decreased from April to the level of last September as well. Based on the latest information, **the VAT rate on internet and fish will be decreased to 5 percent in January 2018 from the current rates of 18 percent and 27 percent, respectively, thus increasing the effect of VAT decreases effective from January 2018.**

Box 1-1: Assumptions applied in our 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 related to such. The purpose of this brief presentation of the changes in the external assumptions is to make our forecasts more transparent (Table 1-2).

Table 1-2: Main external assumptions of our forecast

Technical Assumptions	2017		2018		2019		Change		
	March	June	March	June	March	June	2017	2018	2019
EUR/USD	1.06	1.10	1.06	1.12	1.06	1.12	3.8%	5.7%	5.7%
Oil (USD/barrel)	53.4	51.9	53.2	52.1	52.7	52.1	-2.8%	-2.1%	-1.1%
Food prices									
Wheat (USD/bushel)	4.61	4.40	5.18	5.04	5.52	5.42	-4.6%	-2.7%	-1.8%
Maize (USD/bushel)	3.81	3.73	4.05	4.02	4.13	4.13	-2.1%	-0.7%	0.0%
Euro area inflation (%)	1.7	1.5	1.6	1.3	1.7	1.6	-0.2 pp.	-0.3 pp.	-0.1 pp.
GDP growth of our main trading partners* (%)	1.6	2.2	1.8	2.3	2.0	2.4	0.6 pp.	0.5 pp.	0.4 pp.

Note: Annual average in the case of oil prices. *Growth rate of Hungary's 21 most important export partners, weighted by share in exports.

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

The price per barrel of Brent crude oil rose to above USD 55 in April, before declining to a level close to USD 45 in early May. The decline is explained by high global oil reserves as well as the rise in the number of wells operating in the United States and the resulting **major increase in US shale oil production**. The efficiency of shale oil production improved in the past period, and the increase in production by itself points to a price decrease. At the same time, agreements concerning the limiting of oil production had a price increasing effect. The quotas which were approved by OPEC member countries last November and entered into effect in January continued to be utilised by participating countries to a high degree (above 90 percent). Another OPEC meeting was held in Vienna on 25 May, where the agreement on restraining oil production was extended by an additional 9 months. At the same time, the OPEC members did not change the degree of output reduction (1.2 million barrels a day). On 15 May of this year, Saudi Arabia and Russia extended the oil production reduction agreement originally concluded for the first half of 2017 until March 2018. According to the statement issued by the two countries, they will bring down the level of global oil reserves to the average of the past five years, 'whatever it takes'. Consequently, the oversupply typical of the oil market has declined, and global oil inventories, which were close to historical highs, have declined to around two thirds since the beginning of the year, as Reuters was informed. As a result of the decline in oversupply and a pick-up in demand, the market practically reached a close-to-balance position according to the latest report of the International Energy Agency (IAE), and this trend is expected to continue in the remaining part of the year. **Futures prices, however, continue to project a restrained oil path.**

Based on the latest forecast of the European Central Bank, inflation in the euro area will be below the target this year, next year and even in 2019 as well. The ECB lowered its forecast for euro-area inflation by 0.2-0.3 percentage points compared to its previous forecast.

Based on our current assumption, we expect a moderately higher path for the EUR/USD cross rate compared to our March assumption, i.e. the euro is expected to be somewhat stronger compared to the previous forecast, but in a historical comparison we still reckon with a persistently weak euro exchange rate. Strengthening of the euro against the US dollar is prevented by the expected difference between the monetary policy stances of the European Central Bank and the Fed.

As in our assumptions applied in the March Inflation Report, looking ahead, gradual price increases are expected for both wheat and corn on the basis of futures prices. Rising inflation was observed in the global economy at the beginning of this year, which was caused by the oil price increase, which proved to be temporary, and the rise in unprocessed food prices early in the year.

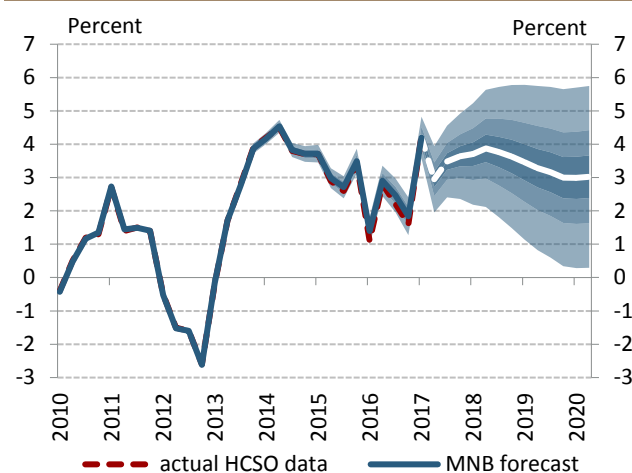
Within the framework of the amendment to the 2017 Budget Act, the Government decided on additional expenditures, reacting to the lower deficit data of the first four months. The budget bill submitted on 2 May 2017 contains additional expenditures amounting to HUF 176 billion. The expenditures mainly target an increase in government investment, which is also supported by the creation of the Investment Preparation Fund, as the Fund facilitates more efficient implementation of government projects. In addition, the measures include the renewal and modernisation of the national public road network as well as the renewal of the equipment of the Ministry of Defence. HUF 66 billion of the additional expenditures is added to the reserves; a decision on spending this amount may be made later.

The expenditure appropriations indicated in the 2018 Budget Act accepted in June are higher than our technical projections prepared for the March Inflation Report. On the revenue side of the 2018 Budget Act, new measures compared to the March Inflation Report are the reductions of the VAT rate on fish and internet usage as well as the phasing-out of the health care contribution on income from the lease of real estate. On the expenditure side, compared to our previous technical projection, higher amounts are envisaged for investment as well as wages and material expenditures, while savings are expected as a result of the intended reduction of the number of participants in the START work scheme.

1.2. Real economy forecast

Looking ahead we expect a significant increase in GDP. The basic processes will develop favourably, but technical effects (workday effect, expected correction of agriculture) may hamper the increase in GDP for the remainder of the year. Driven by a significant increase in private investment and the continued expansion in household consumption, stronger domestic demand is expected to play a key role in economic growth. The continuing expansion of household consumption is supported by the dynamic real wage increase, the historically high consumer confidence, the net financial wealth accumulated earlier, the increase in household lending, and the second round effects of the recovery of the housing market. We expect a general expansion in investments, which is supported by state investments implemented from EU funds and the increasing activity of the private sector. In line with capacity expansions in the vehicle industry, the programmes of the central bank and the considerable increase in SME loans, the investment activity of companies will strengthen, while the rise in household investments is supported by the more favourable income, lending and housing market developments. Moreover, the demand stimulating effect of the fiscal impulse will also foster domestic growth. In line with the end of temporary effects observed in industrial production last year and the improvement in the international economic atmosphere, we expect an increase in export performance.

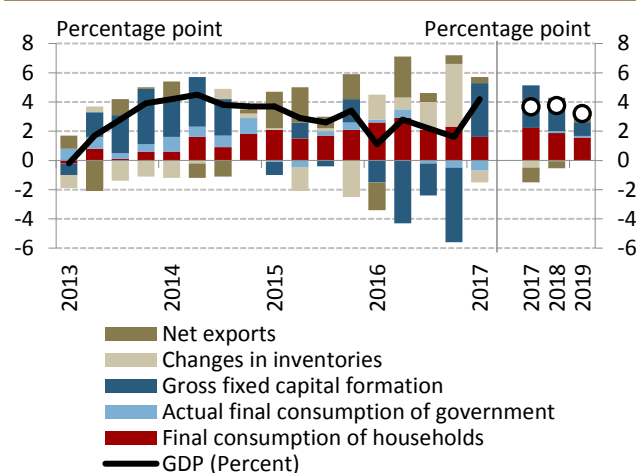
Chart 1-4: Fan chart of the GDP forecast



Note: The baseline forecast is based on backcast and nowcast adjusted by anticipated revisions.

Source: HCSO, MNB

Chart 1-5: Annual change in GDP



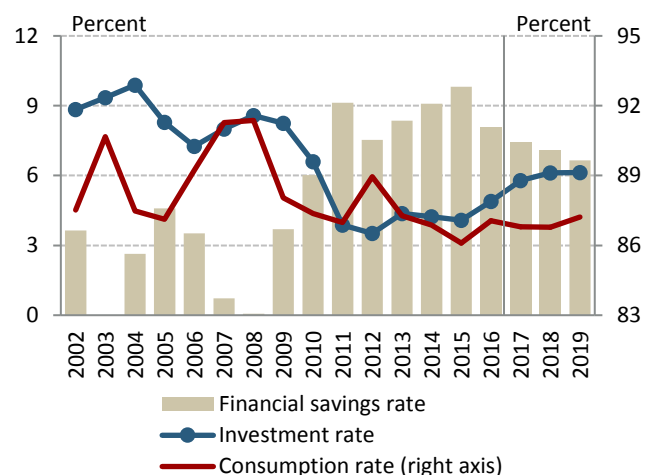
Note: The baseline forecast is based on backcast and nowcast adjusted by anticipated revisions.

Source: HCSO, MNB

Over the forecast horizon, household consumption is projected to continue expanding and will thus remain a key factor behind economic growth. Favourable income developments related to the significant wage outflow and the continuing expansion of employment support the increase in consumption. Moreover, the historically high level of consumer confidence, the high level of net financial wealth accumulated earlier, and the increase in household lending all contribute to the expansion of household consumption (Chart 1-7). Looking ahead, we expect steady growth in lending, implemented in a healthy structure, in the household sector, since the risk of over-lending is limited by the central bank's debt cap rules: the payment-to-income ratio and the loan-to-value ratio keep the risks of lending for housing in a sustainable channel. The second round effects of the recovery of the housing market also contribute to the steady increase in consumption, and these are also facilitated by consumer-friendly housing loans going forward. The potential of correction stemming from consumption postponed after the crisis points in the direction of increasing consumption, which is also supported by the moderate level of the consumption rate, and the level of purchasing durable goods which is low both historically and in a regional comparison (Chart 1-5).

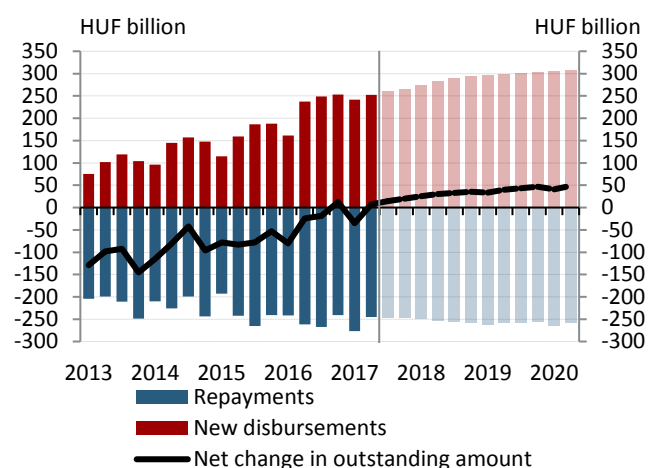
In our previous forecast we expected a joint and gradual increase in the consumption and investment rate of households. **According to our current expectations consumption will increase proportionally with incomes, whereas the increase in the investment rate will continue more intensely than previously forecast, in parallel with the upswing in the housing market cycle.** At the same time, the savings rate will continue to fall from its current high level (Chart 1-6).

Chart 1-6: Evolution of households consumption, investment and financial savings rates as a percentage of disposable income



Source: HCSO, MNB calculation

Chart 1-7: Forecast for household lending



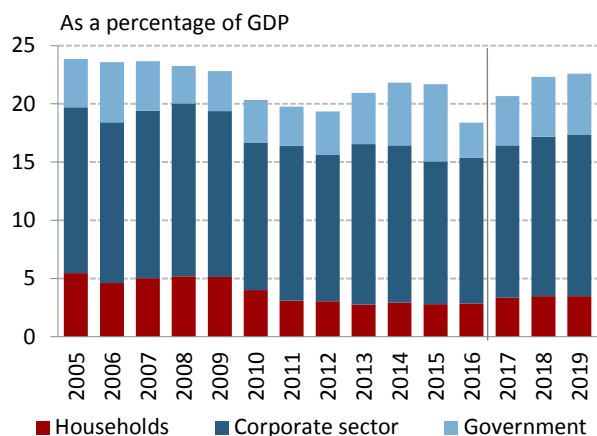
Source: MNB

According to our expectations, the increase in whole-economy investment will continue in the coming years as well, after the significant increase at the beginning of the year, supported by both the public and the private sectors (Chart 1-8). In line with the payment of advances, the concluded contracts and the government's commitments, the upturn in investments implemented from the use of EU funds is expected. In addition to the significant expansion of state investment activity, the 2014–2020 EU budget cycle also has a stimulating effect on corporate investments as well. When examining investments backed by EU funds, it is also essential to take into account qualitative characteristics alongside quantitative ones. In the 2014–2020 EU budget cycle, direct economic development has a significantly greater weight. At the end of the forecast horizon, the preliminary activities of the Paks investment will start, but the substantial increase in investments will affect only the subsequent years.

According to our forecast, the increase in SME loans outstanding will be within the sustainable 5–10 percent range (Chart 1-9). In addition to the planned capacity expansions in the vehicle industry, in line with the programmes of the central bank and the significant expansion of SME loans, we expect stronger underlying investment processes in the private sector. As a second round effect of capacity expansions, we expect the increase in the investments of sectors closely related to the vehicle industry. The central bank's steps aimed at stimulating market-based lending – such as the second phase of the Market-based Lending Scheme – and the gradual elimination of the bank levy will support the increase in the loan portfolio, and thus, in parallel with the improvement of demand prospects, we expect an increase in corporate investments. The dynamic increase in wages and demand starts a positive feedback on the side of corporate investments as well, and moreover, the low interest rate environment will stimulate investment activity significantly.

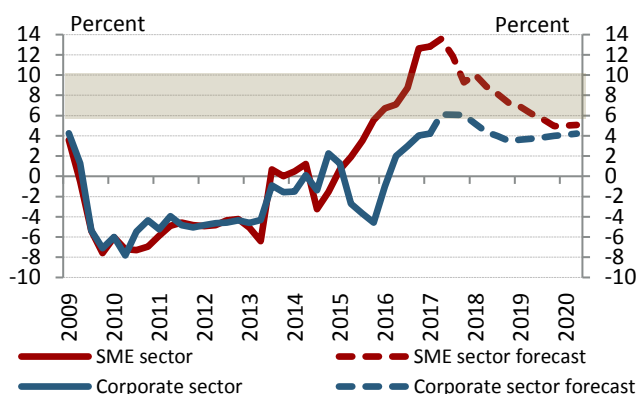
The rise in households' investment activity is fostered by stable labour market prospects and improving income trends, along with the demand stimulating effect of the home creation programme. A surge in household investments is suggested by the significant increase in the number of building permits, the continuing increase in household lending for residential purposes, and utilisation of the family home purchase subsidy scheme. The housing market cycle is reaching an increasingly mature phase, where the adjustment of supply to the elevated housing market demand is already taking place. The significant growth reserves in the Hungarian housing market support

Chart 1-8: Evolution of investment rate by sectors



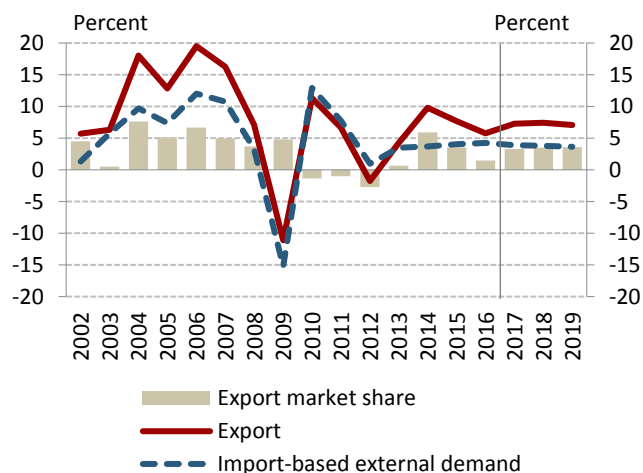
Note: Values for 2016 take into consideration the effect of the routine (excluding the effect of methodological changes) revision.
Source: HCSO, MNB

Chart 1-9: Annual changes in lending to non-financial corporates and SMEs



Note: Transaction-based, year-on-year data.
Source: MNB

Chart 1-10: Changes in export market share



Note: Annual change.
Source: MNB

the expected continuation of the upswing on the housing market. We expect a permanent increase in the investment rate of households in the coming years.

In parallel with the improved international economic atmosphere at the beginning of the year and the related upswing in external demand, we expect a stronger increase in exports this year. We expect export growth to improve further from 2018 as new vehicle industry capacities are built (Chart 1-10). We project an increase in domestic industrial production and export sales and a rise in trade. The dynamic expansion of trade in services, which is less dependent on economic cycles and external financing, continues as well, and this positively contributes to the change in the foreign trade balance. The dynamic expansion in factors of domestic demand (consumption, investment) will strongly boost import dynamics, as a result of which net exports will contribute negatively to economic growth this year and next year.

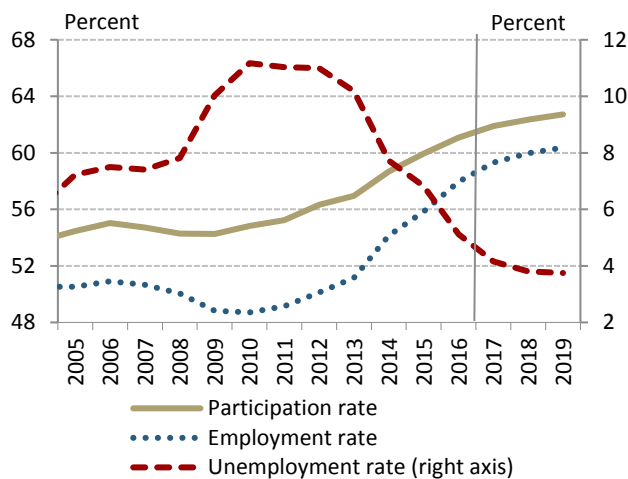
After last year's outstanding agricultural performance, the contribution of the sector to GDP growth may be negative this year. Currently, we do not have accurate information on agricultural production this year, so we are counting on the average yield of previous years, which results in a correction from last year's value. Furthermore, the frosts at the beginning of the year and the relatively low precipitation may have decreased this year's crop, and the planned crop area of the main grains was also smaller than last year.

Potential growth will pick up over the forecast horizon, primarily due to an expansion in private sector investment and a rising trend in labour market activity. The dynamic growth in corporate investment to increase the capital stock and expand capacities is fostered by the Growth Supporting Programme, the decline in the bank levy and the EU funding available for enterprises. The pick-up in lending contributes to the improvement in productivity as well. Labour market activity will increase slightly at the beginning of our forecast horizon before levelling out at a historically high level.

1.3. Labour market forecast

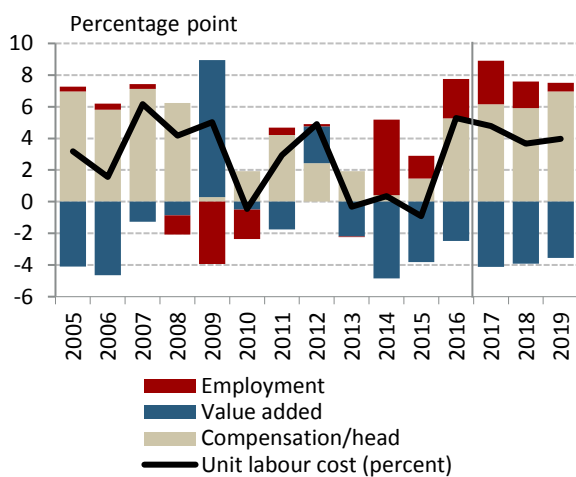
Over the forecast horizon, the level of employment of the national economy and the private sector, will continue to rise, but at a slower pace. The decline in the unemployment rate – which is currently at a historic low level – will continue. The continued high labour demand of the private sector and the tightening of available labour capacities will result in stronger wage dynamics, with the significant minimum wage and guaranteed wage minimum increases also making contribution in this regard. On the whole, over the forecast horizon nominal private sector wage growth will be stronger compared to past years.

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



Source: MNB calculations based on HCSO data

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



Source: MNB calculations based on HCSO data

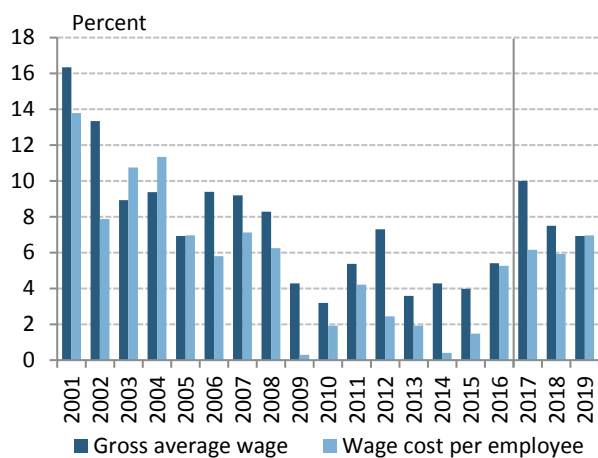
We expect participation to continue growing in the years ahead, but more slowly than in the past years. The inflow to the labour market of inactive people, with closer ties to the labour market, is contributing to the increase in the number of active people, but demographic processes render the increase in activity more and more restricted from above (Chart 1-11). According to our expectations, as a result of the strong wage growth, the emigration of the skilled workforce may slow down. Furthermore, the increasing difference between the wages in the public employment schemes and the ones achievable in the private sector may better encourage public workers to appear in market-based employment. Moreover, as a result of the government measures restricting public employment, which come into effect in 2018, and the decrease in the budget limit, planned for 2018, public employment will decrease, and a significant portion of the people exiting the programme may find employment in the private sector.

Over the forecast horizon, labour demand in the private sector will increase further, in parallel with continued economic growth. At the same time, due to bottlenecks, **the number of people employed in the private sector will rise at a slower rate** compared to the robust increase observed in recent years.

As employment continues to rise, unemployment, which is already at a historical low, will continue to decrease. Due to declining free labour capacities, increasing wage competition is emerging both between companies and sectors in order to fill open positions and to retain the current workforce, which will lead to a gradual increase in the nominal wage dynamics of the private sector. However, unit labour costs will increase to a smaller extent, due to the strong economic performance (Chart 1-12). Wage developments are significantly strengthened by administrative measures primarily in 2017, but, to a lesser degree, in 2018 as well. Increasing the minimum wage and the guaranteed wage minimum affect a considerable part of employees directly, moreover, we expect a significant spill-over effect as well in order to avoid wage congestion. On the whole, **nominal wage growth in the private sector will be stronger compared to the past years.** The administrative measures have an indirect effect on the changes in non-

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Chart 1-13: Evolution of wage cost and gross average wage in the private economy



Note: Seasonally adjusted data.

Source: MNB calculation based on HCSO data

regular income elements as well, and may also result in a significant whitening impact. As an effect of the decrease in social contribution tax, unit labour costs will increase at a slower rate compared to nominal wages (Chart 1-13).

Box 1-2: Expected balance sheet policy of major central banks

In the past period, increased attention was paid to the expected balance sheet policy of major central banks. At the 13-14 June rate-setting meeting the FOMC issued an addendum¹ to the Policy Normalization Principles and Plans issued 17 September 2014,² in which the FOMC outlined the strategy for the rate increase and the necessary restructuring of monetary policy instruments.³ The ECB is continuing the asset purchase programme at the current pace until the end of this year. Analysts expect the Fed to begin shrinking its balance sheet in late 2017 or early 2018, and the ECB's asset purchases to slow down in the first quarter of 2018.

In the United States, during the quantitative easing the Fed's balance sheet total increased from USD 850 billion in 2008 to nearly USD 4.5 trillion by October 2014 (the end of asset purchases). At present, the Fed decides on the reinvestment of maturing securities at the interest rate decisions. **At its recent meetings, the FOMC has started to discuss the strategy of changing the FOMC's policy of reinvesting principal payments from securities held in the SOMA and issued a press release disclosing its details on 17 June.** According to the gradual and predictable balance sheet normalization approach, the FOMC will announce quantitative caps on the dollar amounts of securities that will be allowed to run off each month. By increasing the limits gradually, reinvestments will decline. In the addendum released at the June rate-setting meeting, the FOMC agreed that for payments of principal from maturing Treasury securities, the cap will be USD 6 billion per month initially and will increase in steps of USD 6 billion at three-month intervals over 12 months until it reaches USD 30 billion per month. For payments of principal from agency debt and mortgage-backed securities the cap will be USD 4 billion per month initially and will increase in steps of USD 4 billion at three-month intervals over 12 months until it reaches USD 20 billion per month. According to the press release, the reduction of the Fed's holdings of Treasury and agency securities will commence once the normalization of the level of the federal funds rate is well under way. According to the

¹ <https://www.federalreserve.gov/newsevents/pressreleases/monetary20170614c.htm>

² <https://www.federalreserve.gov/newsevents/pressreleases/monetary20140917c.htm>

³ For more detail, see the special topic in the September 2015 Inflation Report.

findings of the surveys conducted by the New York Fed,⁴ primary dealers expect that the Fed will decide on the modification of the asset composition and changing the current reinvestment policy in late 2017 or early 2018.

Portfolio normalization may be a long process in view of both its size and structure, because the weight of long-term Treasury and agency debt and mortgage-backed securities increased as a result of the asset purchases and the Maturity Extension Programme (MEP). According to the respondents to the New York Fed survey, by end-2025 the balance sheet may decline to nearly two thirds of the current level, and may exceed the pre-crisis level to some extent in the long run.

According to market analyses, as a result of an expected gradual decrease in assets and the average time to maturity, yields may rise in the coming years. However, the balance sheet reduction is not expected to directly influence the effective federal funds rate, as that is essentially determined by the central bank base rate. As presumably for several more years the so-called ‘floor system’ will continue to be in effect, i.e. there will be unsterilized excess liquidity in the banking system, the interbank rate may remain at the bottom of the interest rate corridor (at the level of the central bank base rate). The liquidity of the banking sector does not affect the central bank base rate directly until liquidity becomes so tight that the interbank rate rises from the bottom of the interest rate corridor.

In March 2015, the European Central Bank expanded its asset purchase programme and then in December 2015 it indicated that the principal payments of the maturing securities purchased within the framework of the programmes would be reinvested. As a result of the asset purchases, the balance sheet of the central bank rose from EUR 2.2 trillion at end-2014 to EUR 4 trillion by May 2017. Based on the indication⁵ by the Governing Council of the ECB, the asset purchase programme will continue at the current monthly pace of EUR 60 billion until the end of December 2017, or beyond, if necessary.

The reduction of the ECB’s asset purchases may commence soon. However, official central bank communication has not indicated the possible time and pace of balance sheet tightening. According to analysts’ expectations, the ECB may announce the reduction of the quantity of the asset purchase programme at the September meeting and the central bank may start the actual tapering in early 2018 and may end after 6–9 months. The first interest rate hike may take place at the end of 2018 implied by market expectations from interest rate derivatives. Reducing the central bank balance sheet may take place after that, in a third phase.

Changes to the balance sheets of other globally important central banks is also surrounded by similar or even greater uncertainty. Future steps related to central bank balance sheets are uncertain because of the impacts of Brexit in the case of the Bank of England, the narrow scope of the additional securities that can be purchased in connection with the quantitative and qualitative easing programme of the Bank of Japan, as well as developments in FX reserves and the growth rate of credit in the financial system in the case of the Chinese central bank.

Following the Fed, the ECB may also stop purchasing assets in the near future, and the tightening of central bank balance sheets may also take place gradually at globally important central banks. In the coming period, developments in central bank balance sheets as well as the monitoring of their impacts on the macroeconomy and the financial market may be extremely important.

⁴ <https://www.newyorkfed.org/medialibrary/media/markets/survey/2017/may-2017-spd-results-public-release.pdf?la=en>

⁵ <https://www.ecb.europa.eu/press/pr/date/2017/html/ecb.mp170608.en.html>

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

	2016	2017		2018		2019	
	Actual	Projection					
		March	Current	March	Current	March	Current
Inflation (annual average)							
Core inflation	1.4	2.5	2.3	3.1	2.8	2.9	2.9
Core inflation without indirect tax effects	1.3	2.3	2.1	2.9	2.8	2.9	2.9
Inflation	0.4	2.6	2.4	3.0	2.8	3.0	3.0
Economic growth							
External demand (GDP-based)	2.4	1.6	2.2	1.8	2.3	2.0	2.4
Household consumer expenditure	4.9	5.1	4.4	4.0	3.7	3.0	3.0
Government final consumption expenditure	0.6	1.0	0.5	1.0	1.0	0.9	1.0
Gross fixed capital formation ⁵	-12.6 (-15.5)	13.2	15.8	8.7	11.1	4.3	4.3
Domestic absorption ⁵	1.8 (1.5)	5.4	5.1	4.3	4.6	2.8	2.9
Exports	5.8	5.1	7.2	6.2	7.4	6.2	7.0
Imports ⁵	5.8 (5.7)	7.2	9.3	7.0	8.6	6.1	6.9
GDP ⁵	2.2 (2.0)	3.6	3.6	3.7	3.7	3.2	3.2
External balance¹							
Current account balance	4.9	3.3	3.1	2.4	1.8	2.9	2.2
External financing capacity	5.4	5.4	5.1	4.9	4.2	5.6	4.8
Government balance^{1,4}							
ESA balance	-1.8	(-1.6) – (-2.0)	(-1.8) – (-2.1)	(-2.0) – (-2.2)	(-2.4) – (-2.6)	(-1.8) – (-2.0)	(-2.0) – (-2.2)
Labour market							
Whole-economy gross average earnings ²	6.2	9.1	10.0	7.0	8.9	6.6	6.6
Whole-economy employment	3.4	1.9	1.9	1.1	0.8	0.4	0.3
Private sector gross average earnings ²	5.4	8.5	10.0	6.9	7.5	6.8	6.9
Private sector employment	3.4	2.3	2.3	1.4	1.6	0.7	0.5
Unemployment rate	5.1	4.3	4.2	3.8	3.8	3.8	3.8
Private sector unit labour cost	5.3	5.0	4.8	3.0	3.6	3.5	3.9
Household real income ³	4.2	4.5	4.7	3.8	3.8	2.5	2.5

¹ As a percentage of GDP.

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

³ MNB estimate.

⁴ The lower value of the forecast band shows the ESA balance if the Country Protection Fund will be used while the higher value shows the ESA balance if the Country Protection Fund is not used.

⁵ Actual figures related to the year 2016 take into account the expected routine (excluding the effect of methodological changes) revision. The values in parentheses shows official data published on June 2017 by HCSO.

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

	2017	2018	2019
Consumer Price Index (annual average growth rate, %)			
MNB (June 2017)	2.4	2.8	3.0
Consensus Economics (May 2017) ¹	2.3 – 2.7 – 3.3	1.5 – 2.9 – 3.5	
European Commission (May 2017)	2.9	3.2	
IMF (April 2017)	2.5	3.3	3.0
OECD (June 2017)	3.0	3.0	
Reuters survey (May 2017) ¹	2.2 – 2.5 – 3.0	2.1 – 2.9 – 3.5	2.3 – 2.9 – 3.5
GDP (annual growth rate, %)			
MNB (June 2017)	3.6	3.7	3.2
Consensus Economics (May 2017) ¹	2.3 – 3.3 – 3.9	2.2 – 3.2 – 4.1	
European Commission (May 2017)	3.6	3.5	
IMF (April 2017)	2.9	3.0	2.6
OECD (June 2017)	3.8	3.4	
Reuters survey (May 2017) ¹	2.9 – 3.5 – 3.8	2.3 – 3.3 – 4.0	
Current account balance³			
MNB (June 2017)	3.1	1.8	2.2
European Commission (May 2017)	3.5	2.8	
IMF (April 2017)	3.7	3.0	2.2
OECD (June 2017)	3.6	2.1	
Budget balance (ESA 2010 method)^{3,4}			
MNB (June 2017)	(-1.8) – (-2.1)	(-2.4) – (-2.6)	(-2.0) – (-2.2)
Consensus Economics (May 2017) ¹	(-0.4) – (-2.3) – (-2.8)	(-0.3) – (-2.4) – (-3.0)	
European Commission (May 2017)	-2.3	-2.4	
IMF (April 2017)	-2.9	-2.8	-2.7
OECD (June 2017)	-2.6	-2.7	
Reuters survey (May 2017) ¹	(-1.7) – (-2.4) – (-2.8)	(-2.3) – (-2.5) – (-3.0)	
Forecasts on the size of Hungary's export markets (annual growth rate, %)			
MNB (June 2017)	3.9	3.8	3.7
European Commission (May 2017) ²	4.9	5.0	
IMF (April 2017) ²	4.5	4.4	4.6
OECD (June 2017) ²	4.8	4.4	
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (June 2017)	2.2	2.3	2.4
Consensus Economics (May 2017) ²	2.2	2.1	
European Commission (May 2017) ²	2.2	2.3	
IMF (April 2017) ²	2.2	2.1	2.0
OECD (June 2017) ²	2.3	2.2	

¹ For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies (i.e. the median value), we also indicate the lowest and the highest values to illustrate the distribution of the data.

² Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.

³ As a percentage of GDP.

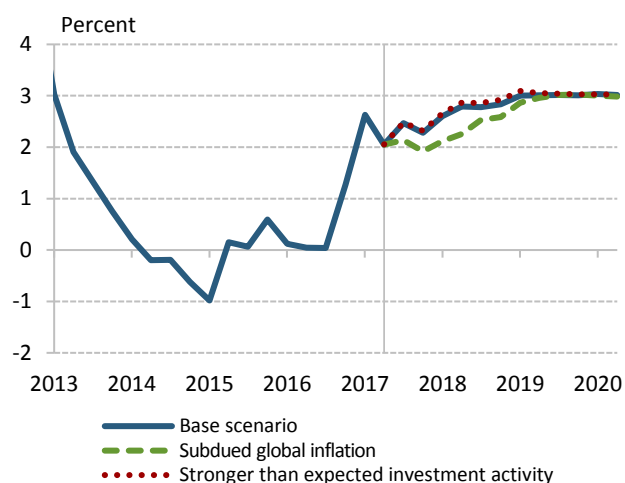
⁴ The lower value of the forecast band shows the ESA balance if the Country Protection Fund will be used while the higher value shows the ESA balance if the Country Protection Fund is not used.

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

2. EFFECTS OF ALTERNATIVE SCENARIOS ON OUR FORECAST

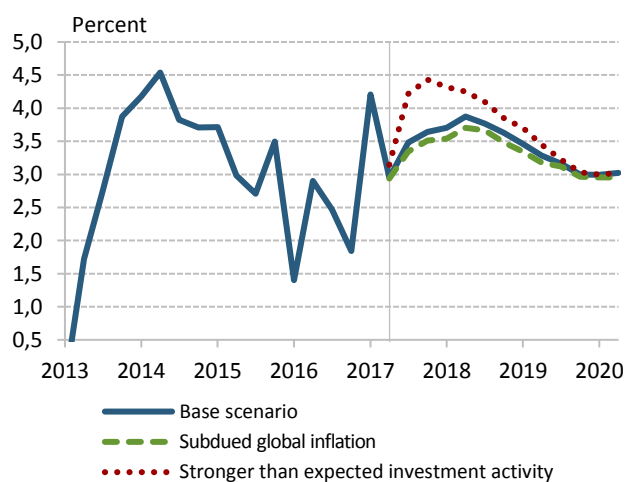
In addition to the baseline projection in the June Inflation Report, the Monetary Council highlighted two alternative scenarios. Taken together, relative to the baseline scenario, they represent a downward deviation in inflation and an upward deviation in GDP growth. Realisation of the alternative scenario that assumes more moderate global inflation means lower growth and inflation paths than in the baseline scenario. As a result of the scenario assuming stronger-than-expected investment activity, domestic economic growth will be more robust than, whereas inflation will be identical with the forecast of the baseline scenario. Along with the key risk scenarios, among the other possible risks the Monetary Council also discussed alternative scenarios assuming tighter-than-expected global monetary conditions, more dynamic expansion in consumption, and lower external demand.

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



Source: MNB

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



Note: The baseline forecast is based on backcast and nowcast adjusted by anticipated revisions.

Source: MNB

2.1.1. More moderate global inflation

After the increase at the beginning of the year, there was a correction in the development of global inflation. The correction after the values approaching and even exceeding the inflation targets at the beginning of the year indicates that the rapid increase may be connected to non-core items. In contrast to the fluctuations in inflation, core inflation rates are subdued and remain steadily lower than the inflation targets.

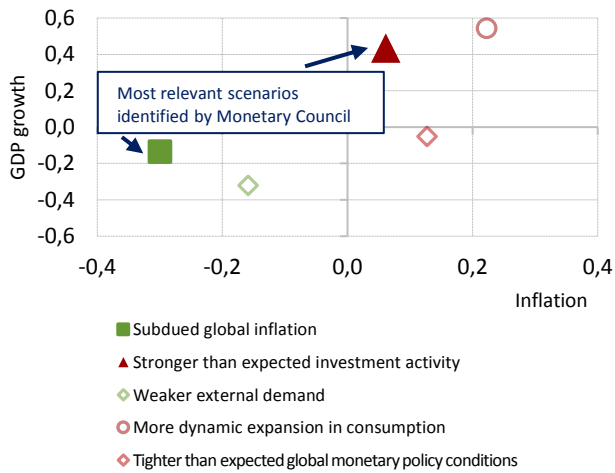
Forecasts regarding the external inflation environment have been revised downward and additional risks may arise. Of the factors determining global inflation, the development of oil prices has been weaker than expected in recent months. **The price of Brent crude oil decreased to a level close to USD 45 at the beginning of May**, a level not seen since November 2016. Looking ahead, based on futures prices, USD-denominated oil prices suggest a slowly increasing oil price path. Assuming that the correction at the beginning of the year will be lasting, it is likely that **inflation rates will approach central banks' target values more slowly.** In the alternative scenario, in addition to the cost-side factors growth of Hungary's export markets may be somewhat weaker than expected. The relation between confidence indicators and the production of the export sectors have eased (Box 3-2.), thus, compared to the baseline scenario, we expect more moderate growth in Hungary's external markets.

According to the assumption of the **alternative path**, a **moderation is being seen** in the global inflation environment, which is critical in terms of the Hungarian economy, and thus inflation will increase slower than in the baseline projection, **which restrains the increase in the domestic price index.** Thus, achievement of the inflation target is ensured by looser monetary policy (Charts 2-1, 2-2 and 2-3).

2.1.2. Stronger-than-expected investment activity

In recent years, funds received from the European Union have had a major impact on the dynamics of investments.

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

The effective, actually utilised EU subsidies were in line with the forecast of the March Inflation Report during the first four months of the year. **According to the assumption of the baseline projection**, effective fund absorption may increase significantly this year. **The absorption of funds and the expansion of private investments** contribute to the increase in economic growth.

The expected changes in private sector investments are surrounded by upside risks. This year, the increase in effective absorption will contribute strongly to the increase in economic growth. The rise in effective absorption will be attributable to the higher level of invoice-based disbursements compared to the previous year and to the commencement of the absorption of the advances disbursed in 2016. **The stronger underlying development of private sector investment activity also points to an upturn in investments.** The low interest rate environment, the strong wage growth at the beginning of the year and the dynamic increase in demand may encourage companies to implement efficiency increasing investments, which is also supported by the decrease in the relative price of capital. Household investment activity has increased further, which may continue in parallel with the dynamic expansion of new residential construction. Moreover, the strengthening economic growth of Hungary's major export markets may encourage the investment activity of the export sector as well. In addition to the announced capacity expansions in the vehicle industry, the significant rise in SME loans may also bolster the investment activity of the private sector.

According to the assumption of the alternative scenario, as a result of the absorption of EU funds and **the significant increase in private sector investments, investment activity may be stronger.** Because of the increase in the total value of investments, **this results in faster growth** (Charts 2-1, 2-2 and 2-3) over the forecast horizon, and thus, all in all, achievement of the inflation target is ensured by slightly tighter monetary conditions.

2.1.3. Other risks

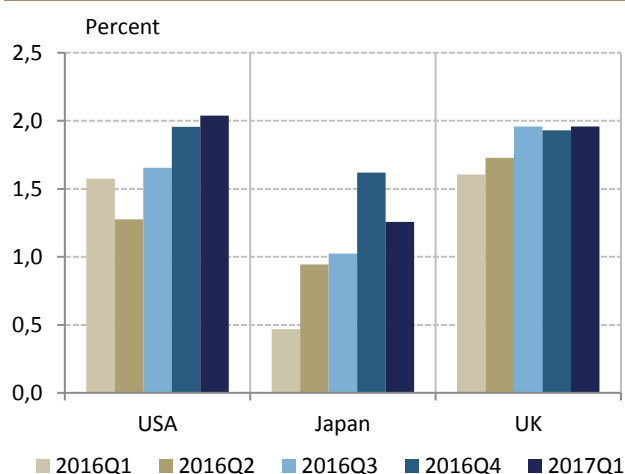
Along with the key risk scenarios, the Monetary Council also considered three additional risks. If global monetary conditions are tighter than expected, inflation will be slightly higher than the forecast of the baseline projection, while domestic economic growth will be in line with the assumption of the baseline projection. The risk scenario assuming more dynamic expansion in consumption points at the direction of higher inflation and faster growth. In the case of lower external demand, inflation and growth will be lower than forecast in the baseline projection.

3. MACROECONOMIC OVERVIEW

3.1. Evaluation of international macroeconomic developments

Global economic growth continued in 2017 Q1, although there are considerable disparities among regions. The Central and Eastern European region continued to show dynamic expansion. Global inflation was stagnant in the past months, and the consumer price index was close to the central bank target in several countries. Meanwhile, core inflation, which had been mostly below the headline inflation figure, slightly rose in some countries. At the same time, the ECB lowered its inflation forecast. The divergence between the monetary policies of the world's leading central banks may remain in place during the year. The major central banks continue to better tolerate higher inflation and are consequently able to maintain loose monetary conditions for a longer time.

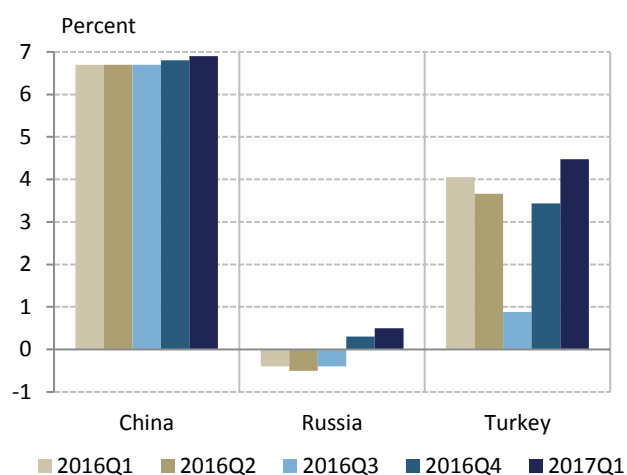
Chart 3-1: Annual changes in GDP in certain globally important economies



Note: Seasonally adjusted series.

Source: OECD

Chart 3-2: Annual changes in GDP in some emerging economies



Note: In the case of China and Turkey seasonally adjusted series.

Source: OECD, Trading Economics

3.1.1. Developments in globally important economies

Real GDP continued to grow in the United States in 2017 Q1.

Household consumption, investment and exports expanded, offsetting the decline in inventory investment and government expenditures as well as the increase in imports. The slowdown in growth compared to the previous quarter is primarily attributable to a decline in inventory investment and a more restrained expansion in household consumption. However, the deceleration observed early in the year is expected to be only temporary. **Quarterly growth in the United Kingdom was explained by a rise in consumption and investment.** Brexit and its unclear circumstances continue to significantly impair medium-term growth prospects. **Quarterly expansion in the Japanese economy was stronger than in the previous quarter.** Growth was primarily driven by consumption, although the contributions of investment and net exports were also positive (Chart 3-1).

Of the major emerging countries, the Chinese economy recorded year-on-year growth of 6.9 percent in 2017 Q1.

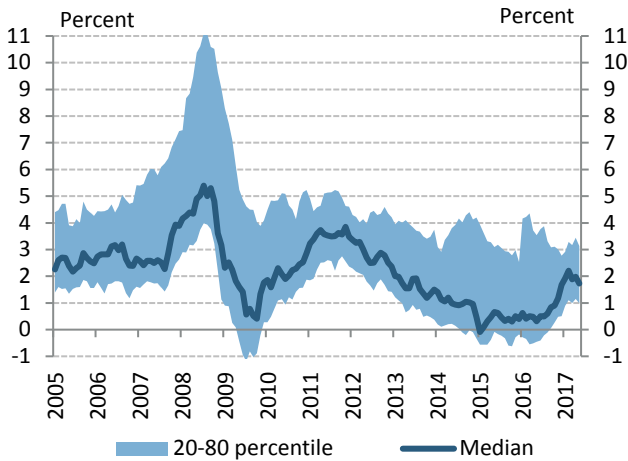
This was supported by services and industrial production. Moderate growth was registered in the Russian economy in 2017 Q1, while output in Turkey accelerated, exceeding analysts' expectations (Chart 3-2).

Annual inflation came to a halt or declined again in certain regions following an increase late last year and early this year (Chart 3-3). In the past months, inflation reached values close to the central bank targets in several countries (Chart 3-4). At the same time, core inflation, which had been mostly below the headline inflation figure, rose slightly in some countries.

At the June meeting, following an assessment of economic developments and prospects, the decision-makers of the Fed decided to raise the policy rate to the 1.00-1.25 percent range.

The decision was in line with analysts' expectations. According to the decision-makers, another rate increase is expected this year. At the meeting, the Fed supplemented its September 2014 statement on monetary policy

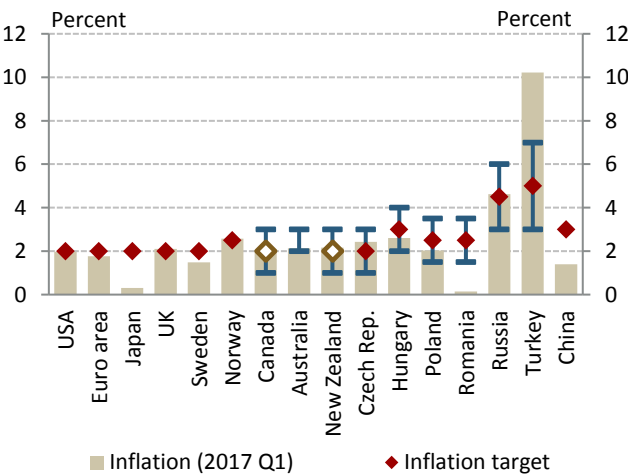
Chart 3-3: Global inflation developments



Note: Percentage change on the same period of the previous year, based on 43 developed and emerging countries' data.

Source: OECD

Chart 3-4: Inflation targets of 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 actual, which is marked by an empty diamond.

Source: OECD, FRED, National Institute of Statistics Romania

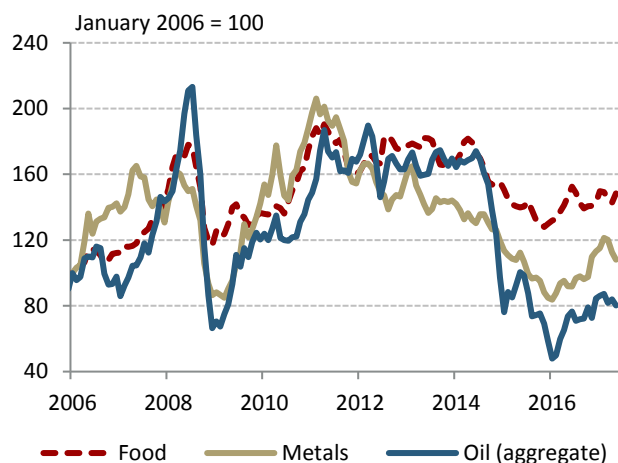
normalisation, in which it outlined its strategy to prepare interest rate hikes and details on the necessary changes in the monetary policy instrument set with remaining surplus liquidity. The addendum to the statement also includes details on the future balance sheet reduction strategy. In view of the continued extremely supportive monetary policy of the ECB and the Fed's interest rate hike, the divergence between the two central banks' interest rate paths is expected to remain. Developments in inflation and the unemployment rate are also in line with the Fed's dual mandate. Overseas yields declined slightly, while stock exchange indices are close to historically high levels.

In the past quarter, the Bank of Japan did not change monetary conditions and continues to adjust its Quantitative and Qualitative Easing Programme to the 0 percent long-term yields. The central bank maintained its annual purchases target at a total of JPY 80 trillion, which is necessary for achieving the yield target, and continues to pay minus 0.1 percent interest on commercial banks' excess reserves. The commitment to overshoot the inflation target has remained a part of the central bank communication. As a result of the asset purchases, the balance sheet total of the Bank of Japan is continuing to increase, and may already exceed 95 percent of Japanese GDP in 2017.

The decision-makers of the Bank of England left monetary conditions unchanged in the past quarter. At their June meeting, they decided to keep the Bank Rate unchanged and continue the measures announced in August 2016 in an unchanged form. In the decision-makers' assessment, monetary policy may not prevent the necessary adjustment of the British economy following Brexit or the weaker increase in real incomes expected for the coming years. In the event of an interest rate hike due to the inflationary effect of exchange rate weakening, weaker growth and higher unemployment would materialise, and therefore they still considered it appropriate to reach the inflation target over a longer-than-usual horizon. They expect inflation to increase to above 3 percent in autumn, and to remain above the central bank target over an extended period.

Global financial markets were characterised by slightly improving sentiment during the past quarter. Market indicators had mainly been affected by the French presidential election, the expansion of the OPEC production cap, expectations concerning economic policy in the United States, the communication and decisions of the Fed and the ECB, as well as country-specific developments related to certain emerging markets. Emmanuel Macron, the winner of the French presidential election, called for stronger

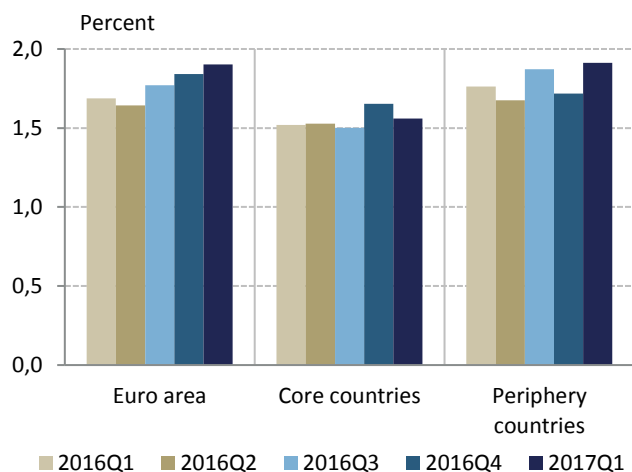
Chart 3-5: Major commodity price indices



Note: Calculated from prices in USD.

Source: IMF

Chart 3-6: Annual changes in euro area GDP



Note: Seasonally and calendar adjusted series, weighted mean by GDP. Periphery countries (Portugal, Italy, Greece, Spain); Core countries (Belgium, Germany, France, Netherlands, Austria).

Source: OECD, Eurostat

European integration, and markets welcomed his election. Oil prices declined slightly, mainly reflecting the increase in US production and the fact that OPEC extended the agreement on the production cap until March 2018, which had already appeared in market expectations (Chart 3-5). In the case of the ECB, analysts reckon with the deceleration of the asset purchase programme first, which is expected to be communicated during the September interest rate decision. The first interest rate hike is likely to take place in the euro area only after that, around the third quarter of 2018, although expectations concerning the date of this rate-setting meeting still vary considerably.

The main risk indicators improved slightly, as the VIX index declined by 2 percentage points, and bond market risk indicators (MOVE Index, EMBI Global spread) also decreased. A decline in long-term yields was typical of the developed bond markets as well. Stock market indices rose further amidst favourable market sentiment, with the S&P 500 and DAX advancing to new highs. The euro appreciated in the past quarter, owing to the outcome of the French presidential election and favourable macro data. Currencies of the region appreciated against the euro as well. Of the emerging currencies, the country-specific weakening of the Brazilian real deserves mention.

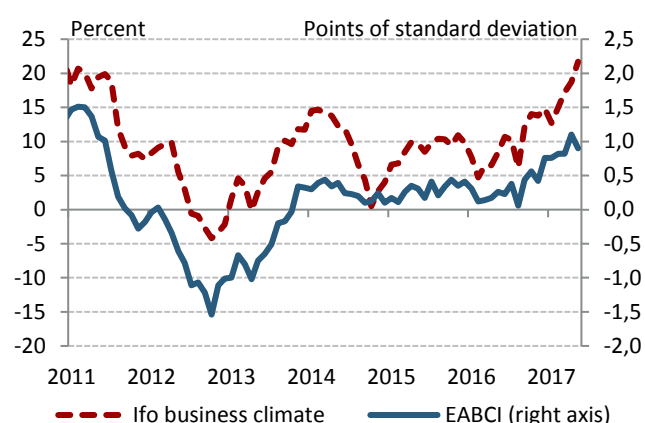
3.1.2. Developments in the euro area

In 2017 Q1, economic growth in the euro area continued at a rate similar to that of the previous quarter (Chart 3-6). The output of the German economy, which is Hungary's most important trading partner, accelerated in Q1, while the expansion of French output slowed. The German economy was driven by both domestic and external demand, while growth in France was mainly attributable to inventory accumulation. Euro area growth continues to be surrounded by significant downside risks, which are related to, *inter alia*, the United Kingdom's exiting the EU and uncertainties around the upcoming elections.

The growth rate of periphery countries increased compared to the previous quarter. With the exception of Portugal, the expansion in the output of the periphery countries was driven by domestic demand factors in the past period.

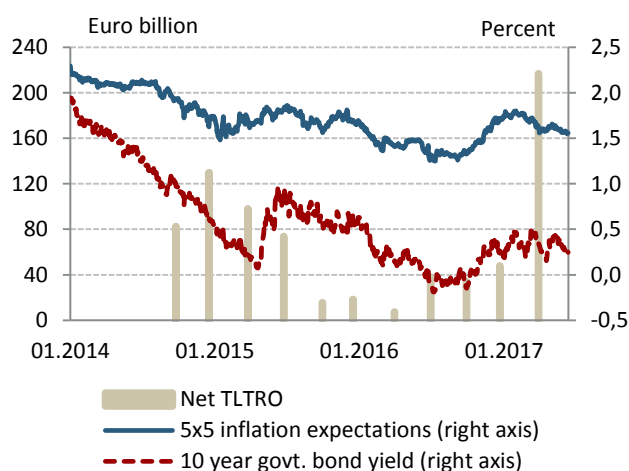
Forward-looking indicators of economic activity increased further in the past period (Chart 3-7). The business confidence index capturing the prospects of the euro area (EABCI) improved, and expectations for the German economy (Ifo) also strengthened. In a historical comparison, both indicators are at high levels.

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



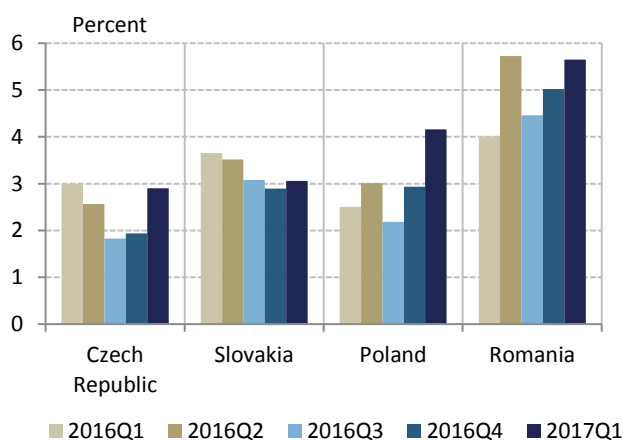
Source: European Commission, Ifo

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



Source: Bloomberg

Chart 3-9: Annual changes in GDP in CEE countries



Note: Seasonally and calendar adjusted series. In the case of Slovakia, only seasonal adjustment.

Source: OECD, Eurostat

Similarly to global trends, inflation was also stagnant in the euro area in the past quarter. Consumer price increases are positive in all Member States and near the central bank target in Germany, but below target in France. The 5-year inflation expectations 5 years forward remained practically unchanged in the euro area. Inflation expectations still remain below the ECB's inflation target (Chart 3-8).

At its June meeting, the Governing Council of the ECB decided to leave interest rates unchanged. However, it lowered its inflation forecast, while the growth forecast was revised slightly upwards. Decision-makers moderately tightened the forward guidance of monetary policy. The Governing Council expects that the ECB's policy rates will remain at the current levels permanently and much longer than the horizon of the net asset purchases. Within the framework of the asset purchase programme, starting from April the ECB is purchasing securities with a value of EUR 60 billion instead of the previous EUR 80 billion. The Governing Council affirmed its intention to continue the asset purchase programme at this pace until the end of 2017 or until a permanent correction of the inflation path in line with the inflation target, if necessary. If the outlook becomes unfavourable, the Governing Council is ready to expand the programme in terms of size and/or time horizon.

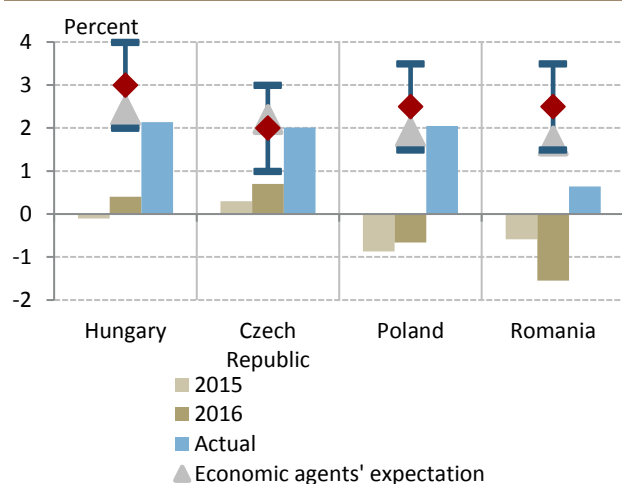
3.1.3. Developments in the CEE region

The Central and East European region continued its unchanged dynamic expansion, and the GDP growth rate was in line with that of the previous period (Chart 3-9). In Poland and Romania, a pick-up in domestic consumption contributed to the dynamic expansion. The growth rate was considerably higher in the Czech Republic, with contributions from both domestic and external demand. At the same time, the expansion of output in Slovakia was mainly fuelled by external demand.

Inflation is mostly near the central bank targets in the region as well (Chart 3-10). Core inflation, however, is below target in most of the countries.

Central banks in the Central East European countries maintained their loose monetary conditions in accordance with the macroeconomic developments. At an extraordinary meeting on 6 April, the decision-makers of the Czech central bank decided to cancel the exchange rate floor. The decision-makers were of the opinion that the current inflation trends are in line with the targets set at the time of the introduction of the exchange rate floor in 2013. The central bank's May inflation forecast indicates a sustainable achievement of the inflation target and well-anchored inflation expectations over the monetary policy

Chart 3-10: Inflation targets of central banks, inflation, and economic agents' expectations



Note: Analyst's expectations relate to the end of 2017.

Source: OECD, National Institute of Statistics Romania, Consensus Economics

horizon. In the opinion of the decision-makers of the Polish central bank, the rate of price increases is moderate, and core inflation is increasing gradually, although it is still low. They expect that inflation will remain subdued in the coming quarters. The risk that inflation will rise permanently above target is low in the medium term. Given the available data and forecasts, the current level of interest rates is conducive to keeping the economy on a sustainable growth path and maintaining macroeconomic balance. The decision-makers of the Romanian central bank reduced the required reserve ratio concerning credit institutions' FX-denominated liabilities from 10 percent to 8 percent. According to the May inflation forecast, inflation will gradually rise over the forecast horizon, although on a slightly lower path than the previous forecast. On the whole, analysts' expectations indicate below-target inflation for end-2017.

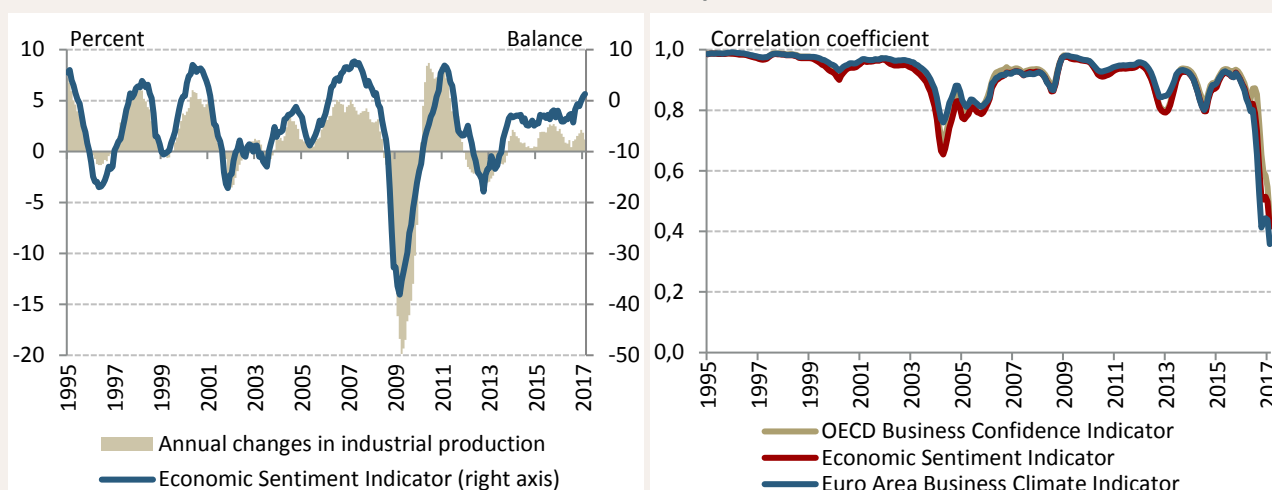
Box 3-1: Changes in the forecasting ability of confidence indicators

As shown by confidence indicators, **international business climate improved gradually in the past period**. Confidence indicators are based on corporate questionnaire surveys and represent expectations concerning production and orders; therefore, they are typically good indicators of developments in production. **At the same time, the relationship between confidence indices and production loosened significantly** in the past period. The box below presents the possible causes of this gap, calling for caution when evaluating international business climate.

Economic sentiment in the euro area, which is Hungary's main trading partner, **improved gradually** in the past years, and the value of ESI indicator, which captures business confidence sentiment, rose to above its pre-crisis average (Chart 3-11, left panel). In a historical comparison, confidence indices performed well as leading indicators for changes in production. The correlation coefficient between these indicators typically exceeded 0.9, indicating a strong positive correlation (Chart 3-11, right panel). In spite of the favourable business climate, **industrial production of the euro area increased only in a subdued manner** in recent years, **and thus the correlation between the time series dropped to a historically weak level**.

The decline in correlation can be identified in Hungarian data as well, but the correlation may be strongly influenced by one-off effects, stemming from the sample size. As a result of temporary effects (model change, not full-shift production), the production of Hungarian vehicle factories was subdued in the last year. Nevertheless, business confidence stabilised at a high level.

Chart 3-11: Evolution (left panel) and relationship (right panel) of business confidence and industrial production in the euro area



Note: Three-month moving averages of industrial production. Three-year rolling correlations.

Source: European Commission, OECD, Eurostat

The **weaker forecasting ability** of confidence indicators for developments in production is **attributable to different factors**:

- **Methodological factors:** The indicators created to capture economic sentiment are based on a **subjective assessment of corporate managers**, and both **the companies** participating in the survey **and the responding executives may be replaced** during the decades covered by the time series. Accordingly, two executives asked at different points in time may assess the same macroeconomic environment differently, due to methodological characteristics. The weakening correlation between confidence indices and industrial production is **also affected by the sample selection stemming from crises**. Companies in an unfavourable situation or which are leaving the market may face difficulties or not have an opportunity to answer the questionnaire; therefore, the surveys temporarily present the assessments of companies in a more favourable position, and thus these assessments may be overestimated.⁶
- **Economic considerations:** In the assessment of business confidence, the **evaluation of the capacity utilisation** of companies is also determinant. Short-term fluctuations in capacity utilisation are primarily explained by the changes in demand conditions, but its average level is determined by the structure and norms of the given economy and society. Accordingly, **companies 'normal' capacity utilisation is not necessarily constant over time**. The level of optimal capacity utilisation may rise 1) if the pace of technological development through capital goods speeds up, as in this case it is worth using the older, less productive equipment, 2) if the uncertainty related to economic prospects increases, because in this case it is worth waiting with the investment and satisfying the pick-up in demand with a more intensive use of existing equipment, and 3) if the company's borrowing constraints intensify, which also suggests the postponement of investment and use of existing equipment in a more intensive manner.⁷ **The assessment of capacity utilisation may change in the periods when companies use their existing capacities more intensively, and thus it may temporarily deviate from developments in production.**

Accordingly, the decline in the forecasting ability of confidence indicators observed in the past period calls for caution concerning the assessment of international economic sentiment. In the past months, international organisations (IMF, OECD, European Commission) carried out an upward revision of their global economic growth expectations. According to

⁶ Fantaccone, S. – Garalova-Stieg, P. – Malgarini, M. (2016): Is business confidence still a good indicator for industrial production? Evidence from the EC survey, Confindustria CSC seminar (12 May 2016).

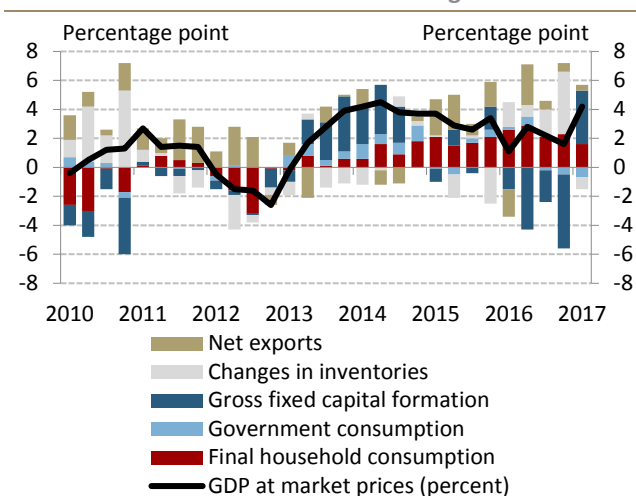
⁷ Based on Box 3-4 of the June 2015 Inflation Report (What is the reason for the difference between MNB's output gap estimate and the capacity utilisation indicator?).

their assessment, stronger growth may occur in conjunction with more favourable investment activity and foreign trade. In parallel with expansion in investments, companies' assessment of capacity utilisation and economic activity may also change, strengthening the co-movement of confidence indicators and production data.

3.2. Analysis of the production and expenditure side of GDP

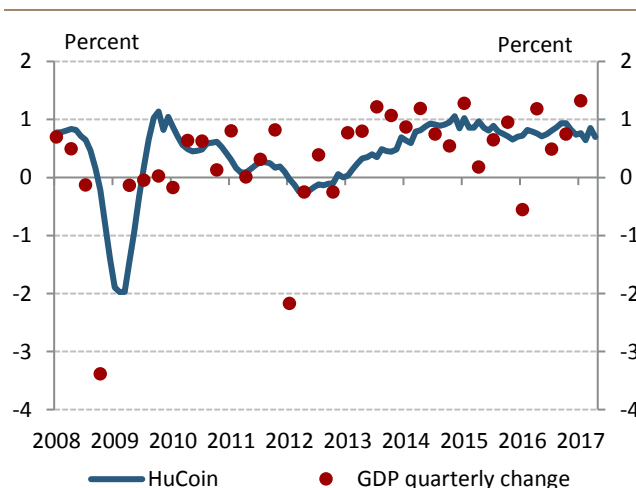
Based on the data release by the HCSO, in 2017 Q1 the gross domestic product increased by 4.2 percent year on year, while compared to the previous quarter the volume of GDP was 1.3 percent higher. Following last year's more subdued growth, the Hungarian economy expanded dynamically, still primarily supported by buoyant domestic demand through a considerable expansion in investment and a continued increase in consumption. On the expenditure side, in addition to investment and consumption, net exports also contributed to the GDP growth, while on the production side the performance of industry, services and construction also supported the expansion.

Chart 3-12: Contribution to annual changes in GDP



Source: HCSO

Chart 3-13: Evolution of the HuCoin indicator



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

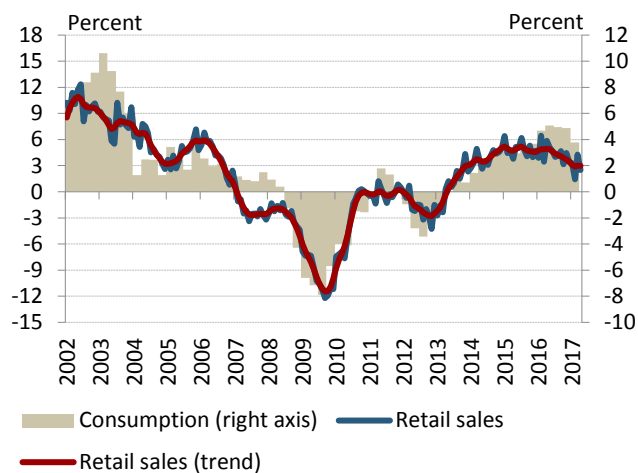
Source: HCSO, MNB calculations

According to the HCSO, in 2017 Q1, the gross domestic product increased by 4.2 percent year on year, and expanded by 1.3 percent compared to the previous quarter. As before, the dynamic economic growth was primarily supported by buoyant domestic demand via a considerable expansion in investment and a continued rise in consumption (Chart 3-12). In addition, along with the significant upswing observed in Hungary's export markets at the beginning of the year, the contribution of net exports to growth was also positive. Based on the changes in the HuCoin indicator, which reflects the medium-term prospects of the domestic economy, the underlying trends of economic activity improved (Chart 3-13).

The expansion in household consumption continued in 2017 Q1, albeit at a slower pace than last year. The rise in households' consumption expenditure was still supported by improvement in underlying real income trends as well as an increase in the propensity to consume. The volume of retail sales grew by 3.0 percent in Q1 compared to the same period of the previous year. **A pick-up in sales was observed in a wide range of products.** Within that, the major upswing in purchases of durable and semi-durable goods, which have a high recovery potential, indicates further improvement in the assessment of the household sector's economic situation (Chart 3-14). **The historically high net financial assets accumulated due to the precautionary considerations following the crisis also contribute to the current increase in household consumption.** Households' net financial assets are at around 100 percent of GDP and significantly exceed the average for the region (Chart 3-15).

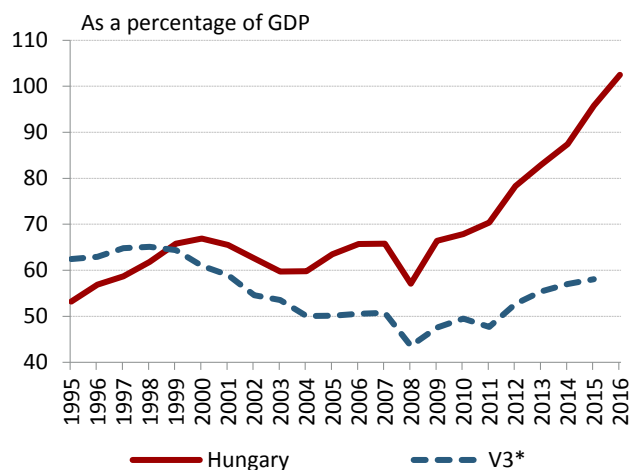
Household loans outstanding continued to increase in 2017 Q1. The sum of credit institutions' household loan transactions amounted to HUF 4 billion in Q1, and thus the sector continued to be a net borrower. The temporary and significant expansion in loans borrowed by the self-employed also played an important part in the positive transactions. In addition, the balance of borrowing and

Chart 3-14: Developments in retail sales and consumption



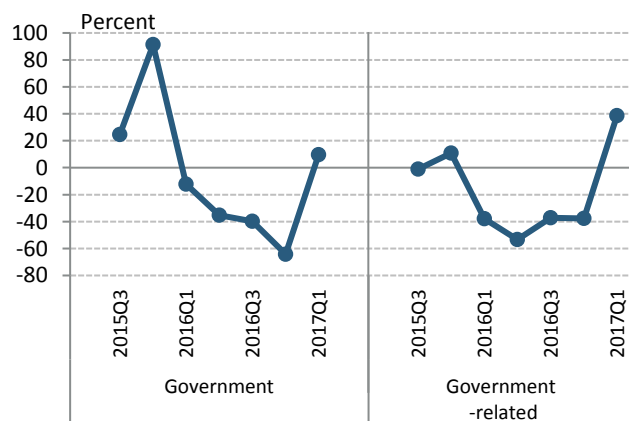
Note: Seasonally adjusted data, annual change.
Source: HCSO, MNB calculation

Chart 3-15: Developments in net financial assets of households



Note: * For Poland data are available from 2003.
Source: Eurostat

Chart 3-16: Government-related investments



Note: Annual change.
Source: HCSO

repayment by households also shows an improving trend, which is mainly attributable to an upturn in new loans. **The annual average increase in the volume of new loans was 49 percent. Within that, the disbursement of new housing loans rose by 44 percent.** The pick-up in the underlying trends of lending to households was supported by both the low interest rate environment and the increase in average earnings. Accounting for 16 percent of the volume of newly granted housing loans in Q1, the family home creation allowance continues to facilitate the increase in demand.

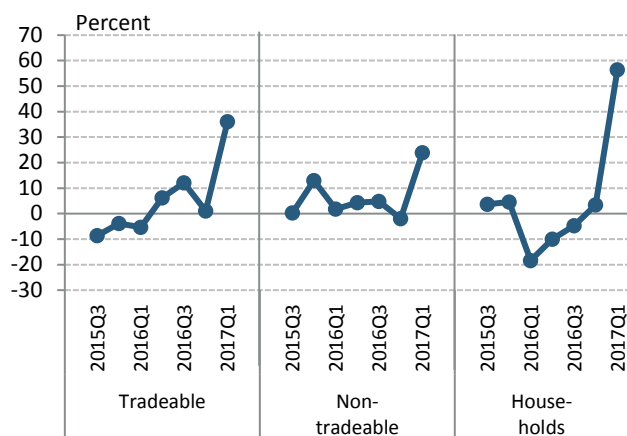
In line with the rising domestic demand, market services contributed significantly to economic growth in Q1 as well. The expansion in services was supported by a wide range of subsectors. Along with trade, accommodation services and catering, administrative services made the strongest growth contribution. In Q1, the number of guest nights increased by 6.6 percent year on year, which was mainly attributable to the higher number of guest nights spent by foreigners. In addition, domestic tourism demand also picked up in relation to households' improving income position.

There was a considerable decline in consumption items related to the government in Q1. Accordingly, the deceleration in public consumption and in-kind social benefits reduced growth.

In 2017 Q1, whole-economy investment expanded by 34.1 percent, affecting a wide range of sectors. Investment in the public sector (health, administration, education) and sectors closely related to the public sector (energy, water supply, transportation) expanded considerably, which was attributable – in addition to the low base – to the 2014–2020 EU budget cycle and investment implemented from own funds (Chart 3-16). In parallel with the buoyant investment activity, there was significant improvement in construction output as well in Q1. Corporate investment activity also increased considerably. In the case of companies producing goods and providing services for the domestic market, it was primarily the stronger investment in the trade and vehicle repair sectors which contributed to the expansion. The stronger investment by companies producing for external markets was mainly attributable to the major increase in the investment activity of manufacturing, which has a high weight (Chart 3-17).

In 2017 Q1, the annual 4 percent transaction-based growth in corporate lending continued. As a result of disbursements and repayments, non-financial corporations' loans outstanding expanded by nearly HUF 108 billion during the quarter, while the year-on-year

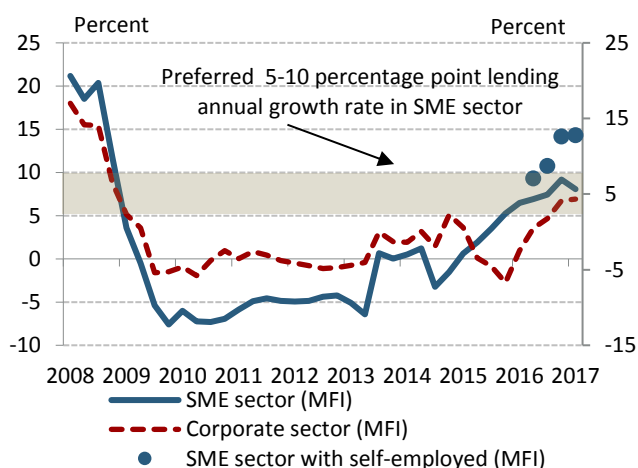
Chart 3-17: Non-government related investments



Note: Annual change.

Source: HCSO

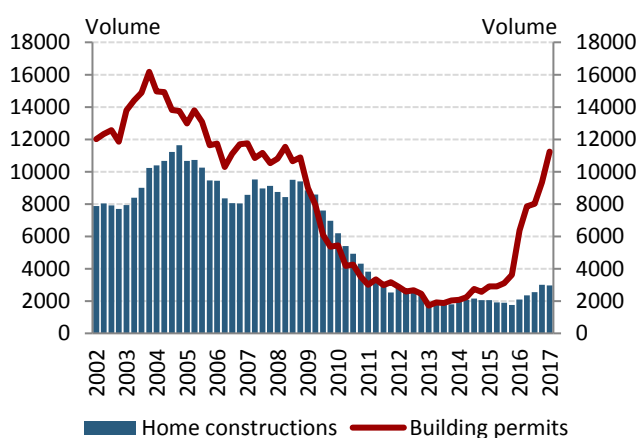
Chart 3-18: Annual changes in lending to non-financial corporates and SMEs



Note: Data for corporate loans total are based on transactions. For SME loans, estimated transactions are applied from Q4 2013.

Source: MNB

Chart 3-19: Evolution of home constructions and building permits



Source: HCSO

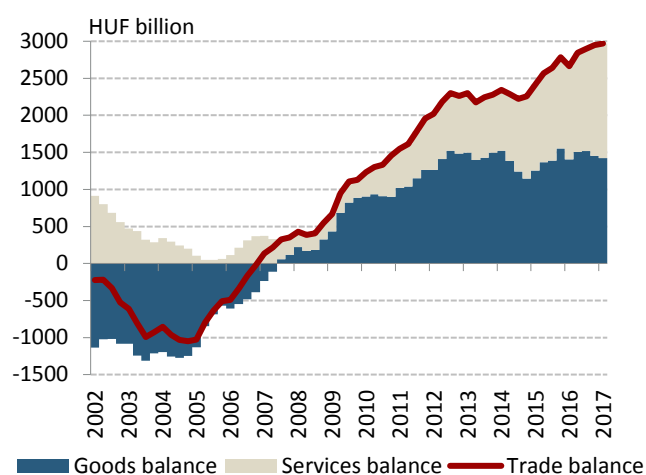
increase amounted to HUF 260 billion on a transaction basis. In the period under review, in addition to the forint lending under the Funding for Growth Scheme, market-based forint loans also increased considerably, rising by a total value of HUF 285 billion. **Lending to the SME segment, which is more dependent on domestic demand, increased by 8 percent. Taking account of the self-employed as well, the increase was nearly 13 percent year on year.** The upswing in corporate lending was supported, *inter alia*, by dynamic growth in construction and the increase in industrial production, with the latter explained by the rising production in the vehicle industry (Chart 3-18).

Households' investment activity continued to improve in Q1. In line with the favourable demand conditions, the construction of new homes is now increasing dynamically for the first time in a long while. In parallel with the building permits issued earlier, the number of home completions increased sharply, with a year-on-year expansion of more than 45 percent recorded in Q1. In addition, the significant rise in the number of building permits issued also continued (Chart 3-19). Based on the MNB's housing price index, **housing prices, which were increasing as a result of the buoyant demand, exceeded their pre-crisis level.** A continued price increase has been observed in the market of pre-owned homes, and significant price appreciation was also seen in the market of new homes as well.

In parallel with the significant upswing in Hungary's export markets at the beginning of the year, **the contribution of net exports to economic growth in Hungary was positive again in Q1.** The performance of goods exports increased considerably in year-on-year terms, in line with the upturn in industrial production stemming from the significant expansion in the machine industry subsectors, which represent a high weight. In addition, the significant expansion in exports is partly a consequence of last year's weak base and the positive working day effect of early 2017. In parallel with the expansion in production, industrial sales also rose substantially. Simultaneously with the growth in goods exports, there was an upswing in the growth of goods imports as well in year-on-year terms, which is primarily explained by the rising import need of domestic demand.

The negative balance stemming from developments in the trade of goods was offset by the services balance. **Both exports and imports of services continued to increase in Q1.** Overall, **both the services balance and the trade surplus supported GDP growth in Q1** (Chart 3-20). Based on data for last year, the weight of the domestic foreign trade sector is increasing gradually within global trade in

Chart 3-20: Evolution of the trade balance



Note: Seasonally adjusted, 4-quarter cumulated values, in 2005 prices.

Source: HCSO

services. Mainly as a result of the gradual increase in commodity prices, the terms of trade continued to deteriorate in 2017 Q1 year on year.

The performance of agriculture declined year on year. This year's harvest results will only be available in the second half of the year, and based on these data the HCSO may revise the Q1 growth contribution of agriculture. Nevertheless, after last year's favourable agricultural performance, adjustment in the negative direction is expected this year.

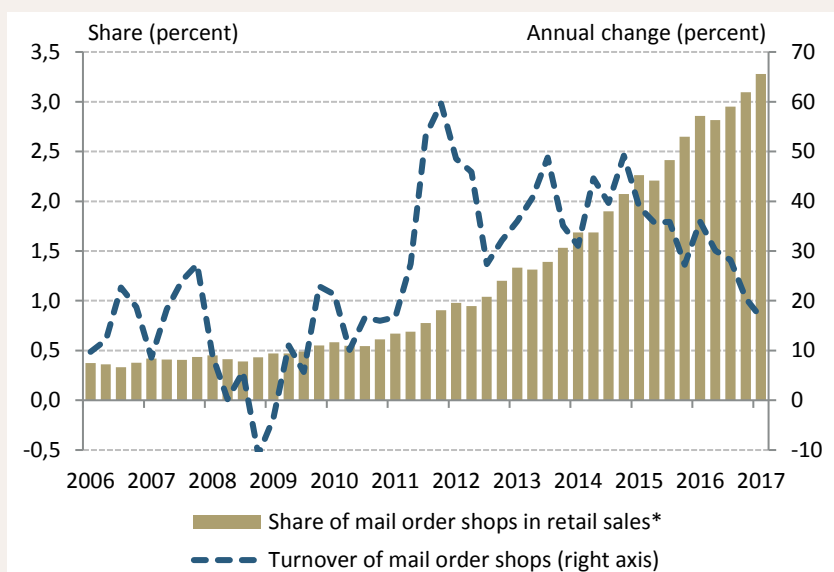
In line with agricultural performance, which is subdued compared to last year, following the previous year's high base, changes in inventories lowered economic growth in Q1.

Box 3-2: Developments in e-commerce in Hungary

In parallel with the spread of computer technology and the internet, **e-commerce has become an increasingly important sales channel in recent years**. The number of parties engaged in online trading is growing continuously among both households and companies, in which a significant role is played by digital innovations and devices (smartphones, applications, online payment) as well as consumer protection regulations. Online shopping provides opportunities for wider price and product comparison, gathering of information as well as convenient and continuous shopping for consumers. In addition, it becomes possible for companies to analyse consumers' habits, conduct targeted marketing activities and operate in a more cost-effective way.

Conclusions concerning developments in domestic e-commerce within retail sales can primarily be drawn based on mail order and internet activities. In addition, as a result of changes in consumer habits (buying from foreign websites), goods imports may also contain sales related to e-commerce. **Both the turnover and ratio of sales of mail order shops within the total retail turnover have increased considerably in recent years** (Chart 3-21). E-commerce expanded by an annual 30–60 percent between 2012 and 2016, and its total value **already exceeded HUF 300 billion last year**. The share of mail order trade was around 0.3 percent in the first half of the 2000s and then started to expand dynamically from 2010; it currently accounts for more than 3 percent of retail trade. In spite of a slowdown, it expanded significantly, growing by around 20 percent in the past quarters.

Chart 3-21: Turnover and share of mail order shops



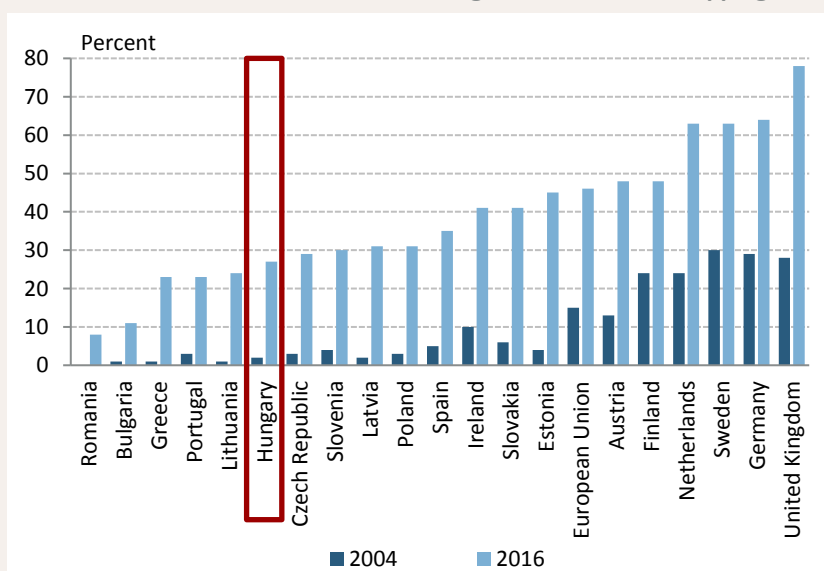
Note: * 3-quarter moving average.

Source: HCSO, MNB calculation

An analysis of the composition of e-commerce reveals that it is mainly electronic equipment, clothing and sporting goods, books and tickets that are purchased online by consumers. In addition, it can be observed that in the last months of the year the turnover of e-commerce is much higher (one and a half times on average) than in the earlier months of the year, which can be explained by Christmas shopping.

The significant growth in e-commerce in Hungary in recent years is outstanding in international comparison as well. Compared to the EU, **however, lags can be identified in the case of several factors, both in terms of household and corporate use.** Among individuals, the ratio of those who use the internet for shopping grew at a considerable pace in parallel with the spread of e-commerce, but Hungary's indicator in the ranking of Member States is unfavourable (Chart 3-22). Moreover, Hungary lags behind the average of the European Union in terms of access to and use of the internet as well, which are conditions for online shopping. The ratio of companies selling and buying online has also increased in recent years, but still falls below the EU average. However, looking ahead, the continuous rise in the ratio of companies that have a website supports the continued expansion in e-commerce.

Chart 3-22: Ratio of individuals using the internet for shopping



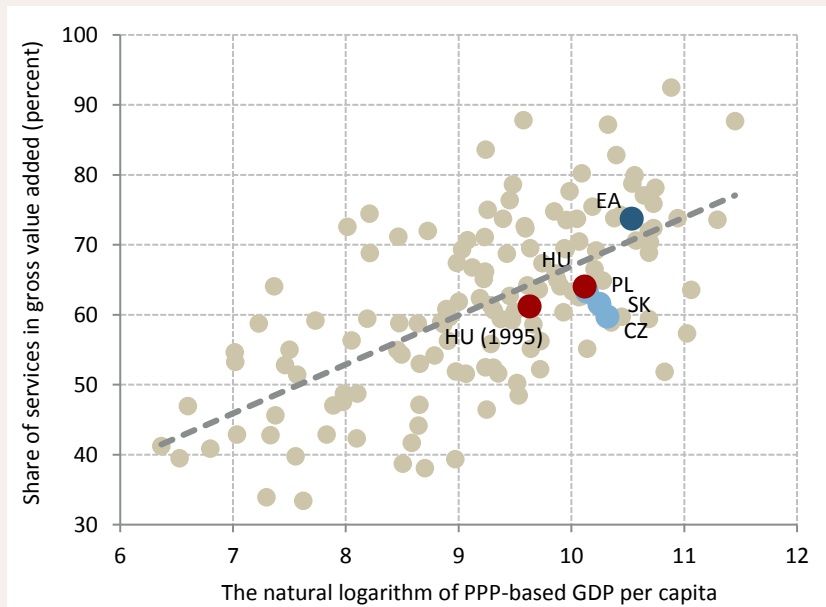
Note: In the last 3 months.

Source: Eurostat

Box 3-3: The role of services in consumption and foreign trade

The development of a country entails a gradual change of the structure of the economy. As the economy reaches a higher level of development, in parallel with the decline in the weight of agriculture (primary sector), first the weight of the industrial sector (secondary), then that of the services sector (tertiary) increases. It can be observed that **economic development increases together with the rise in the weight of the tertiary sector** (Chart 3-23).

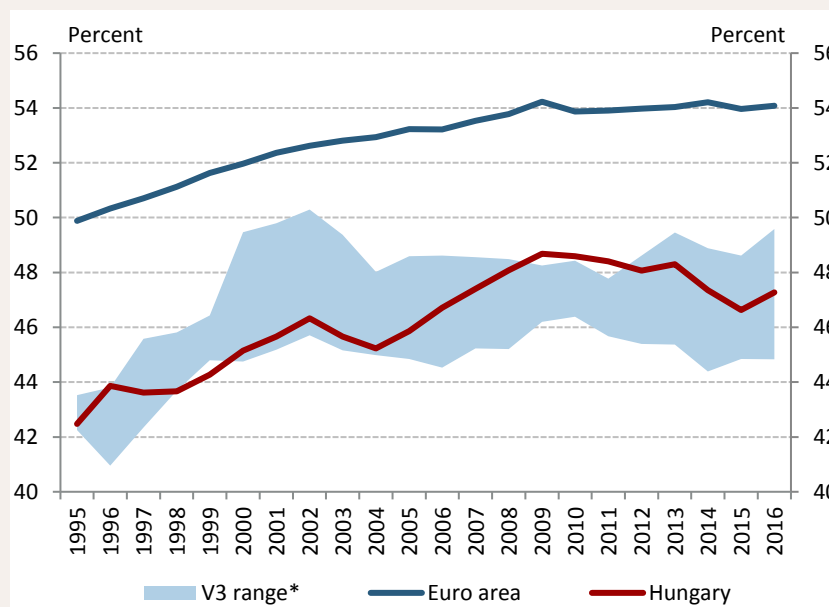
Chart 3-23: Share of services in GDP and economic development (2015)



Source: World Bank

Prior to the crisis, the share of services within value added had increased in Hungary, but then declined slightly after 2008. At present, the weight of market services within value added exceeds 47 percent, which is below the average of the euro area, but similar to that of the Visegrád countries (Chart 3-24). In parallel with the decline in the ratio of services, the weight of agriculture remained practically unchanged, while the ratio of industry within value added increased, which in the past years was primarily attributable to the upswing in the production of the vehicle industry.

Chart 3-24: Share of market services in GDP

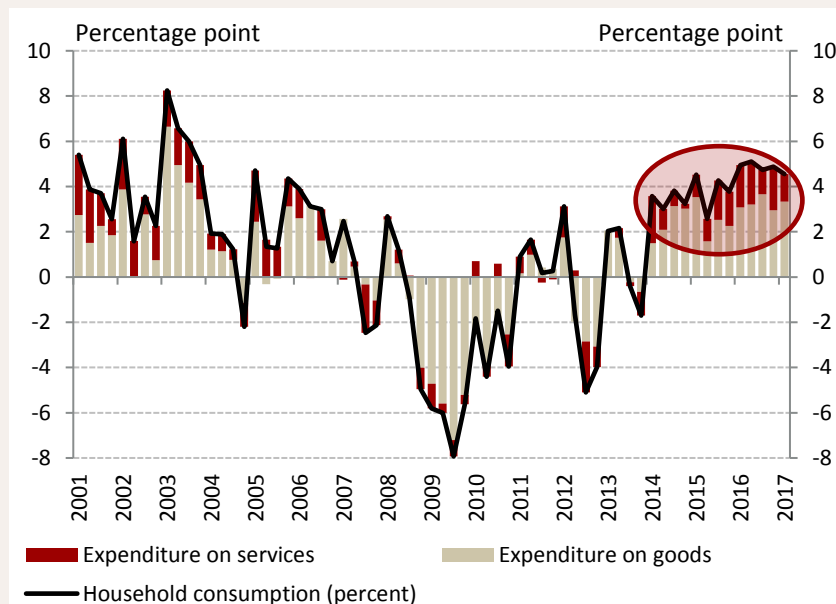


Note: Gross value added. * For Poland data are available from 2000.

Source: Eurostat, MNB calculation

Together with the increasing role of the services sector, the ratio of spending on services, which started to grow in the 2000s, became increasingly important within household consumption as well. In international comparison, the consumption of services in Hungary is below that of the euro area, but it slightly exceeds that of Hungary's competitors in the region. **The weight of services within consumption was stable in the past years**, and the crisis affected these consumption expenditures the least, in contrast to spending on the consumption of goods. In addition, as a result of its dynamic expansion, **the consumption of services contributed to the expansion in household consumption to an increasing extent in the past quarters** (Chart 3-25).

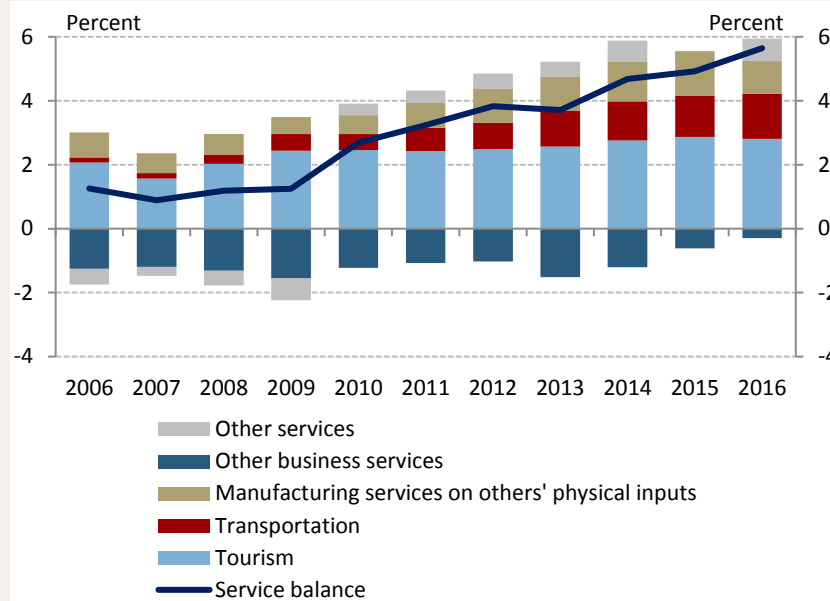
Chart 3-25: Annual change of household consumption by the durability of goods



Source: HCSO, MNB calculation

Examining the role of services in foreign trade, it can be established that **trade in services is less sensitive to changes in economic cycles than goods trade**, which dropped to a greater extent in the years of the crisis. Accordingly, **improvement in the services balance plays a key role in the increase in the trade surplus as well. Within that, tourism, transportation and manufacturing services on others' physical inputs are worth mentioning.** Hungary's trade surplus amounted to more than 10 percent of GDP in 2016, and more than half of this was related to net exports of services. Prior to the crisis, the services surplus was close to 1 percent of GDP, and it started to increase significantly after 2009 (Chart 3-26). The high level of the surplus is mainly attributable to tourism and manufacturing services on others' physical inputs. Nevertheless, in addition to transportation and manufacturing services on others' physical inputs, the rise in the surplus since the crisis is primarily the result of the expansion in various smaller sectors, such as the use of intellectual products, entertainment-related services and other business services. Hungary's services surplus significantly exceeds the levels observed in the countries of the region, which is mainly attributable to the higher balance of tourism. Examining the EU, it is observed that the services surplus declines with an increase in the level of economic development, which may also be attributable to the higher price level typical of the countries with higher per capita income.

Chart 3-26: Development of items in the service balance as a percent of GDP



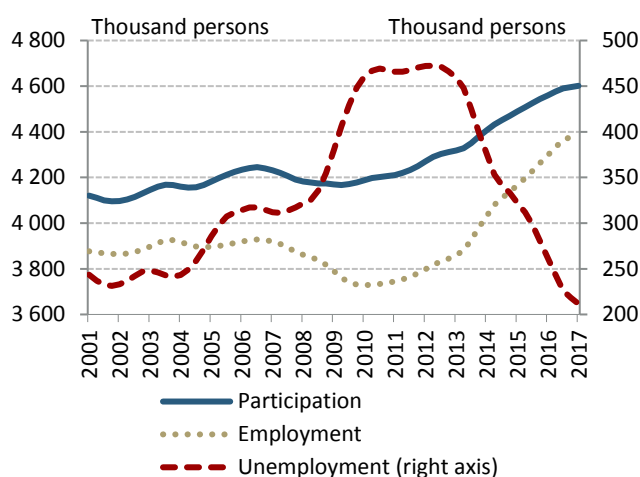
Source: MNB, HCSO

3.3. Labour market

Growth in private economy employment continued in 2017 Q1, with manufacturing contributing significantly to this. With the continuous tightening of the labour market, the seasonally adjusted unemployment rate declined to 4.2 percent in Q1.

There was no major change in activity in 2017 Q1 (Chart 3-27); the activity rate for the 15–74 age group exceeded 61.1 percent. The ratio of the active amounted to 70.3 percent among those aged 15–64 years.

Chart 3-27: Participation, employment and unemployment in the total economy



Note: Seasonal moving averages.

Source: HCSO

Whole-economy employment continued to grow as a result of the contribution by the private sector, while the number of employees in the public sector declined slightly. Within the public sector, the change in public work programmes made a positive contribution to employment growth.

Within the private sector, significant expansion was observed in manufacturing, and at the same time, employment was at a historically high level in the case of market services as well. The number of people working abroad declined slightly. Both the number of hours worked and the number of over-time hours increased, indicating that companies adjusted to the tight labour market environment on the intensive side as well. Thus, on the whole, **the full-time equivalent number of employees increased slightly faster than private sector employment** (Chart 3-28).

Similarly to the countries in the region, **the historically low unemployment continued to decline in 2017 Q1, with the seasonally adjusted unemployment rate falling to 4.2percent**. Based on the declared number of vacancies, labour demand was at a high level both in manufacturing

Chart 3-28: Evolution of employment in the private sector

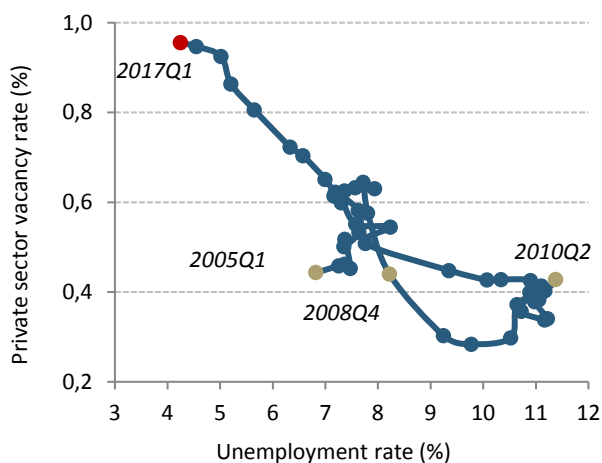


Note: *Total hours worked, divided by average weekly hours of full time employees, without employees abroad.

Source: HCSO, MNB

and market services. According to the Beveridge curve, labour market tightness was at a historical high (Chart 3-29).

Chart 3-29: Development of the Beveridge curve



Note: The private sector vacancy ratio indicates the ratio of private sector vacancies to active workers in the quarter.

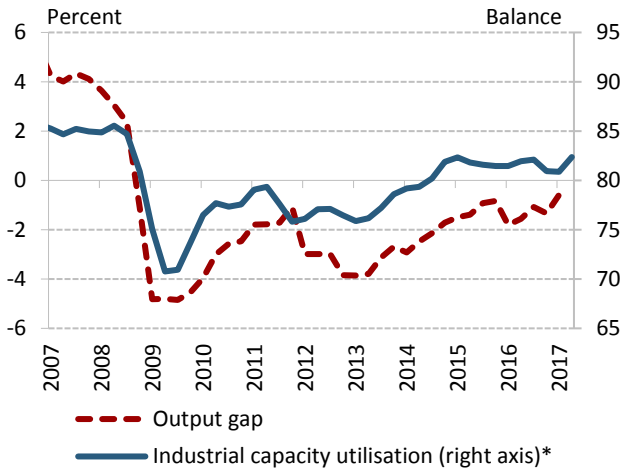
Source: MNB calculation based on HCSO data

3.4. Cyclical position of the economy

According to our estimate, the output gap remained in negative territory in 2017 Q1 as well. In parallel with last year's temporary slowdown, the output gap became slightly more open and then closed again together with the dynamic GDP growth at the beginning of this year.

According to our estimate, the output gap remained in negative territory in 2017 Q1 as well, as the performance of the economy fell short of the potential level (Chart 3-30). In parallel with the strong growth at the beginning of the year, the cyclical position of the economy closed in Q1, with a contribution from buoyant domestic demand via the continued expansion in consumption and improving underlying trends in private investment. In addition, the

Chart 3-30: Evolution of the output gap and industrial capacity utilisation



Note: *Trend.

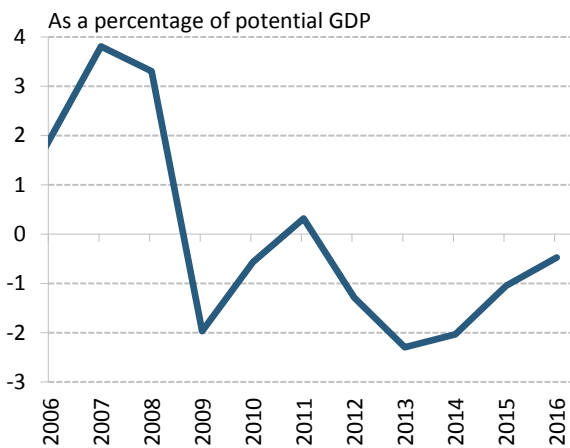
Source: MNB, ESI survey

return of EU fund inflows also supported the closing of the output gap. Based on the European Commission’s estimate, **the output gap of the euro area – which comprises Hungary’s most important trading partners – is still in negative territory, although only slightly** (Chart 3-31).

Most surveys capturing corporate business sentiment and capacity utilisation continued to increase similarly to the previous period, implying the gradual closing of the output gap. According to the responding companies, workforce was a bottleneck in the past quarters. The historically low unemployment rate also implies that the **utilisation of the labour factor increased considerably in the past period.**

In recent years the significant increase in employment in parallel with the decrease in the unemployment rate has contributed to the more extensive utilisation of capacities. At the same time, our output gap estimation continues to be negative, the utilisation of capital is below its normal level.

Chart 3-31: Evolution of the euro area output gap



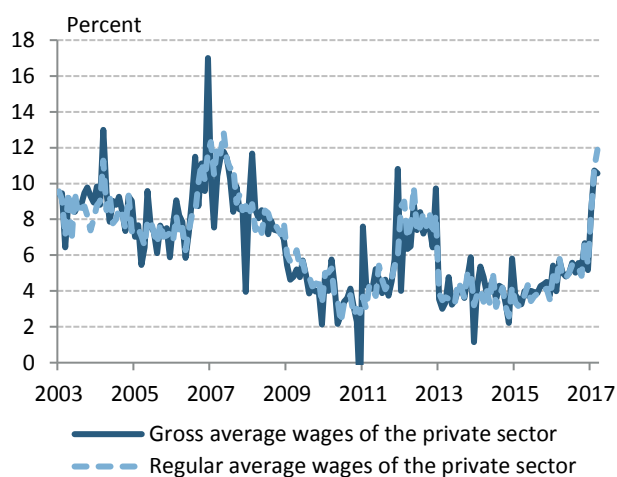
Source: European Commission

3.5. Costs and inflation

In line with our expectations, inflation declined in the spring months from its level observed at the beginning of the year. Lower inflation was mainly attributable to the decline in the price of fuels due to base effects. On the whole, in 2017 Q1 inflation and core inflation were at 2.6 percent and 1.8 percent, respectively. In 2017 Q1, as a result of a tighter labour market and administrative wage increases, gross average earnings increased by 9.9 percent in the private sector.

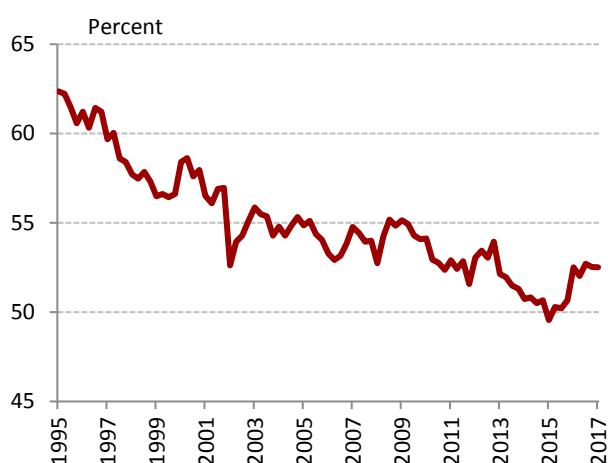
3.5.1. Wages

In 2017 Q1, gross average earnings increased by 9.9 percent in the private sector (Chart 3-32). This strong wage growth is attributable to the tight labour market environment as well as the increase in the minimum wage and the guaranteed minimum wage at the beginning of the year. The strong wage developments were supported

Chart 3-32: Annual change in gross average wages of the private sector

Note: Seasonally adjusted data.

Source: MNB calculation based on HCSO data

Chart 3-33: Adjusted wage share in the private sector

Note: Seasonally adjusted data.

Source: MNB calculation based on HCSO data

by the feed-through of the impact of the minimum wage and guaranteed minimum wage measures that are in force as of January into higher wage categories, which was also facilitated by the contribution reduction. As a result of administrative measures, companies slightly restrained bonus payments. The assessability of the underlying trends of waging is significantly influenced by the fact that as a result of administrative pay rises, the whitening of earned incomes paid for grey labour prior to 1 January could raise the annual index only statistically, and thus the real increase in earnings may be lower than the measured one. As a result of the whitening effect, the contribution reductions and the strong developments in economic activity, the wage share did not rise further (Chart 3-33).

Unchanged wage cost per employee dynamics and increased nominal productivity both contributed to a lower real unit labour cost (as a measure for labour market inflation) in Q1 compared to last year (Chart 3-34).

3.5.2. Producer prices

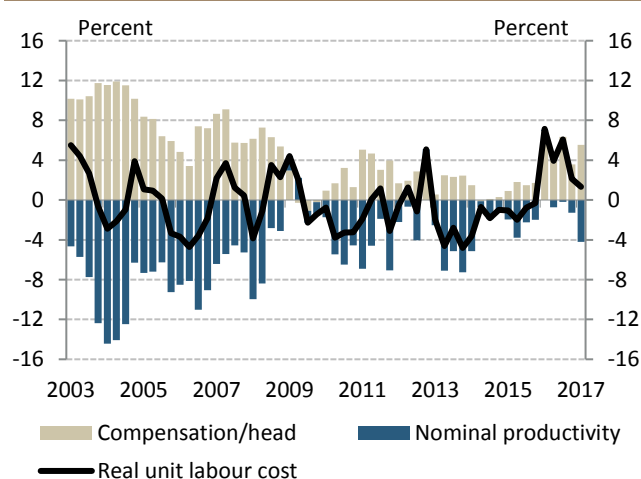
Agricultural producer prices increased slightly in 2017 Q1, which is primarily attributable to the continued producer price rise of milk and pigs for slaughter. The prices of seasonal products declined at the beginning of the year mainly as a result of price changes for fresh vegetables, fruits and potatoes. The seasonally adjusted producer price of grain increased slightly in the past period.

Domestic industrial sales prices rose further year on year (Chart 3-35). Looking at the grouping by purpose, the annual index rose in the energy producing sector, in the sector that produces for further use as well as in the sector that produces consumer goods. Base effects also contributed partly to the price rises observed in the sectors. Changes in domestic producer prices were in line with the trends observed in the euro area.

3.5.3. Consumer prices

In line with our expectations, inflation declined in the spring months from its level observed at the beginning of the year. Based on the March data, inflation was 2.6 percent and core inflation was 1.8 percent in 2017 Q1 (Chart 3-36). In annual terms, lower inflation was mainly attributable to the decline in the price of fuels due to base effects. Of the core inflation items, the March price index of the alcohol and tobacco product group declined despite the excise tax increases for tobacco products, and the changes in prices were influenced by the fact that now practically only 20-unit packs of cigarettes are available in tobacco shops instead of the earlier 19-unit packs.

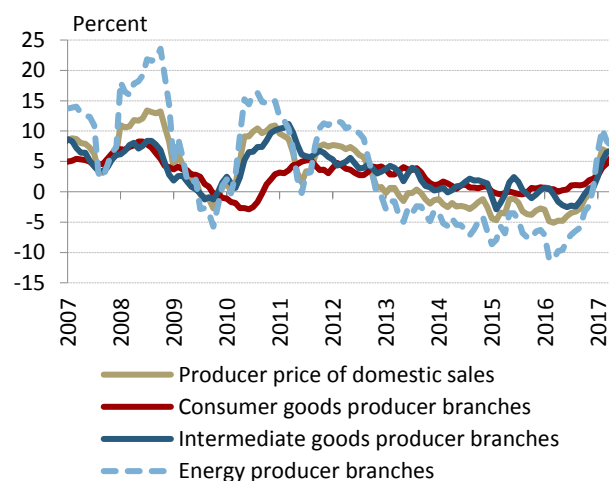
Chart 3-34: Decomposition of annual change of real unit labour cost in the private sector



Note: Seasonally adjusted data from national accounts.

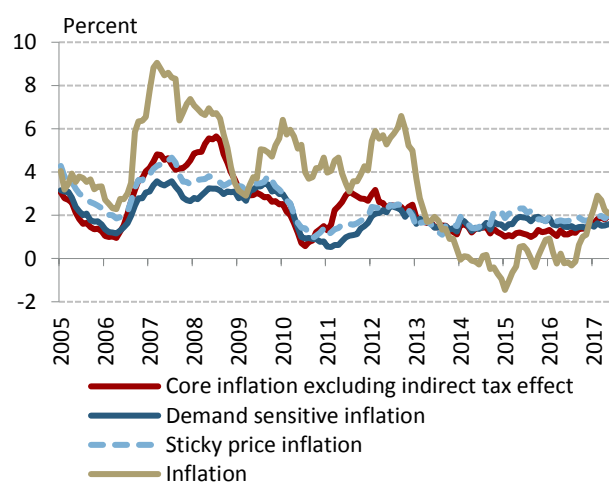
Source: MNB calculation based on HCSO data

Chart 3-35: Annual change in industrial producer prices



Source: MNB calculation based on HCSO data

Chart 3-36: Inflation and underlying inflation indicators



Source: MNB calculation based on HCSO data

Indicators capturing longer-term inflation trends (inflation of demand-sensitive and sticky-price products) **showed no substantial shift compared to the winter months**, and thus remain between 1.5–2.0 percent.

Price increases of industrial goods were restrained in the past months. Within the product group, no significant shift was observed in the seasonally adjusted prices of both durable and non-durable tradables. At the same time, in the case of non-durables, the change in the prices of air tickets, which exhibit volatile price changes, was a key factor. The double impact of the price-reducing effect of moderate import prices and the steady acceleration in domestic demand continue to influence the prices of industrial goods.

Overall, the price index of market services increased slightly and is only modestly higher than observed in previous years (Chart 3-37). In spite of the increase in the wage cost at the beginning of the year, which fundamentally determines the annual price dynamics of this product group, the price index of services remains at a subdued level.

In the case of food, the seasonally adjusted **prices of processed food** excluding indirect taxes **remained practically unchanged** following an increase resulting from the price change of bread in March. The seasonally adjusted price dynamics of **unprocessed food** excluding indirect taxes was primarily determined by the decline in the prices of fresh vegetables and the price increase of pork offsetting the former. Accordingly, **no major shift was observed** in the case of this product group.

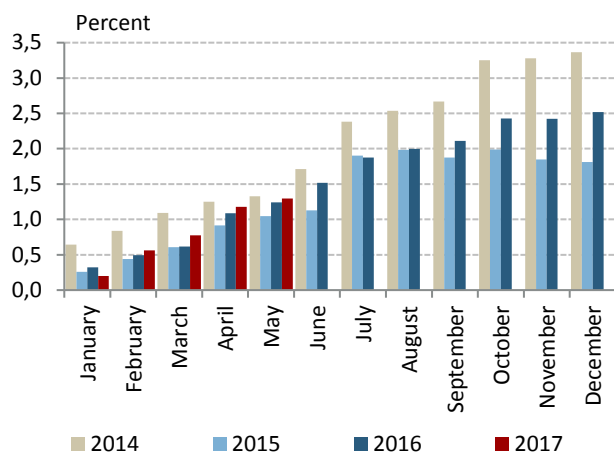
The inflation of fuels declined, which is attributable to base effects as well as the excise tax reduction that entered into force from April. **There were no major price changes in the case of regulated-price products** in the past months.

In line with our expectations, annual inflation declined in the spring months from its level observed at the beginning of the year. In terms of its degree, however, it fell short of the projection from the March Inflation Report. In the case of core inflation, the difference is explained by the subdued monthly price dynamics of tobacco products (despite the increase in the excise tax), while in the case of non-core inflation items by the weaker-than-expected growth in the prices of highly volatile seasonal food.

3.5.4. Inflation expectations

Hungarian households' inflation expectations remained practically unchanged and are still at moderate levels. Changes in household expectations in the past period suggest that expectations have become more anchored in

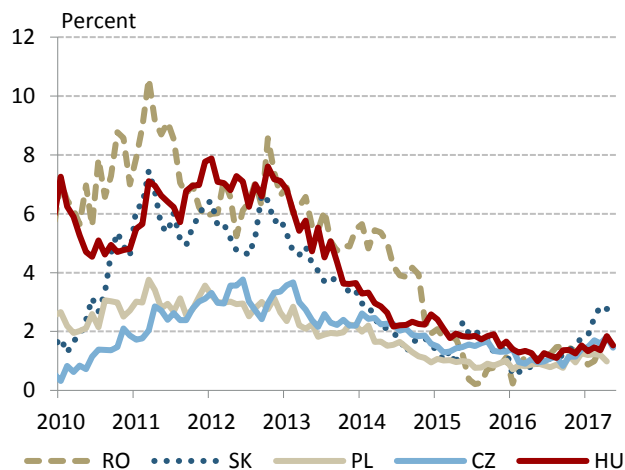
Chart 3-37: Services inflation



Note: Adjusted for indirect tax effects. Percentage change compared to last December.

Source: MNB calculation based on HCSO data

Chart 3-38: Inflation expectations in the region



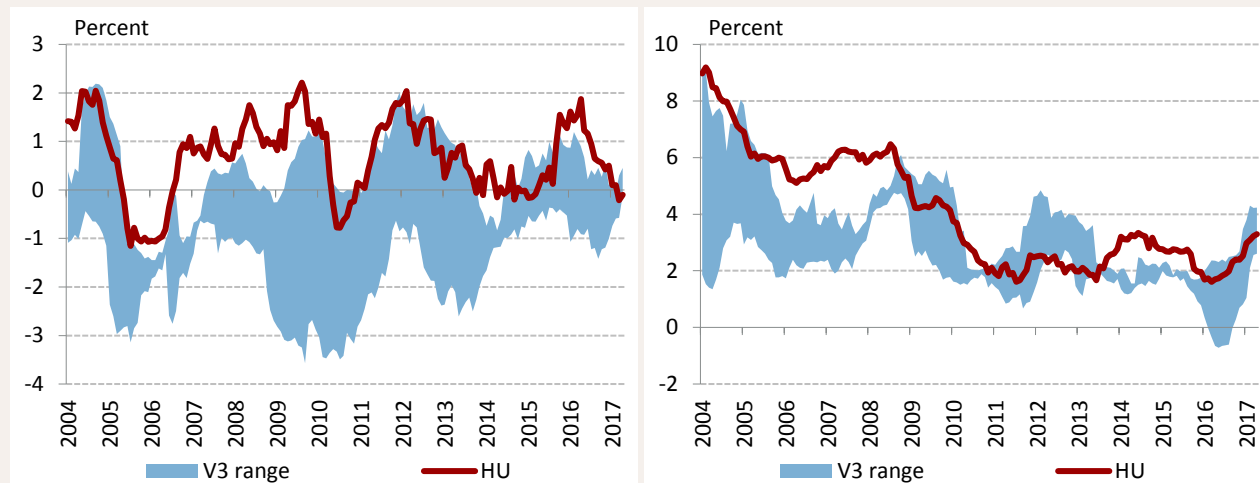
Source: MNB calculations based on data of the European Commission

Box 3-4: Presentation of developments in regional inflation

In the past years domestic inflation has declined significantly, and now it is close to the average inflation of the countries in the region. In this box we examine how the price indices of the countries in the region converged in terms of structure in the past period. Primarily, we focus on the price dynamics of those individual main groups, which show a co-movement with the economic cycle and the inflation expectations.

In a regional comparison, following 2010, the price indices of core inflation items gradually approximated each other, which is explained by different factors in the case of the individual main groups. **In terms of the price changes of market services, co-movement and convergence are typical** in a regional comparison (Chart 3-39, right panel). While before the crisis the inflation of market services in Hungary was higher than the V3-average, in the post-crisis period it was close to the regional average. This is attributable both to the repricing typical of the product group and to developments in inflation expectations. In the past 5 years, in line with the changes in inflation, households' inflation expectations declined continuously and are now at a low level. This indicates that inflation expectations have become more anchored. Looking at the region, expectations in Hungary are in line with the expectations observed in the countries of the region that were characterised by consistently low inflation in the past as well.

Chart 3-39: Inflation of industrial goods (left panel) and market services (right panel) in the region (annual change)



Source: Eurostat

Mainly due to higher inflation expectations compared to the countries of the region, before 2010 the **price index of industrial goods in Hungary** was higher than those in the region. However, **except for the period between 2015 H2 and 2016 H2, it was in line with the countries of the region after 2010** (Chart 3-39, left panel). The difference in the above mentioned period can be explained with the fact, that **from mid-2015 the price of motor vehicles rose at a faster pace in Hungary than the average of the region**. This is partly corroborated by the HCSO's statistics for new and used vehicle retail sales turnover as well as the changes in the used car price index.

In the case of processed food, it was typical until 2012 that compared to the region the reaction of the Hungarian price index to the changes concerning the main group was stronger. However, the domestic price index of processed food was close the regional average in the past years.

Based on the current forecasts of the central banks of the region, core inflation rates will increase gradually due to the stronger domestic demand. Because of the similar pattern of the structure and dynamics of economic growth, we expect, that looking ahead the co-movement of the regional inflation processes may continue.

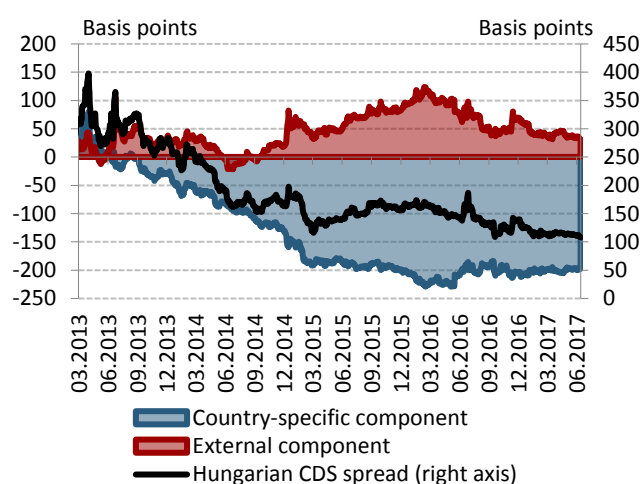
4. FINANCIAL MARKETS AND INTEREST RATES

4.1. Domestic financial market developments

International financial markets were characterised by slightly improving investor sentiment. Market trends were mostly influenced by the presidential election in France, the expansion of the OPEC production cut, the expectations of investors before the ECB's interest rate decision in June as well as the Fed's interest rate hike in June. The major risk indicators for the equity and bond markets also showed that investor sentiment had improved. Stock exchange price indices rose further in the favourable atmosphere, reaching new peaks. On the whole, the long-term bond yields of developed countries declined. In the past quarter, appreciation of the euro was mainly seen in international FX markets, which is primarily attributable to the outcome of the French presidential election, which calmed the market. Essentially, only the currencies of the region appreciated against the euro.

In addition to international investor sentiment, domestic financial market developments were primarily shaped by central bank actions. The further reduction of the amount of the three-month deposit had an attenuating impact on BUBOR yields, with support from the new FX swap instruments as well. Similarly to the Polish zloty and the Czech koruna, the forint appreciated against the euro, although to a lesser degree than the other two currencies of the region. The yields of government securities moved differently in the short and long maturity segments. Short-term yields continued to be stagnant at low levels, which is mainly attributable to domestic factors. In line with international trends, long-term yields declined by 40–80 basis points. Non-residents' forint government securities portfolio increased by some HUF 150 billion, resulting in an increase in their ratio to 22.8 percent.

Chart 4-1: Components of 5-year Hungarian CDS spread



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. Hungary's risk perception

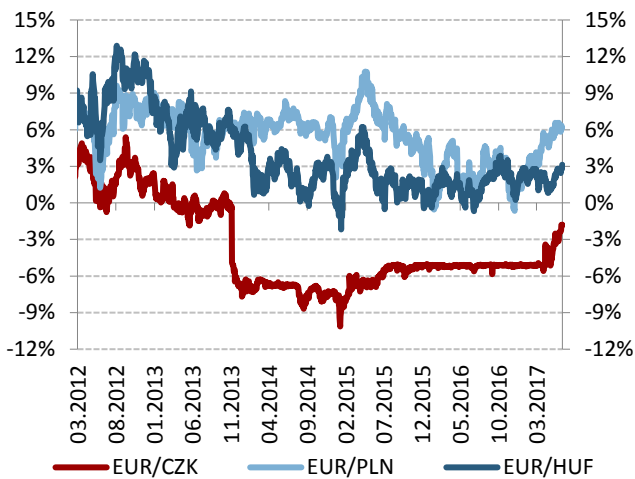
Hungary's risk indicators improved slightly compared to mid-March (Chart 4-1). The Hungarian sub-index of the EMBI Global bond spread declined by 33 basis points in the period under review, indicating a decrease in Hungary's country risk. During the period, the Hungarian 5-year sovereign CDS spread continuously moved at low levels, within a narrow band (108–118 basis points), closing the period at 108 basis points, which is one of the lowest levels in the past four years. The Hungarian CDS spread declined as a result of international factors, while the domestic component showed a slight increase in the period. Adjustment to the international trend is well illustrated by the fact that similarly to the Hungarian CDS spread, regional spreads were also characterised by low volatility.

Mainly due to international effects, long-term government securities market yields declined to a greater extent than in the case of developed markets. Long-term yields also declined in the countries of the region, and Polish yields – which move closely together with Hungarian ones – decreased considerably and to a similar degree as Hungarian ones. Of the common international impacts, in addition to the favourable European atmosphere, the reversal of the US reflation trends and the resulting spectacular decline in overseas long-term yields are worth highlighting.

4.1.2. FX market developments

During the period under review, the exchange rate of the forint against the euro appreciated by approximately 1.2

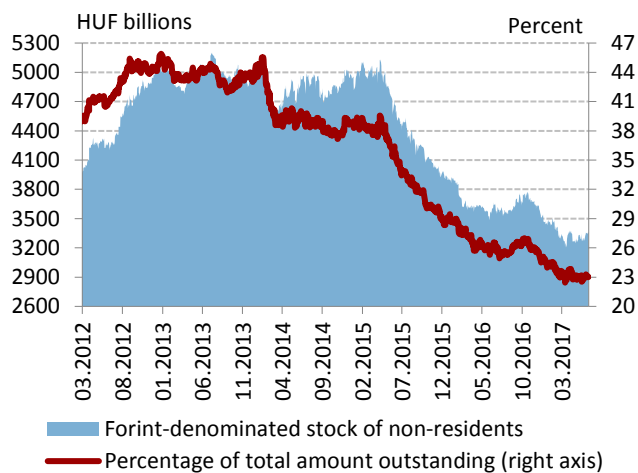
Chart 4-2: Exchange rates in the region



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

Source: Bloomberg

Chart 4-3: HUF-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

percent, in line with movements in the region. The exchange rate of the forint fluctuated in a range of 306–314. Until mid-April, the Hungarian currency weakened to the level of 314, followed by strengthening from end-May, to close the period under review in the band of 306–307 (Chart 4-2).

The modest appreciation of the forint was partly in accordance with the developments in the region, and reflected strengthening international risk assumption trends. At the same time, regional monetary policy and economic policy factors of contrasting directions also had an impact on the foreign exchange rate, as a result of which over the whole quarter the forint strengthened to a lesser degree than the Polish zloty or the Czech koruna. This implies that portfolio re-weighting and position-taking occurred among the three regional currencies.

4.1.3. Government securities market and changes in yields

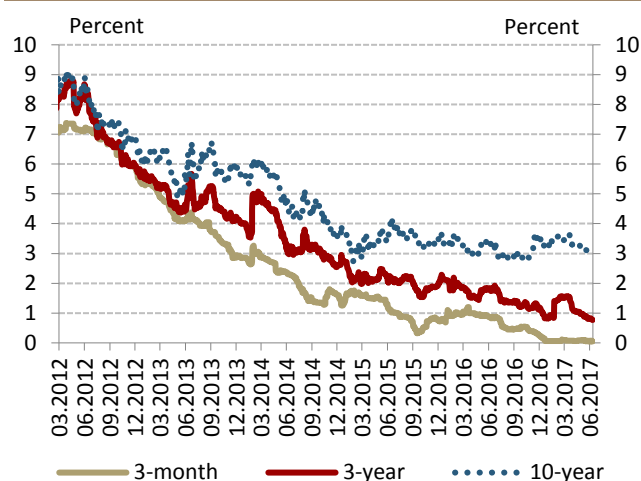
Non-residents' HUF-denominated government securities holdings increased in the past quarter. After a steady decline that started in 2015, non-residents' HUF-denominated government securities holdings stabilised in mid-2016, followed by decline again from October 2016 until February 2017. In the past 3 months, however, a minor adjustment took place, and holdings grew by some HUF 150 billion. As a result, non-residents' ownership share increased to 22.8 percent (Chart 4-3).

Demand was adequate in the primary market of government securities; issues exceeding the planned level took place in the case of longer-term securities. Short-term treasury bill yields remained unchanged at low levels, which was also attributable to maintaining the unconventional easing by the central bank. In the case of longer-term securities, auction yields declined considerably due to strong demand and international developments.

The government securities secondary market yield curve became flatter during the past quarter. In line with auction yields, short-term secondary market yields remained practically stagnant, while the over-1-year section of the yield curve shifted downwards by 40-80 basis points. At shorter maturities, yields remained low as a result of the liquidity-increasing effects due to the restructuring of instruments, while at long maturities the declining international yield environment made an impact. At the end of the period, the 10-year yield fluctuated around 3 percent, while 3-month and 1-year yields stood at 5 and 11 basis points, respectively (Chart 4-4).

As a result of the further reduction of the 3-month central bank deposit limit and the introduction of new FX swap

Chart 4-4: Yields of benchmark government securities

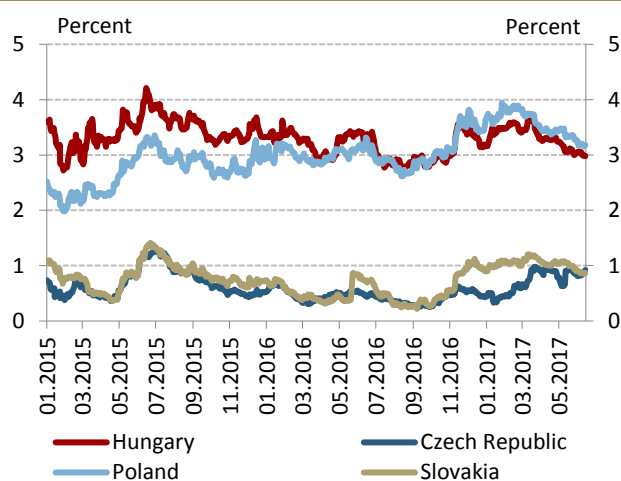


Source: Government Debt Management Agency (ÁKK)

instruments, short-term interbank yields were stagnant, while in the longer segment a further minor decline was observed, resulting in a flatter interbank yield curve. In the past quarter, implied forint swap yields were also down, with the yields of discount treasury bills also stabilising at low levels.

Long-term yields declined in most of countries of the region. The forint and zloty yields basically moved together, but the Romanian, Slovak and Slovenian 10-year yields also showed a decline. At the same time, the Czech yield increased slightly (Chart 4-5).

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



Source: Bloomberg

Box 4-1: Changes in money market and government securities market yields following the modification of central bank instruments

As a first step of the modification of central bank instruments announced on 12 July 2016, **since August 2016 tenders for the three-month central bank deposit facility have been held once a month instead of once a week.**

The second step of the modification of the instruments was the quantitative limitation of the three-month central bank deposit facility. Accordingly, in September 2016, the Monetary Council set a HUF 900 billion upper limit on 2016 year-end stock of three-month central bank deposits and indicated that it **considers the introduced limit and its change an integral part of monetary policy instruments.** Following that, the Council limited the outstanding amount of the deposit facility at HUF 750 billion for the end of 2017 Q1 and HUF 500 billion for the end of Q2.

Taking account of achieving the inflation target in the medium term and stimulating the real economy to a corresponding degree, in parallel with the permanent maintenance of the current level of the base rate, **the central bank's initial objective with the quantitative restriction was to ease monetary conditions via a reduction in money market yields.** Therefore, following the announcement of the modification of the instruments, interbank and government securities market developments deserve special attention. After the announcement of the modification of instruments on 12 July 2016, **a significant downward shift in yield curves took place, and this decline proved to be lasting** (Table 4-1).

Table 4-1: Changes in yields following the modification of central bank instruments

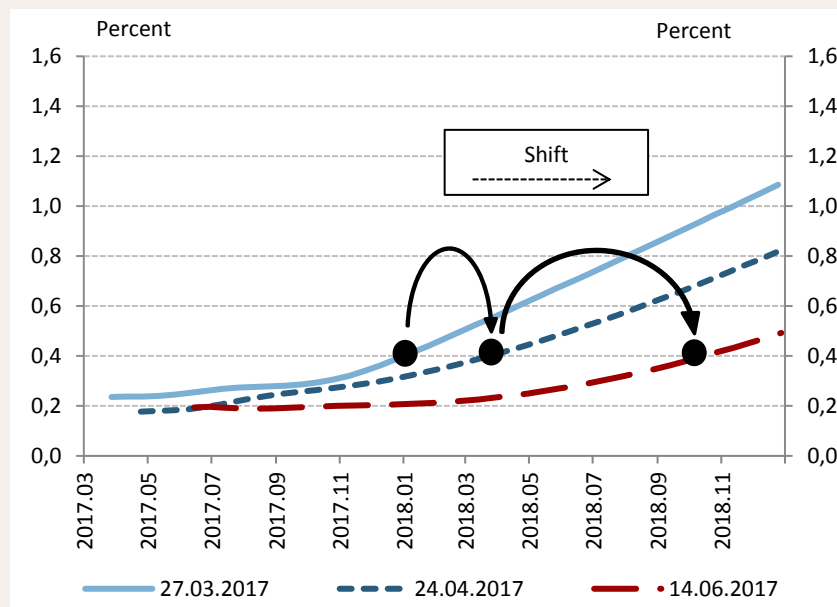
Measure		11 July 2016	14 June 2017	Change
		Percent		Basis point
Base rate		0.90	0.90	0
BUBOR	1 month	1.00	0.15	-85
	3 month	1.02	0.15	-87
	6 month	0.96	0.22	-74
	12 month	0.95	0.29	-66
Government bond yield	3 month	0.80	0.05	-75
	12 month	0.98	0.10	-88
	3 year	1.63	0.78	-85
Implied HUF yield of FX-swaps	1 week	0.91	0.11	-80
	1 month	1.03	0.16	-87
	3 month	1.12	0.18	-94
	12 month	1.33	0.41	-92
FRA - 3x6		0.87	0.16	-71

Sources: MNB, Government Debt Management Agency (ÁKK), Bloomberg, Reuters

BUBOR yields up to one year declined considerably and permanently below the current level of the base rate, and a significant decline was observed in the case of government securities market yields as well. The implied forint interest rates of FX swap transactions and FRA yields also fell considerably during the period.

Following the significant decline in yields, in March 2017 the Monetary Council changed its forward guidance, according to which 'if the assumptions underlying the Bank's projections hold, maintaining the current level of the base rate and loose monetary conditions achieved through the change in monetary policy instruments for an extended period is consistent with the medium-term achievement of the inflation target and a corresponding degree of support to the economy'. Following the message on the lasting maintenance of the loose monetary conditions achieved, the timing of the increase in BUBOR yields expected by the market shifted to a later date (Chart 4-6).

Chart 4-6: Implied path of the three-month interbank rate



Source: MNB, Reuters

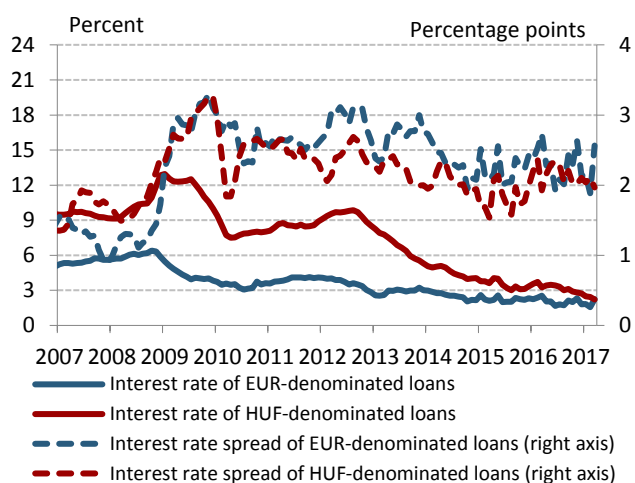
Following the March forward guidance and the expansion of the set of central bank instruments with longer-term FX swaps providing 6-month and 12-month forint liquidity, the yield curve became flatter, and then in the following months market expectations concerning the remaining of the three-month BUBOR at a low level became gradually extended, by three months in April and another six months in May and June together. At present, the 3-month BUBOR is priced in the market at 0.21 percent by end-2017 and 0.49 percent by end-2018. **Market participants** expect the 3-month BUBOR to be

below 0.4 percent until October 2018, i.e. they believe that the interbank rate will remain close to the present level for more than a year.

4.2. Credit conditions of the financial intermediary system

In 2017 Q1, credit conditions eased in the case of both corporate and household loans. As indicated by the banks participating in the Lending Survey, intensifying market competition and improving economic prospects continued to be the main factors contributing to the easing, which primarily concerned price conditions. The one-year forward-looking real interest rate declined further in the quarter under review.

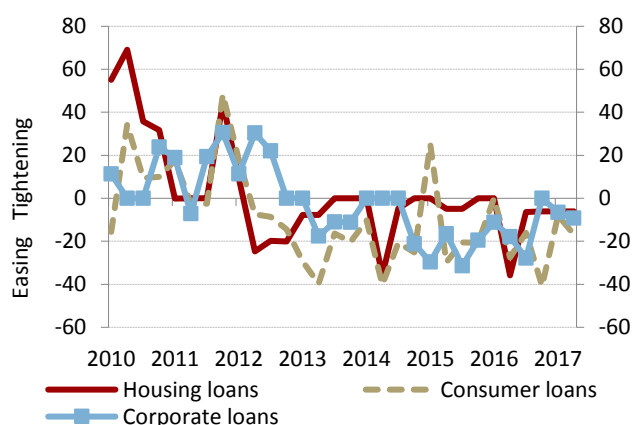
Chart 4-7: Smoothed interest rates and spreads on corporate loans by denomination



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

Source: MNB

Chart 4-8: 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

4.2.1. Corporate credit conditions

The financing cost of corporate forint loans decreased in 2017 Q1. 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 fixation⁸ fell by 0.5 percentage point to 2.2 percent in the period under review (Chart 4-7). Looking at credit sizes, the average interest rate level on both high-amount and low-amount forint loans declined. On the whole, as a combined result of the declining spread on high-amount loans of over EUR 1 million and the rise in credit spreads on small-amount loans, average spreads dropped by 14 percentage points. The interest rate of EUR-denominated loans rose by an average 0.4 percentage point to 2.2 percent during the quarter, accompanied by a corresponding increase in spreads. At end-March, the average level of interest rate spreads amounted to 2 percentage points in the case of new forint loans and to 2.5 percentage points in the case of euro loans.

Corporate credit conditions eased and looking ahead further easing is expected. The Lending Survey revealed that, in net terms, 6 percent of banks eased their corporate credit conditions (Chart 4-8). Responding banks explained the easing primarily with the competition, improving economic prospects and the adequate liquidity supply. Looking ahead, 9 percent of banks in net terms⁹ indicated further easing, and this would be realised in price conditions.

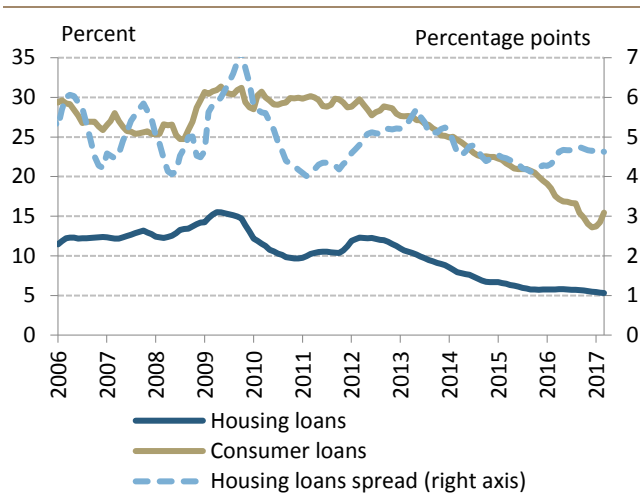
4.2.2. Household credit conditions

Financing costs on housing loans decreased slightly in 2017 Q1. The APR on newly extended consumer loans rose by 1.9 percentage points to 15.5 percent compared to the previous quarter (Chart 4-9). The annual percentage rate on housing loans fell by 16 basis points during the quarter and thus amounted to 5.3 percent at end-March. At the end of the quarter, the average APR on variable-rate and fixed-

⁸ 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.

⁹ Net percentage balance of respondents reporting tightening/easing credit conditions weighted by market share.

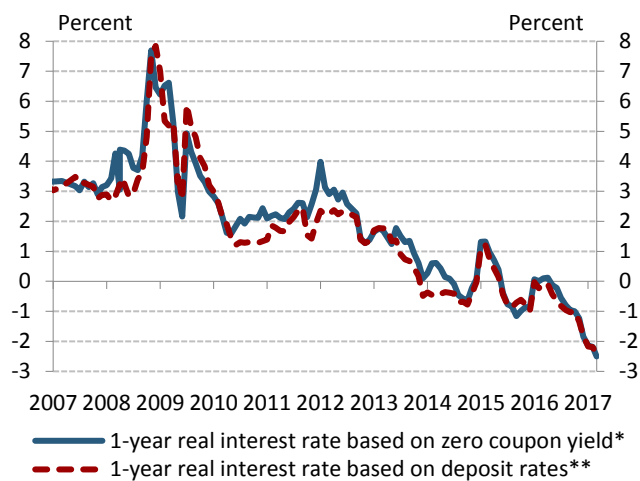
Chart 4-9: Smoothed annual percentage rate of charge (APRC) and spreads of housing and consumer loans



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

Source: MNB

Chart 4-10: 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

rate housing loan products stood at 4.0 percent and 6.2 percent, respectively. In the period under review, the average spread on housing loans decreased by 2 basis points to 4.6 percentage points, while that on home equity loans rose by 0.4 percentage point to 6.4 percentage points.

Consumer and housing loan standards eased nearly to the same degree in the quarter under review. In net terms, 8 percent of banks responding to the Lending Survey eased their consumer loan conditions, in particular the spreads applied. In the consumer segment, the improvement in economic prospects, banks' market share objectives and the intensification of perceived competition contributed to the easing of credit conditions. In the case of housing loans, 6 percent of banks eased the standards overall, but looking at the conditions in detail, greater easing also took place. Based on banks' responses, the easing mainly concerned the spreads. Looking ahead, in net terms 34 percent of banks think that the developments in the housing loan market will be stimulated by banks' favourable liquidity prospects, and 27 percent of them also mentioned the favourable housing market developments as factors that support lending. As for consumer loans, a net 17 percent of banks indicated further easing, primarily with respect to the payment-to-income ratio and the minimum required credit score.

4.2.3. Changes in real interest rates

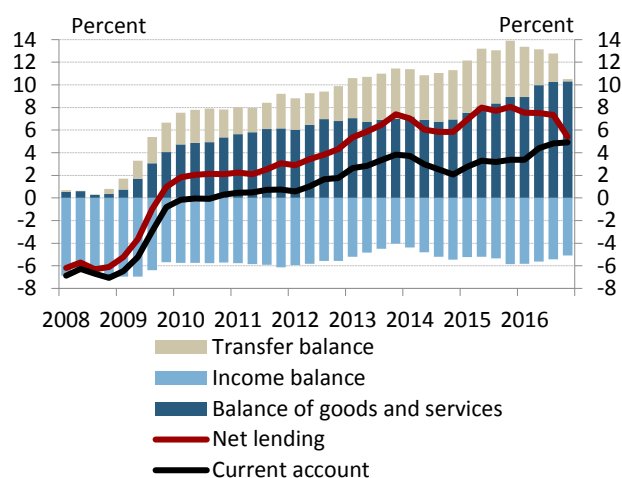
The one-year forward-looking real interest rate declined in 2017 Q1. On the basis of the yield estimated from government securities market yields, the real interest rate level reduced by inflation expectations declined by 0.7 percentage point compared to the previous quarter and thus stood at -2.5 percent at the end of the period. With 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 -2.4 percent in March (Chart 4-10). The decline in real interest rates is mainly explained by a rise in inflation expectations and to a lesser extent by a decrease in deposit rates.

5. THE BALANCE POSITION OF THE ECONOMY

5.1. External balance and financing

According to the real economy approach, in 2016 Q4 the external balance position of the Hungarian economy declined to 5.4 percent of GDP, which is primarily attributable to the decrease in EU transfer inflows. In parallel with that, however, the stabilisation of the trade surplus at a high level and the declining deficit of the income balance had a contrasting effect, and thus the current account rose to a historic high. In Q4, net lending according to the financing side also declined as a result of a considerable decrease in debt liabilities and high inflows of non-debt liabilities. The debt outflow was mainly related to the banking sector. Debt ratios continued to improve in Q4, with net and gross external debt falling below 20 percent and 70 percent of GDP, respectively. According to preliminary monthly data, in Q1 the trade balance remained at a high level, while utilisation of EU transfers also increased, resulting in growth in net lending. On the financing side, based on preliminary data, net FDI inflows and debt outflows declined considerably in Q1.

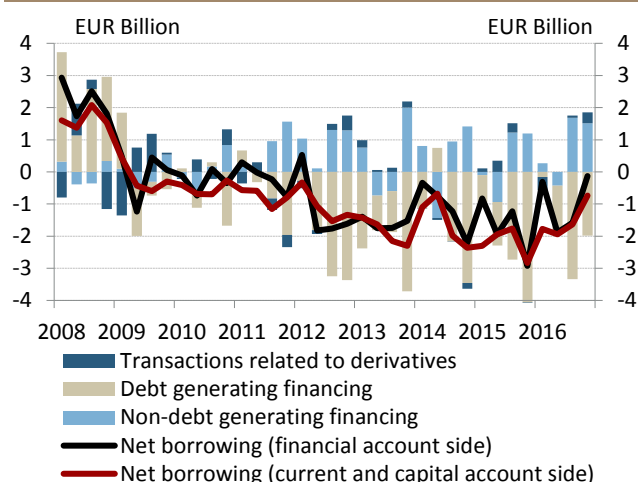
Chart 5-1: Changes in net lending as a proportion of GDP



Note: Cumulated four-quarter values.

Source: MNB

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

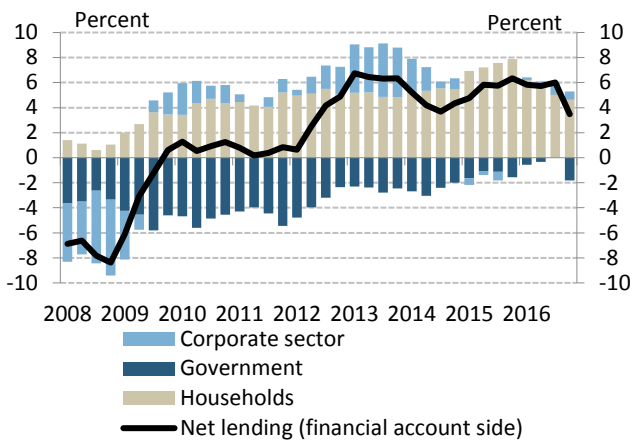
5.1.1. Developments in Hungary's external balance position

At end-2016, the four-quarter net lending of the economy declined to 5.4 percent of GDP, which was primarily attributable to a fall in EU transfers, while the current account surplus increased slightly (Chart 5-1). Reaching a historic high in Q4, the trade surplus was around 10 percent of GDP, supported by an improvement in the terms of trade and goods exports, which latter decelerated in parallel with industrial production, but continued to rise at the same time. Based on preliminary monthly data, in Q1 the increase in commodity prices resulted in a deterioration in the terms of trade, although this was offset by the increase in exports stemming from an upswing in industrial production. Although the steady expansion in consumption entailed an upturn in imports, on the whole, the trade surplus was high in Q1 as well. The fall in the **transfer balance** at the end of the year was primarily related to the decline in EU transfer disbursements. According to preliminary monthly data, as a result of the increase in EU disbursements in Q1, the contribution of the transfer balance surplus to the surplus of net lending was significant again. Preliminary monthly data suggest that as a result of declining interest expenditures, the decline in the **income account** deficit observed during 2016 continued in Q1 as well.

5.1.2. Developments in financing

At end-2016, the financing side external position fell significantly short of the data according to the real economy side; the decline in debt was broadly offset by the net FDI inflows (Chart 5-2). In 2016 Q4, net external debt declined by another EUR 2 billion mainly owing to the banking sector, while non-debt liabilities rose by EUR 1.5 billion. According to preliminary monthly data, net FDI inflows declined considerably in 2017 Q1. In parallel with that, net outflows of debt liabilities also decelerated, mainly as a result of the significant increase in the net external debt of banks as a correction of the decline at the end of the year.

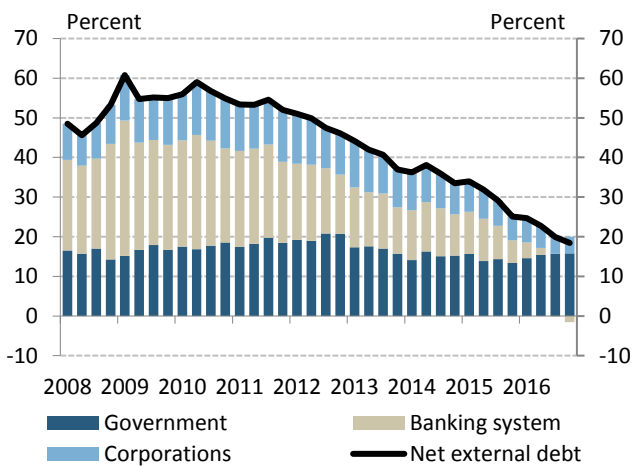
Chart 5-3: Breakdown of net lending by sectors as a proportion of GDP



Note: Four-quarter cumulation.

Source: MNB

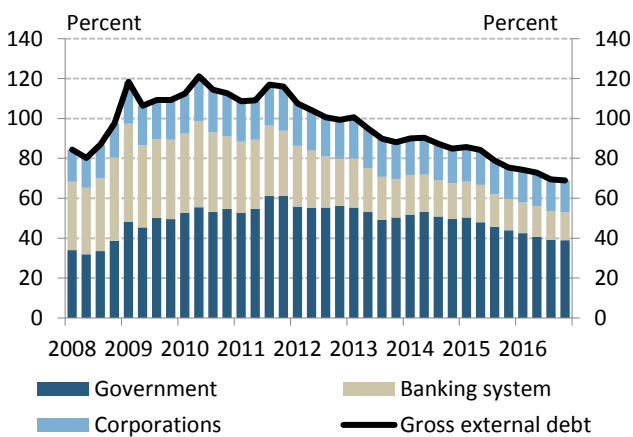
Chart 5-4: Breakdown of net external debt by sectors as a percentage of GDP



Note: Excluding intercompany loans.

Source: MNB

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



Note: Excluding intercompany loans.

Source: MNB

Preliminary data suggest that net external government debt declined in Q1, which is attributable to the continued decrease in non-residents' government securities holdings, although its impact was attenuated by the decline in FX reserves due to the maturity of the swap transactions related to the conversion into forints.

In 2016 Q4, net lending according to the sectors' savings fell considerably, with contributions from all sectors (Chart 5-3). At end-2016, government net borrowing was close to 2 percent of GDP and was around this figure in Q1 as well. The favourable fiscal developments were mainly attributable to the increase in tax revenues as a result of growing employment and consumption. Simultaneously with that, households' net financial savings declined gradually during 2016, which continued in Q1 as well. The decline in net lending was a result of a pick-up in lending to households, which was related to the expansion in consumption and investment expenditures stemming from an increase in wages and employment. The net lending of the corporate sector was relatively low in 2016 H2 as well, which was attributable to the upswing in investment and inventory accumulation at the end of the year.

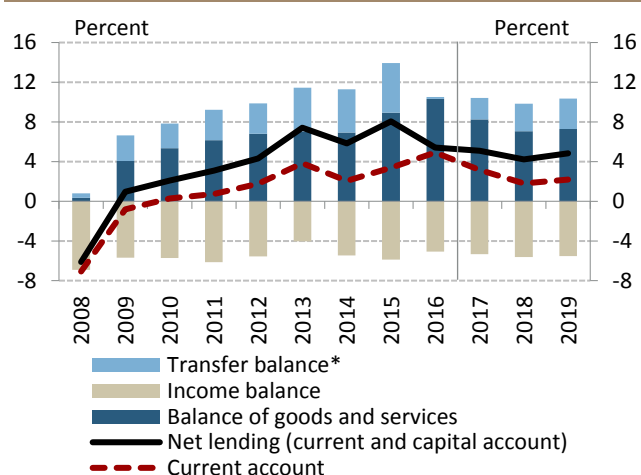
At end-2016, the country's net external debt sank to 18.4 percent of GDP (Chart 5-4). The decline in net external debt at the end of the year was attributable to higher outflows of funds and to GDP growth. Based on preliminary data, the dynamics of the decline in net external debt slowed in Q1, as debt outflows fell considerably due to transactions. The net external debt of the banking sector rose again as a result of transaction developments, while the indicators for the state and corporations declined.

By end-2016, the gross external debt of the economy decreased to 68 percent of GDP, but may have risen again in Q1 (Chart 5-5). As a result of the self-financing programme and households' significant government securities purchases, gross external government debt declined to below 40 percent of GDP by the end of last year. At end-2016, banks' debt decreased considerably, while government and corporate debt remained unchanged. According to preliminary data, gross government debt on the basis of fund outflows (excluding revaluation and GDP effects) continued to fall in Q1, while the indicator for the banking sector rose considerably, as a correction of the Q4 decline.

5.2. Forecast for Hungary's net lending position

Owing to the decreasing foreign trade balance and the increasing transfer balance, the net lending of the economy is expected to remain steadily around 5 percent of GDP, whereas the current account balance will rise slightly in 2019, after an anticipated fall at the beginning of the forecast horizon. The lower foreign trade balance can be attributed primarily to rising imports, stemming from the acceleration of domestic demand. In addition to the expected increase in Hungary's export market share, it is mainly the significant surplus of the foreign trade balance that supports the high net lending. With the expected increase in EU transfer utilisation from 2017, the transfer balance will again contribute significantly to the external position of the economy. Due to the improving profitability of foreign-owned companies, a temporary increase in the deficit on the income balance can be forecast until 2018, which may be offset by falling interest expenditures at the end of the forecast horizon. The gradual decrease in the current account balance expected in 2017–2018 will result from the lower foreign trade surplus and the increase in the deficit on the income balance. Considering the savings of the sectors, the net savings of households will decrease gradually with the increase in lending, while the net borrowing of the state will increase significantly after the historically low level of 2016, whereas the net lending of companies will rise considerably as a result of improving profitability and the increasing utilisation of EU transfers. Thus, all in all, the net lending stabilising according to the financing side will result in further improving indicators of external vulnerability.

Chart 5-6: Evolution of net lending (as a percentage of GDP)



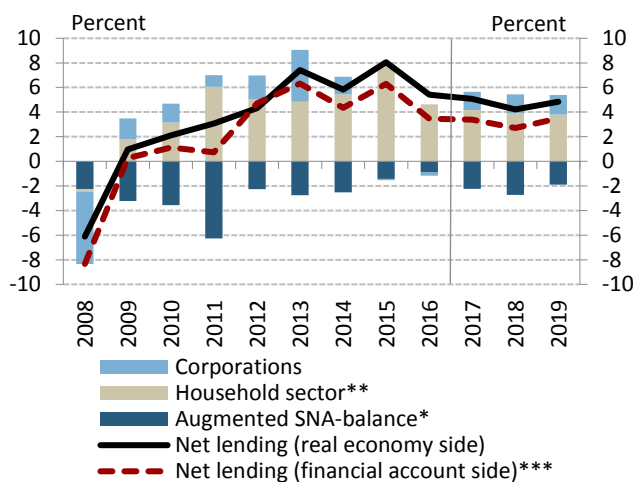
Note: * The sum of the balance of the current transfers and the capital account balance.

Source: MNB

Looking ahead, the net lending of the economy will amount to around 5 percent of GDP, whereas the surplus of the current account balance will increase slightly in 2019, following a significant decline (Chart 5-6). Net lending will be at a permanently high level over the forecast horizon as a result of the significant drop in the foreign trade balance – after the outstanding value recorded in 2016 – and the considerable increase in the surplus on the transfer balance. The decrease in the foreign trade surplus can be explained by external and internal factors: in addition to the deterioration of the terms of trade, accelerating import growth due to the significant rise in household consumption and investment suggests a lower foreign trade surplus (the value of which is still very high). The export market share, which continues to increase over the forecast horizon, is also supported by the expansion of new vehicle industry capacities, and together with the domestic increase in demand slowing down by 2019 this results in a modest increase in the foreign trade balance. Meanwhile, in line with the government's intentions, the utilisation of EU funds will increase again, which will result in a steadily high level of the transfer balance. At the beginning of the forecast horizon the accelerating economic growth and the decrease in corporate tax will improve the profit of foreign-held companies, which will be reflected in the increase in the deficit on the income balance, in with this also reflecting the drop in interest expenses, in parallel with the falling external debt indicators.

The net lending of the financing side of the economy will stabilise at around the 2016 level at the forecast horizon, due to the different savings processes of the sectors. The waning effect of the falling net savings of households and

Chart 5-7: 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

the increasing financing demand of the state are offset by the rise in the net lending of companies (Chart 5-7).

Looking ahead, the financing demand of the general government will increase from the 2016 level, but will still remain moderate. The low budget deficit in 2016 can be explained by the rising tax incomes as a result of the higher wages and lower government expenditures. On the income side, the increasing budget deficit in 2017 can be traced back to the decrease in corporate tax and labour contributions, whereas on the expenditure side it can be attributed to the increase in investments. The further increase of the budget deficit in 2018 is connected to the elimination of the Growth Tax Credit and the increasing own funds of investments tied to the utilisation of EU transfers. In 2019, the further decrease in interest expenses and the slower increase in financial transfers suggest a low deficit, on the whole.

The significantly increase in the net lending of companies and the mild fall in the net lending of households results in higher net savings of the private sector. The slow decrease in net lending according to the underlying development of households will continue gradually over the forecast horizon. In addition to state investment incentives, the increase in the minimum wage and the consumption accelerating as a result of the still high wage outflow results in a slow expansion of lending, which is reflected in the decreasing, but still high, net lending of households. In the corporate sector, the decrease in the corporate tax rate and increasing EU transfer utilisation will improve the profitability of companies, which steadily increases the net lending of the sector over the forecast horizon.

The external vulnerability of the economy will decrease further over the forecast horizon, thanks to the external debt indicators decreasing as a result of the high net lending. In addition to the still high external position, a decreasing level of net external debt can be forecast. The expected decrease in the foreign currency ratio of government debt can also be considered favourable in terms of vulnerability.

5.3. Fiscal developments

Based on our forecast, the budget deficit may remain low in the coming years, which – together with dynamic economic growth – will result in a steady decline in the government debt-to-GDP ratio. According to our projection, the ESA deficit will be between 1.8 and 2.1 percent in 2017, and the budget deficit will be 2.4 percent in 2018 if the Country Protection Fund is cancelled. As a result of tax cuts, higher investment expenditure and the continuation of career path models, fiscal policy may expand demand this year and next year as well. According to our projection, the downward trend in Maastricht government debt will continue, and thus the debt-to-GDP ratio will decline to roughly 73 percent this year, and will be close to 71 percent by the end of the forecast period.

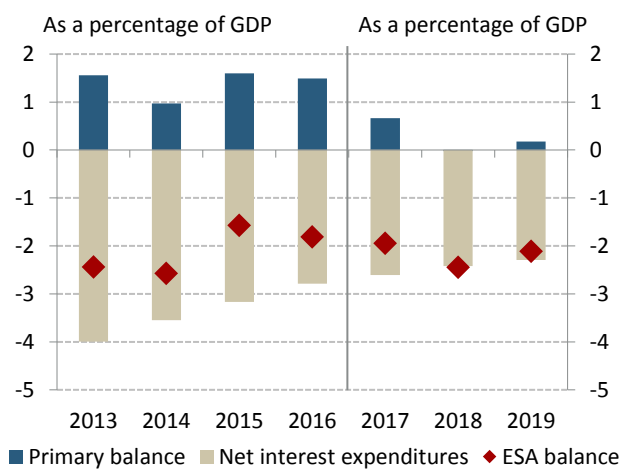
Table 5-1: General government balance indicators (as a percentage of GDP)

	2017	2018	2019
ESA balance	(-1.8) – (-2.1)	(-2.4) – (-2.6)	(-2.0) – (-2.2)
Primary balance	0.5 – 0.8	(-0.2) – 0.0	0.1 – 0.3
Fiscal impulse*	1.2 – 1.6	0.4 – 0.5	(-0.6) – (-0.8)

Note: The lower value of the forecast band shows the ESA balance if the Country Protection Fund will be used while the higher value shows the ESA balance if the Country Protection Fund is not used.
* Change in the augmented (SNA) primary balance.

Source: HCSO, MNB

Chart 5-8: Changes in the fiscal balance and interest expenditures



Note: Indicated values located in the middle of the forecast range in 2017 and 2019, while for 2018 the calculation was made assuming the cancellation of the Country Protection Fund. The figures 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

According to our projection, the ESA deficit as a proportion of GDP will be between 1.8–2.1 percent in 2017 and will be in line with the 2.4 percent deficit target in 2018 if the Country Protection Fund is cancelled (Table 5-1). Based on our technical projection, the budget deficit will be 2.0–2.2 percent in 2019. Due to the significant decline in interest expenditures that has taken place in recent years, with a close-to-zero primary balance, the budget deficit may stabilise at around 2 percent (Chart 5-8). The impact of economic growth on the budget balance may be positive in the years to come, as there is a strong upturn in the labour market, to which a significant portion of tax revenues is related.

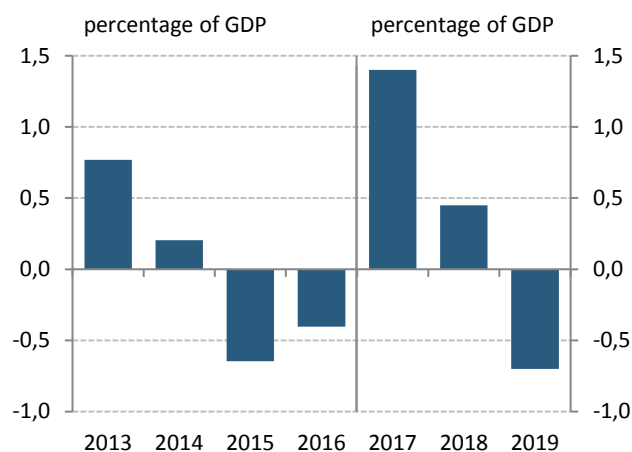
The fiscal policy may significantly increase aggregate demand in 2017 and in 2018 (Chart 5-9). The reduction of the social contribution tax rate in several steps, the targeted VAT cuts as well as the lowering of the corporate tax and the bank levy will all add to aggregate demand in the coming years. Households' disposable income is increased by the rise in the family tax base allowance year by year. On the expenditure side, government career path models will continue, and the increase in investment from the government's own sources will also generate a further pick-up in demand. Gradual absorption of the expenditures realised at end-2016 will contribute to the 2017–2018 impulse.

5.3.2. Budget balance in 2017

According to our forecast, in 2017 the ESA deficit of the general government will be 1.8–2.1 percent of GDP, i.e. slightly higher than our March projection (Table 5-2). Developments in revenues are determined by the upturn in the labour market, resulting in higher tax revenues than in our March forecast.

On the expenditure side, the Budget Act submitted in May justifies the modification of our projection. Reacting to the room for manoeuvre that evolved, the amendment to the 2017 Budget Act contains an expansion of public

Chart 5-9: Fiscal demand effect (as a percentage of GDP)



Note: The fiscal demand effect corresponds to the change in the augmented (SNA) primary balance. The fiscal impulse contains the effect of EU funds only to the extent of the cofinancing. A positive prefix indicates demand expansion, while a negative prefix implies demand restraint.

Source: MNB

Table 5-2: Decomposition of the change in the 2017 ESA balance forecast (compared to the March Inflation Report; as a percentage of GDP)

	Economic developments	Measure and other
I. Central government revenues	0.2	0.0
Labour taxes	0.2	
II. Central government expenditures	0.0	-0.5
Expenditures of budgetary organisations		-0.4
Hospital's liabilities		-0.1
III. Other effects	0.0	0.1
Other		0.1
Total (I.+II.+III.)	0.2	-0.4

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 due to rounding.

Source: MNB

road developments, the acceleration of preparations for investment projects and an increase in reserves. In addition, we also took into account the increase in hospitals' outstanding debt as an item that adds to the ESA deficit.

Our deficit projection is 0.3–0.6 percentage point lower than the deficit target of 2.4 percent as a proportion of GDP (Table 5-3). The deviation in budgetary organisations' expenditures is largely related to the significant difference in the projections concerning the absorption of EU funds. Based on the first five months we expect more moderate utilisation and thus a lower level of co-financing than the appropriations. Nevertheless, the expected annual increase in the absorption of EU funds is still significant compared to 2016. In the case of the START public work scheme, in view of the tightness of the labour market we expect fewer participants in the programme than the assumption used upon planning the budget. Our forecast for VAT is below the appropriation, which may primarily be attributable to lower public investment due to more moderate absorption of EU funds as well as the different assessment of the whitening effect. In the case of payments by economic units, various smaller factors cause a deviation from the appropriation. The amendment concerning the regulation of the tax on advertising and the ensuing tax refund this year were taken into account in our projection.

5.3.3. 2018 and 2019 fiscal balance

The 2018 Budget Act defines the general government deficit on an ESA basis at 2.4 percent of GDP, which corresponds to the appropriation for 2017. Compared to our preliminary technical assumptions, the 2018 Budget Act contained higher expenditures, mainly concerning investment, which slightly increased the deficit we expected in March. The further reduction of the social contribution tax and the reduction of VAT on various products add to the private sector's disposable income, and revenues as a proportion of GDP will increase in 2018 stemming from the expansion in the economy.

According to our forecast, the 2.4 percent deficit target set out in the bill can be achieved with the cancellation of the Country Protection Fund. We expect lower fiscal revenues compared to the bill, which is mainly attributable to the differences between the macroeconomic paths. In the case of VAT revenue, a major part of the difference is justified by the different 2017 base. As for taxes on labour and payments by economic units, the difference is caused

Table 5-3: 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	-0.5
Payment by economic units	-0.2
Taxes on consumption	-0.3
Labour taxes	-0.1
II. Central government expenditures	0.6
Expenditures related to EU subsidies	0.4
START public work scheme	0.2
III. Other effects	0.2 – 0.5
Cancellation of Country Protection Fund	0.0 – 0.3
Balance of local governments	0.2
Total (I.+II.+III.)	0.3 – 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 due to rounding.

Source: MNB

Table 5-4: Differences between our forecast and the appropriations set out in the 2018 Budget Act (as a percentage of GDP)

	Difference from appropriation
I. Central government revenues	-0.9
Payment by economic units	-0.1
Taxes on consumption	-0.5
Labour taxes	-0.3
II. Central government expenditures	0.6
Expenditures of budgetary organisations	0.4
Pension expenditures	0.2
III. Other effects	0.0 – 0.2
Cancellation of Country Protection Fund	0.0 – 0.2
Total (I.+II.+III.)	(-0.2) – 0.0

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 due to rounding.

Source: MNB

by the divergence in expectations concerning the growth rate of tax bases (Table 5-4).

We expect lower expenditure in the case of budgetary institutions as well as pension expenditures. In our opinion, in 2018 the actual absorption of EU funds may be lower than what is included in the bill, requiring a lower amount of co-financing. In the case of pension expenditures the main reason for the difference is that the budget is based on a higher GDP growth forecast, and accordingly plans to pay a higher pension premium.

According to our technical projection, compared to 2018 the budget deficit may slightly decline in 2019. As a result of the persistently low yield environment and debt repricing, the value of net interest expenditures as a proportion of GDP will continue to decrease.

5.3.4. Risks surrounding the baseline scenario

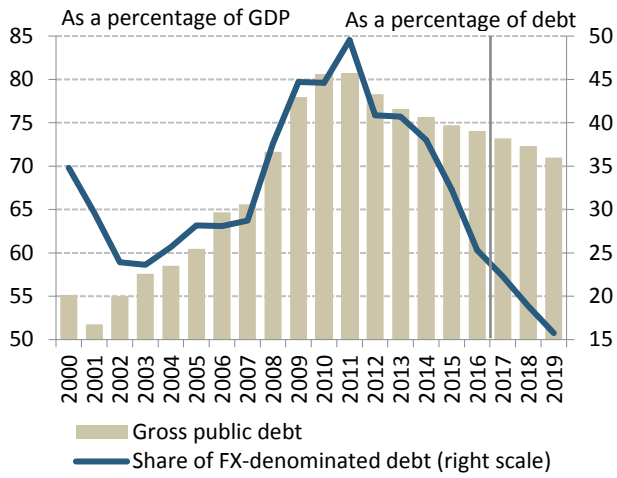
The absorption and disbursement of EU funding continue to cause the greatest uncertainty in our projection. In our forecast, there is a major difference between the disbursement and absorption of EU funds. In our baseline scenario, disbursement on a cash basis is the highest in 2017 and 2018, but real absorption is concentrated in 2018 and 2019. Although absorption of funds at a faster rate than our projection would have a favourable impact on economic growth, at the same time it would add to the budget deficit by increasing national co-financing.

5.3.5. Expected developments in public debt

According to the MNB's preliminary financial account data, at the end of 2017 Q1 the government debt-to-GDP ratio amounted to 74.6 percent. Compared to the same period of the previous year, the ratio declined significantly, falling by 2 percentage points. Following the first three months of the year, the budget had a surplus, and thus the debt issuance resulted in an increase in the liquid deposits of the state. In the remaining part of the year, however, we expect lower net issuance and a gradual reduction of deposits.

According to our forecast, assuming a constant end-2016 forint exchange rate, the government debt ratio may decline further, complying with the debt rule set out in the Fundamental Law. Based on our projection, in the coming years the debt ratio is expected to decline by around 1 percentage point (Chart 5-10), supported by the low financing need as well as the dynamic economic growth. According to our forecast, by end-2017, the ratio will decline to nearly 73 percent, while in 2018 it will be around 72.3 percent, approaching 71 percent by the end

Chart 5-10: Gross public debt forecast – calculated with unchanged (end-of-2016) exchange rate over the forecast horizon



Source: MNB

of the forecast period. As a result of negative net FX issuance, the share of foreign currency within public debt is expected to continue to decline, contributing to a decrease in the external vulnerability of the economy.

6. BREAKDOWN OF THE AVERAGE CONSUMER PRICE INDEX FOR 2017

Table 6-1: Decomposition of inflation to carry-over and incoming effects

	Effect on CPI in 2017		
	Carry-over effect	Incoming effect	Yearly index
Administered prices	0.0	0.1	0.1
Market prices	0.8	1.5	2.3
Indirect taxes and government measures	0.2	-0.2	0.0
CPI	1.0	1.4	2.4

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 6-2: Detailed decomposition of our inflation forecast to carry-over and incoming effects

	2017				
	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	0.2	0.0	3.2	-1.1	2.3
non-processed	-1.6	0.0	4.7	-2.5	0.6
processed	1.0	0.0	2.6	-0.5	3.1
Traded goods	0.2	0.0	0.6	0.0	0.8
durables	-0.4	0.0	1.1	0.0	0.7
non-durables	0.4	0.0	0.6	0.0	1.0
Market services	1.0	0.0	1.8	-0.2	2.6
Market energy	1.0	0.0	2.9	0.0	3.9
Alcohol and Tobacco	0.3	0.6	1.9	1.6	4.4
Fuel	5.9	1.7	1.1	-1.5	7.2
Administered prices	0.2	0.0	0.3	0.0	0.5
Inflation	0.8	0.2	1.6	-0.2	2.4
Core inflation	0.6	0.1	1.5	0.1	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 their inflationary effects. The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB.

LIST OF CHARTS AND TABLES

List of charts

Chart 1-1: Fan chart of the inflation forecast	11
Chart 1-2: Monthly evolution of the near-term inflation forecast	11
Chart 1-3: Decomposition of the inflation forecast	12
Chart 1-4: Fan chart of the GDP forecast	14
Chart 1-5: Annual change in GDP	14
Chart 1-6: Evolution of households consumption, investment and financial savings rates as a percentage of disposable income	15
Chart 1-7: Forecast for household lending	15
Chart 1-8: Evolution of investment rate by sectors	16
Chart 1-9: Annual changes in lending to non-financial corporates and SMEs	16
Chart 1-10: Changes in export market share	16
Chart 1-11: Employment, participation and unemployment rate of the national economy	17
Chart 1-12: Decomposition of nominal unit labour cost growth in the private sector	17
Chart 1-13: Evolution of wage cost and gross average wage in the private economy	18
Chart 2-1: Impact of risk scenarios on the inflation forecast	22
Chart 2-2: Impact of risk scenarios on the GDP forecast	22
Chart 2-3: Risk map: effect of alternative scenarios on the baseline forecast	23
Chart 3-1: Annual changes in GDP in certain globally important economies	24
Chart 3-2: Annual changes in GDP in some emerging economies	24
Chart 3-3: Global inflation developments	25
Chart 3-4: Inflation targets of central banks and actual inflation	25
Chart 3-5: Major commodity price indices	26
Chart 3-6: Annual changes in euro area GDP	26
Chart 3-7: Business climate indices for Germany and the euro area	27
Chart 3-8: Inflation expectations and long-term yields in the euro area	27
Chart 3-9: Annual changes in GDP in CEE countries	27
Chart 3-10: Inflation targets of central banks, inflation, and economic agents' expectations	28
Chart 3-11: Evolution (left panel) and relationship (right panel) of business confidence and industrial production in the euro area	29
Chart 3-12: Contribution to annual changes in GDP	30
Chart 3-13: Evolution of the HuCoin indicator	30
Chart 3-14: Developments in retail sales and consumption	31
Chart 3-15: Developments in net financial assets of households	31
Chart 3-16: Government-related investments	31
Chart 3-17: Non-government related investments	32
Chart 3-18: Annual changes in lending to non-financial corporates and SMEs	32
Chart 3-19: Evolution of home constructions and building permits	32
Chart 3-20: Evolution of the trade balance	33
Chart 3-21: Turnover and share of mail order shops	34
Chart 3-22: Ratio of individuals using the internet for shopping	34
Chart 3-23: Share of services in GDP and economic development (2015)	35
Chart 3-24: Share of market services in GDP	35
Chart 3-25: Annual change of household consumption by the durability of goods	36
Chart 3-26: Development of items in the service balance as a percent of GDP	37
Chart 3-27: Participation, employment and unemployment in the total economy	37
Chart 3-28: Evolution of employment in the private sector	38
Chart 3-29: Development of the Beveridge curve	38

Chart 3-30: Evolution of the output gap and industrial capacity utilisation	39
Chart 3-31: Evolution of the euro area output gap	39
Chart 3-32: Annual change in gross average wages of the private sector	40
Chart 3-33: Adjusted wage share in the private sector	40
Chart 3-34: Decomposition of annual change of real unit labour cost in the private sector	41
Chart 3-35: Annual change in industrial producer prices	41
Chart 3-36: Inflation and underlying inflation indicators	41
Chart 3-37: Services inflation.....	42
Chart 3-38: Inflation expectations in the region	42
Chart 3-39: Inflation of industrial goods (left panel) and market services (right panel) in the region (annual change)	43
Chart 4-1: Components of 5-year Hungarian CDS spread	44
Chart 4-2: Exchange rates in the region	45
Chart 4-3: HUF-denominated government securities held by non-residents	45
Chart 4-4: Yields of benchmark government securities	46
Chart 4-5: 10-year government benchmark yields in CEE countries	46
Chart 4-6: Implied path of the three-month interbank rate	47
Chart 4-7: Smoothed interest rates and spreads on corporate loans by denomination.....	48
Chart 4-8: Changes in credit conditions in the corporate and household sectors	48
Chart 4-9: Smoothed annual percentage rate of charge (APRC) and spreads of housing and consumer loans	49
Chart 4-10: Forward-looking real interest rates	49
Chart 5-1: Changes in net lending as a proportion of GDP.....	50
Chart 5-2: Structure of net lending.....	50
Chart 5-3: Breakdown of net lending by sectors as a proportion of GDP	51
Chart 5-4: Breakdown of net external debt by sectors as a percentage of GDP	51
Chart 5-5: Breakdown of gross external debt by sectors as a percentage of GDP	51
Chart 5-6: Evolution of net lending (as a percentage of GDP).....	52
Chart 5-7: Changes in the savings of sectors (as a percentage of GDP)	53
Chart 5-8: Changes in the fiscal balance and interest expenditures	54
Chart 5-9: Fiscal demand effect (as a percentage of GDP)	55
Chart 5-10: Gross public debt forecast – calculated with unchanged (end-of-2016) exchange rate over the forecast horizon	57

List of tables

Table 1-1: Details of the inflation forecast	12
Table 1-2: Main external assumptions of our forecast.....	12
Table 1-3: Changes in the projections compared to the previous Inflation Report	20
Table 1-4: MNB baseline forecast compared to other forecasts.....	21
Table 5-1: General government balance indicators (as a percentage of GDP).....	54
Table 5-2: Decomposition of the change in the 2017 ESA balance forecast (compared to the March Inflation Report; as a percentage of GDP)	55
Table 5-3: Differences between our forecast and the appropriations set out in the 2017 Budget Act (as a percentage of GDP)	56
Table 5-4: Differences between our forecast and the appropriations set out in the 2018 Budget Act (as a percentage of GDP)	56
Table 6-1: Decomposition of inflation to carry-over and incoming effects.....	58
Table 6-2: Detailed decomposition of our inflation forecast to carry-over and incoming effects	58

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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