INFLATION REPORT

2018
SEPTEMBER

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

Miklós Zrínyi: The Life of Matthias Corvinus

INFLATION REPORT

2018

SEPTEMBER

Published by the Magyar Nemzeti Bank

Publisher in charge: Eszter Hergár

H-1054 Budapest, Szabadság tér 9.

www.mnb.hu

ISSN 2064-8723 (print)

ISSN 2064-8774 (on-line)

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 seeks 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 for Monetary Policy and Economic Analysis. 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 13 September 2018.

Contents

List of boxes

The Monetary Council's key findings related to the inflation report

In the Council's assessment, in parallel with the pick-up in domestic demand, Hungarian economic output is close to its potential level. Growth of the Hungarian economy will pick up further in 2018, then, if the assumptions of the current projection hold, it will slow down gradually from 2019. The inflation target is still expected to be achieved in a sustainable manner from mid-2019.

In the second quarter, the output of the global economy continued to growth, while the risks surrounding growth prospects increased. The Visegrád region is still the growth centre of the European Union. Global inflation rose slightly further, but core inflation indicators were unchanged at moderate levels.

In the second quarter of 2018, in parallel with an increase in risks, the global economy continued to grow. Growth in the United States accelerated, while the dynamic expansion in the Chinese economy continued. Euro area economic growth continued, although forward-looking indicators of economic activity declined further in the summer months. The Visegrád region remained the growth centre of the European Union.

Global inflation increased slightly further in the third quarter. As a result of the increase in global oil prices since the beginning of the year, inflation rates rose in general. At the same time, core inflation indicators remained moderate. Inflation in the euro area was still close to target, while it rose to above central bank targets in some countries of the Visegrád region.

The world's leading central banks continued to normalise their monetary policies at different paces. The European Central Bank (ECB) is reducing the pace of asset purchases at end of September, and is expected to end the programme at the end of the year.

The Federal Reserve (Fed) continues the gradual interest rate hikes. According to June summary of economic projections, two further 25 basis point hikes are foreseen for this year, which are reflected in market pricing as well. Based on the ECB's indication, its policy rates will remain at the current levels at least through the summer of2019 or even after that if necessary. Accordingly, monetary conditions in the euro area may remain loose. The Czech central bank raised its policy rate both in June and August. The decision makers of the Polish central bank left monetary conditions unchanged, and according to the central bank's communication they may remain unchanged this year. The August interest rate hike by the Romanian central bank expected by market analysts did not take place.

Risk appetite decreased during the summer, which was primarily attributable to the events related to vulnerable emerging countries and the increasing tensions in the periphery countries of the euro area.

In the summer months, the developments related to international trade policy had a negative impact on developed markets as well. In addition, risk aversion in parallel with an increase in US interest rate hike expectations was observed in the third quarter as well. Capital outflows from emerging markets continued, mainly affecting the Turkish and Argentine markets. As a result of a deterioration in investor sentiment, the increase in yields accelerated. As of mid-July, expectations of a downgrading strengthened in connection with the fiscal risks in Italy, and had a negative impact on Italian asset prices.

The domestic interbank and government securities market yield curves became flatter.

BUBOR quotations within one year declined in the Hungarian interbank market. The shorter than 5 years section of the interbank market forward yield curve as well as of the government securities market yield curve shifted upwards to a greater extent, while the longer than 5 years sections shifted upwards only to a small extent. Deterioration in risk appetite in emerging markets resulted in weaker exchange rates in the region as well. Based on market forecasts, euro area monetary conditions – the key determinants of domestic monetary policy – may remain persistently loose.

In the summer months, inflation in Hungary slightly exceeded 3 percent, which was in line with the June forecast. As temporary effects fade, the inflation rate is expected to ease back again. Looking ahead, the rise in underlying inflation developments will ensure the achievement of the inflation target in a sustainable structure from mid-2019.

Since the June forecast, as a result of volatile fuel prices and a rise in unprocessed food prices, inflation increased to above 3 percent in line with our expectations, while core inflation was persistently around 2.4 percent. In the short run, we expect an inflation path that is essentially identical with the previous forecast, and thus the consumer price index will remain slightly above 3 percent in the remaining part of the year. Core inflation excluding indirect tax effects will gradually rise over the forecast horizon due to buoyant domestic demand, increasing wage dynamics and the indirect effects of the oil price rises observed in the spring months. The impact of pay rises on labour cost is attenuated by the reductions of contributions set forth in the wage agreement. The inflationary effect from labour costs is expected to remain moderate. On the whole, the recently announced excise tax increases and VAT cuts will result in a slight increase in inflation over the forecast horizon. At the same time, its effect will be offset by lower price dynamics of non-core inflation products compared to our earlier expectation. According to the ECB's forecast, underlying inflation developments in the euro area will be moderate in the coming years, restraining the rate of price increase in Hungary as well. Over the forecast horizon, similarly to our June forecast, rising core inflation ensures the achievement of the inflation target in a sustainable structure from mid-2019.

Compared to last year, we expect more dynamic economic growth this year, which, however, if the assumptions of the current projection hold, will gradually decelerate as of 2019. Economic growth continues across a broad range of sectors. In terms of a sustainable convergence path, in addition to the preservation of financial stability, the improvement of productivity and competitiveness will become increasingly important.

According to our forecast, gross domestic product will grow by 4.4 percent this year, then – if the assumptions of the current forecast hold – we expect an expansion of 3.5 percent in 2019 and 3.0 percent in 2020. Strengthening in domestic demand, determined by both household consumption and expansion in investment, will continue to play an important role in Hungary's growth. Consumption growth is supported by the dynamic increase in real wages, the high level of net financial worth and the second-round effects of the upswing on the housing market. Further dynamic expansion in investment is expected until the end of 2019. We expect strong underlying investment developments from the corporate side in the first half of the forecast period. In addition to the underlying developments, one-off large investment projects will also contribute to the increase in investment in the corporate sector. In 2020, the investment activity reducing impact of the housing market cycle coming to a standstill as a result of the restoration of the VAT on housing and the decline in the effective absorption of EU funds will be offset by the large investment project of BMW announced in the summer. Growth in external markets will fall short of our earlier expectation as a result of an increase in global trade tensions, having a negative impact on the dynamics of Hungary's exports as well. At the same time these developments will be attenuated by the installation of new export capacities and a dynamic growth in services exports, in line with which we expect an increase in Hungary's export market share.

Parallel to the upturn in domestic demand, output is close to its potential level over the forecast horizon. As the output gap closes, expansion in the supply side of the economy is determining the sustainability of growth. Besides maintaining stability, economic policy can increase the rate of potential growth with measures aimed at improving competitiveness and productivity.

Both corporate lending and household lending expand dynamically over the forecast horizon; however, the proportion of long-term, fixed-rate lending to SMEs continues to be low.

In the second quarter, corporate lending and household loans outstanding increased by 12 percent and nearly 3 percent, respectively, year on year. The growth rate of SME loans outstanding exceeds that of corporate lending as a whole. With the spreading of certified consumer-friendly housing loans, household lending shifted towards credit expansion with longer interest rate fixation and a sounder structure. Nevertheless, the share of long-term, fixed-rate lending to SMEs continues to be low. Similarly to household lending, increase in loans with interest rates fixed for a long term would support lending with a sound structure in the SME segment as well. On the whole, against the background of dynamic economic growth and a persistently negative real interest rate environment, continued rise in lending is expected to take place in the coming years. The growth rate of total corporate lending will be in the middle of a 5–10 percent band over the forecast horizon.

External financing capacity will be at a persistently high level over the forecast horizon, supported by the current account surplus and an upswing in EU funding. As a result of the favourable external balance position, debt indicators of the Hungarian economy improve further, and thus net external debt will decline to zero by 2020.

In 2018 and 2019, in relation to a pick-up in domestic demand and the import increasing effect of the rise in oil prices, the trade surplus will decline, which will also be reflected in a temporary decrease in the current account. This effect will be offset by the improvement in the transfer balance in line with the expanding absorption of EU funds, and thus – following a decline in 2018 – the external financing capacity will become stable around 3 percent of GDP. At the end of the forecast period, in parallel with decelerating expansion in domestic absorption, the increasing production of newly installed export capacities will contribute to the growth in net exports, entailing improvement in the current account balance. As a result of the persistently favourable external balance position, external debt ratios are expected to decline further, and thus net external debt will decline to zero by 2020. Our projection suggests that in 2018 the accrual-based budget deficit will be slightly lower than the foreseen 2.4 percent target, before declining – in line with the deficit target – to 1.8 percent in 2019. Major decline in the debt ratio is expected over the entire forecast horizon, moderated in 2018 by the advancing of EU funding.

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

In addition to the baseline projection in the September Inflation Report, the Monetary Council highlighted three alternative scenarios. In the case of the realisation of the scenario that presents the capital outflow from emerging markets the rise in risk spreads will result in slower growth and a higher inflation path compared to the baseline scenario. In the case of the alternative scenario assuming a stronger impact from the expansion in consumption on inflation, domestic economic growth will be more robust, and inflation will be higher than in the forecast of the baseline scenario. Realisation of the scenario that assumes a more restrained external inflation environment results in lower inflation and more moderate demand than in the baseline scenario. In the first two cases, sustainable achievement of the inflation target is possible with tighter monetary conditions than the ones assumed in the baseline scenario, while in the latter case it is possible if monetary conditions are looser. In addition to the scenarios highlighted above, the Monetary Council discussed, as further risk and its results, a scenario that assumes the strengthening of global trade tensions.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Forecast based on endogenous monetary policy)

	2017	2018	2019	2020
	Actual		Projection	
Inflation (annual average)				
Core inflation[1]	2.3	2.4	3.3	3.2
Core inflation excluding indirect tax effects	2.2	2.3	3.1	3.1
Inflation	2.4	2.8	3.1	3.0
Economic growth				
Household consumption expenditure	4.7	4.9	3.2	3.1
Government final consumption expenditure	0.8	1.1	0.7	0.8
Gross fixed capital formation	16.8	14.9	8.9	0.7
Domestic absorption	5.9	6.2	4.0	2.0
Exports	7.1	6.9	7.2	6.5
Imports	9.7	9.2	7.9	5.7
GDP	4.0	4.4	3.5	3.0
Labour productivity[6]	2.0	2.2	2.9	2.6
External balance[2]				
Current account balance	3.1	1.0	0.7	1.3
Net lending	4.1	2.9	3.0	3.3
Government balance[2,5]				
ESA balance	-2.0	(-2.2) – (-2.3)	(-1.7) – (-1.8)	(-1.4) – (-1.8)
Labour market				
Whole-economy gross average earnings[3]	12.9	10.5	7.9	6.8
Whole-economy employment	1.6	1.4	0.6	0.2
Private sector gross average earnings[3]	11.6	10.0	8.2	7.3
Private sector employment	2.2	1.8	1.0	0.3
Unemployment rate	4.2	3.5	3.4	3.3
Private sector nominal unit labour costs	5.5	5.2	3.1	3.2
Household real income[4]	5.8	6.0	2.9	2.5

[1] Based on seasonally unadjusted data.

[2] As a percentage of GDP.

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

[4] MNB estimate.

[5] The lower value of the forecast band shows the ESA balance if the Country Protection Fund is used, while the higher value shows the ESA balance if the Country Protection Fund is not used.

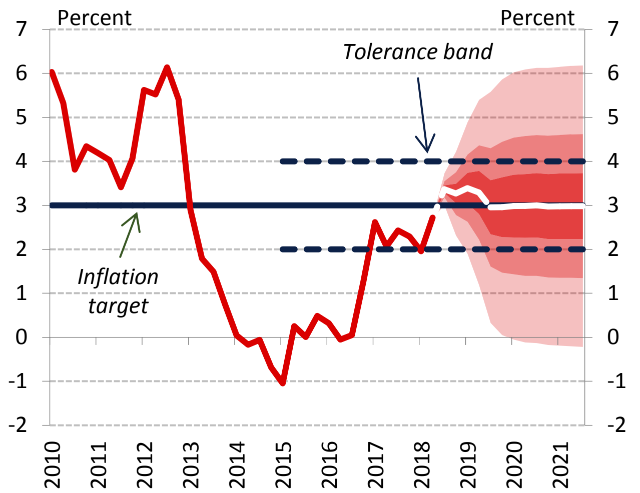
[6] Whole economy, based on national accounts data.

1. Inflation and real economy outlook

1.1. Inflation forecast

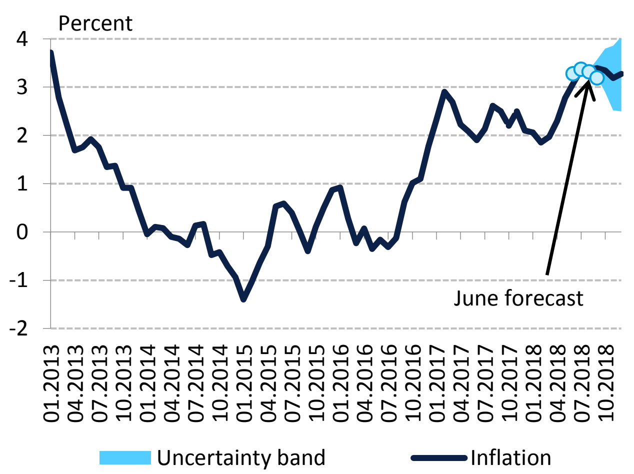
In line with our June prognosis, our current forecast projects domestic inflation to be slightly above 3 percent in the coming quarters. On the whole, our forecast for the rate of average annual inflation has not changed. In line with our last prognosis, the consumer price index will still reach the central bank's 3-percent inflation target in a sustainable manner and structure in mid-2019. In the medium term, the achievement of the inflation target in sustainable manner will be ensured by the gradually rising core inflation excluding indirect taxes as consumption continues to expand. Overall, the announced new tax measures support a rising price level, although this effect is curbed by the more moderate increase in non-core inflation.

Chart 1-1: Fan chart of the inflation forecast



Note: Based on seasonally unadjusted data.
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: HCSO, MNB

According to our short-term forecast, domestic inflation is expected to decline moderately in the months ahead, but will remain slightly above 3 percent. The decline will basically be driven by the base effect from fuel prices, while this impact will be mitigated by the increase in excise tax announced in September and higher-than-expected inflation for unprocessed food (Chart 1-2).

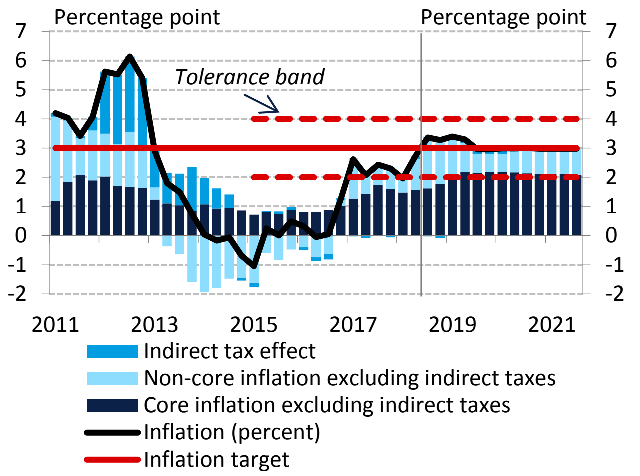
In the medium term, core inflation excluding indirect taxes is expected to gradually rise, due to strong domestic demand and increasing wage dynamics. While expanding household consumption broadens companies' leeway in terms of pricing, its effect on inflation remains moderate compared to before the crisis. Consumption growth is expected to be primarily related to durable goods with a substantial recovery potential. In view of the high import content of durable goods and the still subdued external inflation trends, the impact of domestic consumption growth on price developments may be moderate (Chart 1-1).

In the years ahead, average annual inflation in the euro area will continue to fall short of the ECB's inflation target. The ECB left its latest inflation forecast unchanged. However, its forecast for core inflation was reduced slightly due to lower growth expectations for the euro area. Core inflation will gradually rise over the forecast horizon as a result of the tightening labour market.

Wages in the private sector will continue to be characterised by rapid growth. **However, the inflationary impact from the labour market is expected to remain limited** due to the **further reduction in the social contribution tax** payable by firms.

Due to tax harmonisation requirements in the European Union, the excise duty on tobacco will rise in three steps, in September 2018, January 2019 and July 2019. Overall, these increases in excise duty suggest rising inflation, which will be partially offset by the reduction of VAT on preserved milk in January 2019. **On the whole, the newly announced**

Chart 1-3: Decomposition of the inflation forecast



Source: HCSO, MNB

Table 1-1: Details of the inflation forecast

		2018	2019	2020
Core inflation		2.4	3.3	3.2
Non-core inflation	Unprocessed food	6.2	5.5	3.6
	Fuel and market energy	9.1	5.5	2.6
	Regulated prices	0.1	0.7	1.9
	Total	3.8	2.9	2.4
Inflation		2.8	3.1	3.0

Note: Based on seasonally unadjusted data.
Source: MNB

tax changes will slightly increase consumer prices over the forecast horizon (see Box 1-2).

The price dynamics of non-core inflation products will be slightly higher than the June forecast over the short term and then lower than the forecast starting from mid-2019 (Table 1-1). Instead of the usual summer declines, prices of unprocessed food increased, prompting us to raise our short-term forecast for this product group. However, compared to our June forecast, forward prices of global food commodities declined significantly. Consequently, in the second half of our forecast horizon food prices are expected to be lower than our earlier prognosis. Compared to our June projection, oil prices expressed in euros are slightly higher over the entire forecast horizon, but at the same time they are expected to decline moderately in line with our June prognosis. Based on our assumptions, regulated energy prices will not change until the end of the forecast horizon, and we expect more subdued growth in non-energy regulated prices compared to our June forecast.

On the whole, our forecast for the rate of average annual inflation has not changed. According to our expectations, the consumer price index will reach the central bank's 3-percent inflation target in a sustainable manner and structure in mid-2019 (Chart 1-3).

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

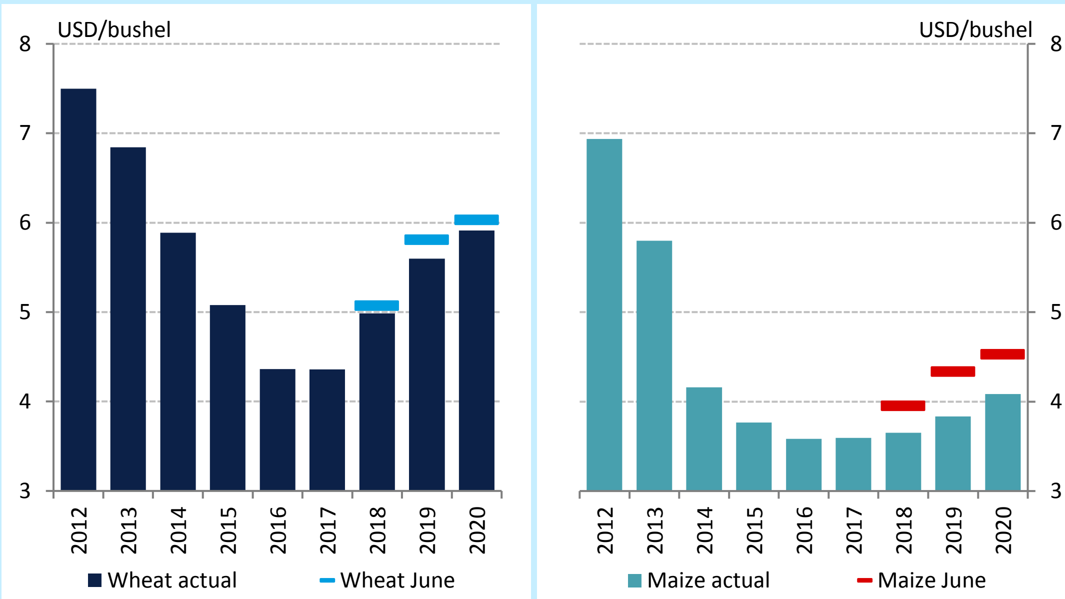
Technical assumptions	2018		2019		2020		Change		
	Previous	Actual	Previous	Actual	Previous	Actual	2018	2019	2020
EUR/USD	1.19	1.19	1.17	1.16	1.17	1.16	-0.2%	-0.4%	-0.4%
Oil (USD/barrel)	73.2	73.4	72.8	75.4	69.0	71.8	0.2%	3.5%	4.0%
Oil (EUR/barrel)	61.7	61.8	62.3	64.8	59.1	61.7	0.2%	3.9%	4.4%
Food prices									
Wheat (USD/bushel)	5.07	4.99	5.81	5.60	6.04	5.91	-1.7%	-3.7%	-2.1%
Maize (USD/bushel)	3.96	3.65	4.34	3.83	4.53	4.09	-7.7%	-11.7%	-9.8%
Euro area inflation (%)	1.7	1.7	1.7	1.7	1.7	1.7	0 pp.	0 pp.	0 pp.
GDP growth of Hungary's main trading partners*(%)	2.7	2.6	2.6	2.5	2.5	2.4	-0.1 pp.	-0.1 pp.	-0.1 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.

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

In the past period, global oil prices moved in a range of USD 68–78 with significant volatility. The per barrel world market price of **Brent** crude oil **is currently around USD 77**. **The volatility of oil prices in the past period is explained by various factors**, of which the most important are the geopolitical tensions in the Middle East, the crisis in Venezuela, the larger-than-expected decline in US crude oil reserves and the rise in production to a historical high, as well as the US sanctions affecting Iran and the increasing trade tensions vis-à-vis China. In addition, **according to the end-June agreement in Vienna, the OPEC and non-OPEC countries are gradually raising production starting from July** in order to reduce the currently high overperformance ratio to 100 percent. **Oil prices expressed in euro**, which are a key factor behind changes in domestic fuel prices, **increased slightly compared to our June assumption, but the projection continues to point to a declining path**. The 4–5 percentage average change in prices of unprocessed food which was typical before the crisis decreased after the crisis, and based on our current calculations the average change is now 3–4 percent. As a result, we lowered the long-term trend of unprocessed food prices in our forecast. Moreover, compared to our last prognosis, forward prices of **raw food fell significantly** and will remain stable from 2020 (Chart 1-4). **The restrained price developments are mainly due to increasing supply and improving production expectations.** On a technical basis, our expectations for the EUR/USD cross rate essentially correspond to the June assumption over the forecast horizon.

Chart 1-4: Evolution of wheat (left panel) and maize (right panel) futures prices



Source: CBOT, MNB

In its latest forecast, the European Central Bank continues to project that inflation will fall short of its target over the entire forecast horizon. The ECB's inflation forecast remains unchanged, with euro-area inflation expected to be 1.7 percent in all three years. The ECB's forecast for core inflation decreased slightly due to lower growth expectations for the euro area. Core inflation will gradually increase over the forecast horizon as a result of cost-side effects from the tightening labour market (stronger nominal wage growth) and the shortage of labour in certain regions of the euro area.

Growth forecasts concerning the performance of the global economy were revised downwards to some extent, and consequently we expect slightly lower expansion in external demand compared to our June assumptions. Looking ahead, there are risks to European economic activity: mounting global trade tensions, restrained industrial production, the correction in European economic activity indicators and Brexit may negatively impact growth prospects in Hungary's export markets.

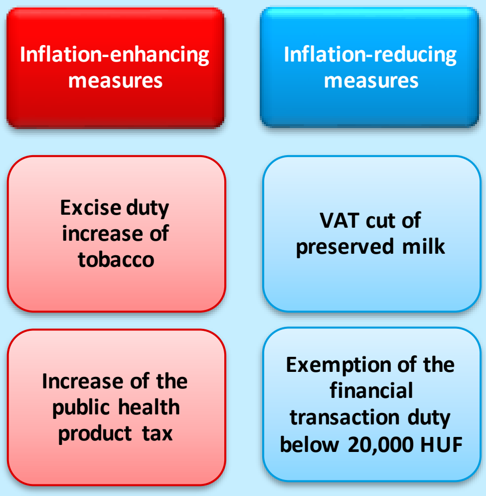
On 20 July, the National Assembly adopted the 2019 Budget Act as well as the bill on the amendment of tax laws with minor amendments. Of the main measures of the tax package, the reduction of the VAT on milk as well as the partial abrogation of retired employees' tax and contribution burdens have a deficit-increasing effect. At the same time, raising the excise tax on cigarettes and tobacco products in three steps starting in September this year, which is necessary in order to comply with EU rules, as well as changing the targeted benefits of the Job Protection Action Plan result in a decline in the deficit. On the whole, the measures of the tax package have a nearly neutral impact on the balance. Based on the actual data received, our projection for the ESA deficit remained unchanged compared to the forecast published in the June Inflation Report.

Box 1-2: Inflationary effects of new tax measures announced since the June Inflation Report

The tax law adopted at the end of July contains significant new information compared to our June forecast. The government measures can be regarded exogenous factors from the perspective of the monetary policy, but they can substantially influence the development of the price index.

On 20 July 2018, the Parliament amended the Tax Act, pursuant to which the **excise duty on tobacco will increase in three steps** from this September (with the subsequent increases occurring in January and July 2019). The measure aims to ensure Hungary's compliance with the European Union's minimum tax requirement on tobacco products. In January 2019, further measures will be implemented: **the VAT on preserved milk** will be **reduced** from the current 18 percent to 5 percent, the **financial transaction tax** will not be levied on retail transfers below HUF 20,000, and the **public health product tax will be raised by 20 percent on average** (Chart 1-5).

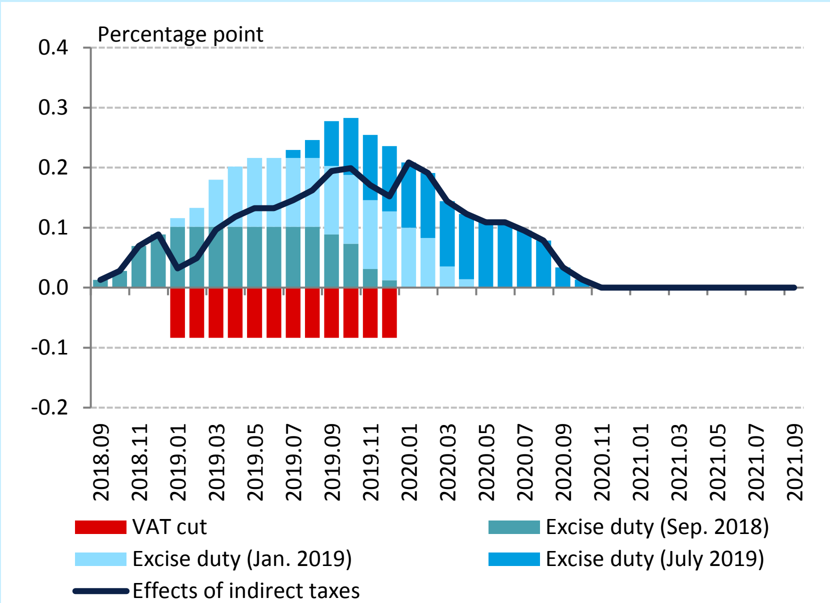
Chart 1-5: Inflationary impact of the announced government measures



Source: Ministry of Finance, MNB

The impact of the above measures on Hungarian inflation is determined by the extent to which they are represented in the price index (fully or partly). **Historically, the pass-through of excise duty changes has been almost complete, whereas a more moderate impact can be expected in the case of tax changes affecting food.** According to our forecast, the inflation-enhancing effect of the excise duty increase on tobacco products is partly offset by the reduction of the VAT rate on preserved milk. The increase in the public health product tax only has an insignificant effect on inflation, which is offset by the partial elimination of the financial transaction tax. **Therefore the newly announced tax changes merely suggest a slight increase in the price index. Nevertheless, looking ahead**, in line with the prolonged pass-through of the excise duty increase on tobacco products, **on the whole, these measures will gradually increase the tax component of inflation until September 2019, after which the tax impact of the measures will decline**. **All in all, the new measures leave inflation in 2018 nearly unchanged, while in 2019 and in 2020 their average contribution to inflation will be 0.2 and 0.1 percentage point, respectively** (Chart 1-6).

Chart 1-6: Contribution to inflation of the tax changes announced



Source: MNB

Box 1-3: Structure ensuring sustainable achievement of the inflation target in an international and historical comparison

In the past period, a gradual rise in inflation rates was observed in both the euro area and Hungary, and thus rates approached or in certain countries even reached the central bank inflation targets. The rise in inflation rates close to central bank targets **was also attributable to a considerable increase in global oil prices, which can be considered temporary, due to its significant volatility**. Accordingly, **from a central bank perspective the relevant question is which structure ensures the achievement of the inflation target in a sustainable manner**. To answer this question, we examined historical developments in inflation in European countries where the price index was steadily close to the central bank target in the past.

On the basis of historical comparison, we selected seven episodes from the past two decades of economic history in developed European countries, during which the inflation rates consistently complied with the targets (Table 1-3). A criterion during our analysis was that in the given country the consumer price index should be in line with the central bank inflation target or around that range for a longer period of time, i.e. at least for one year. Among the seven developed European countries under review there are ones (Austria, France, Germany) where the period when the price index was persistently around the central bank target lasted for more than ten years. Regarding the past period, in the case of Sweden the price index has been close to the 2 percent target since February 2017.

Table 1-3: Longer periods around central banks' inflation target

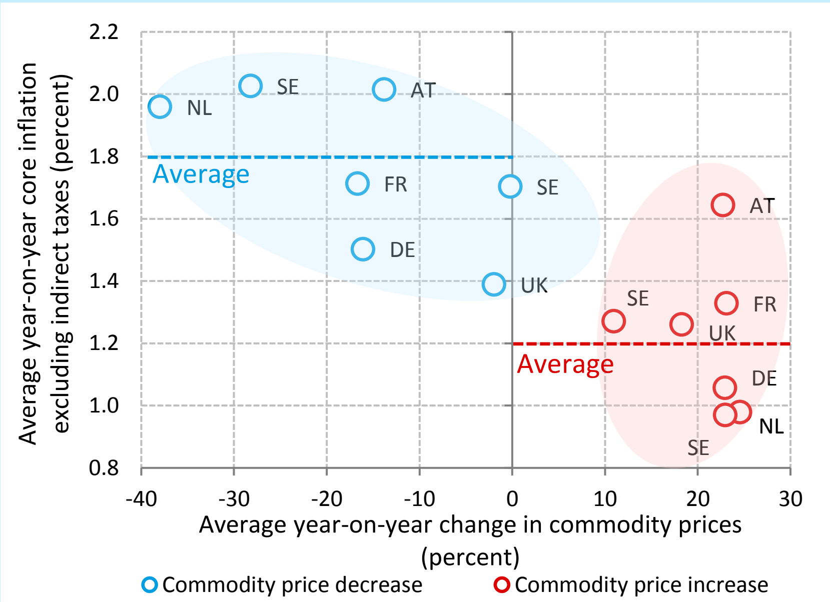
Country	Period
Austria	June 2000 – August 2013
United Kingdom	December 2000 – October 2007
France	August 2000 – October 2012
Netherlands	September 2003 – April 2009
Germany	December 2000 – December 2012
Sweden	May 2002 – September 2010
Sweden	February 2017 – July 2018

Source: MNB

In assessing inflationary developments, it is worth taking into account that when analysing a longer period **commodity price cycles can significantly influence the kind of structure and core inflation dynamics which ensure achievement of the inflation target.** In terms of inflationary developments, one important factor was that from the early 2000s until 2008 oil prices moved on an increasing trend. Between 2011 and 2014 oil prices remained nearly unchanged and following that, a major decline was observed all the way until 2016.

For the aforementioned countries, we divided the periods of successful achievement of the inflation targets into two parts depending on changes in commodity prices. Examining the structure of inflation in these periods, **in the case of a major commodity price increase, achievement of the inflation target occurred in conjunction with moderate core inflation, while at times when commodity prices declined, average core inflation excluding indirect taxes was significantly higher** (Chart 1-7).

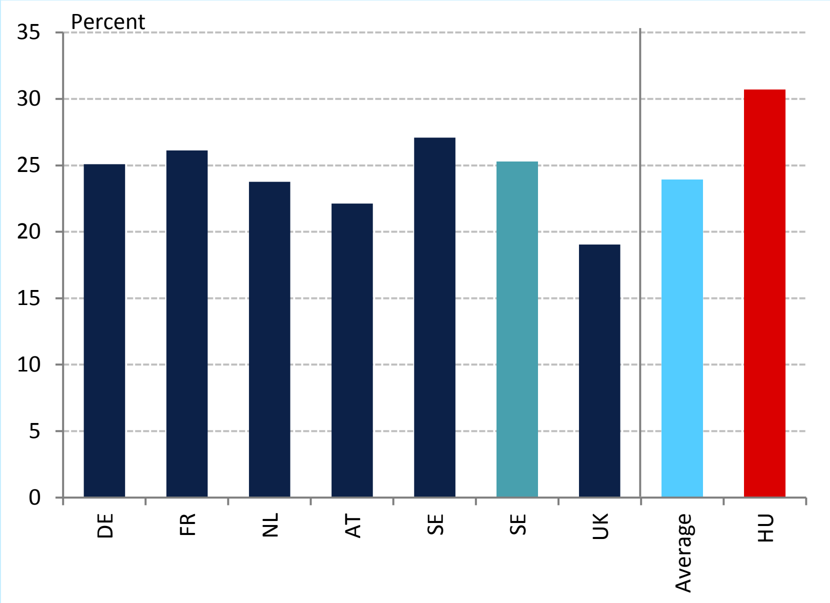
Chart 1-7: Average core inflation excluding indirect taxes and the change in commodity prices in the period of achieving the inflation target



Note: Dashed lines indicate the average core inflation excluding indirect taxes in the case of the different commodity price paths.
Sources: Eurostat, MNB, World Bank

In comparing the countries, in addition to the change in commodity prices, the structures of the consumer basket also need to be taken into account. **In the consumer baskets of the developed countries the weight of non-core items** – especially the weight of fuels – **is lower**, while the weight of core items is typically higher. **The weight of non-core items in the Hungarian consumer basket is significantly higher than in the case of the developed countries**, while the ratio of the core items is lower (Chart 1-8).

Chart 1-8: Average weight of non-core items in the period of achieving the inflation target



Sources: Eurostat, MNB

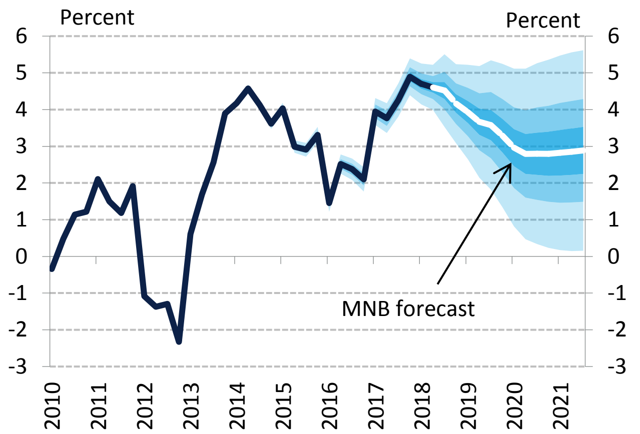
Because of the above facts, from the perspective of achieving the inflation target, it is important to examine the assumptions concerning the price dynamics of non-core inflationary items. Food prices can be expected to rise only moderately, while oil futures decrease. **As a result of this, in the case of unprocessed food prices, a more moderate increase could be expected in a historical comparison (in accordance with the experiences since the crisis), while the price dynamics of fuels will be less than 3 percent in the medium term.** Moreover, based on the past period, administered prices showed only a moderate increase, which looking ahead will be permanent in accordance with the intentions of the government. As a result of these, we think that achievement of the 3 percent inflation target in a sustainable manner can be ensured by a core inflation around the target in accordance with the expected price dynamics of commodity prices, the moderate price changes in non-core items since the crisis and international experiences.

Based on our forecast for Hungary we expect that core inflation will rise gradually **over the forecast horizon**. As a result, **the contribution of core inflation to inflation** also **keeps on growing**, and the contribution of non-core inflation items declines in parallel with that. According to our expectation, this structure ensures the sustainable achievement of the 3-percent inflation target regarding the current commodity price environment, which **corresponds to the average of the core inflation contributions observed in developed European countries**.

1.2. Real economy forecast

According to our current forecast, we expect higher growth this year than in 2017, followed by gradually decelerating growth from 2019 primarily in relation to the end of cyclical developments in investment, provided that our current forecast assumptions hold. Domestic demand continues to play an important role in Hungarian economic growth, with consumption and investment as key factors. Dynamic, general expansion is expected in investment until 2019. In 2020, the restoration of the VAT on housing will bring an end to the dynamic growth in household investment, and with the fading EU grants, government investment will also decline. In the case of corporate investment, we expect dynamic growth mainly due to the positive effects of the BMW investment and the 'Funding for Growth Scheme Fix'. This year, as a result of tax cuts, fiscal policy has a demand-expanding effect. Growth in external markets is projected to fall short of our earlier expectations. At the same time, this development is mitigated by the fact that – in conjunction with the implementation of new export capacities and the dynamic expansion in services exports – growth in exports exceeds the rate of expansion of Hungary's external demand, and thus Hungary's export market share is increasing. In parallel with a pick-up in domestic demand, output will be close to its potential level. As the output gap closes, the expansion in the supply side of the economy will become a determinant in terms of the sustainability of growth. Economic policy can raise the rate of potential growth through specific measures aimed at improving competitiveness and increasing productivity while maintaining stability.

Chart 1-9: Fan chart of the GDP forecast

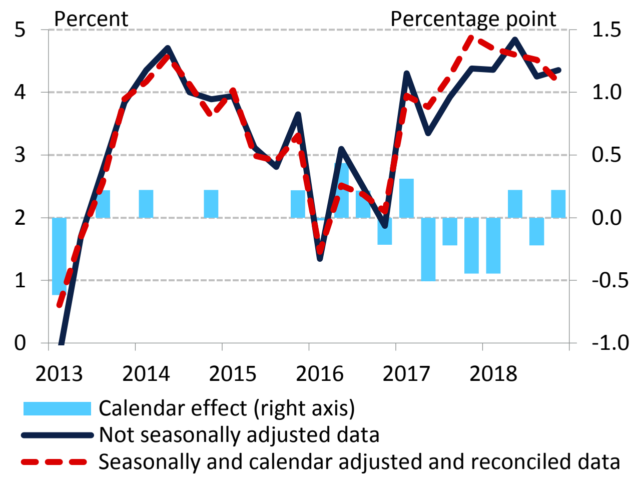


Note: Based on seasonally and calendar adjusted and reconciled data.
Source: HCSO, MNB

This year, we expect higher economic growth compared to last year (Chart 1-9). The gross domestic product is forecast to grow by 4.4 percent this year, and subsequently – if the assumptions of the current forecast hold – we project expansion of 3.5 percent in 2019 and 3 percent in 2020. **The change in the growth figure for 2020 versus the June projection stems from three factors:** the positive effect of the Funding for Growth Scheme Fix and the BMW project will be partially offset by weaker growth in Hungary's export markets, and thus, on the whole, we expect growth to be 0.2 percentage point higher compared to our previous forecast (Chart 1-11).

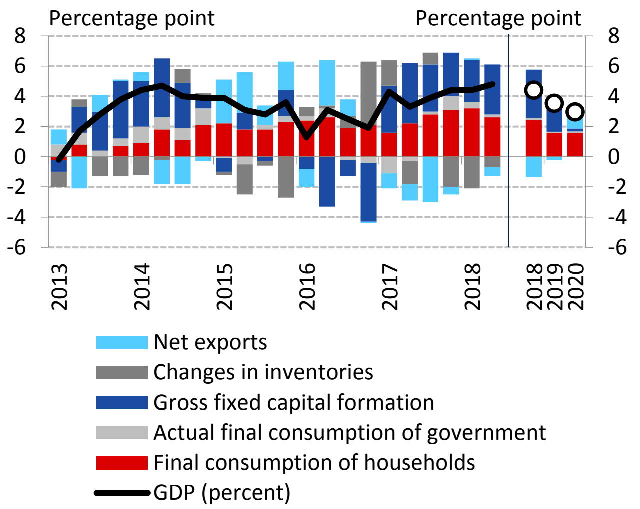
We expect household consumption to continue expanding at a rate similar to the previous forecast over our forecast horizon, and thus the expansion of consumption expenditures will still be a determinant of economic growth. The increase in households' consumption expenditure is strongly supported by the underlying favourable income trends related to continued robust wage outflows and expansion in employment. At the end of the forecast horizon, however, demographic developments become an increasingly effective limit to employment growth (Chart 1-12). The previously accumulated **high net financial wealth**, the historically high level of **consumer confidence** as well as the **second-round effects of the pick-up in the housing market contribute to the expansion in consumption**. Households' consumption expenditures still fall short of the level warranted by the underlying income trends and this also results in a pick-up in consumption. Therefore, due to deferred consumption, substantial **recovery potential** can be identified, mainly in the consumption of import-intensive durable goods. The recovery potential inherent in consumption indicates that both the consumption-to-income and the consumption-to-

Chart 1-10: Unadjusted, and seasonally and calendar adjusted short-term GDP forecast



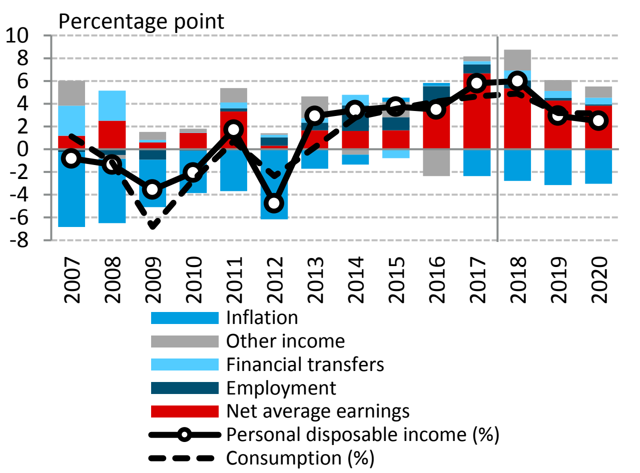
Source: HCSO, MNB

Chart 1-11: Contributions to annual changes in GDP



Source: HCSO, MNB

Chart 1-12: Decomposition of personal disposable income



Note: Annual changes.

Source: MNB

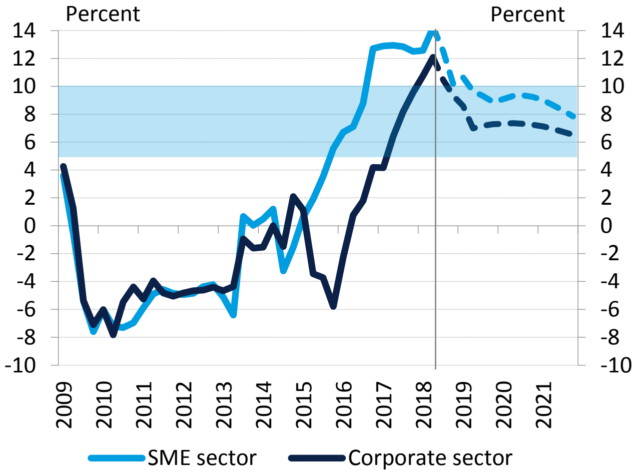
GDP ratios declined considerably as a result of the adjustment process following the crisis. Owing to the persistently favourable income developments and gradual rise in the propensity to consume, **household consumption will remain a determinant of growth over the entire forecast horizon** (Chart 1-11).

In our forecast, we expect whole-economy investment to expand in 2018 and 2019, with contributions from the investment activity of all three sectors. Corporate investment is expected to continue to expand. **Underlying investment trends in the corporate sector have strengthened considerably**, in line with the changes in domestic demand, the low interest rate environment, the accommodative central bank programmes and a major expansion in SME loans. **Over the forecast horizon**, compared to the current level, **total corporate loan growth is expected to decelerate to an annual average rate of 7–10 percent** (Chart 1-13). In early 2019, the MNB will launch the Funding for Growth Scheme Fix (FGS *fix*), and this new scheme with a limit of HUF 1,000 billion will correspond to the previous phases of the FGS in terms of its most important parameters and mode of organisation.

Although we expect the new scheme will effect mainly the structure of SME loans, it increase the whole corporate loan dynamic. As a result, compared to our June projection the dynamics of whole-economy investment may be 0.2 percentage point and 0.8 percentage point higher in 2019 and 2020, respectively. Accordingly, our economic growth projection for 2020 is 0.2 percentage point higher than our previous forecast (for more details, see Chapter 6, “Special topics”). Looking ahead, EU funds – a significant portion of which have economic development objectives – also support corporate investment. The previously announced **major investment projects and capacity expansions** (e.g. Mercedes, Zoltek, SK Innovation, MOL) **may also stimulate corporate investment**.

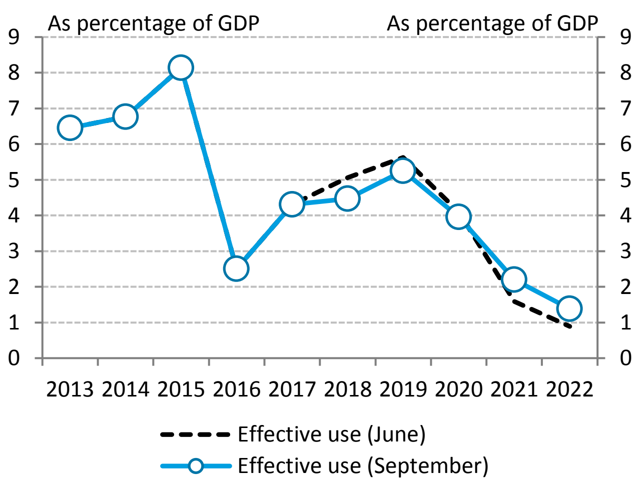
The high-value investment project announced by BMW in July will also contribute to the investment of the corporate sector. Stemming from its large volume, the project will have various effects on growth, and the **aggregate impact of the project** (the impact of the investment, production expansion and additional consumption resulting from the increase in employment as well as second-round effects of other supplier networks) **may raise the level of domestic GDP by approximately 0.5 percentage point in total, although a considerable portion of this impact will materialise beyond the forecast horizon**. The first major cost element of the project, i.e. construction of the factory building, is expected to start only in 2020, and thus in

Chart 1-13: Annual changes in lending to non-financial corporations and SMEs



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

Chart 1-14: Effective use of EU funds



Source: Ministry of Finance, MNB

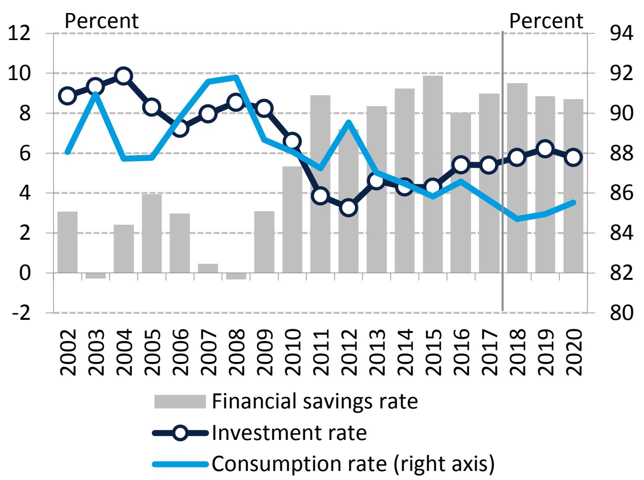
macroeconomic terms the first measurable effect of the project on growth will also occur in that year. **The works in the early stage of the project may contribute to GDP growth in 2020 by 0.1 percentage point**, also taking into account the infrastructure improvements expected in the region and feed-through effects.

In our forecast, we expect an expansion in public investment implemented from EU funds, which, looking ahead, will also be supported by an upswing in effective absorption, although compared to the earlier expectations the investment projects implemented from EU funds may be completed later. Advance payments and their absorption, to be realised later, are not expected to have a material impact on the total fiscal and real economy effect of the funds available in the 2014–2020 EU budget cycle, **only on their distribution across the years**. Although the large investment project in Paks is implemented from public sources, due to statistical reclassifications it contributes to the expansion in corporate investment. **On the whole, starting from 2020 a decline in the effective absorption of EU funds is expected, as a result of which public investment may decrease at the end of the forecast period** (Chart 1-14).

In line with a pick-up in the housing market, **household investment is expected to increase**, which is also supported by government programmes. The significant number of home building permits and the gradual upswing in the construction of new homes also indicate a pick-up in households' investment activity. In line with the prevailing tax laws, the VAT related to the purchase of homes will return to its original level after 2019. Consequently, housing prices are expected to increase and the upturn in the housing market is expected to come to an end. **In accordance with the slowdown in the housing market cycle in 2020, household investment is still expected to decline considerably at the end of the forecast period** (Chart 1-15).

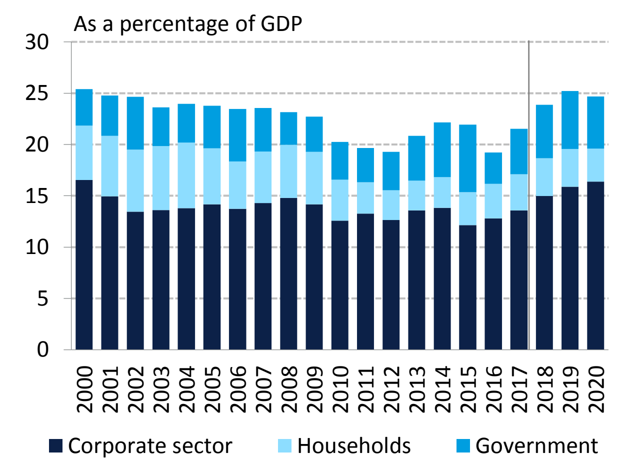
Looking ahead, the whole-economy investment rate may approach 25 percent. Dynamic, general expansion is expected in investment until 2019. **At the end of the forecast period, the end of housing market cycle, and the decreasing public investment will be offset by the effect of the large BMW project as well as the upturn in the new FGS, and thus we expect dynamic investment activity to be maintained in 2020**. **On the whole, we improved our whole-economy investment prognosis compared to our June expectations, and thus contrary to the earlier**

Chart 1-15: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income



Source: HCSO, MNB

Chart 1-16: Evolution of investment rate by sectors



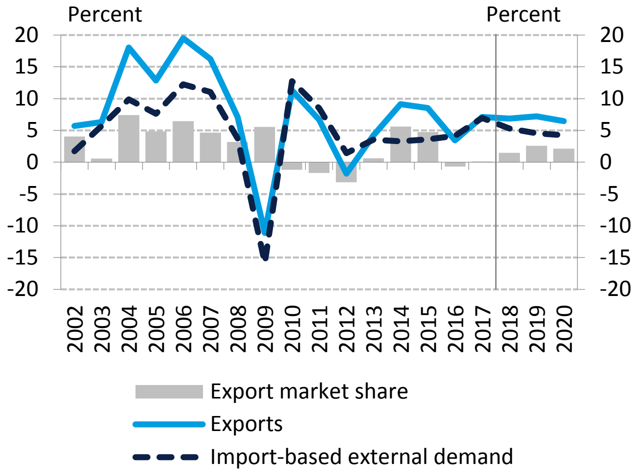
Source: HCSO, MNB

expected decline the investment activity will continue to expand (Chart 1-16).

The slightly subdued prospects of Hungary's trading partners are also corroborated by forecasts prepared and updated – and typically revised downwards – by international institutions since the June Inflation Report. **In parallel with the lower GDP expectations, the forecasts point to a decline in the intensity of global trade, which also affected expectations regarding imports. Identifiable short-term downside risks to European growth are the deteriorating industrial production of the past period, the adjustment of indicators of international economic activity** as well as the uncertainty due to the fragile financial environment observed in the emerging markets. The exit of the United Kingdom from the EU and the lack of clarity concerning the circumstances of the process may have an unfavourable impact on medium-term growth prospects. In terms of global economic activity, in the past months the increase in global trade tensions became the highest financial market and growth risk. Further identifiable negative risks are the chance of increasing financial market turbulences due the Chinese slowdown as well as the emergence of a debt and exchange rate crisis, and also the high government debt in Italy and the financial and real economy risks stemming from the expected fiscal policy. At the same time, in the forecast period, in line with the implementation of new export capacities and the dynamic expansion in services exports the growth rate of exports exceeds the rate of expansion in Hungary's external demand, resulting in an increase in Hungary's export market share (Chart 1-17). The upswing in domestic demand factors in Hungary (consumption, investment) significantly increases the dynamics of imports. Accordingly, we expect **net exports to reduce economic growth considerably in 2018 and moderately in 2019.** Over the forecast horizon, however, as a result of a slowdown in the expansion in household consumption and a decline in investment the import demand of the economy will decrease. In parallel with continued, although decelerating expansion in external demand we expect buoyant export growth for 2020 as well, the result of which, with decelerating import dynamics, will be that **at the end of the forecast horizon the contribution of net exports to economic growth will be positive.**

For the time being, only preliminary information is available on agriculture in 2018 and this information indicates a lower-than-expected corn crop and a better grain crop. Based on unofficial information on the expected

Chart 1-17: Changes in export market share



Note: Annual change.
Source: HCSO, MNB

harvest results, the contribution of agriculture may be more restrained compared to earlier assumptions.

According to our estimates, **output was close to its potential level in 2018 Q2.** According to our calculations, the output gap, which had been in negative territory for a long time, closed at the end of last year. Demographic developments and the tight labour market constitute an increasingly effective limit to economic expansion; therefore, improving productivity is becoming a key factor. **In our forecast, we expect an improvement in labour productivity**. A generally observed phenomenon is that in the ascending phase of economic activity an increase in labour productivity is typical (Kaldor–Verdoorn law). Further improvement in productivity is expected in the future. In the longer run, economic policy can significantly support the increase in productivity by improving competitiveness.

Box 1-4: Effects of the recently announced large scale investment

In past years, various **large-volume, capacity-increasing corporate investment projects** were launched or announced, which **are key elements of the investment developments of the coming years**. Of these large investment projects implemented in the corporate sector, the already ongoing expansions of Mercedes and MOL as well as the newly announced BMW project are the most significant ones. However, in addition to investment projects in the vehicle and chemical industries, various major development projects will be implemented in other sectors as well (e.g. food industry, construction, machine production, etc.) in the near future. The following provides an overview of the information available in connection with the projects and their impacts on growth (Table 1-4).

The development projects exert their effects on growth through several, consecutive channels. In the first round, they support economic growth through investment, and then, as the new capacities become productive, industrial production contributes to growth. In addition, in parallel with or prior to the start of production, the increase in labour market effects (expansion in employment) and their further impacts (expansion in consumption, pick-up in the housing market depending on the mobility of the labour market) may also contribute to economic growth.

Table 1-4: Ongoing and announced large-volume investment projects

Company	Investment value (bn HUF)	Investment period	Planned start of production	Planned number of new employees (employee)
Mercedes	490	2016-2020	2020	2500
Mol	390	2018-2021	2021	200
BMW	320	2019-2023	2023	1000
SK Innovation	98	2018-2020	2020	410
Hankook	89	2018-2020	2020	150
Procter&Gamble	55	2016-		250
Rehau	47	2018-2019	2019	700
Bosch	36	2018-2021		
Arconic-Köfém	35	2018-2109	2019	200
Beckton Dickinson	34	2017-2020		220
B. Braun Medical	31	2018-2019		400
Continental	31	2018-2020	2020	450
Lego	30			1600
Zoltek	30	2018-2019	2020	350
FAG	25	2017-2018	2018	500
Audi	20			
Valeo	19	2018-2020		220
Glaxosmithkline	18	2017-	2023	104
SRF Group	18	2018-2019	2019	100
Borgwarner	15	2017-2018		600
Giant Global Group	15	2018-2019	2019	591
Master Good	15	2018-2019	2019	0
Dana	15	2017-	2018	200
Ricther Gedeon	15	2016-2018		125
Krones AG	15	2018-2020	2019	500
Erbslöh	14			190
Mondi	13	2016-2018		220
HUNENT	13	2017-2018		350
Alföldi Tej Kft.	12	2017-2018	2019	180
Siemens	10	2016-2018	2018	150
Le Bélier	10	2016-2018		350
ECM-Clean Kft.	10	2018-2019	2019	350
Viastein	10	2018-2020	2020	180
Stadler	10	2018-2019	2019	15
Other investments*	90			1831
Total	**2097**			**15186**

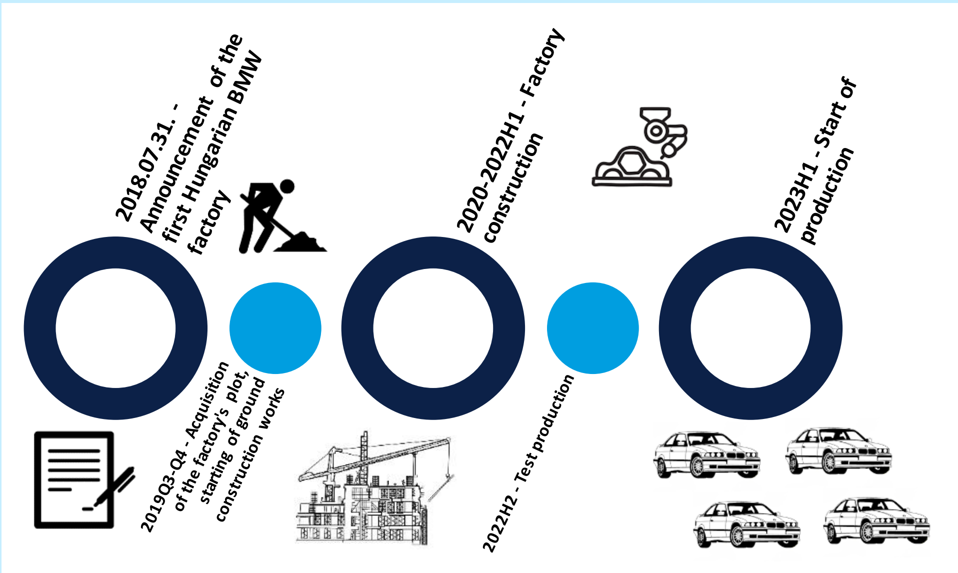
Note: Other investments include the following project (investment value in parenthesis). GS Yuasa (9), Linamar (8,6), Árklub Kft. (8,3), CooperVision (8), Shinheung (8), SMR (8), Gyermelyi (7,1), Leier Hungária (7,1), SAPA Profiles (6,8), Ravaber (6,4), Hell (5), ADA (4), Zalacon Sütőipar (4).

Source: press information

Based on the information available on the completion of these high-volume projects, **they may be key elements in Hungary's economic growth in the coming years**. Because of their size, the previously announced investment projects of MOL and Mercedes and the recently announced capacity expansion of BMW have significant weight within large investment projects as well. These three outstanding projects, distributed over the six years they affect, raise the path of whole-economy investment annually by nearly HUF 200 billion on average. **However, based on previous large capacity expanding investment projects, implementation of the projects may presumably be back-loaded**, which in this case would reach beyond the forecast horizon. There will be overlaps in the implementation of the large investment projects, and thus, on the whole, **they may have the strongest direct impact in 2018 and 2019**. The direct, import-adjusted impact of the capacity-expanding investment projects **may increase the level of Hungarian GDP by 0.3 percent** between 2018 and 2020.

The latest investment project is the capacity expansion announced by BMW in July, which may significantly contribute to the future growth of the domestic economy. Based on the information available to date, there will be an upswing in the construction of the BMW factory mainly starting from 2020, and thus most of the investment falls outside of the forecast horizon (Chart 1-18). **On aggregate, the total effect of the BMW project** (the investment, the expansion in production and other second-round effects) **may raise the level of domestic GDP by some 0.5 percentage point**. In the initial period of the project, works with lower added value are presumed to take place. The first major cost element of the project, i.e. the construction of the factory building is only expected to start in 2020, and thus in macroeconomic terms the first measurable effect of the project will also fall in that year. Accordingly, **any material contribution to growth will only occur in 2020, when** – also taking account of the expected development of the infrastructure in the region as well as the expected investment projects of the supplier network – **the project may contribute to domestic GDP growth by 0.1 percentage point**.

Chart 1-18: Schedule of the BMW project

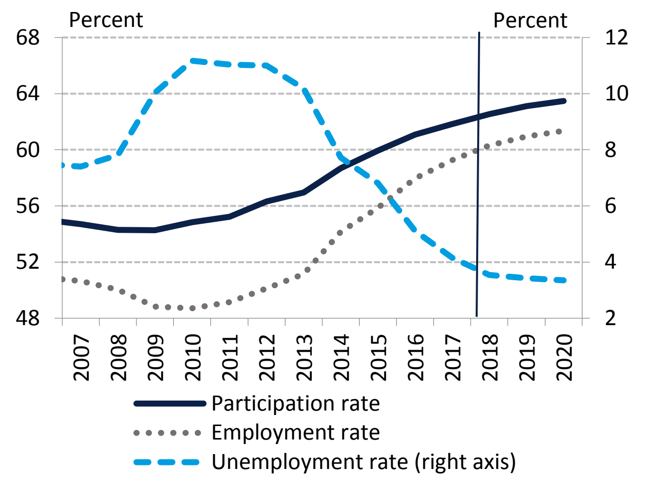


Source: Press information

1.3. Labour market forecast

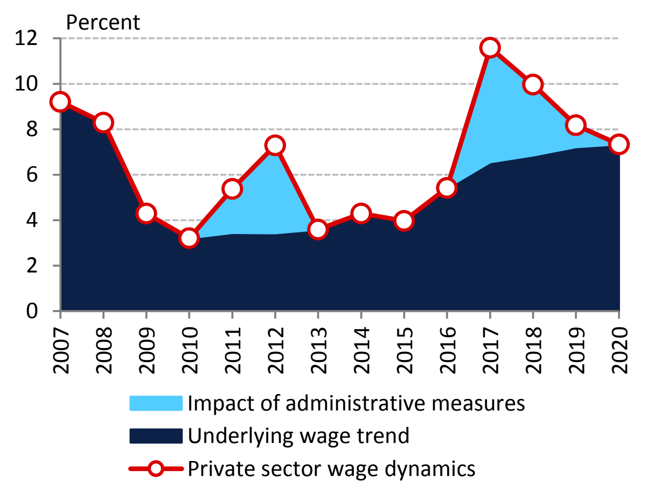
Over our forecast horizon, in parallel with economic growth, the steadily high labour demand of the private sector contributes to the expansion in employment, and thus the current unemployment rate of 3.6 percent will decline to 3.3 percent by the end of the forecast period. In parallel with the decline in available labour capacity, the underlying wage trend continues to strengthen, but the inflationary effect from the cost side may remain moderate.

Chart 1-19: Employment, participation and unemployment rate in the whole economy



Source: HCSO, MNB

Chart 1-20: Underlying wage trend and impact of administrative measures on private sector wage growth



Note: Administrative measures: significant increases in the minimum wage and guaranteed minimum wage, restructuring of the cafeteria system.
Source: HCSO, MNB estimation

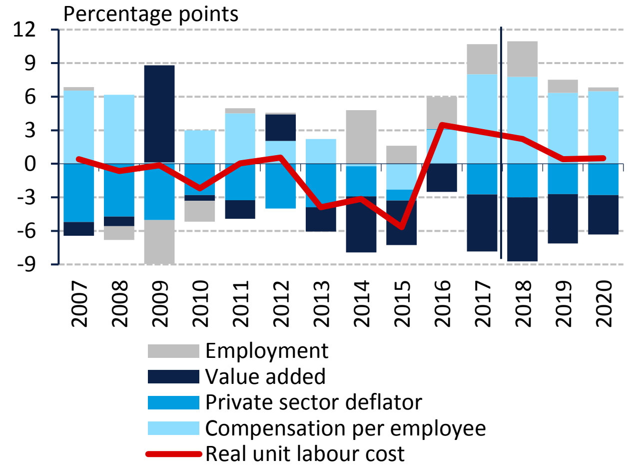
According to our expectations, as the demographic developments (change in the size of the working-age population and its composition by age and gender) become increasingly effective, **the increase in the number of the active will slow down in the first half of the forecast period**, and **the expansion in labour supply will not continue in 2020**. Accordingly, demographic developments constitute an increasingly effective limit to the expansion in employment (Chart 1-19).

In line with fiscal measures, **the number of public workers will permanently decline to below 150,000** in the forecast period. **In the tight labour market environment, many of those who leave public employment may return to the primary labour market.** Employment in the public sector excluding public work will remain practically unchanged in the coming years.

In parallel with economic growth, the persistently high labour demand of the private sector contributes to the expansion in employment. However, mismatch problems in the shrinking labour reserves (inadequate skills of the labour force and the lack of job mobility) make companies' headcount-expanding efforts especially difficult. On the whole, the number of people employed in the private sector will continue to rise at a slower rate compared to the robust increase observed in recent years. **As a result of continued increase in employment, the current unemployment rate of 3.6 percent will decline to 3.3 percent by the end of the forecast period.**

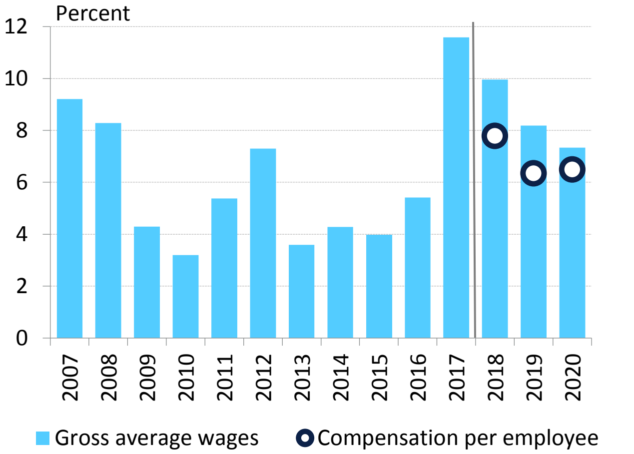
In the historically tight labour market environment, there is strong competition among companies for retaining workers and filling vacancies, and thus workers' wage bargaining position is continuously improving, which leads to robust wage growth. Accordingly, **in parallel with the decline in available labour capacity, the underlying wage trend continues to strengthen**, but because of the lower minimum wage and guaranteed wage minimum increases compared to those in 2017, for this year we expect lower wage dynamics than last year (Chart 1-20). Over the rest of the forecast horizon, the increase in real labour costs will be in line with the rise in productivity (Chart 1-21).

Chart 1-21: Decomposition of real unit labour cost growth in the private sector



Source: HCSO, MNB

Chart 1-22: Annual changes in gross average wages and labour cost in the private sector



Source: HCSO, MNB

Corporate reactions to the tightening of the cafeteria system in 2019[1] and thus next year's wage decisions entail high uncertainty. In our forecast, we assumed that in the tight labour market environment many companies will react by the expansion of the remaining cafeteria elements (subaccounts of the SZÉP Card, i.e. Széchenyi Recreation Card) as well as by pay rises, the costs of which will mostly be borne by the employees. **On the whole, the restructuring of wages assumed in our forecast increases the 2019 gross average earnings growth by 1 percentage point, while reducing companies' average labour cost growth. Due to the transformation of the targeted allowances of the Job Protection Action Plan in 2019, we expect a decrease in the sum of allowances used. On the whole due to the result of the two effects, in our forecast average labour cost remains practically unchanged compared to our earlier prognosis.**

The impact of wage dynamics on labour cost is attenuated by the reductions of contributions set forth in the wage agreement. Following the declines of 5 percent last year and 2.5 percent at the beginning of this year, the social contribution tax will decrease further in four steps of 2 percentage points each, depending on the rise in real wages. Based on next year's draft budget, we expect the next, 2 percentage point contribution reduction as of 1 July 2019 (Chart 1-22). Therefore, **according to our expectation the inflationary effect from the cost side may remain moderate.**

[1] Of the three components of the fringe benefit scheme, the tax exempt benefits are terminated almost in full; after the cancellation of the cash benefits only the SZÉP card remains in the category of preferential fringe benefits up to an annual limit of HUF 450,000, while most of the certain defined benefits will be also cancelled or taxed as wages.

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

	2017	2018		2019		2020	
	Actual	Projection					
		June	Current	June	Current	June	Current
Inflation (annual average)							
Core inflation[1]	2.3	2.4	2.4	3.1	3.3	3.0	3.2
Core inflation excluding indirect tax effects	2.2	2.4	2.3	3.1	3.1	3.0	3.1
Inflation	2.4	2.8	2.8	3.1	3.1	3.0	3.0
Economic growth							
Household consumer expenditure	4.7	4.8	4.9	3.2	3.2	3.1	3.1
Government final consumption expenditure	0.8	1.2	1.1	0.5	0.7	0.7	0.8
Gross fixed capital formation	16.8	14.9	14.9	8.8	8.9	-0.7	0.7
Domestic absorption	5.9	6.1	6.2	3.9	4.0	1.6	2.0
Exports	7.1	7.5	6.9	7.5	7.2	6.7	6.5
Imports	9.7	9.7	9.2	8.2	7.9	5.7	5.7
GDP	4.0	4.4	4.4	3.5	3.5	2.8	3.0
Labour productivity[6]	2.0	2.6	2.2	3.1	2.9	2.6	2.6
External balance[2]							
Current account balance	3.1	1.1	1.0	0.8	0.7	1.3	1.3
Net lending	4.1	3.2	2.9	3.3	3.0	3.6	3.3
Government balance[2,5]							
ESA balance	-2.0	(-2.2) – (-2.3)	(-2.2) – (-2.3)	(-1.7) – (-1.8)	(-1.7) – (-1.8)	(-1.4) – (-1.8)	(-1.4) – (-1.8)
Labour market							
Whole-economy gross average earnings[3]	12.9	10.3	10.5	7.1	7.9	6.9	6.8
Whole-economy employment	1.6	1.4	1.4	0.4	0.6	0.2	0.2
Private sector gross average earnings[3]	11.6	10.0	10.0	7.2	8.2	7.3	7.3
Private sector employment	2.2	1.9	1.8	0.7	1.0	0.3	0.3
Unemployment rate	4.2	3.6	3.5	3.5	3.4	3.4	3.3
Private sector nominal unit labour cost	5.5	5.0	5.2	2.6	3.1	3.3	3.2
Household real income[4]	5.8	5.5	6.0	2.8	2.9	2.5	2.5

[1] Based on seasonally unadjusted data.
[2] As a percentage of GDP.
[3] According to the HCSO data for full-time employees.
[4] MNB estimate.
[5] The lower value of the forecast band shows the ESA balance if the Country Protection Fund is used, while the higher value shows the ESA balance if the Country Protection Fund is not used.
[6] Whole economy, based on national accounts data.

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

	2018	2019	2020
Consumer Price Index (annual average growth rate, %)			
MNB (September 2018)	2.8	3.1	3.0
Consensus Economics (August 2018)[1]	2.4 – 2.7– 3.1	2.2 – 3.2 – 4.0	
European Commission (July 2018)	2.7	3.2	
IMF (April 2018)	2.7	3.3	3.1
OECD (May 2018)	2.6	3.4	
Reuters survey (September 2018)[1]	2.6 – 2.8 – 2.9	2.4 – 3.1 – 3.5	3.0 – 3.1 – 3.3
GDP (annual growth rate, %)			
MNB (September 2018)[5]	4.4	3.5	3.0
Consensus Economics (August 2018)[1]	3.5 – 4.1 – 4.6	2.0 – 3.1 – 4.1	
European Commission (July 2018)	4.0	3.2	
IMF (April 2018)	3.8	3.0	2.6
OECD (May 2018)	4.4	3.6	
Reuters survey (September 2018)[1]	4.0 – 4.3 – 4.6	2.5 – 3.4 – 4.1	
Current account balance[3]			
MNB (September 2018)	1.0	0.7	1.3
European Commission (July 2018)	1.2	0.9	
IMF (April 2018)	2.5	2.4	2.3
OECD (May 2018)	2.5	0.8	
Reuters survey (September 2018)	2.5 – 3.1 – 3.4	1.9 – 3.4 – 4.6	
Budget balance (ESA 2010 method)[3,4]			
MNB (September 2018)	(-2.2) – (-2.3)	(-1.7) – (-1.8)	(-1.4) – (-1.8)
Consensus Economics (August 2018)[1]	(-2.2) – (-2.4) – (-3.0)	(-1.8) – (-2.2) – (-3.0)	
European Commission (July 2018)	-2.4	-2.1	
IMF (April 2018)	-2.1	-1.9	-1.9
OECD (May 2018)	-2.6	-2.1	
Reuters survey (September 2018)[1]	(-2.0) – (-2.4) – (-2.8)	(-1.8) – (-2.1) – (-2.8)	
Forecasts on the size of Hungary's export markets (annual growth rate, %)			
MNB (September 2018)	5.3	4.5	4.2
European Commission (July 2018)[2]	5.9	5.0	
IMF (July 2018)[2]	5.7	4.9	4.5
OECD (May 2018)[2]	5.0	5.1	
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (September 2018)	2.6	2.5	2.4
Consensus Economics (August 2018)[2]	2.5	2.2	
European Commission (July 2018)[2]	2.6	2.4	
IMF (July 2018)[2]	2.7	2.4	2.0
OECD (May 2018)[2]	2.7	2.5	

[1] For the Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies, we also indicate the lowest and the highest values to illustrate the distribution of the data.

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

[3] As a percentage of GDP.

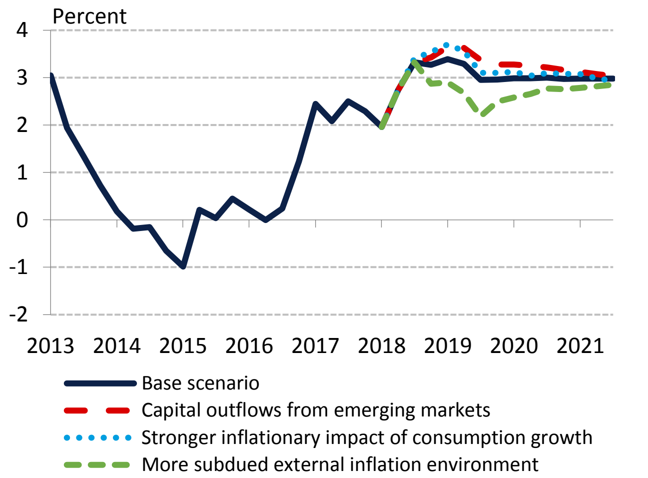
[4] The lower value of the forecast band shows the ESA balance if the Country Protection Fund is used, while the higher value shows the ESA balance if the Country Protection Fund is not used.

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 September Inflation Report, the Monetary Council highlighted three alternative scenarios. In the case of the realisation of the scenario that presents the capital outflow from emerging markets the rise in risk spreads will result in slower growth and a higher inflation path compared to the baseline scenario. In the case of the alternative scenario assuming a stronger impact from the expansion in consumption on inflation, domestic economic growth will be more robust and inflation will be higher than in the forecast of the baseline scenario. Realisation of the scenario that assumes a more restrained external inflation environment results in lower inflation and more moderate demand than in the baseline scenario. In the first two cases, sustainable achievement of the inflation target is possible with tighter monetary conditions than the ones assumed in the baseline scenario, while in the latter case it is possible if monetary conditions are looser. In addition to the scenarios highlighted above, the Monetary Council discussed, as further risk, a scenario that assumes the strengthening of global trade tensions.

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



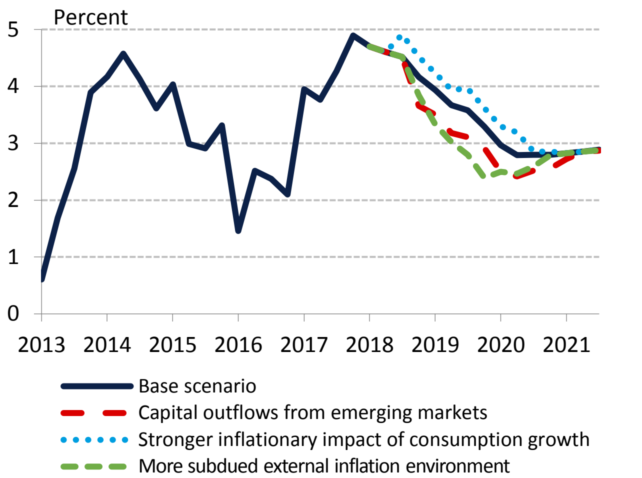
Source: MNB

Capital outflows from emerging markets

In the past months, **the further increase in the Fed's policy rate and rising US yield expectations triggered capital outflows from emerging markets, in parallel with strengthening risk aversion**. **The mounting uncertainties related to emerging countries** entailed a rise in volatility on financial markets, and primarily affected the foreign exchange and bond markets of more vulnerable and riskier emerging countries (e.g. Argentina, Turkey), and at the same time it also contributed to the strengthening of the monetary policy divergence existing in the CEE region. Decision-makers and market participants expect the Fed **to raise the base rate on two more occasions this year. The fundamentals of the Hungarian economy are stable**, but – as a result of a further rapid tightening of the Fed's monetary policy as well as the continued capital withdrawal and the parallel weakening of emerging market currencies – **on the whole, monetary conditions in Hungary and in the region may become looser** in the period ahead. In addition, owing to the central banks' different reactions, **further strengthening in the monetary policy divergence in the region may lead to asset restructuring and the loosening of relative monetary conditions in Hungary**. **In the baseline scenario** we expect that capital outflows from emerging markets will continue only at a slower pace as a result of the US yield increases, while financial market sentiment will remain favourable.

In the alternative scenario we assume that – due to an increase in uncertainties related to emerging market countries – **the rate of capital outflows will accelerate**, leading to rising volatility on the financial markets. **With the strengthening divergence across the central banks of the region, asset restructuring takes place** among the

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



Source: MNB

countries of the region. **Domestic relative monetary conditions loosen**, resulting, together with the increased financial market volatility, in a decline in domestic asset prices and higher inflation than in the baseline scenario. Domestic monetary conditions, which become looser on the whole compared to the baseline scenario, **warrant tighter monetary policy.**

Stronger inflationary impact of consumption growth

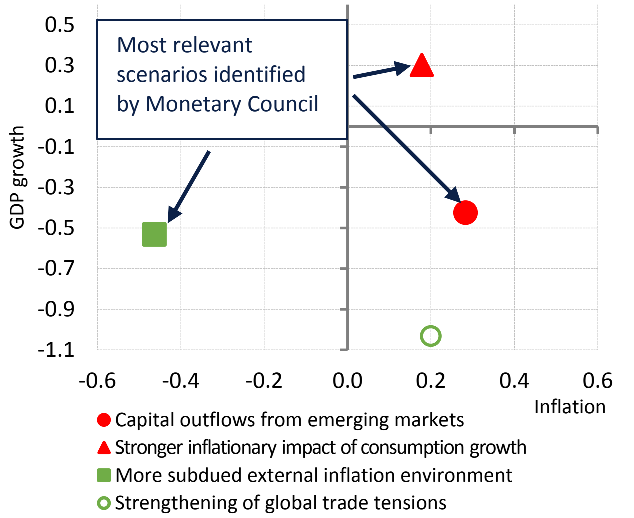
In the past period, in line with our expectations, **household consumption continued to expand dynamically. Household consumption**, however, primarily targeted **durable and semi-durable consumption goods with significant recovery potential and higher import demand.** In our forecast, due to the increase in wages, **we expect continued and rapid expansion in household consumption in the current structure.** Considering that the expansion in consumption is most typical of the more durable goods characterised by restrained price dynamics and higher import demand, **looking ahead, core inflation is expected to increase moderately**.

According to the assumptions of our alternative scenario, as a result of a further strengthening in wage outflows in the tight labour market environment, **domestic demand will expand to a greater extent than expected and will affect all product groups**, and thus **the impact on inflation may be stronger compared to the baseline scenario.** Inflation that is higher than the baseline scenario **points to tighter monetary conditions.**

More subdued external inflation environment

The expectations concerning future commodity prices are determined jointly by the economic cycles expected in the emerging countries and, indirectly, in the developed countries. **Deterioration in global trade** and in the growth prospects of emerging countries **may entail a decline in demand for commodities.** In the past months, **commodity price declined on the whole.** In its usual July forecast, **the International Monetary Fund revised down its growth forecast for both developed economies and for the outlook in global trade**. In addition, based on past data, the current global economic cycle can be considered one of the longest rising phases, which may also **point to a long-lasting slowdown in global growth. Hungary is affected by global trade** through indirect and direct channels, primarily through Germany. Accordingly, **a slowdown in global growth may significantly restrain Hungary's external inflation environment**. According to the assumptions of **our baseline scenario**, continued buoyant trading activity is

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 monetary policy horizon. The red marker means tighter and the green markers mean looser monetary policy than the baseline forecast.
Source: MNB

observed, and global growth does not decelerate significantly over the forecast horizon.

According to our **alternative scenario**, **deterioration in the growth prospects of developed countries reduces the external inflation environment** from the demand side. In addition, through second-round channels, **growth in the emerging economies** which exhibit energy-intensive growth **also decelerates, resulting in a further decline in commodity prices.** As a result of the two effects, we can expect weaker external demand and lower imported inflation, which, on the whole, warrants **monetary conditions that are looser than in the baseline scenario**.

Other risks

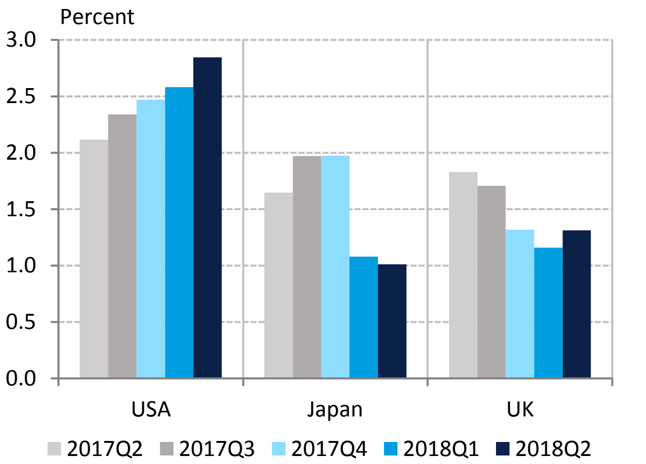
In addition to the scenarios highlighted above, the Monetary Council considered another alternative scenario as well. The risk scenario that assumes the **strengthening of global trade tensions** suggests more restrained growth and slightly higher inflation than in the baseline scenario.

3. Macroeconomic overview

3.1. Evaluation of international macroeconomic developments

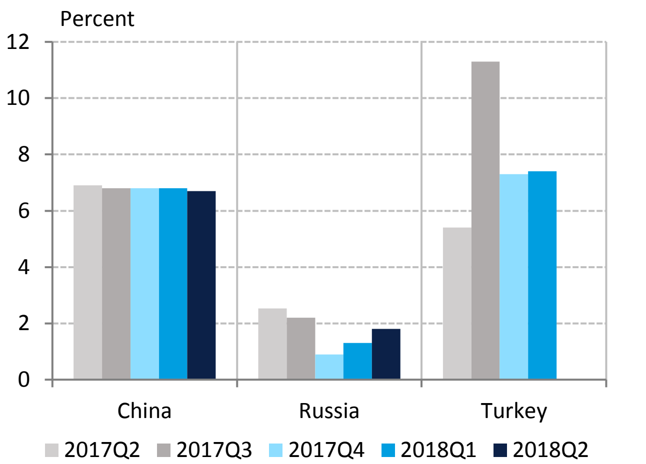
While risks strengthened, global economic expansion continued in 2018 Q2. The Visegrád region is still the growth centre of the European Union. In connection with the developments in global oil prices, inflation in the euro area rose close to the inflation target in the past months, while core inflation remained subdued. In line with the FOMC's summary of economic projections, market participants also expect two more increases this year. The ECB is gradually reducing the pace of asset purchases this year which will end at the end of December 2018. Policy rates in the euro area will remain at their current levels at least until the summer of 2019, or even after that if necessary. In both June and August, the decision-makers at the Czech central bank decided to raise the policy rate, while the interest rate hike by the Romanian central bank expected by the market did not take place. The Polish central bank's decision-makers did not change monetary conditions in the past quarter.

Chart 3-1: Annual changes in GDP in certain key global economies



Note: Seasonally adjusted series.
Source: OECD

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



Source: Trading Economics

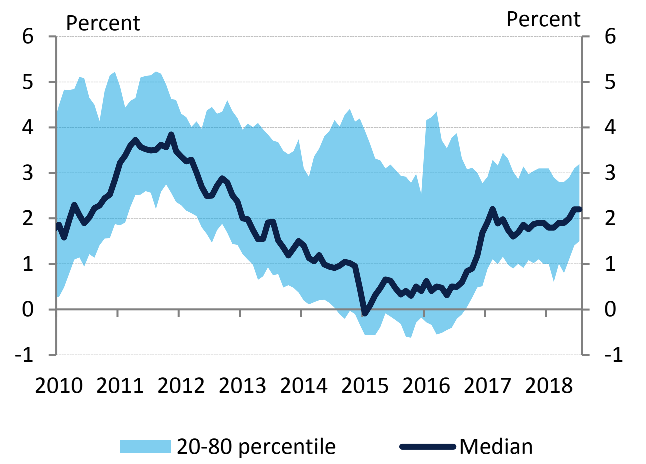
3.1.1. Developments in globally important economies

In 2018 Q2, the growth of the US economy accelerated both compared to the previous quarter and year on year (Chart 3-1). The economic expansion is primarily attributable to corporate investment and household consumption, although government expenditures also contributed to growth. In parallel with an increase in domestic demand items, export growth exceeded import growth. As a result of the infrastructure investment programme and the tax cuts announced by the US Administration, **economic growth prospects continue to be favourable**. However, due to the significant weight of the United States within global imports, **the measures that increase trade tensions may have a substantial impact on the global economy**. Looking ahead, the uncertainties about import tariffs pose a considerable risk to growth in the US and to global economic activity.

Economic growth in the United Kingdom accelerated slightly during Q2, but continued to decelerate compared to last year. The expansion was supported by domestic demand items (household consumption, gross fixed capital formation). As a result of stagnating imports and declining exports, net exports reduced growth. Brexit and the unclear circumstances of the process have an unfavourable impact on medium-term growth prospects and on the developments in corporate investment. **In Q2, the Japanese economy expanded by 1.0 percent year on year and by 0.5 percent compared to the previous quarter** (Chart 3-1). Growth was primarily attributable to household consumption and a pick-up in corporate investment.

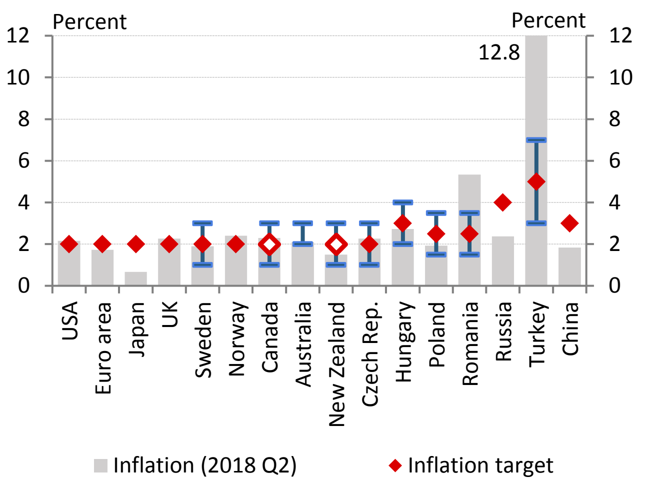
Of the major emerging countries, the Chinese economy grew at a rate of 6.7 percent in 2018 Q2 (Chart 3-2), in line with analysts' expectations. The expansion is mainly related to household consumption, although investment also contributed to growth. The Chinese trade balance was

Chart 3-3: Global inflation developments



Note: Percentage change on the same period of the previous year, based on data from 43 developed and emerging countries.
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 accentual, which is marked by empty diamond.
Source: OECD, FRED, National Institute of Statistics Romania

below expectations in Q2, which was a result of a major rise in imports. The increase in trade tensions poses downside risks to the growth prospects of the Chinese economy. In Russia, economic growth accelerated again in Q2, which is partly attributable to the upswing in retail trade in connection with the FIFA World Cup.

Global inflation rose slightly in the past quarter (Chart 3-3). In line with that, in most developed countries inflation was close to and in some cases even reached central bank targets (Chart 3-4). Global oil prices increased significantly last year, which contributed to the rise in inflation rates (Chart 3-7).

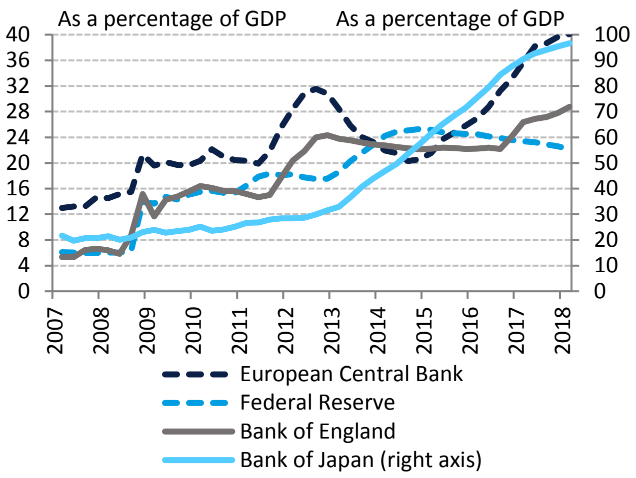
Following the 25-basis point interest rate hike in June, the Fed's decision-makers left the policy rate unchanged in August, as expected. Based on the summary of economic projections published in June, two more increases of 25 basis points each are expected for this year. In line with that, market pricings suggest interest rate hikes for September and December of this year. In addition to the interest rate increases, the limitation of reinvesting assets maturing in the central bank balance sheet also continues this year.

In the past quarter, the Bank of Japan did not change monetary conditions and continued to align its Quantitative and Qualitative Easing Programme with the 0-percent long-term yields. Since the announcement of the yield curve targeting, the rate of monthly purchases declined further (Chart 3-5). The central bank indicated that it intended to permanently maintain the current extremely low level of short- and long-term interest rates. According to the July forecast, growth is supported by the loose monetary conditions, the protracted effect of the fiscal stimulus and international growth trends. According to the central bank's communication, reaching the inflation target is still surrounded by moderate risks.

In August, as a result of an increase in inflation above the target due to external factors, the Bank of England raised its base rate by 25 basis points to 0.75 percent. The August forecast suggests that with further tightening over the forecast period it is possible to ensure the sustainable return of inflation to the target at a conventional horizon. According to the Bank of England, some gradual and limited interest rate hikes may be appropriate in the coming years.

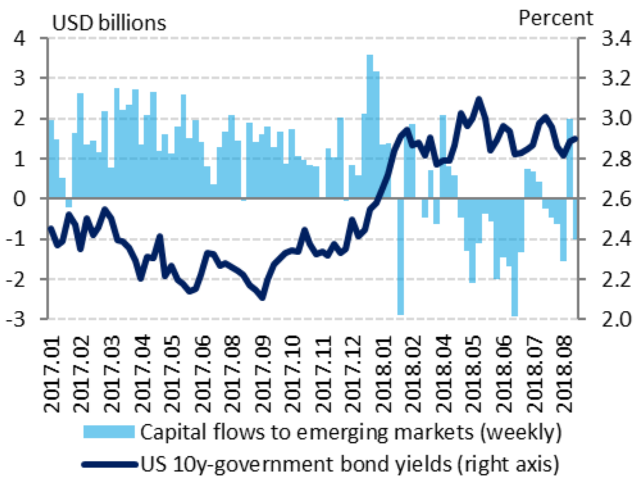
Of the central banks of emerging countries, in order to support the sound functioning of the money market, **in August the Turkish central bank reduced the minimum reserve ratios for all maturities and took liquidity expanding measures.** In August, significant turbulence was

Chart 3-5: Central bank balance sheet totals in developed countries



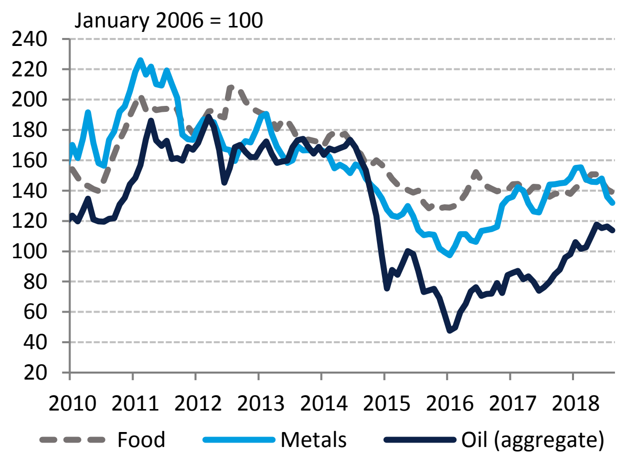
Source: Databases of central banks, Eurostat, FRED

Chart 3-6: Capital flows to emerging markets (weekly) and US 10y-government bond yields



Source: EPFR, Bloomberg

Chart 3-7: Major commodity price indices



Note: Calculated from prices in USD.

Source: World Bank

experienced in the Turkish money markets, which was attributable to the country's weak macro fundamentals and the rapid deterioration in diplomatic relations between the USA and Turkey. In this turbulence the Turkish lira strongly depreciated, and the country's credit risk indicators also increased considerably. **At the September meeting the Turkish central bank raised the interest rate from 17.75 percent to 24 percent.** The Turkish central bank noted, that tight monetary policy will be maintained until the inflation outlook displays a significant improvement.

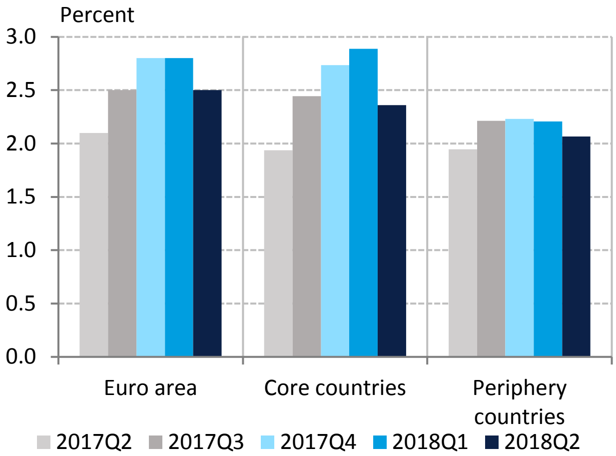
At an extraordinary meeting in early August, the Argentine central bank raised the base rate to 45 percent, followed by a further rise to 60 percent at the end of August. Within the framework of both decisions, the central bank increased the minimum reserve requirement. International stock exchanges did not react to the Argentine central bank's interest rate hike, but the exchange rate of the peso against the US dollar depreciated significantly. The outflow of capital observed from emerging markets at the beginning of the year (Chart 3-6) had a major impact on the Argentine peso. The money market turbulence calmed down as a result of the IMF agreement accepted in June and as a result of further central bank measures, and according to the central bank's forecast, inflation will decline by the end of the year. The central bank of Argentina will maintain its tight monetary policy stance until inflation complies with the 17 percent target for December 2019.

In early August, the People's Bank of China prescribed a mandatory 20 percent FX reserve for foreign-exchange futures. Then, in order to prevent excessive depreciation of the renminbi, the central bank put a countercyclical factor into the formula used for producing the exchange rate fixing of the renminbi. These measures were necessary because in the past period, due to trade tensions and changes in international FX markets, the Chinese FX market showed procyclical fluctuations.

In the past quarter, risk appetite declined mainly in the emerging markets. In the past period, the intensification of trade tensions remained perceptible, exerting negative effects in the developed markets as well. During the period under review, investors' assessment of the Turkish and Argentine markets worsened, and concerns related to the Italian banking sector and debt crisis became stronger again from the second half of the period.

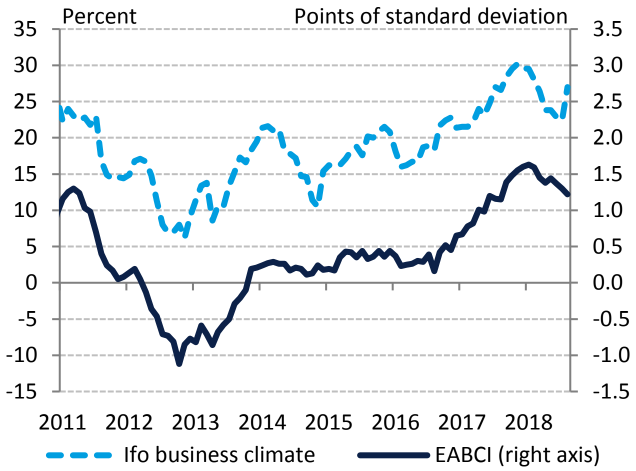
In the period as a whole, expectations regarding interest rate hikes in the USA rose. The US 10-year yield essentially fluctuated in a band between 2.8 and 3.0 percent during Q3. In parallel with the increasing expectations concerning

Chart 3-8: Annual changes in euro-area GDP



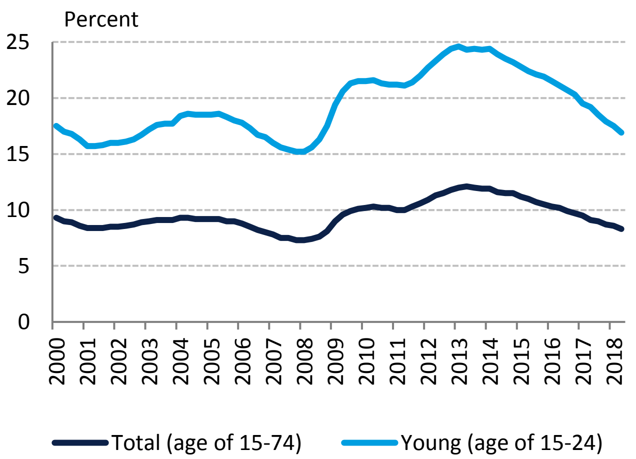
Note: Seasonally and calendar adjusted series. Periphery countries (Portugal, Italy, Greece, Spain), Core countries (Belgium, Germany, France, Netherlands, Austria). Source: Eurostat

Chart 3-9: Business climate indices for Germany and the euro area



Source: European Commission, Ifo

Chart 3-10: Unemployment rate in the euro area



Source: Eurostat

interest rate hikes in the USA, risk aversion was observed in emerging bond markets in this quarter as well.

3.1.2. Developments in the euro area

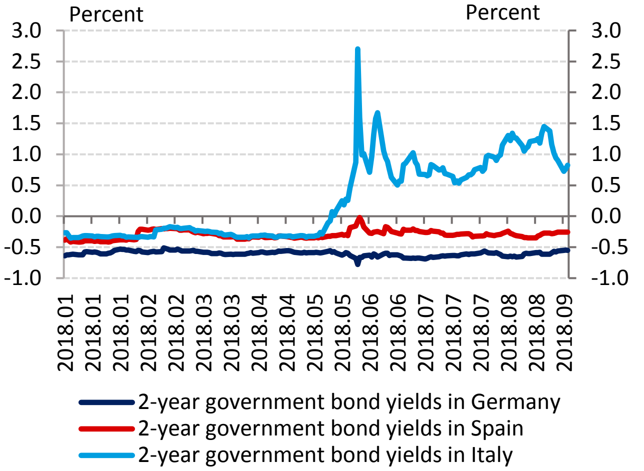
Economic growth in the euro area continued in Q2 (Chart 3-8). The economy of Germany, which is Hungary's most important trading partner, grew at a pace of 1.9 percent. Expanding investment and stable household consumption were the main contributors to growth. Growth in euro area **core countries** exceeded that of the periphery countries, supported by the expansion in the German as well as the Austrian (+3.0%) and Dutch (+2.8%) economies. Growth in the **periphery countries** decelerated in the majority of the countries that constitute the region.

Forward-looking indicators of economic activity declined further in the past period (Chart 3-9). Both the business confidence index capturing the prospects of the euro area (EABCI) and the expectations for the German economy (Ifo) declined in July. The decline is primarily explained by the weakening of the business prospects of the responding companies. In a historical comparison, however, both indicators are at high levels. **Cyclical factors also contributed to the more favourable developments in euro area economic activity**, although as far as growth prospects are concerned, downside risks (Italian government debt, increase in trade tensions, etc.) strengthened. As far as longer-term growth prospects are concerned, slow expansion in productivity as well as the still high unemployment rate (Chart 3-10) continue to pose risks.

In line with global developments, average annual inflation rose to 1.7 percent in the euro area in 2018 Q2. In July, mainly as a result of energy price increases, inflation rose to 2.1 percent, but based on preliminary data, inflation was at 2.0 percent in August. Accordingly, inflation rose close to the 2 percent inflation target in the majority of Member States. At the same time, **core inflation still shows restrained dynamics.** In the euro area, 5-year inflation expectations 5 years ahead still fall short of the ECB's inflation target.

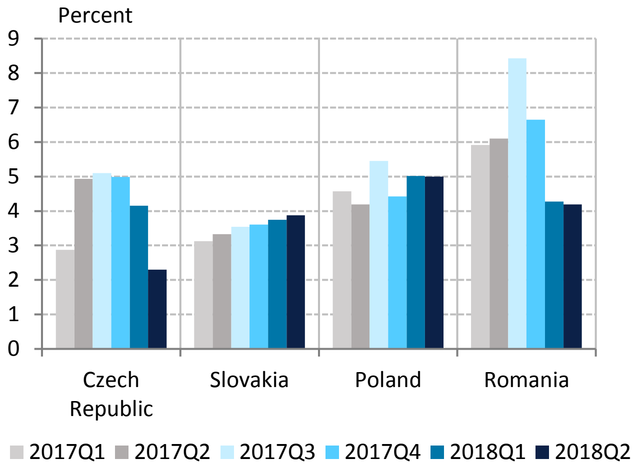
At its July and September meeting, the Governing Council of the European Central Bank left the key interest rates unchanged. The Governing Council repeated that it would continue its asset purchase programme at the current monthly rate of EUR 30 billion until the end of September 2018 and will then reduce this amount to EUR 15 billion; depending on the medium-term inflation outlook, net purchases will end at the end of December 2018. The Governing Council expects that **the policy rates will remain at their current levels at least until the summer of 2019, or**

Chart 3-11: 2-year government bond yields in Germany, Italy and Spain



Source: Bloomberg

Chart 3-12: Annual changes in GDP in CEE countries



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

even after that if necessary. Through the reinvestment of maturing securities purchased within the framework of the asset purchase programmes, significant amounts of monthly purchases are expected in 2019 as well. Markets expect the first interest rate hike to take place in 2019 H2.

Risk appetite declined in the periphery countries of the euro area in the first half of the period. Although the volatility of asset prices temporarily declined at the beginning of the period with the easing of domestic political tensions in Italy, from mid-July expectations of a downgrade strengthened in connection with fiscal risks, which had a negative effect on asset prices; these risks, however, have mostly been priced out in September (Chart 3-11).

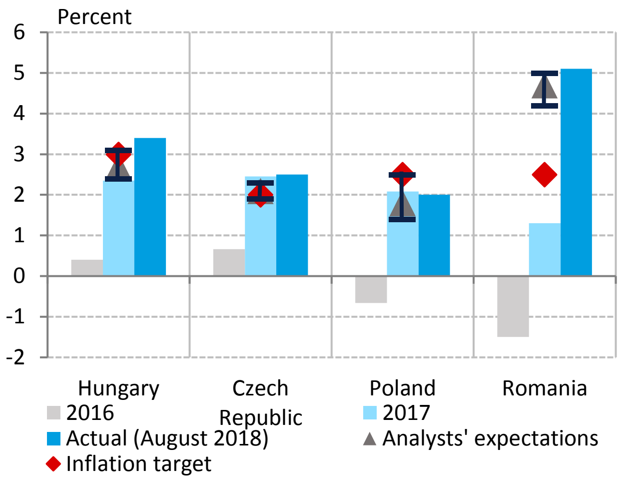
3.1.3. Developments in the Visegrád region

As in the previous quarters, the Visegrád region was once again the fastest expanding region in the European Union in 2018 Q2 (Chart 3-12). In the second quarter, Poland, Slovakia and the Czech Republic recorded economic growth rates of 5.0 percent, 4.1 percent and 2.7 percent, respectively. Looking at the region as a whole, growth was mainly supported by domestic demand. In Romania, following robust growth in 2017, the economy expanded by 4.2 percent in 2018 Q2 and thus approached a more sustainable growth path.

Inflation rose to some extent in the countries of the region in the past months (Chart 3-13). In the past months inflation in the Czech Republic slightly exceeded the inflation target and stood at 2.5 percent in August. In Poland, the rate of price increase did not change, thus was at 2.0 percent in July. Inflation increased to 5.1 percent in Romania in August, and continues to significantly exceed the upper limit of the tolerance band around the inflation target. Core inflation in the Czech Republic increased in parallel with the rise in inflation, while it did not change significantly in Romania, and was at a moderate level in Poland during the period under review.

Of the central banks in the region, the decision-makers of the Czech central bank decided to raise the policy rate by 25 basis points both in June and August. Based on the central bank's forecast, as a result of the expected weakening in the exchange rate and strong wage increases, compared to the previous forecast, inflation will be higher, i.e. above the 2 percent target until mid-2019, but will remain within the tolerance band all the time. In line with the previous forecast, the policy rate continues to increase. **During the past quarter, the Polish central bank's decision-makers did not change monetary conditions.** The central

Chart 3-13: Inflation targets of central banks, inflation, and economic agents' expectations



Note: Analyst's expectations relate to annual average in 2018.
Source: OECD, Trading Economics, National Institute of Statistics Romania, Consensus Economics

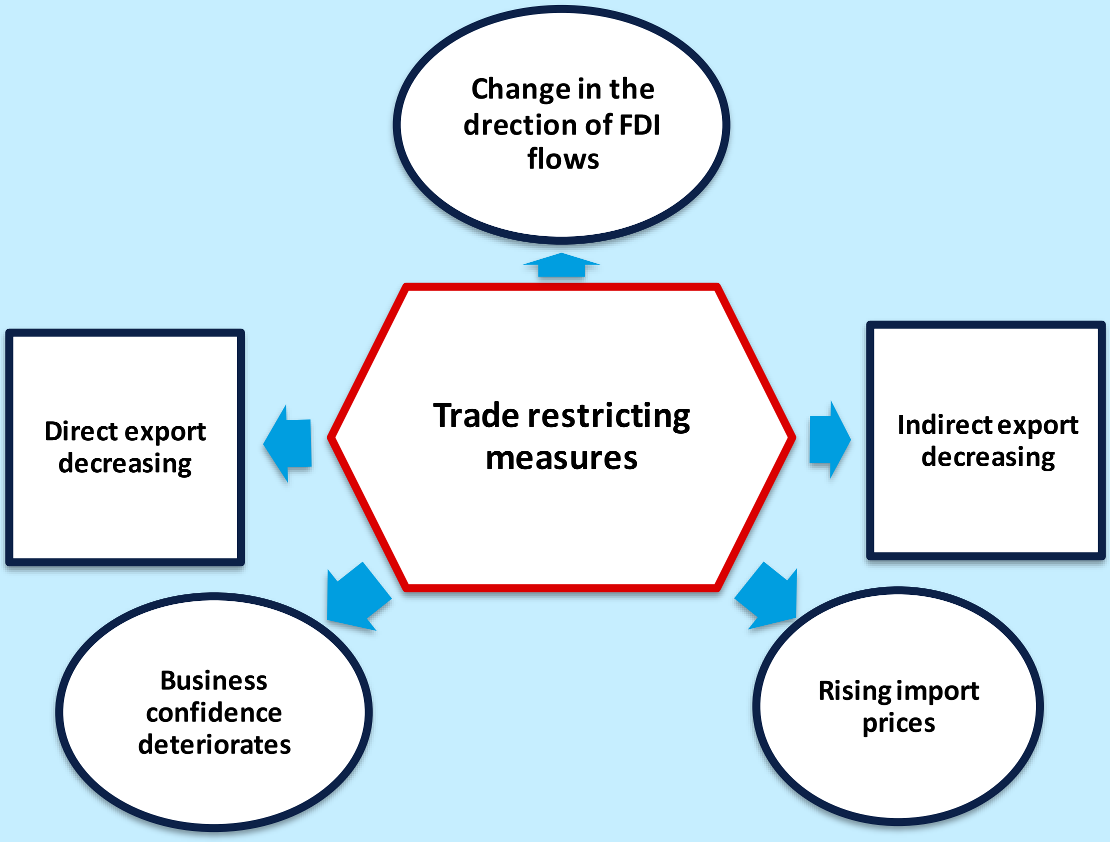
bank's statements suggest that the base rate may remain at an unchanged level at least until end-2019. According to the new forecast, inflation may be close to the target over the transmission horizon of monetary policy. Based on the assessment of the majority of the council members, stable interest rates support the achievement of the inflation target as well as the sustainable growth and stability of the Polish economy. **The interest rate hike by the Romanian central bank expected by market analysts did not take place in August.** According to the central bank's latest forecast, inflation may decelerate to the upper limit of the tolerance band, i.e. to 3.5 percent, in the remaining part of the year.

Box 3-1: Announced tariffs and their economic effects

In recent months, the tension between the United States and its trading partners became a market-moving focus topic in terms of prospects for global economic activity. The US Administration designated the reduction of the trade deficit as a priority. Accordingly, this year, first in the form of increasingly strong messages, then in the form of specific measures, it took steps in order to implement the deficit reduction. **The structure of the USD 800 billion trade deficit determined the direction of the measures: around half of the deficit is related to China, and the US trade deficit is also significant vis-à-vis the EU (USD 150 billion).**

The introduced and envisaged increases in tariffs may have far-reaching consequences, which may decelerate economic growth in Europe, including Hungary, through various channels. The first and most obvious channel is the foreign trade channel. **Namely, there are extensive trade relations between the European and US economies, and the prospective penalty tariff afflicting the vehicle industry would affect one of the major export items of the European continent. The most important channel involves the direct and indirect trade relations, but tariffs may also have a negative impact on the direction of FDI and the economic outlook** (Chart-3-14).

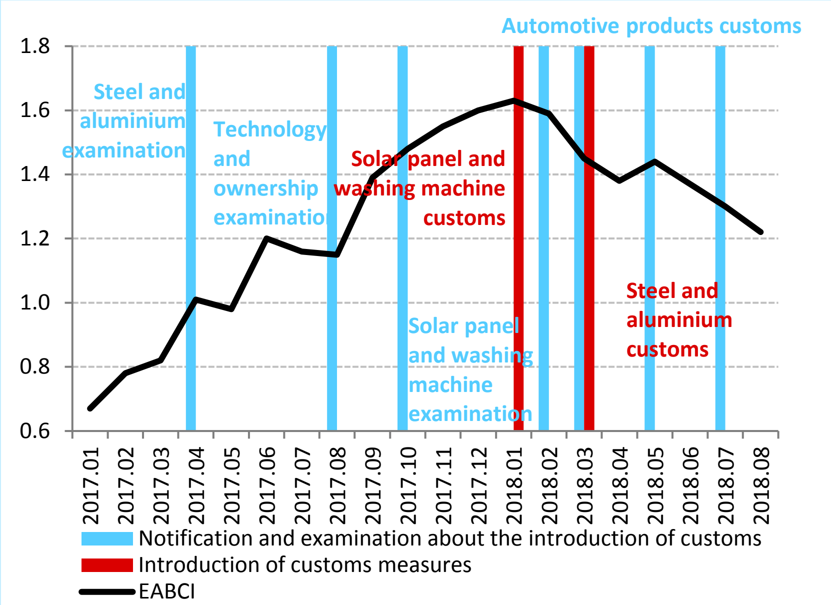
Chart 3-14: Real economy channels of trade restricting measures



Sources: MNB

The most important channel is the foreign trade channel, due to the extensive trade relations between the European and US economies, and the prospective penalty tariff impacting the vehicle industry would affect one of the major export items of the European continent. **In addition to the direct trade channel, the negative correlation between developments in import tariffs and investment sentiment pose a further downside risk to growth.** The introduction of concrete customs measures may increase import input costs, impair business confidence and thus investment activity as well, with a corresponding negative impact on economic growth (Chart 3-15).

Chart 3-15: US manufacturing import tariffs and prospects for economic activity in Europe



Sources: press information, European Commission

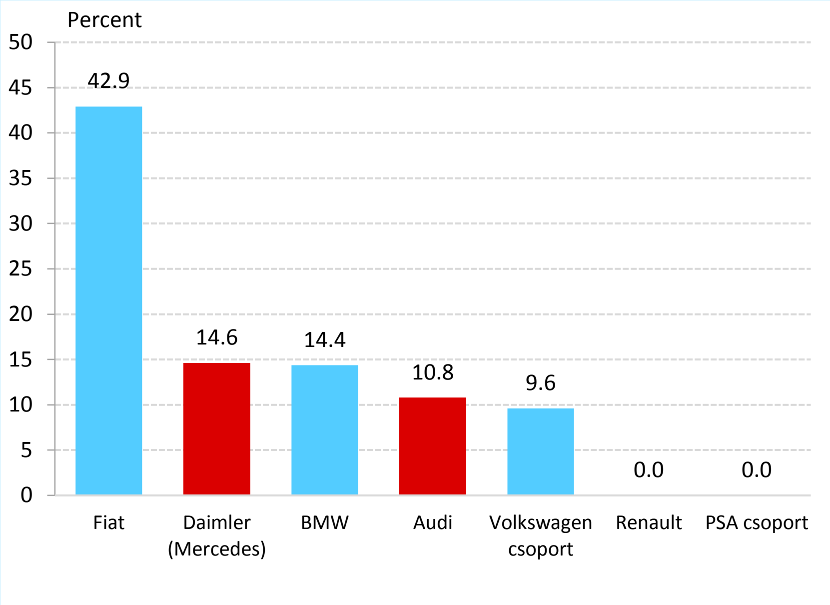
The protective tariffs introduced in the first wave in January 2018 affected a very small slice (around USD 10 billion) **of goods imports in a relatively small market** (20 percent and 30 percent tariff imposed on washing machines and solar panels, respectively). At the same time, the main exporter of these products is China, so partly it could already be considered a targeted measure. **In the second wave, the US imposed protective tariffs on steel and aluminium industry products in March.** Duties of 25 percent and 10 percent were imposed on steel and aluminium, respectively, affecting imports of some USD 50 billion. In the first months, several partners were exempted (e.g. EU, Canada, Mexico), but the exemptions expired as of 1 June. In response, the EU and Canada also imposed duties, mainly on steel and aluminium products as well as traditional US products (the duties of the EU and Canada cover imports of USD 3 billion and USD 13 billion, respectively). Although China was less affected by this step (a range of products worth USD 3 billion), in response it imposed duties on a similarly limited range of products (aluminium, agricultural products) imported from the US.

From March, steps obviously aimed at imports from China also started to become visible, and these measures affect a more significant range of products, and may have a perceptible impact on global trade as well. The United States imposed a 25-percent tariff in two steps for a product group worth a total of USD 50 billion. China practically immediately reacted to both steps, imposing a tariff of the same degree, also for a product group worth USD 50 billion. Looking ahead, the biggest step may be the introduction of a package of measures affecting a range of products worth USD 200 billion, the details of which were gradually made public by the US during the summer. It is expected to enter into force in September. In line with the earlier practice, China announced its planned reaction in advance, which – depending on the concrete form of the step by the United States – may consist of four separate packages (duties of 5–25 percent, for a range of products worth a total of USD 50–60 billion).

Analysing the trade relations of the two countries, it can be established that China's leeway in terms of further steps is much more limited. This is also seen from the fact that the range of products that may be affected by China's reaction reaches only a fraction of the planned US package of USD 200 billion. Furthermore, it is also important to emphasise that it would be difficult to substitute the import products from the US for which lower or no duties were imposed (precision products, chemical industry products, airplanes).

For the time being, there have been no further specific measures between the EU and United States in addition to the steps affecting the aforementioned relatively limited range of products. Although on the US side the idea of imposing a 20 percent tariff on cars imported from Europe arose, as a result of high-level consultations an agreement was reached at the end of July that the parties would strive to settle the situation through negotiations. **Based on car manufacturers' declarations, Fiat is the most affected by trade policy issues concerning the automotive industry, while the exposure of the major car factories located in Hungary is lower** (Chart 3-16).

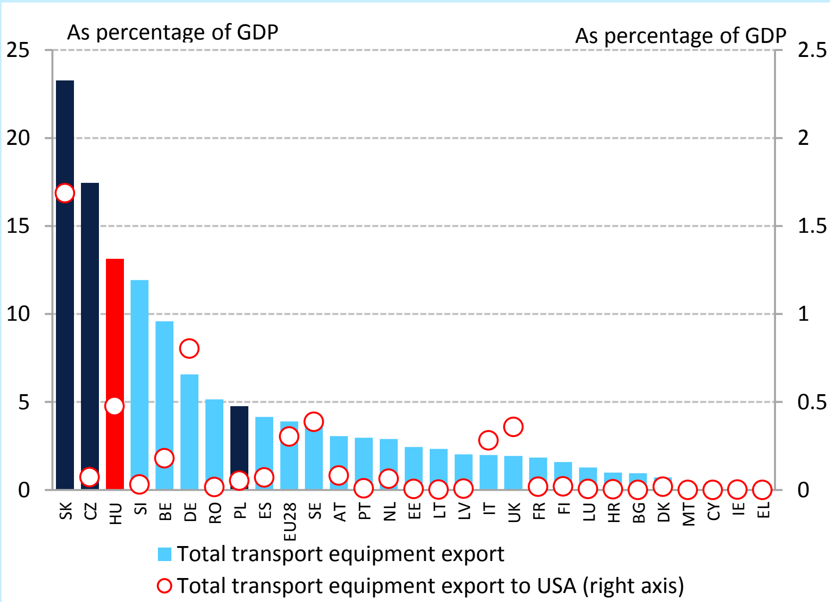
Chart 3-16: Share of the USA in the sales of European car manufacturers (2017)



Note: Car manufacturers relevant from Hungary's point of view are marked with red.
Sources: Reports of car manufacturers

Direct automotive industry exports to the USA of the countries of the region as a proportion of GDP are the highest in Slovakia (1.7 percent), **exceeding the average of the EU**. **In the case of Hungary, direct automotive industry exports to the USA hardly amounted to 0.5 percent of GDP in 2017** (Chart 3-17). Nevertheless, exports of the CEE countries to Germany are significant, and thus, through the exports from Germany to the USA, the measures have a stronger indirect impact on Hungary's exports.

Chart 3-17: Automotive industry exports of the EU-28 as a percentage of GDP (2017)



Sources: UNCTADStat, WDI

Major international institutions and analysts (OECD, IMF, CPB) carried out simulations regarding the expected economic consequences in the cases of the customs measures announced to date and also in the case of an increase in trade tensions. **As for the duties between the USA and China affecting only steel and aluminium products, they expect limited negative consequences**, but extending the increased duties to other product groups as well would, according to their calculations, already have a negative impact on the intensity of global trade, and thus on growth as well. **According to estimates, an increase in trade tensions and their spread to the automotive industry would decelerate growth by 0.3-0.4 percentage**

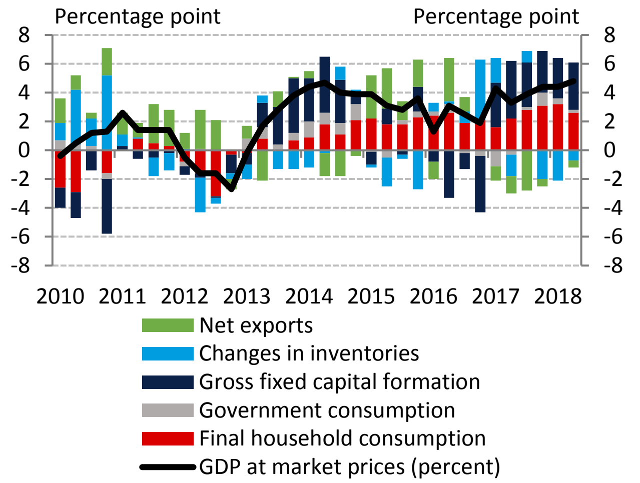
point and 1.2–1.3 percentage points in the case of the USA and China, respectively, while trade between the countries would decrease by 8–13 percent. **All of this would lower global growth by a mere 0.2 percentage point.** However, if trade tensions increase, non-linear reactions may also occur, which would result in a rearrangement of the directions of global trade, the economic effects and final outcome of which involve great uncertainty.

Domestic economic performance can be influenced by indirect effects, alongside direct trade channels, primarily through Germany, which would only slightly weaken Hungarian growth based on the simulations presented so far. **Based on our estimation domestic economic growth could decrease by 0.1-0.2 percentage points due to the effects of intensification of trade tensions and the introduction of trade tariffs through direct and indirect trading channels. Furthermore, higher imported inflation would slightly increase the domestic inflation path.** However, in the event of intensification of trade tensions, nonlinear responses may also occur, which would result in the rearrangement of the direction of world trade. These events have a high degree of uncertainty regarding their economic effects and their final outcome.

3.2. Analysis of the production and expenditure side of GDP

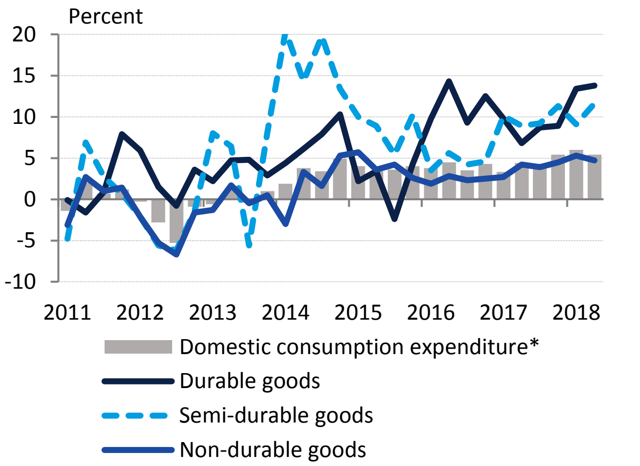
Economic growth in Hungary continued to pick up in Q2. All sectors contributed to the annual 4.8 percent GDP growth, and thus the expansion in the economy continued in balanced structure on a broad basis. On the expenditure side, economic growth was still supported by domestic demand components, with acceleration in consumption and investment. On the production side, in line with domestic demand, market services made the strongest growth contribution and the performance of both industry and construction also continued to rise.

Chart 3-18: Contribution to annual changes in GDP



Source: HCSO

Chart 3-19: Annual change in aggregate consumption and its subcomponents



Note: *Domestic consumption expenditure does not include the balance correction for tourism and therefore differs from household consumption expenditures in the national accounts data.

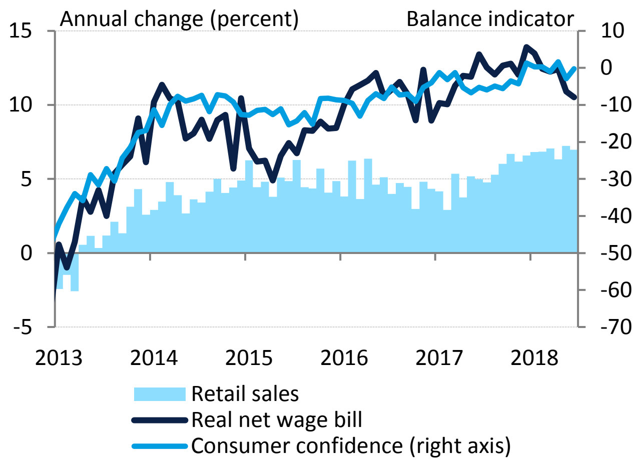
Source: HCSO

According to the HCSO, **in 2018 Q2 Hungary's gross domestic product increased by 4.8 percent year on year**, while it expanded by 1 percent compared to the previous quarter. As previously, economic growth was supported by domestic demand through the continued expansion in consumption and investment. Growth in exports of goods and services gained momentum in the second quarter. However, in line with the expansion of domestic demand components, the growth rate of goods imports exceeded the rate of export growth and consequently net exports reduced economic growth in Q2 (Chart 3-18).

In 2018 Q2, expansion in household consumption continued. In parallel with an upswing in the housing market cycle, **the rise in spending on durable and semi-durable goods**, which have high recovery potential, **continued to exceed the aggregate expansion in consumption**. The consumption of durable products rose 13.8 percent, while purchases of semi-durable goods expanded by 11.6 percent in Q2 (Chart 3-19). Growth was supported by historically high consumer confidence and net financial wealth as well as by a dynamic increase in wages and further expansion in employment. The growth in consumption was also corroborated by the July figure for retail trade turnover, which shows a rise of 5.4 percent on the basis of preliminary data (Chart 3-20). In parallel with a pick-up in household investment activity, households' net financial savings also increased significantly.

Household loans outstanding expanded by HUF 119 billion in 2018 Q2, corresponding to a nearly 3 percent increase year on year. In spite of the growth in loans outstanding, the debt-to-GDP ratio is still considered low by international standards. The annual average increase in the volume of new loans from credit institutions was 31 percent. Within that, new housing loans and personal loans expanded by 39 percent and 48 percent, respectively, during the quarter. By the end of the quarter, 82 percent of the housing loans granted were with interest rate fixation of over one year, and half of the loans with at least one year interest rate fixation were certified consumer-friendly housing loans. According to banks' responses to the Lending Survey, they expect dynamic housing market developments and strong market competition in 2018 H2 as well, and thus they

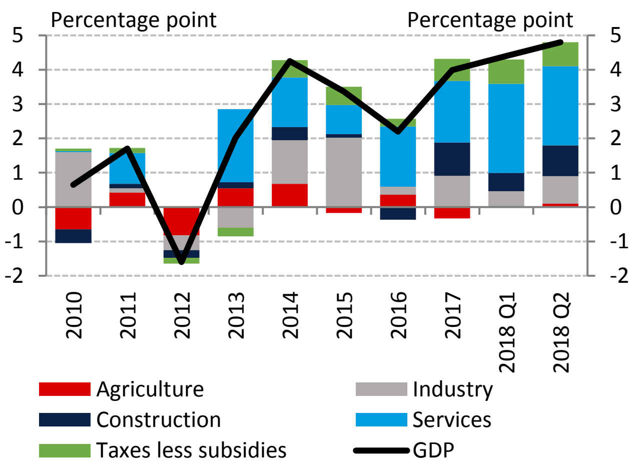
Chart 3-20: Developments in retail sales, income and the consumer confidence index



Note: Seasonally adjusted retail sales data.

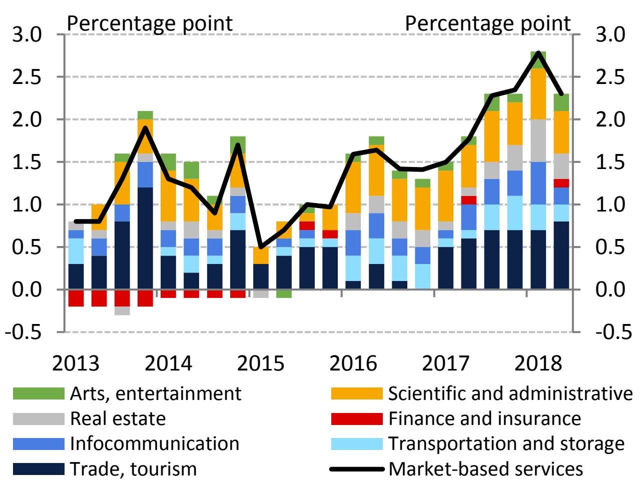
Source: Eurostat, HCSO

Chart 3-21: Contribution to annual changes in the production of GDP



Source: HCSO

Chart 3-22: GDP growth decomposition of the subsectors of market-based services



Source: HCSO

continue to expect buoyant demand for housing loans, while no significant easing in credit conditions is foreseen. The upswing in lending is primarily supported by the continuously strengthening demand; easing of supply conditions is not typical of banks. Demand in the housing market and the major increase in real income point to expansion in household consumption and investment.

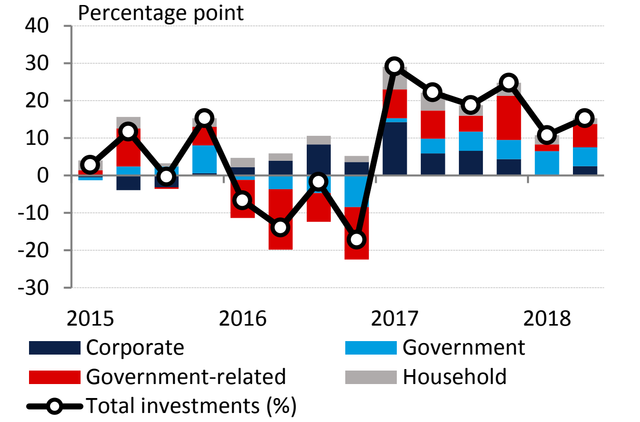
In line with the increase in domestic demand, market services contributed significantly to economic growth in Q2 (Chart 3-21). **Value added increased considerably in each of the market services sectors**. Significant growth was recorded in trade, accommodation and food service as well as in the professional, scientific and technical subsector and also in administrative services subsectors. The dynamics of government-related services were neutral compared to the same period of last year (Chart 3-22).

In 2018 Q2, public consumption expanded again, while the volume of in-kind social benefits received from the government remained almost unchanged compared to 2017 Q2.

In the second quarter of 2018, whole-economy investment rose by 15 percent in year-on-year terms (Chart 3-23). Investment by companies producing goods and providing services for the domestic market decelerated slightly compared to the previous quarter, which is partly explained by the decline in the investment activity of the ICT sector. Investment in the sectors producing mainly for external markets expanded slightly, which was supported by growth in various manufacturing subsectors (e.g. rubber, plastic and construction material industries, manufacturing of machinery and equipment), and reduced by a downturn in vehicle manufacturing, which has a high weight. Investment in the public sector (health, administration, education) and in sectors closely related to the public sector (energy, transportation) expanded rapidly, primarily as a result of developments implemented from EU and own funds. The investment activity of the state increased as a result of the significant pre-financing of EU projects as well as an upturn in projects financed from other own funds. **In line with the buoyant investment activity, the dynamic increase in construction output continued in Q2.**

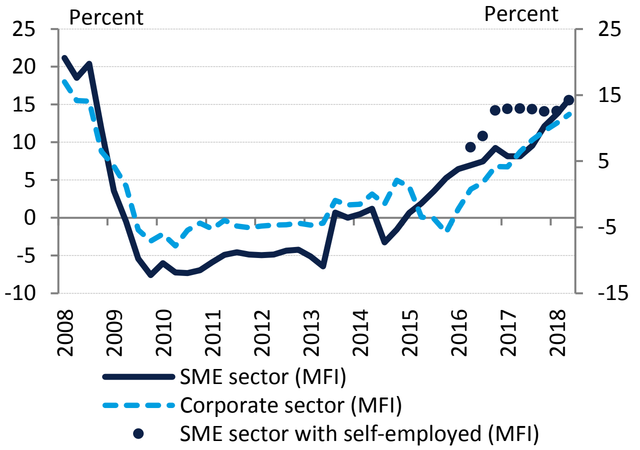
The upswing in investment is also well reflected in corporate lending. Total corporate lending dynamics accelerated compared to Q1, reaching 12 percent in 2018 Q2. During the quarter, non-financial corporations' loans outstanding vis-à-vis the financial intermediary system expanded by HUF 252 billion as a result of disbursements and repayments, representing a lower

Chart 3-23: Decomposition of the annual change of investments



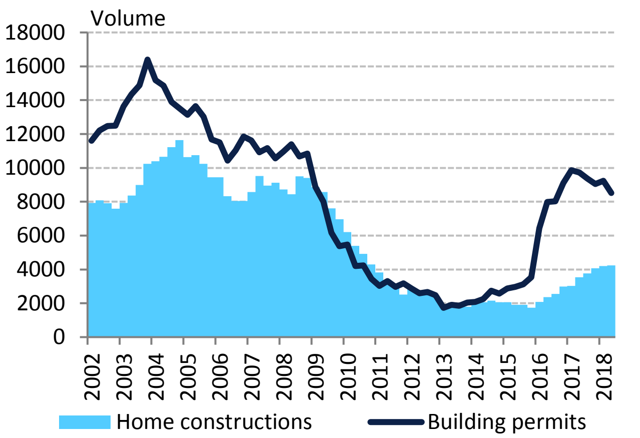
Source: HCSO

Chart 3-24: 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 3-25: Housing starts and building permits



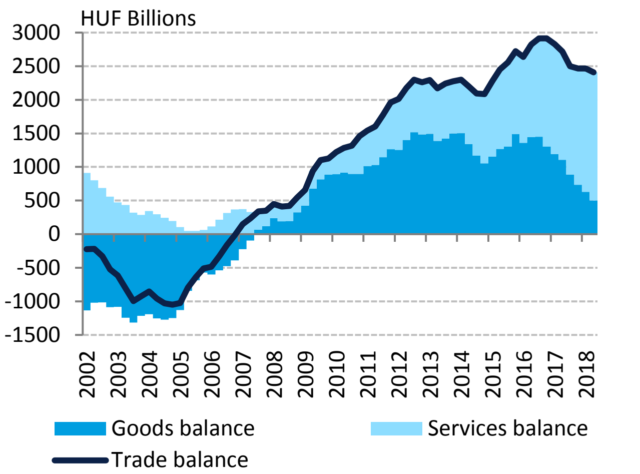
Note: Seasonally adjusted data.
Source: HCSO

increase in loans outstanding compared to what is seasonally typical at the beginning of the year. **As a result, in annual terms, corporate loans outstanding and the SME sector's loans outstanding increased by 12 percent and 14 percent, respectively** (Chart 3-24). According to banks' responses to the Lending Survey, in 2018 Q2 they slightly eased the price conditions of corporate loans, which was attributable to competition between banks and again to the improvement in economic prospects. As the institutions participating in the survey perceived, **demand** tended to **strengthen for long-term loans, and it was typical of small and micro enterprises within the SME segment**. On the whole, conditions for commercial real estate loans were considered unchanged, but looking ahead, for the next half year a net one fifth of the banks are already planning tightening. In addition, they expect stronger credit demand and mounting competition between banks for the next half year as well.

Households' investment activity increased further in Q2, and the dynamic expansion in home construction continued in parallel with the favourable demand conditions (Chart 3-25). In line with the previously issued building permits, 3,123 completions were registered in 2018 Q2, corresponding to an increase of 6.1 percent year on year. Although the number of newly issued home building permits declined by 20.2 percent year on year, the level of building permits issued is still high, and thus we expect continued expansion in home construction in the coming quarters. **As a result of the buoyant demand, housing prices continued to rise, driven by price changes of pre-owned and new homes as well.** However, the deceleration in the rise in housing prices observed in the past quarters continued, which can be explained by the fact that the weight of homes in the country, where the price level is typically lower, rose in the number of transactions.

On the whole, the contribution of net exports to domestic economic growth was negative in Q2. In line with developments in industrial production, growth in goods exports accelerated in Q2. In parallel with a rise in domestic demand items (household consumption, investment), the growth dynamics of goods imports also accelerated in the second quarter. Services exports continued to expand in Q2. This year's buoyant increase in Hungary's services exports was related to the exports of financial and other business services, in addition to tourism and transportation services. In Q2, growth in services imports was still restrained, and thus **the services balance increased further, significantly offsetting the negative goods balance** (Chart 3-26). As a result of the import demand of domestic

Chart 3-26: Evolution of the trade balance



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

Source: HCSO

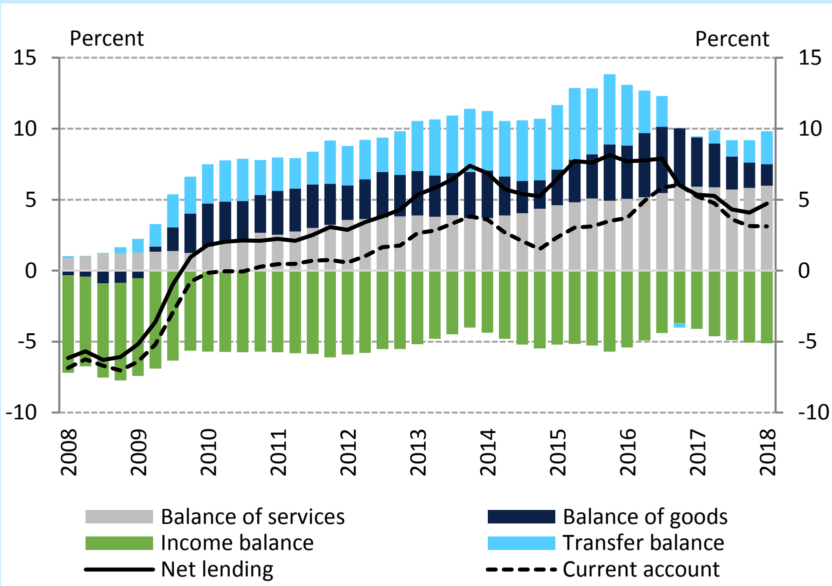
demand items, annual growth in total exports was exceeded by import growth by 1.3 percentage points, and thus, **on the whole, net exports had a negative impact on economic growth in Q2.**

The contribution of agriculture to economic growth was slightly positive in 2018 Q2. This year's harvest results will only be available in the second half of the year, and based on those data the HCSO may revise the Q2 growth contribution of agriculture. Uncertainties about the wheat and maize crop may significantly influence developments in agricultural production. The changes in inventories decelerated economic growth again in Q2, although to a lesser extent than in Q1.

Box 3-2: The significance of services in foreign trade

In recent years, an increasing share of the trade surplus could be linked to services, which have thus become a major factor in the current account surplus as well. The increasing proportion of services in foreign trade has become common after the crisis, and services related to traditional and non-traditional sectors appeared in international transfers more and more. The growing role of services in foreign trade could also be observed in Hungary. **The share of services within the trade surplus had risen to 80 percent by mid-2018**, while the proportion of the service sector within total exports was merely around 20 percent (Chart 3-27). During the crisis, services exports experienced only a minor decline, and their growth rate was above that of goods exports after 2012. In addition, in the recent period, **the growth rate of services exports proved to be more stable than that of goods exports**, which is attributable to the fact that while the balance of goods is strongly influenced by investment and consumption decisions, demand for services depends less on business cycles and trade restricting measures.

Chart 3-27: Contribution of the services balance to net lending

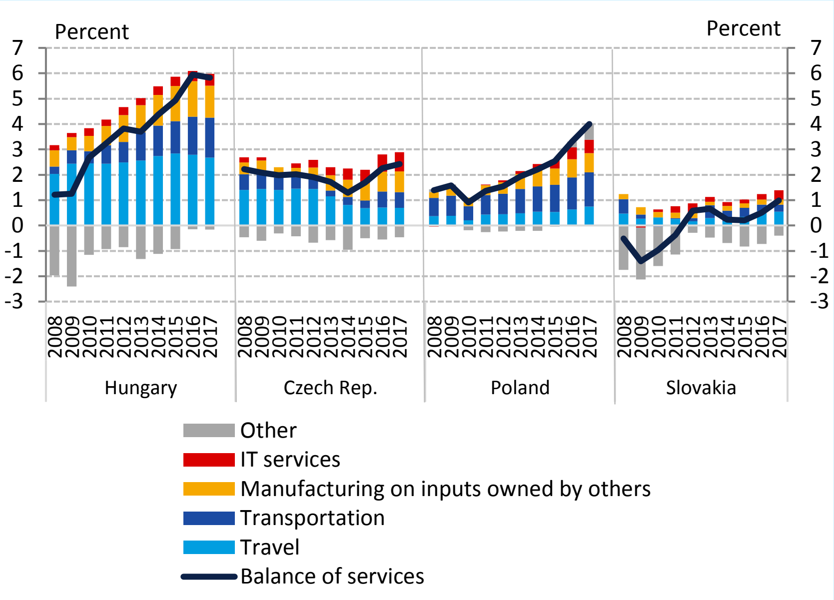


Note: Four quarter figures as a proportion of GDP.

Source: MNB, HCSO

The surplus on the services balance is dominated by tourism, transportation services and manufacturing on inputs owned by others, and these sectors result in a considerably higher balance than in other countries in the region. The tourism surplus and the dynamic growth in transportation services may be due to Hungary's key geographical location and good infrastructure.[2] Furthermore, manufacturing on inputs owned by others and the IT services surplus also play a role in the high services balance. Foreign trade in these sectors lags behind other major sectors, but overall it contributes much to the fact that Hungary's services balance considerably exceeds that of regional countries. This is because after the crisis, the services balance of Hungary improved the most dynamically in the region, and therefore Hungary's surplus is substantially above the level typical in the region (Chart 3-28).

Chart 3-28: Development of the balance of services in the region



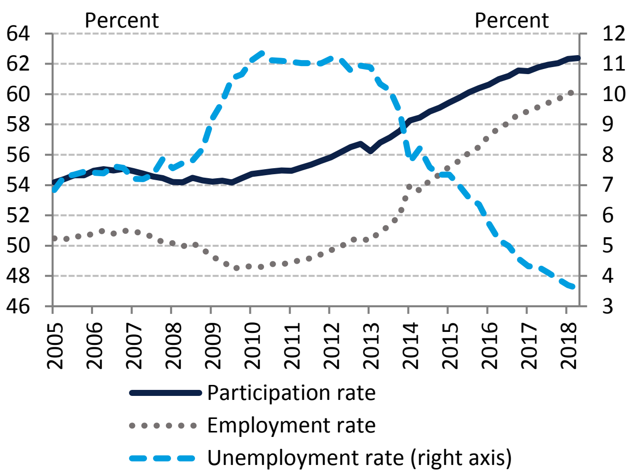
Note: As a percentage of GDP.
Source: Eurostat, MNB

[2] According to 2015 data, the length of Hungarian motorways per 1,000 square kilometres was 20.3 kilometres, well above the level seen in other countries in the region.
https://www.ksh.hu/docs/hun/xftp/idoszaki/jelszall/jelszall16.pdf

3.3. Labour market

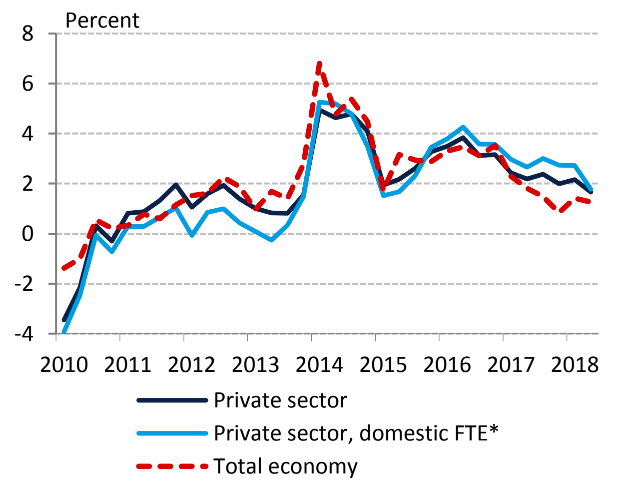
Employment in the private sector continued to increase in 2018 Q2, with the largest contribution coming from employment growth in construction, in line with the dynamic increase in construction output. Employment in manufacturing and the market services sector remained practically unchanged. In parallel with the expansion in employment, the unemployment rate declined to 3.6 percent.

Chart 3-29: Participation, employment and unemployment rate in the total economy



Note: Seasonally adjusted data.
Source: HCSO

Chart 3-30: Annual change in key employment indicators



Note: *Full-time equivalent employment, excluding cross-border workers. Seasonally adjusted data.
Source: MNB calculation based on HCSO data

In 2018 Q2, the participation rate of the 15–74 age group stood at 62.4 percent, while in the population aged 15–64 years the proportion of economically active persons amounted to 71.9 percent. **Based on seasonally adjusted data, the number of economically active people increased slightly** (Chart 3-29).

Employment in the national economy expanded by 1.3 percent year on year, with contributions coming from employment growth in both the public and private sectors. Within the public sector, the decrease in the number of public workers continued, while employment outside the sphere of public work programmes increased at a higher rate than that.

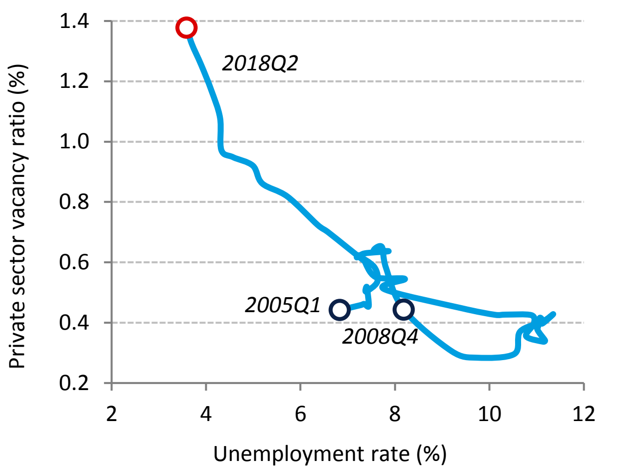
In line with the dynamic increase in construction output, **the rise in employment in the private sector was mainly attributable to the employment growth in construction**, while employment in manufacturing and in the market services sector did not change significantly. The number of workers employed abroad increased in Q2. The domestic full-time equivalent number of employees adjusted for the number of hours worked grew at a rate similar to that of employment (Chart 3-30).

In parallel with the expansion in employment, **unemployment decreased further, with the unemployment rate dropping to 3.6 percent**. Based on the number of vacancies, corporate labour demand continued to increase both in manufacturing and the market services sector. The Beveridge curve indicates further tightening in the labour market environment (Chart 3-31).

3.4. The cyclical position of the economy

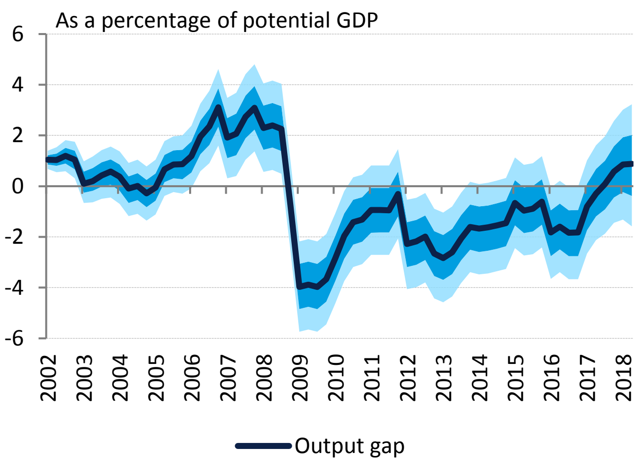
According to our estimate, Hungarian output was close to its potential level in 2018 Q2. The closing of the domestic output gap is suggested by the buoyant domestic demand and the rising capacity utilisation of domestic production units as well as the increasingly tight labour market. With the closing of the output gap, the expansion in the supply side of the economy will become a determinant in terms of the sustainability of growth. Economic policy can raise the rate of potential growth through specific measures aimed at improving competitiveness and increasing productivity while maintaining stability.

Chart 3-31: Development of the Beveridge curve



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

Chart 3-32: Uncertainty band of the output gap



Note: The blue area shows the estimation uncertainty band.
Source: MNB

Based on the number of vacancies, corporate labour demand continued to increase. The Beveridge curve indicates further tightening in the labour market environment (Chart 3-31). **The majority of the surveys capturing corporate business sentiment** and capacity utilisation **increased further**. Similarly, as in the previous quarters, **companies' responses revealed that labour was a bottleneck for the upswing in production**. In the case of the industrial sector, the ratio of companies indicating workforce as the primary factor limiting production was near historically high levels in 2018 Q2. At the same time, the number of employed grew further in the past period.

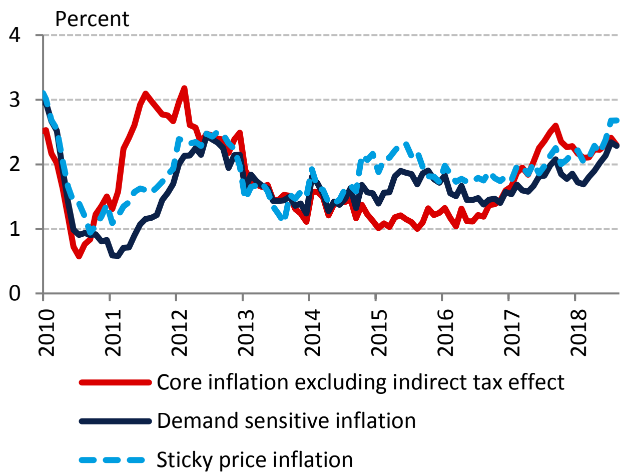
The historically low unemployment rate of 3.6 percent also corroborates that **the utilisation of the labour factor increased considerably in the past period and is also high in historical comparison**. The significant expansion in employment and, in parallel with that, the decline in the unemployment rate contributed to better capacity utilisation in the past years.

According to our estimate, domestic output may have been around its potential level during 2018, which is mostly attributable to the lasting upturn in domestic demand (Chart 3-32). According to estimates, **this year the output gap of the euro area is closing, and the cyclical position of the countries in the region will be in positive territory. All of this has an impact on the cyclical position of the Hungarian economy as well.** In addition, the high capacity utilisation, which is typical of the Hungarian economy, and the historically low unemployment rate also indicate a closed cyclical position.

3.5. Costs and inflation

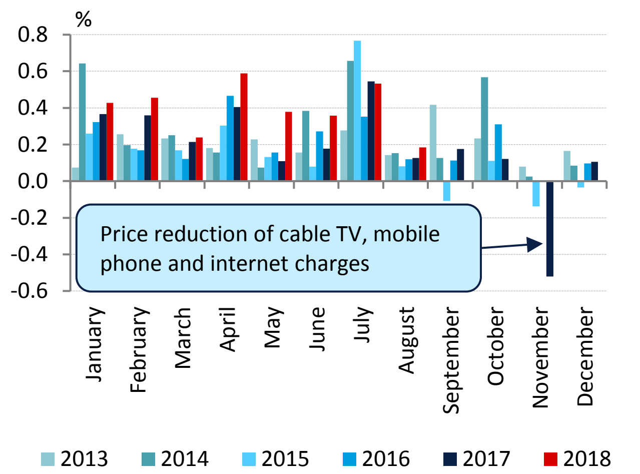
In line with our expectations, inflation slightly exceeded 3 percent in the past months. Changes in the price index during the summer months were determined by the rise in fuel and unprocessed food prices. In accordance with the forecast of the June Inflation Report, core inflation remained steadily around 2.4 percent in the past period. Inflation expectations are still anchored at low levels. As a result of the historically tight labour market environment and the direct and spillover effects of the measures in the wage agreement, gross average earnings in the private sector increased by 10.3 percent year on year in Q2.

Chart 3-33: Underlying inflation indicators



Source: MNB calculation based on HCSO data

Chart 3-34: Price change of market services



Note: Adjusted for indirect tax effects. Percentage change compared to previous month.

Source: MNB calculation based on HCSO data

3.5.1. Consumer prices

In line with our expectations, inflation slightly exceeded 3 percent in the past months. Changes in the price index during the summer months were determined by the rise in fuel and unprocessed food prices. In the past period, in line with the projection of the June Inflation Report, **core inflation was steadily around 2.4 percent.**

The indicators capturing longer-term inflation trends (the inflation of demand-sensitive and sticky-price products) **rose in the past months** (Chart 3-33).

Inflation of industrial goods was subdued in the past months. Prices of non-durable industrial goods did not change significantly. Within the product group of durable goods, moderate price dynamics were observed. Prices of industrial goods continue to be influenced by the mutually opposing effects of moderate imported inflation and the steady pick-up in domestic demand.

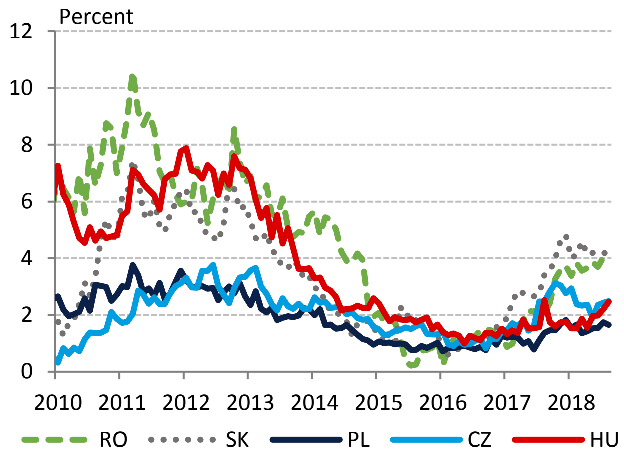
Market services inflation increased slightly in the past months. The price rise for market services observed in the summer months exceeds the price dynamics of the same period of last year (Chart 3-34). The inflation of both labour intensive and technology intensive services increased slightly further in the past months.

With regard to both unprocessed and processed food, **seasonally and tax-adjusted prices of food were higher in the past months.** In the former product group, the price rise is mainly attributable to the prices of fresh vegetables and fruits, while milk and dairy products as well as processed meat products contributed to the price increases in the latter product group.

The price level of fuels increased in the past months. The reason behind this was the increase in the world market prices of oil denominated in USD, which showed significant volatility. There were no major price changes in the case of regulated-price products in the past months.

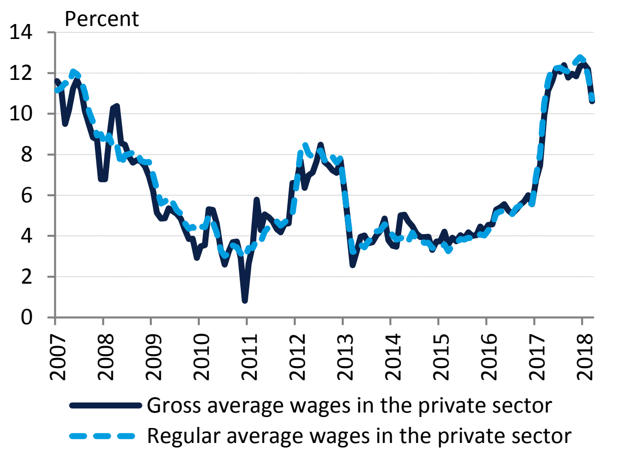
In the past months, both inflation and core inflation were in line with the forecast of the June Inflation Report.

Chart 3-35: Inflation expectations in the region



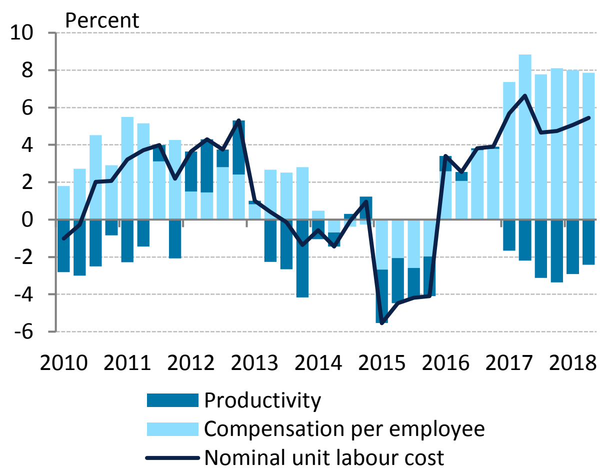
Source: MNB calculations based on European Commission data

Chart 3-36: Annual change in gross average wages in the private sector



Note: Quarterly moving averages.
Source: HCSO

Chart 3-37 Decomposition of the annual change in nominal unit labour cost in the private sector



Note: Seasonally adjusted data.
Source: MNB calculation based on HCSO data

3.5.2. Inflation expectations

Hungarian households' inflation expectations remain at moderate levels, indicating the anchoredness of expectations. Expectations in Hungary were in line with the expectations observed in the countries of the region, which were characterised by steadily low inflation in the past as well (Chart 3-35).

3.5.3. Wages

In 2018 Q2, gross average earnings in the private sector rose by 10.3 percent year on year (Chart 3-36). In addition to the historically tight labour market environment determining the underlying wage developments, the continued strong wage dynamics were supported by this year's raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent, respectively, and the 2.5 percentage point decline in the social contribution tax also supported corporate wage developments. In May, the monthly dynamics of regular average earnings was much stronger than the usual seasonality, but it showed adjustment in June. Wage dynamics in sectors with below-average earnings were still higher than in sectors with above-average earnings. **The impact of the strong wage growth on labour costs was mitigated by the cut in the social contribution tax.** In 2018 Q2, **the annual increase in the unit labour cost exceeded the growth observed in the previous quarter to a lesser extent**, as a result of the slight deceleration in productivity growth (Chart 3-37).

3.5.4. Producer prices

Agricultural producer prices remained practically unchanged in 2018 Q2 year on year. The prices of seasonal products were up year on year, which was offset by the decline in the prices of products of animal origin. The producer prices of cereals did not change significantly.

The producer prices of consumer goods rose slightly, while domestic sales prices of the industry as a whole increased to a somewhat greater degree than the historical average year on year, which was mainly attributable to the energy producing sectors.

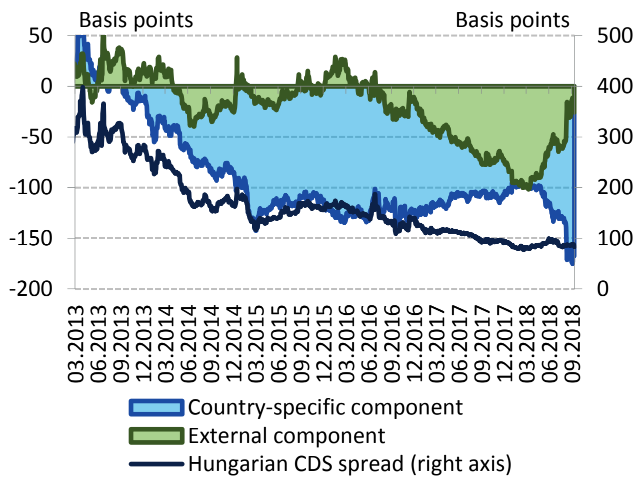
4. Financial markets and interest rates

4.1. Domestic financial market developments

Risk appetite in the emerging markets and the euro area's periphery continued to decline this year. The Sino–American tensions in trade with a negative impact on developed markets continued to intensify, and geopolitical risks increased. In connection with the events in Turkey, yields in the countries in the emerging region that are vulnerable from the perspective of external and fiscal balance were volatile, while yields in the Central and Eastern European region with better fundamentals rose only moderately.

Hungarian long-term benchmark yields increased slightly more than the regional average in the second quarter, but then declined somewhat after July, stabilising in a relatively narrow band. However, there was moderate decrease in credit risk. The forint, together with Polish złoty, depreciated against the euro, albeit slightly more than the złoty.

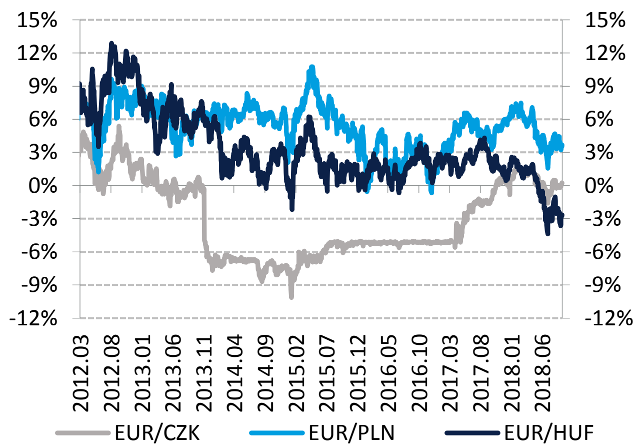
Chart 4-1: Components of the 5-year Hungarian CDS spread



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

Source: Bloomberg

Chart 4-2: Exchange rates in the region



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

Source: Bloomberg

4.1.1. Hungary's risk assessment

The moderate rise of Hungary's credit spread at the end of Q2 has adjusted since mid-June (Chart 4-1). The Hungarian credit spread dropped somewhat, against the background of a relative surge in international factors, and therefore the decomposition methodology shows a decline in the individual (country-specific) component. At the same time, the rise in the international component is mainly attributable to the significant increase in the Turkish spread, which was mirrored neither in the Hungarian CDS spread nor in the spreads in the core Central and Eastern European region. Consequently, the improvement of the individual factor mostly reflects the better relative perception of the narrower region.

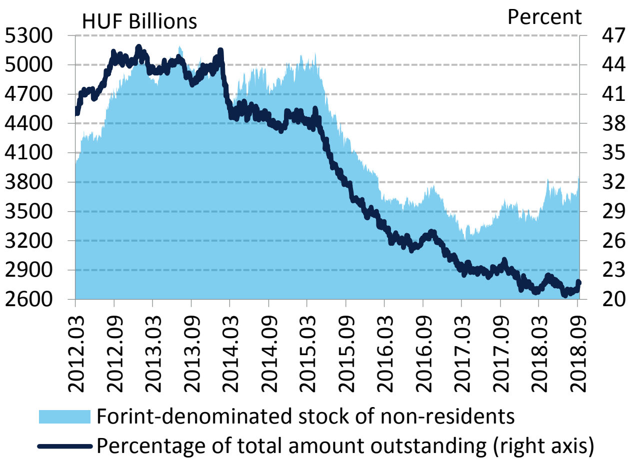
4.1.2. FX market developments

The forint depreciated against the euro by 1.4 percent, while the Polish złoty weakened less, by 0.7 percent. The Czech koruna and the Romanian leu appreciated by 0.4 and 0.7 percent, respectively, in the period under review (Chart 4-2). Since mid-June, the forint exchange rate fluctuated at a higher level and in a wider band than seen in previous quarters, i.e. around 319–330. In the first half of the period under review, the forint depreciated, and then started steadily appreciating in early July, fluctuating at a level of 325–327 at the end of the period. Due to the strengthening of the dollar at the end of the period and international risk aversion, the CEE currencies weakened slightly against the US currency.

4.1.3. Government securities market and changes in yields

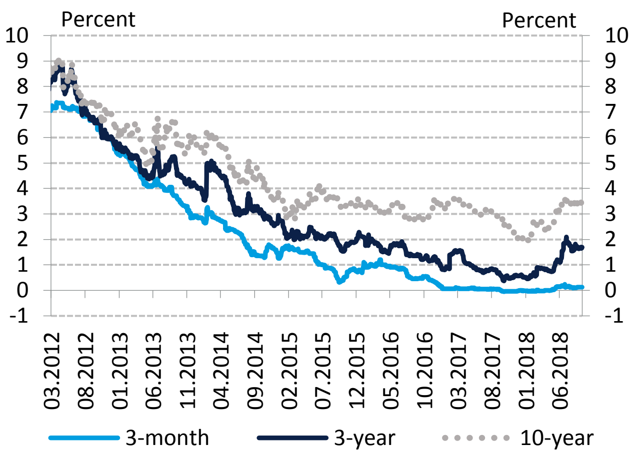
Non-residents' HUF-denominated government securities holdings increased in the past quarter (Chart 4-3). Following a practically continuous decline since 2015, non-residents' HUF-denominated government securities holdings first stabilised and then started to rise in March 2018. The decline continued in Q3, and then holdings

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



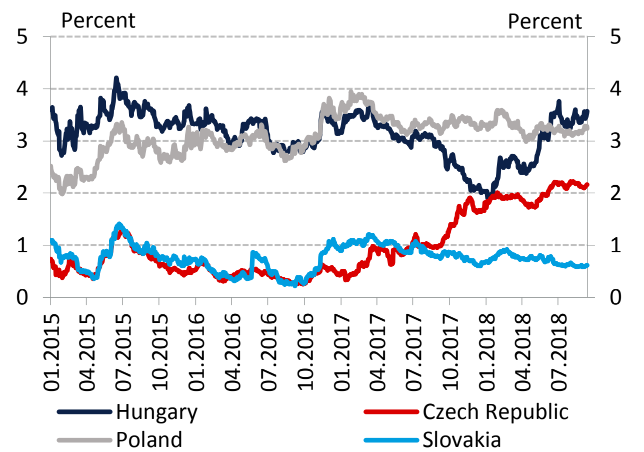
Note: The chart shows the stock of T-bills and T-bonds and the amount of government securities held by non-residents; retail securities are not included.
Source: MNB

Chart 4-4: Yields of benchmark government securities



Source: Government Debt Management Agency (ÁKK)

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



Source: Bloomberg

increased substantially in early September, rising by roughly HUF 100 billion overall, while non-residents' ownership share also climbed by around 1 percentage point, to close to 22 percent.

Demand in the primary market of government securities was strong even amidst the increased supply. In the case of longer-term securities, the Government Debt Management Agency often accepted higher amounts than announced. With respect to short maturities, the 3-month average yield dropped, while the 12-month yield increased. In line with the heightened global risk aversion, yields on 3-year and 5-year papers increased considerably in the first part of the period, while they decreased at the end of the period. The average auction yields stagnated for 10-year securities.

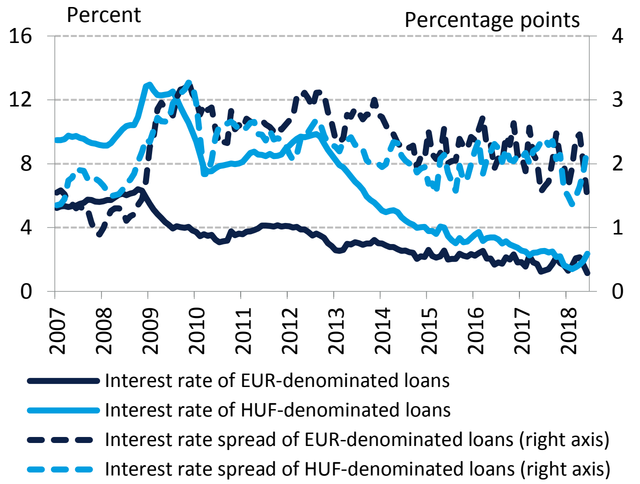
In the secondary government securities market, the yield curve increased by 5-40 basis points (Chart 4-4). In the context of the volatile emerging market sentiment since the beginning of the year, Hungarian medium-term yields continued to rise since mid-June, although half of the roughly 100-basis point increase was attributable to the benchmark change in mid-July. In the section over 5 years, yields also increased before adjusting somewhat. Consequently, the 10-year yield had risen to 3.6 percent by the end of the period. In terms of interbank yields, the shifts basically mirrored government securities market developments.

Long-term benchmark yields were mixed across the region during the quarter (Chart 4-5). While the 10-year forint yield increased by 10 basis points, the Czech koruna 10-year yield increased by 5 basis points. 10-year yields in Slovakia dropped by almost 20 basis points, while the Polish yield decreased by 3 basis points.

4.2. Credit conditions of the financial intermediary system

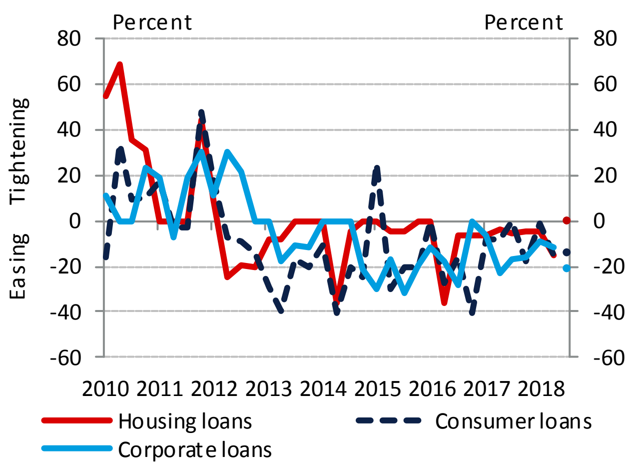
In 2018 Q2, a few banks eased their corporate and household credit conditions. Looking ahead, however, creditors held out the prospect of further easing in the corporate segment, stimulated primarily by competition. During the quarter, the spread on corporate forint loans increased, while a decline was observed in the spread on euro loans. With a decline in the spread on housing loans with interest rate fixation, spreads are approaching the level of variable-rate loans. As a result of an increase in inflation expectations, the one-year forward-looking real interest rate rose in 2018 Q2.

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



Note: Interest rates smoothed by the 3-month moving average. The spread 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. Since January 2015, money market transactions are excluded.
Source: MNB

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



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for H2 of 2018.
Source: MNB, based on banks' responses

4.2.1. Corporate credit conditions

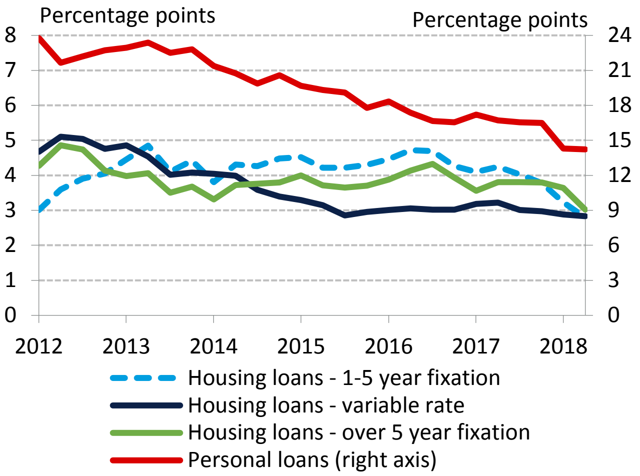
The spread on corporate forint loans increased in 2018 Q2. The interest rate on new market-based, low-amount corporate forint loans excluding money market transactions remained unchanged compared to the previous quarter, while in the case of high-amount loans it increased by 0.9 percentage point. As a result, the average forint interest rate rose to 2.3 percent by the end of the quarter. As for euro loans, the average interest rate on low-amount loans declined by 0.2 percentage point, while in the case of high-amount loans a decrease of 1.6 percentage points was observed compared to the previous quarter, with significant contributions from high-amount items as well. Accordingly, the average interest rate on euro loans declined to 1.1 percent by the end of the period under review (Chart 4-6). The fall in corporate interest rates is mainly attributable to the decline in spreads, and thus the average spread in the case of euro loans sank to 1.5 percentage points, while the spread on forint loans rose to 2.2 percentage points by the end of 2018 Q2.

Corporate credit conditions eased further. Based on the responses to the Lending Survey, on the whole, 12 percent of banks in net terms eased corporate credit conditions in Q2, but in the micro and small enterprises segment even more banks, i.e. 22 percent, indicated an easing of credit conditions (Chart 4-7). The easing was mostly reflected in the reduction of spreads, explained by further increases in market competition and favourable economic prospects. Looking ahead to 2018 H2, one fifth of the responding banks plan to ease conditions, mainly by reducing the spreads, which is still motivated by developments in market competition.

4.2.2. Household credit conditions

The spread on fixed-rate housing loans approached the level of variable-rate loans. In terms of interest type, the APR on variable-rate housing loans was up 0.1 percentage point, while that on loans with rate fixation for 1–5 years and over 5 years declined by 0.1 and 0.2 percentage point, in 2018 Q2, respectively. Spreads on housing loans declined in the case of both variable-rate loans and loans with interest rate fixation over 1 year. The smoothed spread dropped by 0.4 percentage point to 2.8 percentage points

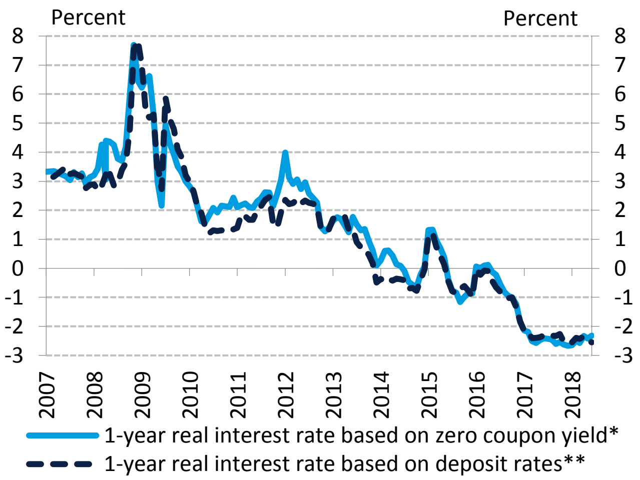
Chart 4-8: Interest rate spreads on new household loans



Note: In the case of variable-rate housing loans or ones with up to 1-year rate fixation, APR-based smoothed spread over the 3-month BUBOR, while in the case of housing loans fixed for a period longer than one year, the APR-based smoothed spread over the corresponding IRS. For personal loans, APR-based smoothed spread over the 3-month BUBOR.

Source: MNB

Chart 4-9: Forward-looking real interest rates



Note: * Based on the one-year forward-looking inflation expectations of analysts calculated by the MNB using the 1-year zero coupon yield and the Reuters poll. ** Based on the 1-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

in the case of loans with 1–5 year interest rate fixation and by 0.6 percentage point to 3 percentage points in the case of housing loans with interest rates fixed for over 5 years, thus coming close to the spread on variable-rate housing loans (Chart 4-8). Following a slight decline, the average APR on personal loans stood at 14 percent in the period under review.

A few banks eased conditions of housing and consumer loans. In 2018 Q2, in net terms, 15 percent of the banks participating in the Lending Survey eased conditions on housing loans (Chart 4-7), which was mainly reflected in the decline in spreads. Nearly two thirds of the responding banks mentioned housing market developments as primary factors and more than 40 percent mentioned market share targets as factors supporting easing. Furthermore, 15 percent of banks in net terms eased conditions on consumer loans during the quarter, mostly for personal loans. In terms of partial conditions, banks primarily increased the maximum maturity of loans. In H2, 14 percent of banks plan to ease conditions on consumer loans through a further reduction of spreads, although some banks already indicated intentions of tightening as well. The responding institutions do not plan to change conditions on housing loans.

4.2.3. Changes in real interest rates

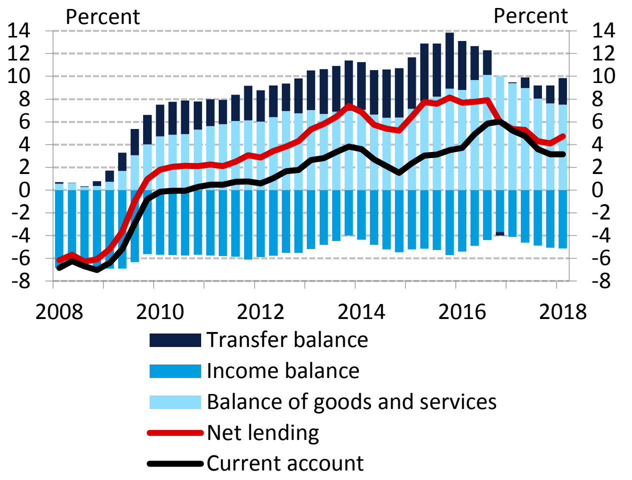
The one-year forward-looking real interest rose during the quarter (Chart 4-9). In 2018 Q2, on the basis of the yield estimated from government securities market yields, the real interest rate reduced by inflation expectations rose by 0.3 percentage point compared to the previous quarter, and thus stood at –2.3 percent at the end of the period. Following a decline of 0.1 basis point, the real interest rate calculated on the basis of deposit rates stood at –2.6 percent in June 2018. The rise in the real interest rate level is explained by increasing inflation expectations.

5. Balance position of the economy

5.1. External balance and financing

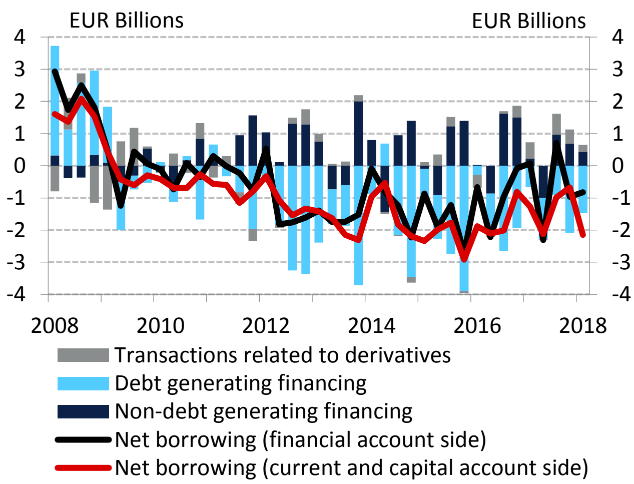
Hungary's net lending rose to 4.7 percent of GDP in the first quarter of 2018. As this was mainly attributable to the increasing absorption of EU transfers, which are part of the capital account, the current account balance remained at around 3.1 percent of GDP. The expansion in imports in line with the pick-up in domestic demand was reflected in the continued decline in the trade surplus. At the same time, the rate of the decline decelerated due to the more restrained increase in inventories at the beginning of the year and the improvement in the services balance. The income balance deficit remained unchanged during the quarter, as the decrease in wages from abroad was offset by the decline in net interest expenditure paid for foreign loans. Based on developments on the financing side, net external debt declined further, while foreign direct investment increased. At the end of 2018 Q1, net external debt – as the joint result of transactions, revaluation effects and GDP growth – declined to 11 percent of GDP, while gross external debt fell to 59 percent. Based on preliminary monthly data, in 2018 Q2 both the net lending of the economy and the current account surplus declined, with a presumably continued decline in external debt ratios.

Chart 5-1: Changes in net lending and its components



Note: Cumulated four-quarter values, as a percentage of GDP. Source: MNB

Chart 5-2: Structure of net lending



Note: The net lending calculated by a bottom-up method corresponds to the total of the net lending and the BOP balance of statistical errors and omissions. Source: MNB

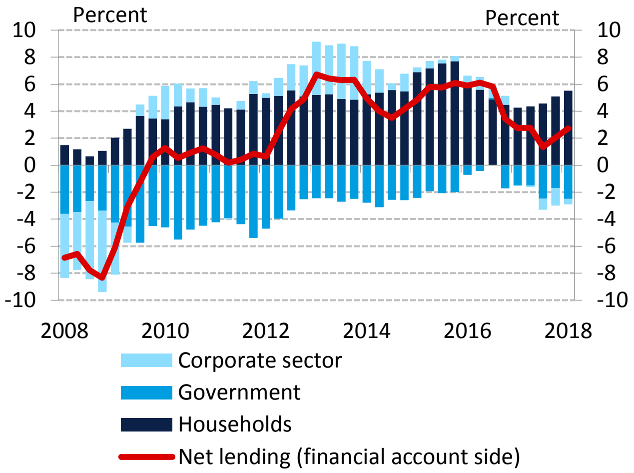
5.1.1. Developments in Hungary's external balance position

In 2018 Q1, Hungary's net lending rose to 4.7 percent of GDP, while the current account balance was stable at 3.1 percent of GDP (Chart 5-1). The increase in net lending was primarily attributable to the improvement in the capital account due to the expanding absorption of EU transfers. The nearly unchanged level of the current account evolved as a result of a slight decline in the trade surplus and a rise in current transfers. **The trade surplus** declined slightly, owing to a continued but slower decrease in the balance of goods and an improvement in the balance of services. During the quarter, the rise in the deficit of the **income balance**, which had lasted since end-2016, stopped: the continued decline in the incomes of those working abroad for less than a year was offset by an improvement in the interest balance of foreign loans. The significant increase in the **transfer balance** surplus was related to the expanding absorption of EU funds. According to preliminary monthly data, which are partly based on estimation, both the current account balance and net lending declined in Q2. This was attributable to a decline in the trade balance and slightly more restrained absorption of EU transfers as compared to Q1.

5.1.2. Developments in financing

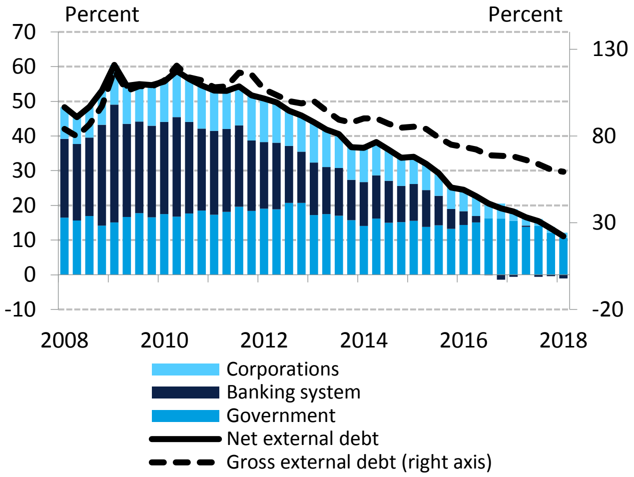
Based on financing-side developments, net external debt continued to decline significantly in parallel with net FDI inflows (Chart 5-2). In 2018 Q1, net lending calculated on the basis of the financial account was around the average of the previous two years, and amounted to EUR 0.8 billion. The net outflow of funds was a result of roughly EUR 0.4 billion of net FDI inflows and a decline of EUR 1.5 billion in debt-type liabilities. Nearly half of the debt

Chart 5-3: Decomposition of net lending by sectors



Note: Four-quarter cumulation, as a percentage of GDP.
Source: MNB

Chart 5-4: Development of net external debt by sectors



Note: Excluding intercompany loans, as a percentage of GDP.
Source: MNB

outflow was related to the banking sector, while according to transactions the external debt of both the general government and companies decreased. Based on monthly data, in 2018 Q2 the effect of the decline in external debt, which was smaller than in Q1, was somewhat offset by the fact that – partly due to dividend disbursements, which are usual in the period under review – FDI inflows were also lower than in Q1.

Looking at the savings of sectors, the increase in the private sector's net lending exceeded the increase in the net borrowing of the general government (Chart 5-3). The general government's four-quarter net borrowing as a proportion of GDP increased slightly in 2018 Q1, primarily in connection with investment expenditures. The net lending of the private sector increased as a result of a rise in households' net financial savings, which took place mainly due to the rapid growth in wages and a decline in corporate net borrowing. According to preliminary monthly data, in 2018 Q2 households' net financial savings continued to rise, while the net borrowing of the general government and the corporate sector increased.

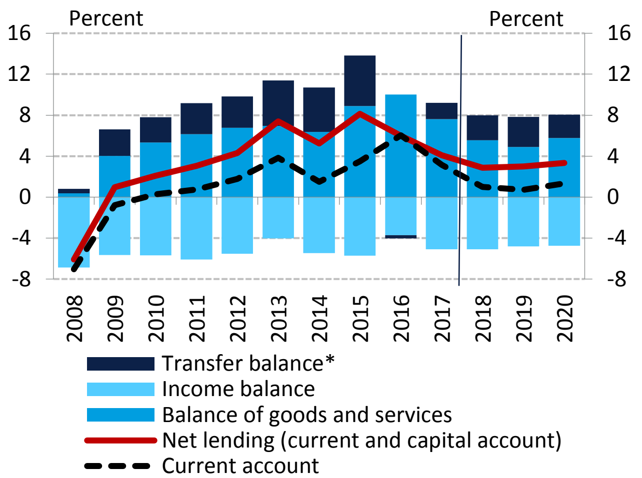
The net external debt of the Hungarian economy decreased to 11 percent of GDP at the end of Q1 (Chart 5-4). Significant outflows of debt-type liabilities, GDP growth and the revaluation of portfolios reduced the country's net external debt by a total of 2.2 percentage points. The general government was the main contributor to the decline in the debt ratio, but to a lesser extent the net external debt of companies and the banking sector also decreased. In parallel with that, gross external debt also fell, amounting to 59.4 percent of GDP at the end of 2018 Q1. Based on preliminary monthly data, net debt outflows, which continued at a slower rate, contributed to the decline in net external debt stemming from transactions, which at the same time may have been offset by revaluation effects related to the weakening of the exchange rate of the forint.

5.2. Forecast for Hungary's net lending position

The external balance position will remain at a steadily high level over the forecast horizon, with contributions from a positive current account balance and an expanding transfer balance. In 2018 and 2019, the import-increasing effect of significant consumption and investment activity as well as rising oil prices results in a temporary decline in the current account surplus. This effect is offset by the improvement in the transfer balance as a result of the expanding absorption of EU transfers, and thus – following a decline in 2018 – net lending becomes stable around 3 percent of GDP. Starting from 2019, the pick-up in production in line with the increase in export capacities and the restrained growth in investments will improve the trade balance, and thus the decline in the current account balance slows down and then turns into an increase in 2020. Looking ahead, the income balance deficit declines slightly, due to the improvement in the interest balance. The high surplus of the transfer balance offsets the change in the current account balance over the forecast period, thus supporting the development of a persistently high external balance position. In terms of the savings of sectors, as a result of favourable income developments, households' net financial savings increase in 2018 and then, from 2019, with a gradual rise in net borrowing they will turn into a slight decline, but will still remain significant. As a result of expansion in investment, corporate net borrowing grows in 2018, later stabilising at close to 2 percent of GDP in parallel with an upswing in exports. The revenue-increasing effects of economic growth will lower the budget deficit, which in 2018 will be temporarily outweighed by the result of tax and contribution reductions. Net lending, which is high over the forecast horizon, improves the external debt indicators, and thus net external debt is projected to decline to close to zero by 2020.

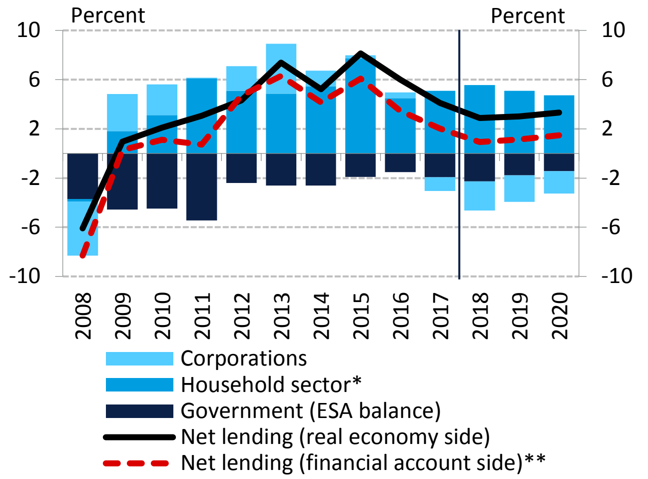
The net lending of the economy will decline to 3 percent of GDP in 2018, followed by stabilisation around this level (Chart 5-5). In 2018, in parallel with significant expansion in import-intensive investment and household consumption, the goods and services balances continue to decline, resulting in decreases in the current account and in net lending. The deterioration in the terms of trade due to higher oil price also contributes to the decline in the trade surplus. In 2018, the deficit on the income balance stabilises as the decline in the income of those working abroad for less than a year will be offset by the decline in interest expenditures, due to the continued decrease in external debt. As a result of the higher absorption of EU funds, the surplus on the transfer balance grows to 2.4 percent of GDP in 2018, considerably improving the external balance position. The increase in consumption and investment will result in significant import growth in 2019 as well, entailing a further decline in the current account balance together with a slight worsening in the terms of trade. In relation to the pick-up in exports due to the increasing production of previously installed capacities and the continued but slower expansion in domestic absorption, the decline in the trade surplus will slow down, before starting to grow in 2020. As a result of the continued decline in interest expenditures, the income balance will slightly improve as of 2019, which will be partly offset by an increase in foreign-owned companies' profits and a decrease in the incomes of those who temporarily work abroad. As a result of these factors, the current account surplus will decrease to below 1 percent of GDP in 2019 and then rise again in 2020. Net lending will be at a steadily high level of around 3 percent of GDP over

Chart 5-5: Evolution of net lending



Note: As a percentage of GDP* The sum of the balance of the current transfers and the capital account balance
Source: MNB

Chart 5-6: Changes in the savings of sectors



Note: As a percentage of GDP. * Net financial saving of households 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 forecast horizon as a result of the continued expansion in the transfer balance in 2019.

In 2018, net lending declines in parallel with the increasing net borrowing of the corporate sector and the government, while households' net financial savings grow (Chart 5-6). The favourable labour market situation and the significant increase in wages result in an improvement in households' income position, contributing to an expansion in consumption and a rise in the sector's financial assets. As a result, households' net financial savings rise temporarily in 2018 and then, in parallel with a gradual pick-up in borrowing, start to decline slightly, but still remain at a high level over the entire forecast horizon. In 2018, in line with the upturn in investment, the net borrowing of the corporate sector increases. In the coming years this effect is expected to be offset by an upswing in exports and an expansion in the absorption of EU transfers, and thus the net borrowing of the sector will stabilise around the level of 2 percent of GDP. The budget deficit will rise to 2.3 percent of GDP in 2018 as a result of the social contribution tax, the targeted VAT cuts as well as the loss of revenues from tax credit for growth and land sales. In the second half of the forecast period, the deficit will decline to below 2 percent of GDP, also supported by the increase in revenues in connection with economic growth and by declining interest expenditures.

Looking ahead, the stable and high net lending will contribute to the further reduction of the external vulnerability of the economy. As a result of the steadily positive net lending, and the FDI inflow which should remain high in relation to the recently announced investments in the automobile industry, debt ratios will continue to decline over the forecast horizon, and thus net external debt is expected to fall to zero by 2020.

5.3. Fiscal developments

Based on our forecast, the budget deficit may remain low this year and in the coming years, which – coupled with dynamic economic growth – will result in a steady decline in the debt-to-GDP ratio. According to our prognosis, the government sector's accrual-based deficit may be slightly below the statutory appropriation in 2018, while in 2019 it will drop to 1.8 percent in line with the deficit target. As a result of the continued tax cuts in 2018, fiscal policy boosts demand, while in the second half of the forecast horizon, fiscal policy will build up a countercyclical reserve due to the declining budget deficit. The projections show that the Maastricht debt-to-GDP ratio calculated with a constant exchange rate from the end of last year will drop to 72.4 percent of GDP by the end of 2018, then it will decrease to around 67 percent in line with the continued decline in FX debt towards the end of the forecast horizon.

5.3.1. Main balance indicators and the fiscal demand effect

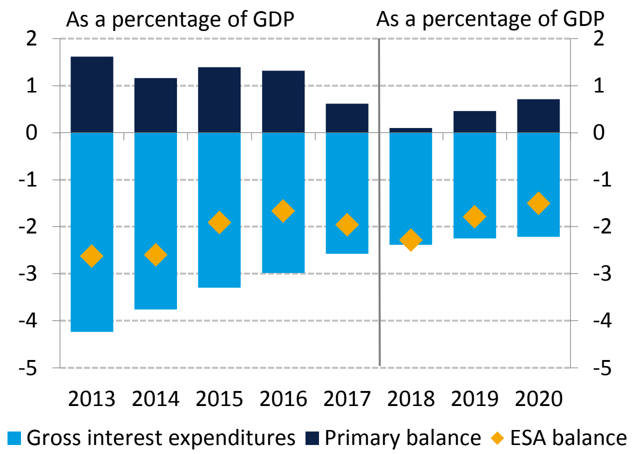
According to our forecast, the government sector's deficit will be around 2.2–2.3 percent of GDP in 2018, while, in line with the statutory appropriation, the accrual-based deficit will be 1.7–1.8 percent in 2019 and 1.4–1.8 percent in 2020 (Table 5-1). Due to the tax cuts and the impact of the one-off revenues in previous years (land sales, tax credit for growth) wearing off, the ESA deficit increases slightly this year relative to 2017. In 2019, in line with the Budget Act, the budget deficit will decline again, supported by rising tax revenues resulting from the favourable macroeconomic developments. Based on our prognosis, the primary balance will stay positive over the whole forecast horizon, and interest expenses will be close to 2 percent of GDP after a steady decline (Chart 5-7). Despite the recent rise in yields, we anticipate decreasing interest expenditures over the forecast horizon. The decline is caused by the gradual repricing of the debt, and thus, as a result of the major yield decrease observed in previous years, the share of low-interest debt components will increase in the medium run.

Table 5-1: General government balance indicators

	2018	2019	2020
ESA balance	(-2.2)–(-2.3)	(-1.7)–(-1.8)	(-1.4)–(-1.8)
Primary ESA balance	0.1 – 0.2	0.4 – 0.5	0.4 – 0.8
Fiscal impulse*	0.8 – 0.9	(-0.5)–(-0.6)	(-0.1)–(-0.5)

Note: As a percentage of GDP. The lower value of the forecast band shows the ESA balance if the Country Protection Fund is 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 5-7: Changes in the fiscal balance and interest expenditures



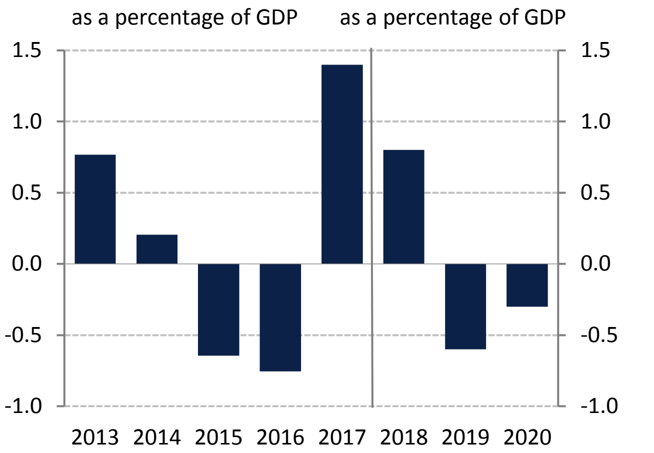
Note: The point estimate in the chart assumes either the cancellation or the utilisation of the Country Protection Fund depending on which one is closer to the government deficit target. The figures do not include the imputed interest expenditures from 2012 related to the reform of the pension system.
Source: Eurostat, MNB

As a result of the continued tax cuts in 2018, fiscal policy may expand demand, while a slight demand-decreasing impact is expected for 2019 and 2020 due to the contracting deficit (Chart 5-8). The social contribution tax and the healthcare contribution rates were cut further in 2018, the family tax allowance for those with two children increased, and the VAT on additional products and services was reduced as well. In 2019 and 2020, the budget will moderately tighten demand, resulting in a countercyclical fiscal policy.

5.3.2. Budget balance in 2018

The forecast shows that the budget deficit will be around 2.2–2.3 percent of GDP in 2018, which is identical to the estimate in June. The higher-than-expected revenues from consumption taxes in June–August, the three-step increase in the excise duty on cigarettes and other tobacco products launched in September and the slower-than-

Chart 5-8: Fiscal impulse



Note: As a percentage of GDP. The fiscal impulse corresponds to the change in the augmented (SNA) primary balance. The fiscal impulse contains the effect of EU funds to the extent of the co-financing. The positive prefix indicates demand expansion, while the negative prefix implies demand restraint.
Source: MNB

Table 5-2: Decomposition of the change in the 2018 ESA balance forecast (compared to previous Inflation Report)

	Economic developments	Measure and other
I. Central government revenues	0.3	0.0
Value added tax	0.2	
Excise duties	0.1	
II. Central government expenditures	-0.1	-0.3
EU funds national co-financing		0.1
Budgetary organisations' expenditures		-0.3
Pensions and pension-type expenditures	-0.1	
Total (I.+II.)	0.3	-0.3

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

expected actual absorption of EU funds point towards a contraction in the deficit. However, the impact of the higher revenue expectations is offset by the fact that, according to incoming actual data, the prognosis for the equipment and staff costs of budgetary organisations and pension payments has risen compared to the June forecast (Table 5-2).

The projection for the 2018 deficit is slightly below the statutory appropriation of 2.4 percent. According to our forecast, revenues from taxes on labour may substantially exceed the appropriation, which is attributable to the more favourable labour market trends than those included in the Act. Revenues from VAT and the financial transaction tax may also be above-target. On the expenditure side, the prognosis for the equipment and staff expenses of budgetary organisations is above the appropriation, which is partly offset by the fact that lower accrual-based expenses are expected in the case of the co-financing of EU funds, due to the lower-than-expected amount of invoice payments and advance utilisation. In addition, several implemented measures that were not included in the Budget Act (advance wage increase in the healthcare sector, pension supplement in the form of Erzsébet vouchers, winter-related utility cost reduction) are also expected to exert an impact (Table 5-3).

5.3.3. 2019 and 2020 budget balances

According to our forecast, the budget deficit will be 1.8 percent of GDP in 2019, in line with the target included in the 2019 Budget Act. Our forecast indicates that revenues from taxes on labour will be lower than the appropriation, due to the fact that the Budget Act expects a wage bill increase which is 3 percentage points higher than our projection. In our forecast, we took into account the 2-percentage point cut in the social contribution tax rate, which is included in the Budget Act from 1 July 2019. Within consumption taxes, VAT revenues may be above-target due to the high actual data in 2018, while the same holds true for revenues from cigarettes and other tobacco products on account of the gradual increase in their excise duty. The actual utilisation of EU programmes and the extent of the government's co-financing recorded as an ESA deficit on account of this are expected to be lower in 2019, as compared to what is foreseen in the Budget Act (Table 5-4).

Together with the 2019 Budget Act, next year's tax package was also adopted by Parliament on 20 July 2018. Among the major measures in the package, the reduction of VAT on milk and the partial elimination of the taxes and contributions payable by pensioner workers add to the

Table 5-3: Differences between our forecast and the appropriations set out in the 2018 Budget Act

	Difference from appropriation
I. Central government revenues	0.5
Consumption taxes	0.2
Taxes on labour	0.3
II. Central government expenditures	-0.6
Winter-related utility cost reduction	-0.1
Advance wage raise in healthcare	-0.1
One-off pension supplement	-0.1
START public work scheme	0.1
Budgetary organisations and EU funds co-financing	-0.4
III. Other effects	0.1 – 0.2
Cancellation of Country Protection Fund	0.0 – 0.1
Methodological changes	0.1
Other effects	0.1
Total (I.+II.+III.)	0.1 – 0.2

Note: As a percentage of GDP. The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively. The sum of partial data may differ from the aggregated values due to rounding.
Source: MNB

Table 5-4: Differences between our forecast and the appropriations set out in the 2019 Budget Act

	Difference from appropriation
I. Central government revenues	-0.2
Consumption taxes	0.1
Taxes on labour	-0.3
II. Central government expenditures	0.2
EU funds national co-financing	0.4
Budgetary organisations and chapters	-0.3
III. Other effects	0,1 – 0,2
Cancellation of Country Protection Fund	0,0 – 0,1
Other effects	0.1
Total (I.+II.+III.)	0,0 – 0,1

Note: As a percentage of GDP. The positive and negative prefixes indicate deficit-reducing and deficit-increasing effects, respectively. The sum of partial data may differ from the aggregated values because due to rounding.
Source: MNB

deficit. On the other hand, the three-step increase in the excise duty on cigarettes and other tobacco products as well as the reform of fringe benefits and the Job Protection Action Plan's (JPAP) targeted benefits point towards a lower deficit. Our estimates show that the overall impact of the tax package is merely HUF 11 billion, i.e. it is almost balance-neutral.

The JPAP reform includes the introduction of the allowance for those entering the labour market, which will be available to those returning from maternity leave, the long-term unemployed and young workers as well as the previously inactive. However, workers above 55 and under 25 will be excluded from the target group. This change is expected to reduce the number of beneficiaries and the amount of benefits received.

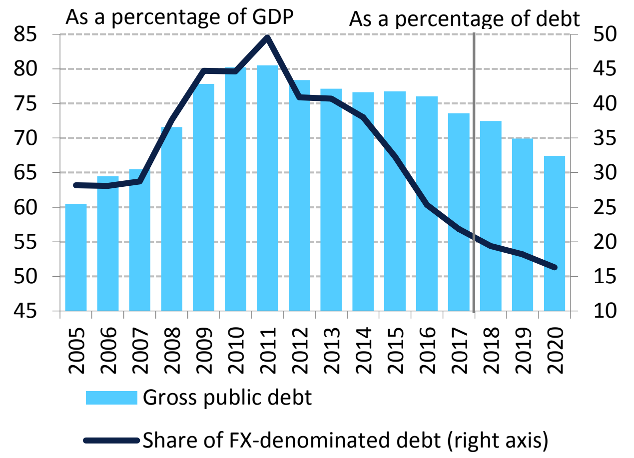
As a result of the transformation of the system of fringe benefits, the tax-free and other specific benefits will be almost completely eliminated, with only the SZÉP Card remaining as a fringe benefit, and cash benefits being abolished. The use of the tax-free and other specific benefits is expected to fall significantly, and the amount of fringe benefits will be lower. According to our assumptions, companies will pass on to workers the majority of the wage costs not used for benefits due to their low utilisation in the form of a wage increase. This is expected to entail a moderate increase in fiscal revenues.

In the absence of a statutory appropriation, a technical forecast is prepared for 2020, which shows a declining deficit path in line with the Convergence Programme. The shrinking of the deficit relative to 2019 is mainly attributable to the rising tax revenues on account of economic growth. Similar to the June forecast, the accrual-based deficit is still expected to be 1.4–1.8 percent of GDP in 2020.

5.3.4. Risks surrounding the baseline scenario

Our forecast continues to be significantly affected by the uncertainty related to the utilisation of European Union funds, the structure of payments and the transfers received from the EU. The absorption of the transfers affects the accrual-based balance and real economy developments, while the advance subsidies and their reception influence government debt. High advance payments and the very low payment revenues may show down the reduction of government debt in 2018. In the years ahead, advances are expected to decrease, and the reimbursement of the previously paid advances may also be gradually received by the budget, therefore the EU transfers could help the swifter reduction of debt in the

Chart 5-9: Gross public debt forecast – calculated using unchanged (end-of-2017) exchange rate over the forecast horizon



Source: MNB

future. The real economy impact of the payments, i.e. the actual absorption of EU funds, may culminate in 2019. This will stimulate the economy, but it will add to the budget deficit through the increase in co-financing.

5.3.5. Expected developments in the debt path

According to preliminary data, gross government debt, including the debt of Eximbank, was 74.5 percent of GDP at the end of 2018 Q2. The debt ratio dropped by 1.7 percentage points in year-on-year terms. In the first half of the year, net debt issuance and revaluation both added to the debt.

According to our forecast, assuming a constant end-2017 forint exchange rate, the gross debt-to-GDP ratio will decline to 72.4 percent by the end of 2018, i.e. the debt rule of the Fundamental Law is expected to be satisfied this year as well (Chart 5-9). The moderate budget deficit and the dynamic expansion of the economy point towards a marked decline in government debt over the forecast horizon, mitigated by the advances of EU funds and the absence of EU payment revenues in 2018. However, the surplus financing requirement of the advances and the absence of EU revenues may be moderated by the fact that, on account of an amendment in July,[3] the entities in the government sector need to transfer to their accounts held by the Hungarian State Treasury the unused EU advances of over HUF 50 million disbursed earlier by 30 September 2018. Taking into consideration the above, government debt may decline by 1.2 percentage points this year and by 2.5 percentage points both in 2019 and 2020, coming close to 67 percent by the end of the forecast horizon. Based on our prognosis, the FX ratio of the central government debt will decline to 19.4 percent by end-2018, and it will contract to around 16 percent by the end of 2020.

[3] Amendment to Article 111 of Act CXCV of 2011 on Public Finances in accordance with Article 76 of Act XL of 2018.

6. Special topics

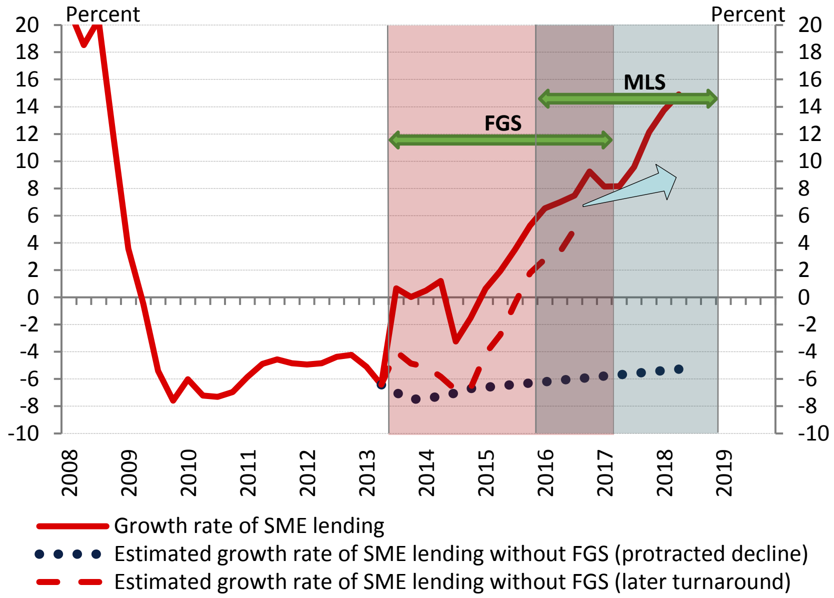
6.1. Launching the FGS *fix* to improve the structure of SME lending

Following the outbreak of the financial and economic crisis, **corporate loans outstanding in Hungary recorded an extremely large decline even by international standards.** The central bank base rate cuts were passed on to only a narrow group of small and medium-sized enterprises by banks, and most SMEs faced excessively high interest rates, and thus the monetary policy transmission was impaired. In order to restore the functioning of the SME loan market, promote economic growth and strengthen financial stability, **the MNB launched the Funding for Growth Scheme (FGS) in June 2013**.

During its operation **between June 2013 and March 2017**, the FGS successfully achieved the objectives set upon its launch: to restore the SME loan market, i.e. one of the major channels of monetary policy transmission, and to foster economic growth. The scheme **not only exerted a significant impact on the volume of SME loans outstanding but also positively influenced the structure of the loan portfolio**, as a result of the low, fixed-interest loans available for maturities as long as 10 years. Within the framework of the scheme almost 40,000 enterprises obtained financing in excess of HUF 2,800 billion.

According to MNB estimates, **the programme's effect on economic growth may have been around 2–2.5 percent in 2013–2017**, compared to an alternative scenario where lending would have been restored at a slower pace in the absence of the FGS (the difference compared to a credit crunch as an alternative path could be as high as 6 percent). It **contributed to the turnaround in lending**: since the downward trend observed earlier was halted in 2015, SME lending has been growing.

Chart 6-1: Annual changes in SME lending and its two estimated alternative paths without FGS (Funding for Growth Scheme)

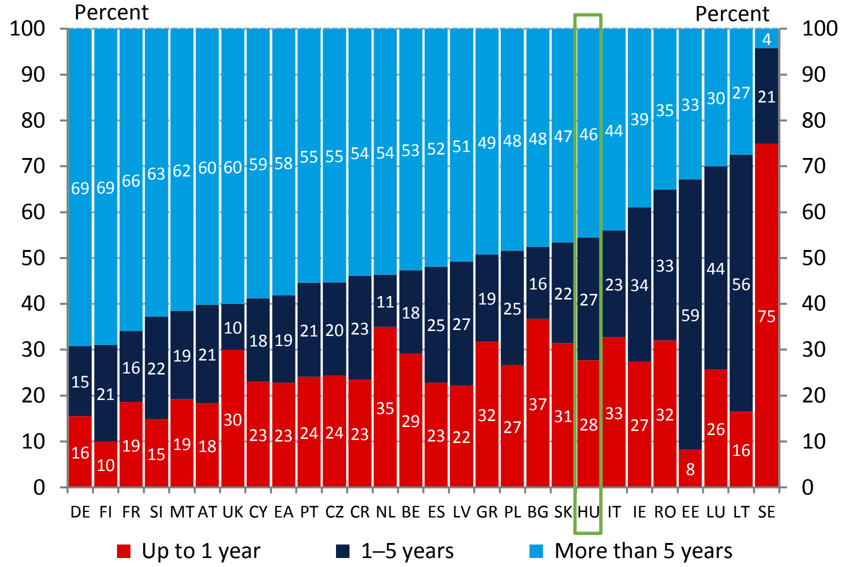


Note: Transaction-based; before 2015 Q4 the data for the SME sector are estimated based on banking system data. MLS=Market-based Lending Scheme.
Source: MNB.

The MNB launched the Market-based Lending Scheme (MLS) in 2016 to help banks return smoothly to market-based lending. **By the end of 2018 Q2, the growth rate of SME loan stock had increased to roughly 15 percent on a transaction basis**, which may have been partly influenced by the lending commitments of the banks under the MLS (Chart 6-1). No credit institution has reduced their lending commitment for 2018 on a voluntary basis, and therefore the commitments amounting to 6 percent of SME loans outstanding continue to support the expansion of SME lending until the end of this year. **Thus, the MLS has contributed to credit growth, however, by nature, it has not exerted a marked positive impact on the structure of the loan portfolio**.

The volume of corporate lending is currently satisfactory, but its structure is not healthy enough. The phase-out of the FGS in 2017 Q1 caused no decline either in the volume of new loan contracts concluded or in the disbursements. Nevertheless, **after the phase-out of the FGS, the distribution of the SME loans shifted towards shorter maturities**. This may be also attributable to the fact that in view of the favourable conditions, certain enterprises had implemented their investment earlier, during the period of the FGS, and thus in the post-FGS period they did not appear on the credit market with investment loan needs. In the recent quarters an increase could be observed, the share of long-term loans neared to the ratio observed during the third phase of the FGS. In the lending surveys conducted by the MNB in recent quarters, banks also claimed that there was a significant demand for long-term loans from businesses. **Within the total corporate loan portfolio, the share of long-term loans is still low by international standards.** Even during the FGS, the economy managed to converge with more developed countries in this respect only to a limited extent. At the end of 2018 Q2, the 46-percent share of the loans over 5 years within total loans outstanding was more than 10 percentage points lower than the euro-area average (Chart 6-2).

Chart 6-2: Corporate loan stock by maturity in international comparison (June 2018)

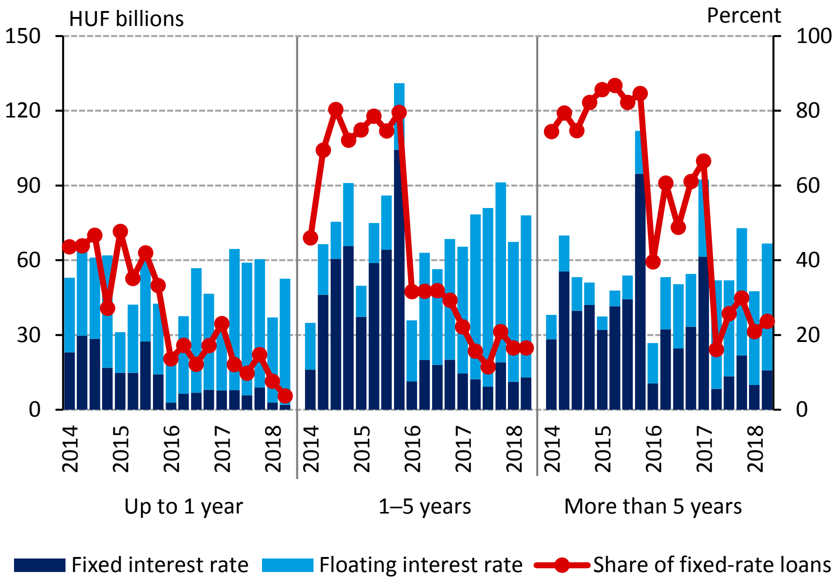


Source: ECB

During the FGS, fixed-rate corporate loans gained ground. One of the most important appeals of the loans extended under the scheme, for maturities as long as 10 years was not only the low interest rates but also their fixed nature. This was confirmed by the feedback from credit institutions and enterprises as well. The predictability arising from a fixed interest rate mainly boosts the appetite for borrowing and reduces the risk of those businesses that do not have reserves for paying higher interest rates in a potentially changing yield environment. This typically affects the smaller enterprises which don't only have lower earnings potential and accumulated reserves, but in the absence of interest-bearing assets interest income does not offset rising interest expenses, in contrast to certain large corporations.

Following the second phase and complete phase-out of the FGS, the share of fixed-rate SME loans also dropped, especially at longer maturities. After the FGS was terminated, in the absence of fixed-rate funds, banks were presumably less willing to provide fixed-rate financing with conditions similar to those of the FGS, or only with spreads or at an interest rate level that were too high for businesses. Merely 20–30 percent of the new SME loans of over 5 years disbursed in the past five quarters were fixed-rate loans, which still falls short of the roughly 60-80 percent share typically seen during the FGS (Chart 6-3).

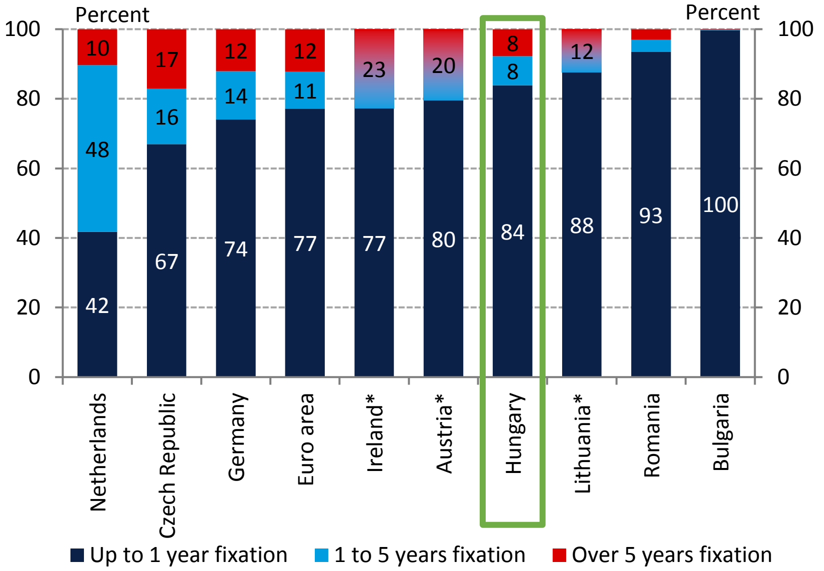
Chart 6-3: New SME forint loans by interest rate fixation and maturity



Source: MNB

The more developed countries are characterised by higher interest rate fixation ratio than Hungary. While in the past one year in Hungary some 84 percent of small-amount loans, were variable-rate loans or ones with rate fixation of maximum 1 year, in the euro area this ratio is about 77 percent, and of the countries of the region, in the Czech Republic, for example, it is around two-thirds (Chart 6-4). Therefore – based on the experiences of more developed Western European countries – **doubling the share of SME loans with a rate fixation period of over 1 year** within new disbursements is achievable in Hungary as well, which at the same time would improve the computability of instalments and Hungary's competitiveness. **As long-term, fixed-rate loans are not being concluded on a market basis in large volumes, the monetary policy transmission is impaired.** A significant portion of enterprises are unable to take advantage of the current favourable level of interest rates in the long run, which justifies the central bank's intervention. Based on the experiences from recent years, **the central bank can foster healthy lending by returning to the FGS in an even more targeted form.**

Chart 6-4: Corporate loans up to EUR 1 million by interest rate fixation period



Note: Contracts concluded between July 2017 and June 2018.

*More detailed breakdown for loans with interest rate fixation over one year was not available.

Source: National central banks, ECB

Therefore, the MNB will launch the Funding for Growth Scheme Fix (FGS *fix*) in early 2019, with a total amount of HUF 1,000 billion. With respect to its most important parameters and its operation, the new scheme will be identical to the earlier phases of the FGS. The MNB will provide refinancing to credit institutions at 0 percent interest that they can lend on to SMEs at an interest margin of up to 2.5 percent for financing new investments in forint. **The FGS *fix* can be considered more targeted than the earlier phases of the FGS.** The MNB does not intend to use the new scheme to increase the amount of liquidity in the banking system but simply to **influence the structure of SME lending**. Therefore the MNB wishes to **withdraw** the surplus liquidity arising from the disbursements under the FGS *fix* **from the system** (sterilisation) **with the preferential deposit scheme that will have a new function**. The MNB expects that the new FGS scheme will primarily affect the structure of lending and will influence the volume of SME loans outstanding only to a smaller extent. According to our expectations one fifth of the loans taken out under the scheme may be additional, which otherwise would not be provided, since there is a significant demand on the side of the SMEs and loan supply constraints have been eased in recent years. In the forecast we calculated on, that two thirds of the amount of the FGS *fix* will refinance loans which would materialise in the form of variable rate loans in the absence of the scheme. Accordingly, **the new programme will lift investments in the national economy by 0.2 and 0.8 percentage points in 2019 and 2020, respectively, thus contributing to the economic growth expected in 2020 by 0.2 percentage points.**

7. Breakdown of the average consumer price index for 2018 and 2019

Table 7-1: Decomposition of inflation to carry-over and incoming effects (percentage points and percent respectively)

	Effect on CPI in 2018			Effect on CPI in 2019		
	Carry-over effect	Incoming effect	Yearly index	Carry-over effect	Incoming effect	Yearly index
Administered prices	0.0	0.0	0.0	0.0	0.1	0.1
Market prices	0.7	2.1	2.8	1.1	1.7	2.8
Indirect taxes and government measures	0.2	-0.2	0.0	0.1	0.1	0.2
CPI	**0.9**	**1.9**	**2.8**	**1.2**	**1.9**	**3.1**

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of 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 (non-administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

Table 7-2: Detailed decomposition of our inflation forecast into carry-over and incoming effects (percentage points and percent respectively)

	2018					2019				
	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	0.9	0.0	3.3	-0.1	4.1	0.8	0.0	3.4	-0.4	3.8
non-processed	0.3	0.0	6.2	-0.3	6.2	0.3	0.0	5.2	0.0	5.5
processed	1.3	0.0	1.8	0.0	3.1	1.1	0.0	2.6	-0.7	3.0
Traded goods	0.6	0.0	0.3	0.0	0.9	0.9	0.0	0.5	0.0	1.4
durables	-0.4	0.0	0.2	0.0	-0.2	0.9	0.0	0.2	0.0	1.1
non-durables	1.0	0.0	0.4	0.0	1.4	0.9	0.0	0.7	0.0	1.6
Market services	0.5	0.0	2.4	-0.6	2.3	1.2	0.0	3.0	0.0	4.2
Market energy	6.8	0.0	2.3	0.0	9.1	0.9	0.0	0.0	0.0	0.9
Alcohol and tobacco	0.9	1.9	2.3	0.2	5.3	1.3	0.7	2.3	1.5	5.8
Fuel	1.5	-0.5	8.2	0.0	9.2	4.7	0.0	1.2	0.0	5.9
Administered prices	-0.3	0.0	0.4	0.0	0.1	0.3	0.0	0.4	0.0	0.7
Inflation	**0.7**	**0.2**	**2.1**	**-0.2**	**2.8**	**1.2**	**0.1**	**1.7**	**0.1**	**3.1**
Core inflation	0.7	0.3	1.6	-0.2	2.4	1.1	0.1	2.0	0.1	3.3

Note: The tables show the decomposition of the yearly average change of the consumer price index. The yearly change is the sum of 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

List of tables

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.

INFLATION REPORT

September 2018

Print: Pauker–Prospektus–SPL consortium

H-8200 Veszprém, Tartu u. 6.

mnb.hu

H-1054 BUDAPEST, SZABADSÁG SQUARE 9.