INFLATION REPORT

2019
DECEMBER

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

Miklós Zrínyi: The Life of Matthias Corvinus

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

In order to provide the public with a clear insight into how monetary policy works and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Directorate Economic Forecast and Analysis, the Directorate Monetary Policy and Financial Market Analysis, the Directorate for Fiscal and Competitiveness Analysis and the Directorate Financial System Analysis, as well as the macroeconomic developments underlying these forecasts. The forecast is based on the assumption of endogenous monetary policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this Report were prepared under the direction of Barnabás Virág, Executive Director 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 International Monetary Policy Analysis and Training of Economic Sciences, 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 12 December 2019.

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

The Magyar Nemzeti Bank's (MNB) single anchor is inflation, its primary objective is to achieve and maintain price stability. In the Monetary Council's assessment, risks to inflation has become symmetric again. In the coming years, Hungary's GDP growth is likely to be slightly higher than earlier projected, while the outlook for growth in the euro area is likely to be persistently muted. Consistent with this, the external monetary policy environment is expected to remain persistently loose; however, forward guidance of the world's leading central banks does not indicate further loosening measures.

The euro-area's leading economies avoided a recession; however, the outlook for growth remained persistently muted. The Visegrád region is still the growth centre of the European Union. Global inflation declined slightly further in the past months.

The global economy grew at a slower rate in the third quarter of 2019. Both the US and the euro area's economies expanded somewhat faster than expected, but at a moderate rate, while the growth rate of China slightly decelerated. Fears of recession subsided in the euro area, although growth prospects are persistently muted. As in recent quarters, the Visegrád region remains the growth centre of the European Union. GDP growth in the region was more than 2.5 percentage points higher than in the euro area.

Global inflation continued to decline in the past quarter as well. Euro area inflation fell short of the 2 percent central bank target, while core inflation has persistently been around 1 percent. Inflation rates in the region stood close to central bank targets. There were no significant changes in global oil prices.

The external monetary policy environment has become looser in the last quarter. The communication of the world's leading central banks does not indicate further loosening measures; however, the external monetary policy environment is expected to remain persistently loose.

In December, the Federal Reserve (Fed) left the policy rate unchanged, after cutting it by 75 basis points in total this year. In the assessment of the Federal Reserve's decision-makers, the current stance of monetary policy is appropriate to achieve the central bank targets. The European Central Bank (ECB) has left its base rate and forward guidance unchanged since September. According to the communication of the ECB, policy rates are likely to remain at their present or lower levels until inflation rises close to the central bank target in a sustainable manner. In line with the September decision, the ECB restarted its asset purchase programme in November with a limit amount of EUR 20 billion a month. The asset purchases are expected to end not much before raising the policy rates. Decision makers in the central banks of the region did not change the monetary conditions either in the last quarter, while anticipated interest rate paths for the upcoming years became flatter. Overall, the external monetary policy environment is expected to remain persistently loose.

With an increase in risk appetite, long-term bond yields and stock exchange price indices of developed countries rose.

In the fourth quarter of 2019, risk appetite improved in the financial markets, which was mainly attributable to the developments related to international trade conflicts and the postponement of the exit of the United Kingdom from the European Union. As a result, both developed and emerging stock exchange price indices and developed bond yields increased, while emerging market bond spreads declined considerably.

Since September, the domestic government market securities yield curve has shifted downwards and become flatter.

The 1- and 3-month BUBOR rates fell slightly in the past quarter. Longer-term interbank yields did not change significantly, while government securities yields declined to a greater degree. By the end of the period, following some temporary volatility, the exchange rate of the forint strengthened overall.

The consumer price index is expected to rise temporarily until January 2020, then following a gradual decline, inflation is likely to stabilise at the 3 percent inflation target. Core inflation excluding indirect tax effects is expected to remain around its current level until the first quarter of 2020, before starting to decline.

A dichotomy still remains between the factors determining likely developments in inflation. Buoyant domestic demand is boosting, while persistently muted external activity is restraining the pace of inflation. In the past quarter, fears of recession subsided in the euro area. As a result, risks to the outlook for domestic inflation became balanced again.

The consumer price index is expected to rise further temporarily until January 2020, mainly reflecting the base effect of fuel prices and the increase in food prices. Following a gradual decline, inflation is likely to stabilise at the 3 percent inflation target in the second half of the forecast horizon. Inflation expectations remained anchored. In the coming months, core inflation excluding indirect tax effects is expected to remain around its current level and is likely to decrease from the first quarter of 2020.

Dynamic credit expansion is likely to continue over the forecast horizon.

In the third quarter of 2019, outstanding corporate and the SME sector's loans expanded by 16 percent and 15 percent, respectively, year on year. Both negative real interest rates and favourable economic outlook contribute to the continued buoyant credit demand, although lending dynamics may decelerate over the forecast horizon as a result of base effects.

Outstanding household loans expanded by 11 percent on a transaction basis, while excluding lombard credits, which do not constitute a part of the underlying developments of household lending, the annual growth rate amounted to 9.8 percent. The dynamic growth in the third quarter is primarily attributable to the popularity of the prenatal baby support loan launched in July as part of the Family Protection Action Plan. The programme may support households' credit demand looking ahead as well, and it may also create additional demand for housing loans as it can be taken into account as own funds. In addition to the government programme, both the low interest rate environment and the increasing real wages support household loan dynamics which is expected to accelerate in the first year of the forecast period.

In the coming years, the Hungarian GDP is expected to grow at a slightly higher rate than earlier projected. Economic convergence with the euro area economy is likely to continue with the maintenance of the at least 2 percentage point growth surpluses.

In the private sector, strong wage growth is expected to continue and may remain double-digit in 2020, as well. The rate of consumption growth is likely to slow somewhat. The household savings rate is expected to be persistently high, supported by the new retail government security scheme (MÁP+) as well. In line with the favourable financing environment, companies' investment activity is expected to remain buoyant. Strong investment activity is likely to increase imports over the short term, but the creation of new production capacities is expected to support Hungary's exports and potential output growth over the longer term. Corporate lending expands dynamically, and corporate borrowing is supported by the Funding for Growth Scheme Fix as well as the Bond Funding for Growth Scheme. Based on incoming data and on the latest forecasts, recession risks of Hungary's trading partners have been mitigated, although external economic activity is expected to remain persistently muted. Nevertheless, Hungarian exports may expand dynamically, by more than 5 percent, in the coming years, increasingly supported by the installation of new production capacities as well. Net exports made an almost neutral contribution to economic growth in 2019 and are expected to make a positive contribution again between 2020 and 2022. Hungary's GDP is likely to grow by 3.7 percent in 2020 and by 3.5 percent in 2021 and 2022, respectively. Economic convergence with the euro area economy is likely to continue with the maintenance of the at least 2 percentage point growth surpluses.

In addition to monetary policy, both the Hungarian Government Security Plus (MÁP+) and counter-cyclical fiscal policy strengthen Hungary's macroeconomic stability and reduce external vulnerability.

The MÁP+ contributes to the maintenance of high savings rate. Fiscal policy will make counter-cyclical reserves in the coming years, as well. The gradual improvement in economic competitiveness contributes to the maintenance of economic growth on a sustainable path.

The current account balance will improve again from 2020, while the country's net lending will be close to 2 percent of GDP. Due to the net lending position, net external debt will decline to around zero over the forecast horizon.

In 2019, as a result of a decline in the trade balance, the current account balance will temporarily decrease, with contributions mainly from the dynamic growth in import-intensive investment, as well as from the slowdown in external demand. As a result of the increasing use of EU transfers, net lending will be close to 2 percent of GDP. From 2020, net exports are likely to make a positive contribution to economic growth again. In line with that, the current account balance will increase in the coming years, while the external financing capacity will stabilise around 2 percent of GDP. Due to the persistently favourable net lending position, external debt will continue to decline, and net external debt will fall to nearly zero over the forecast horizon.

In 2019, the budget deficit may be in line with the 1.8 percent statutory appropriation. According to the Budget Act of 2020, the deficit target will decline to 1 percent next year, with significant reserves. After 2019, the fiscal policy will accumulate countercyclical reserves in 2020 and the following years as well. In line with Hungarian and EU fiscal rules, the debt will decline to below 60 percent by the end of the forecast period. In parallel with this, a further decline in the foreign exchange ratio of government debt and an increase in the domestic equity ratio will also reduce the vulnerability of the economy.

The inflation risks that were still asymmetric and on the downside in September have become symmetrical again.

The Monetary Council highlighted two alternative scenarios around the baseline projection in the December Inflation Report. The impacts of the protracted global uncertainties may result in a lower inflation and more restrained growth path compared to the baseline scenario. In the alternative scenario featuring higher wage growth and dynamic expansion in consumption, domestic economic growth is stronger and inflation is higher than in the forecast from the baseline scenario. In addition to these scenarios, as further alternatives, scenarios that assume the implementation of competitiveness reforms and a rise in commodity prices (pork, oil) were discussed by the Monetary Council.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Forecast based on endogenous monetary policy)

	2018	2019	2020	2021	2022
	Actual	Projection			
Inflation (annual average)[1]					
Core inflation	2.5	3.8	4.0	3.4	3.0
Core inflation excluding indirect tax effects	2.4	3.4	3.6	3.1	3.0
Inflation	2.8	3.3	3.5	3.3	3.0
Economic growth					
Household consumption expenditure	4.9	4.9	4.2	3.1	3.0
Government final consumption expenditure[7]	1.1	0.9	1.0	0.3	1.4
Gross fixed capital formation	17.1	17.8	4.6	4.1	3.0
Domestic absorption	7.3	5.2	3.6	2.8	2.7
Exports	4.3	5.9	5.6	5.7	6.2
Imports	6.8	6.3	5.4	5.0	5.4
GDP	5.1	4.9	3.7	3.5	3.5
Labour productivity[6]	2.7	3.2	3.3	3.2	3.4
External balance[2]					
Current account balance	-0.5	-0.6	-0.5	-0.3	0.2
Net lending	2.0	1.8	2.0	1.8	1.8
Government balance[2, 5]					
ESA balance	-2.3	(-1.8)–(-1.7)	(-1.2)–(-0.4)	(-1.1)–(-0.3)	(-0.9)–(-0.1)
Labour market					
Whole-economy gross average earnings[3]	11.3	10.7	8.9	8.0	7.5
Whole-economy employment	1.1	0.9	0.4	0.3	0.1
Private sector gross average earnings[3]	10.9	11.3	10.0	8.9	8.4
Private sector employment	1.3	1.2	0.6	0.4	0.1
Unemployment rate	3.7	3.5	3.5	3.5	3.5
Private sector nominal unit labour costs	5.1	6.1	4.3	3.8	3.6
Household real income[4]	7.9	5.0	4.1	2.9	2.5

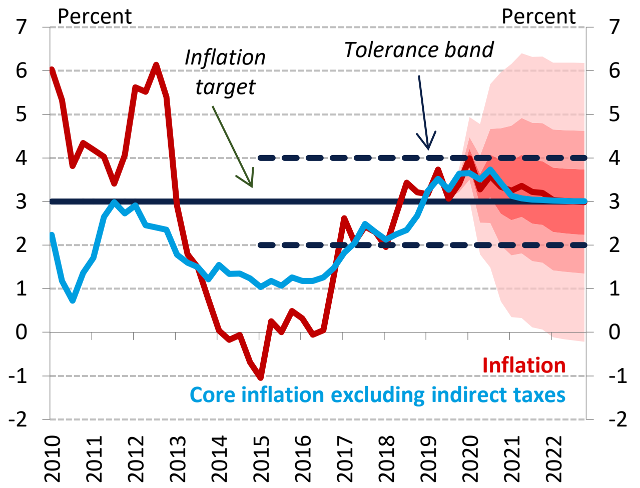
[1] Based on seasonally unadjusted data.
[2] As a percentage of GDP.
[3] For full-time employees.
[4] MNB estimate.
[5] The lower value of the forecast band shows the ESA balance if the Country Protection Fund is used, while the higher value shows the ESA balance if the Country Protection Fund is not used.
[6] Whole economy, based on national accounts data.
[7] Includes government consumption and the transfers from government and non-profit institutions.

1 Inflation and real economy outlook

1.1 Inflation forecast

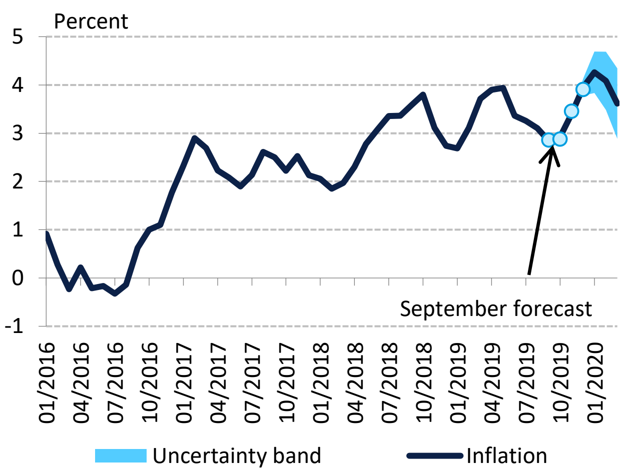
During the past few months, the downside risks to inflation decreased. In the euro area, the risk of recession has declined, but at the same time we expect external demand and inflation to remain persistently subdued. However, strong domestic demand increases companies' leeway in pricing. In the short run, mostly due to base effects and price increases for food, the consumer price index will rise further temporarily until January 2020, after which, following a gradual decline, it will stabilise at the 3-percent inflation target. In the months ahead, core inflation excluding indirect tax effects will remain near its current level, followed by a decline from the first quarter of 2020.

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



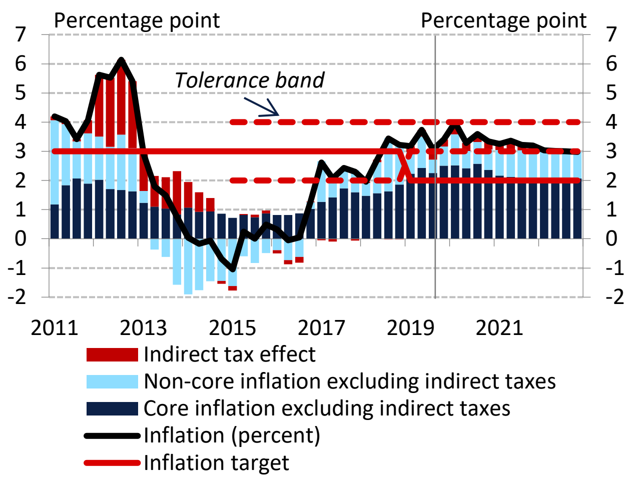
Note: Annual change. The uncertainty band shows the root mean squared error of previous years' near-term forecasts.
Source: HCSO, MNB

During the autumn months, inflation and core inflation excluding indirect taxes essentially developed in line with our expectations. Contrasting trends are still observed in the factors determining expected developments in inflation. On the one hand, the risk of recession in the Western European countries has declined, but at the same time external demand and inflation are expected to remain persistently moderate. By contrast, domestic demand continues to increase companies' leeway in pricing. Furthermore, one factor pointing towards price increases is that – based on actual incoming data – double-digit wage growth may continue in 2020 again, according to our expectations. At the same time, inflation expectations remain anchored. In particular due to the base effects of fuels and price increases for food, **the consumer price index will rise further temporarily until January 2020** (Chart 1-2), and then, after a gradual decline, it will stabilise at the 3-percent inflation target (Chart 1-1). **In the coming months, core inflation excluding indirect tax effects will remain close to its present level**, and thus in 2019, 2020 and 2021 it will be at 3.4 percent, 3.6 percent and 3.1 percent, respectively, and at 3 percent in 2022.

The persistently subdued external inflation environment continues to moderate the rate of price increases in Hungary. In its latest forecast, the ECB projects that price dynamics will fall short of its inflation target over the entire forecast horizon. Euro area inflation was revised 0.1 percentage point upwards for 2020 and downwards by the same degree for 2021, due to an increase in oil prices in the short run and a moderation in these prices over the long term. Core inflation forecast, which is more influential in terms of price dynamics in Hungary, fell by 0.1 percentage point for 2019, rose by 0.1 percentage point for 2020 and fell by 0.1 percentage point for 2021.

Changes in indirect taxes point to an increase in inflation over the forecast horizon (Chart 1-3). This is due to the fact that the excise duty on tobacco products will be increased in three steps from January 2020 until January 2021. The

Chart 1-3: Decomposition of the inflation forecast



Source: HCSO, MNB

Table 1-1: Details of the inflation forecast

		2019	2020	2021	2022
Core inflation excluding indirect tax effects		3.4	3.6	3.1	3.0
Core inflation		3.8	4.0	3.4	3.0
Non-core inflation	Unprocessed food	8.8	6.9	4.2	3.6
	Fuel and market energy	1.2	1.8	3.1	3.8
	Regulated prices	0.7	1.3	2.5	2.4
	Total	2.4	2.5	3.0	3.0
Inflation		**3.3**	**3.5**	**3.3**	**3.0**

Note: Based on seasonally unadjusted data.

Source: MNB

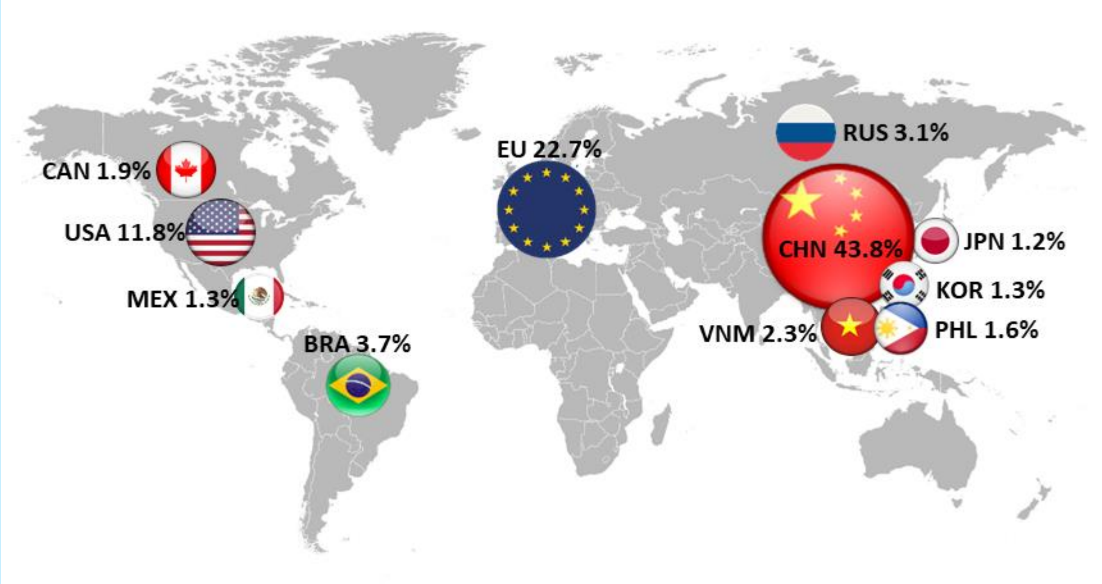
effect can only be partly offset by the reduction of the VAT rate on accommodation services from 18 percent to 5 percent from 1 January 2020. Overall, the changes in indirect taxes will contribute to inflation by 0.3 percentage point in 2020 and by 0.2 percentage point in 2021.

As regards non-core inflation, the rate is expected to rise (Table 1-1). For unprocessed food, we expect higher price dynamics in the coming years, and later, from the end of the forecast horizon, price dynamics are expected to be in line with the historical average. According to our expectations, in the quarters ahead inflation of unprocessed food may be higher compared to our September assumption. In recent months, due to African swine fever, the producer price of swine rose substantially in Hungary (as in the world market as well), which may cause consumer prices of food to rise in the coming months. In accordance with futures prices, changes in fuel prices are projected to be moderate. Regulated energy prices will not change until the end of the forecast horizon, while the price dynamics of non-energy regulated prices are expected to be more moderate than in our September assumption. This is due to the fact that in September 2019 the price of textbooks declined more substantially than our expectations, falling by 16 percent. Expansion of the grades receiving free textbooks will continue next year. In total, after the cost effects have faded out, the price dynamics of non-core inflation items will be around 3 percent.

Box 1-1: Impacts of swine fever on domestic consumer prices

The African swine fever epidemic seen in recent years has had a significant impact on global and regional meat markets. This phenomenon causes serious damages in the pig population of the world, resulting in a considerably lower supply. At present, the situation is the most critical in China, which is the biggest pork producer country in the world, but the virus has already emerged in various countries in the Far East as well as in Europe (Chart 1-4). In China, as a result of swine fever, the swine population has fallen by more than half since the beginning of 2019. **According to the latest forecast of the US Department of Agriculture (USDA)**, compared to 2018, global pork production may decline by 6 percent to 106.1 million tonnes this year, and by another 10.4 percent to 95 million tonnes next year. According to the USDA projections, **Chinese output, which accounts for nearly one half of global pork production, may fall by 14 percent to 46.5 million tonnes this year, and by an additional 25 percent to 34.75 million tonnes in 2020.**

Chart 1-4: Distribution of global pork production

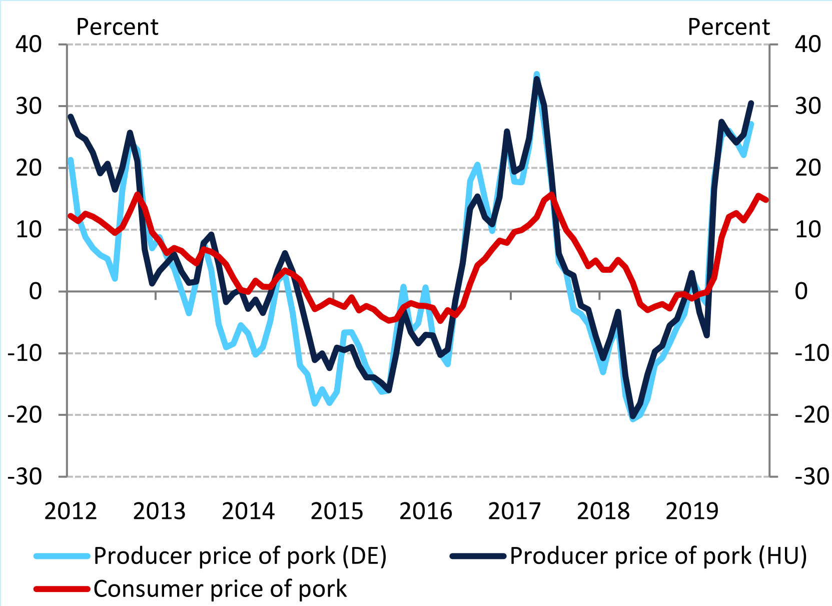


Note: As a proportion of the world total pork production.
Source: USDA, MNB

In view of the declining swine population, which is significant in global terms as well, demand for pork has recently exceeded available supply, as a result of which **a significant rise has been recorded in the producer price of pigs for slaughter, which is increasingly reflected in consumer prices as well** (Chart 1-5). Over time, this rise may increase both unprocessed and processed food prices, as pork, which is a basic material for other meat products as well, also affects the prices of processed food. Processed food accounts for one fifth of the core inflation basket. In line with German producer prices, **in the past months the producer price of pigs for slaughter increased significantly (by 30 percent), but this effect (a more than 15-percent rise since the beginning of the year) was reflected to a lesser degree than what was observed in producer prices**. According to HCSO data, the price of the leg of pork has increased by nearly 20 percent since the beginning of the year, and the price rise has been observed in the case of processed pork products as well: in particular, the prices of sausages, salami and ham were up by 7–10 percent.

In Hungary, the pig population has not yet been affected by the disease, only the wild boar population. As a result of the news related to the appearance of swine fever in Hungary, some countries (including China) introduced restrictive measures against Hungarian live pig and pork; therefore, for the time being, Hungarian exporters cannot benefit from the upturn in global demand and the narrowing of international supply. Nevertheless, all of this may be offset by the fact that some countries in the region (Slovakia, Romania) are affected by the epidemic more seriously, and thus these countries may be markets for Hungarian products.

Chart 1-5: Changes in the producer and consumer prices of pork



Note: Seasonally unadjusted annual change adjusted for taxes.
Sources: Destatis, HCSO, MNB

Box 1-2: 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 1-1).

Table 1-2: Main external assumptions of our forecast

Technical assumptions	2019		2020		2021		2022	Change		
	Previous	Current	Previous	Current	Previous	Current	Current	2019	2020	2021
EUR/USD	1.12	1.12	1.10	1.10	1.10	1.10	1.10	0.0%	0.0%	0.0%
Oil (USD/barrel)	64.1	63.8	59.7	60.4	58.7	58.5	58.5	-0.5%	1.2%	-0.3%
Oil (EUR/barrel)	57.3	57.0	54.1	54.7	53.1	53.0	53.0	-0.5%	1.1%	-0.2%
Euro area inflation (%)	1.2	1.2	1.0	1.1	1.5	1.4	1.6	0 pp.	0.1 pp.	-0.1 pp.
Euro area core inflation (%)	1.1	1.0	1.2	1.3	1.5	1.4	1.6	-0.1 pp.	0.1 pp.	-0.1 pp.
GDP growth of Hungary's main trading partners*(%)	1.7	1.8	1.9	1.8	1.9	1.9	1.9	0.1 pp.	-0.1 pp.	0 pp.

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

Our assumptions regarding external demand have remained practically unchanged. Fears of recession have not escalated further, but Hungarian exports still face weak external economic activity. In view of their significant weight in global imports, the trade tensions between the USA and China are considered to be the biggest risk to growth by market players. The increase in trade tensions has already been reflected in the slowdown in global industrial production, the decline in the intensity of global trade and the deteriorating manufacturing outlook. An increasingly visible phenomenon is that as a result of the growing uncertainty, companies are postponing their investments, which is impairing both short- and medium-term growth prospects. In addition, the prospects for Europe are also impaired by the uncertainty related to Brexit. At the same time, it is a favourable development that economic growth in the third quarter of this year exceeded analysts' expectations throughout Europe. Compared to the previous quarter, the economic performance of Germany rose by 0.1 percent in 2019 Q3, and thus the largest export partner of Hungary avoided technical recession.

In line with the persistently moderate European growth outlook, the European Central Bank continues to project that price dynamics will fall short of its inflation target over the entire forecast horizon. The forecast for euro area GDP rose by 0.1 percentage point for this year, but decreased by 0.1 percentage point for 2020. **The forecast for core inflation, which is more influential in terms of price dynamics in Hungary, fell by 0.1 percentage point for 2019, increased by 0.1 percentage point for 2020 and decreased by 0.1 percentage point for 2021.** Inflation for the euro area was revised 0.1 percentage point upwards for 2020 and 0.1 percentage point downwards by the ECB, due to an increase in oil prices in the short run and a moderation in such prices over the long term. Inflation in the euro area increases to 1.6 percentage by 2022, which is supported by robust wage dynamics, along with stronger economic growth.

Amidst high volatility, in the past months the price of Brent crude per barrel fell from USD 68 to USD 57, before gradually rising to the current level of nearly USD 65. The changes in prices were influenced by various important events in the period under review. After the Saudi Aramco drone attack on 14 September, which raised the world market prices to USD 68, the lost production was restored more quickly than expected. This prevented the prices from increasing further, and an adjustment took place in futures prices. Easing of geopolitical tensions in the Middle East directed attention to the trade tensions between the USA and China, in which the negotiations pointing to a possible agreement contributed to the moderate rise in oil prices. At the same time, the potential timing of the agreement between the USA and China has become uncertain, as according to Donald Trump, it may be postponed beyond the US presidential election in 2020. **At the meeting in Vienna on 5-6 December, an agreement was reached by the OPEC and OPEC+ countries concerning an increase to the current production cap**, and thus from 1 January 2020 the production cuts will increase by 500,000 barrels to 1.7 million barrels, from the daily level of 1.2 million barrels in force since October 2018. The production cap will be in effect until March 2020, and a decision on its extension will be made at the meeting next March. Owing to this news, the price per barrel of Brent crude increased to above USD 65.

EUR-denominated oil prices, which determine changes in fuel prices in Hungary, **are slightly lower than our September assumption**. Our assumption for the EUR/USD cross rate **remained practically unchanged compared to the September projection**.

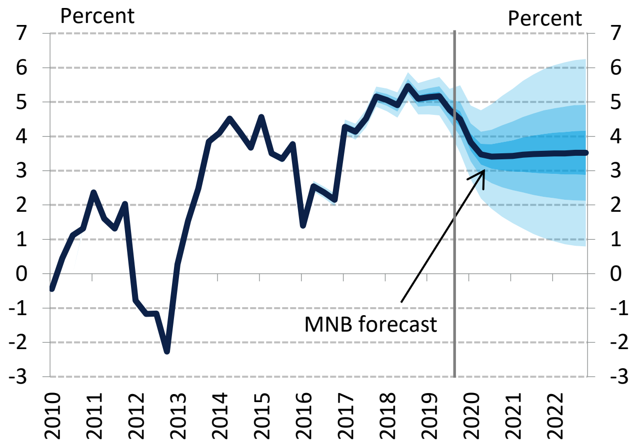
In November, the government submitted further proposal packages to the National Assembly in order to improve competitiveness; their annual static fiscal effect may amount to some HUF 30–35 billion. Most of the measures concern taxation, primarily through the reduction of administration and combating the hidden economy. It facilitates the reduction of tax administration burdens that as of 2020 the current four types of employee contributions will be combined, and with the resulting common rate of 18.5 percent it will be possible to completely utilise the family contribution allowance instead of the current 17 percent. The new contribution rules that enter into effect next year will allow every working pensioner to enjoy complete exemption from contributions, and the contribution burdens on private entrepreneurs will also be somewhat lower. It may contribute to the decline of the hidden economy that instead of the current HUF 100,000 value limit of online invoicing, online data will have to be provided to the tax authority for practically every invoice next year. At the same time, the fiscal effect of the measures is offset by the assumption that, **based on incoming actual data**, value added tax revenues, ESA revenues related to state asset management and the balance of the local government subsystem may be higher, while housing subsidy expenditures may be lower than expected earlier.

After 2019, the fiscal policy accumulates countercyclical reserves. Our forecast continues to project that the **2019 deficit may amount to 1.7–1.8 percent of GDP**, which is in line with the 1.8 percent statutory appropriation. **In line with our September expectation** – with partial use of the Country Protection Fund – **the budget deficit may decline to 1 percent in 2020, then to 0.4 percent by 2022**. **By 2022**, the Country Protection Fund may ensure the attainment of the deficit target corresponding to 0.4 percent of current GDP. In line with our previous assumptions, **actual absorption of EU funds peaks in 2019**, before a gradual decline.

1.2 Real economy forecast

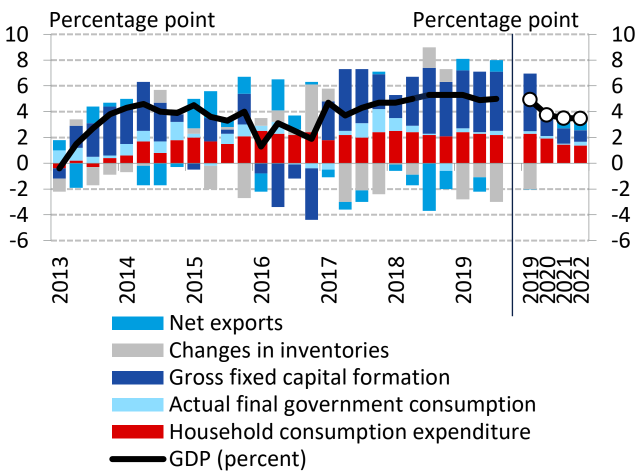
This year, the Hungarian economy may grow at a higher rate, i.e. 4.9 percent, compared to what was expected in September. According to our present assumptions, we project a growth of 3.7 percent for 2020 and 3.5 percent for 2021 and 2022. Growth will continue in a balanced structure, also supported by rising exports, in addition to domestic factors. Although the growth rate of consumption slightly declines, it remains one of the most important factors in GDP growth. Households' savings ratio will remain permanently high, also supported by the Hungarian Government Security Plus product. Corporate investments will continue to increase, from a high base, in the coming years. The trend is equally supported by the favourable financing environment, capital-labour substitution and large investments. Corporate lending dynamically increases and fund-raising by companies is also supported by the Bond Funding for Growth Scheme, in addition to the Funding for Growth Scheme Fix. The effective absorption of EU funds will decline after this year, and from 2020 government investments financed from own funds will also decrease. According to the latest forecasts, the recession risks faced by Hungary's trading partners have declined; at the same time, external activity is expected to remain subdued. Nevertheless, Hungarian exports may rise dynamically, exceeding 5 percent, in the coming years, increasingly supported by the launch of new production capacities.

Chart 1-6: Fan chart of the GDP forecast



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

Chart 1-7: Contributions to annual changes in GDP



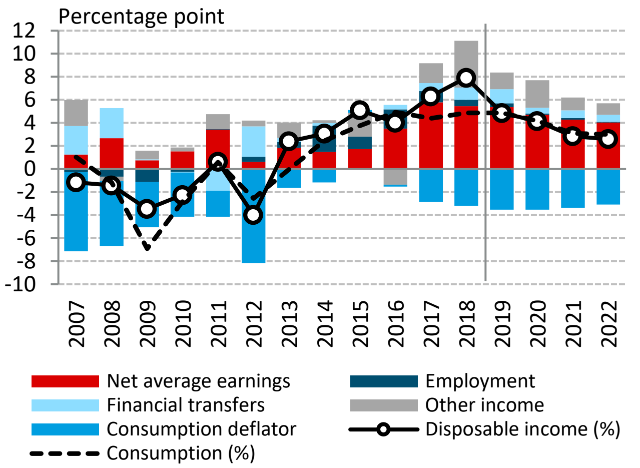
Note: Actual final government consumption includes social transfers in kind from government and NPISHs.
Source: HCSO, MNB

In the third quarter of 2019, Hungary's gross domestic product rose by 5.0 percent year on year and by 1.1 percent quarter on quarter. Incoming data confirmed that **this year, the Hungarian economy may grow at a faster pace, by 4.9 percent, than previously expected** (Chart 1-6). Based on our current assumptions, **growth is projected to be 3.7 percent in 2020 and 3.5 percent in 2021 and 2022** (Chart 1-7).

Convergence of the Hungarian economy **to the euro area continues under persisting growth surplus of at least 2 percentage points.** Economic growth was supported by an increase in **domestic demand items** (household consumption, investments) **and exports**. In the years ahead, Hungarian exports may rise dynamically, exceeding a rate of 5 percent (Chart 1-7).

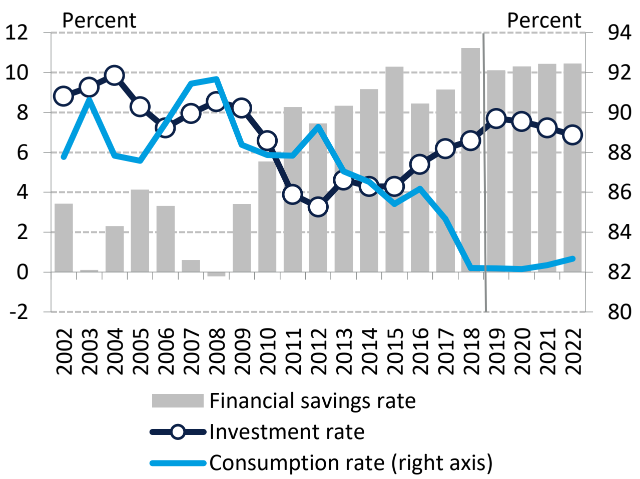
According to our expectations, household consumption will continue to grow in the coming years. With favourable underlying income trends, consumption is also supported by **rising lending to households,** which has expanded to a larger degree than previously expected. From the second half of 2019, a pickup in credit demand is also supported by the government's family protection measures, in addition to the low interest rate environment and increase in real wages. According to incoming data from October, households' demand for **family support programmes** was significant. **At the beginning of the horizon, the rise in households' loans exceeds our September expectation, showing an annual growth rate of 10-12 percent. By the end of the forecast horizon, dynamics in lending to households decline gradually, but still show strong growth remaining at around 8-9 percent.** The accumulated high net financial assets and the high level of consumer confidence also have a positive impact on consumption (Chart 1-8).

Chart 1-8: Decomposition of personal disposable income



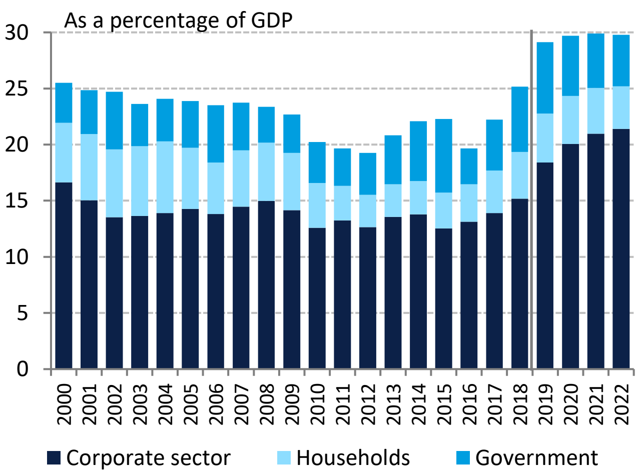
Note: Annual changes.
Source: MNB

Chart 1-9: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income



Source: HCSO, MNB

Chart 1-10: Evolution of investment rate by sectors



Source: HCSO, MNB

In line with the slower expansion of real income, **the growth rate of household consumption will slow slightly over the forecast horizon, but this item will remain a key contributor to economic growth.** In addition to the continuous increase in disposable income, the Hungarian Government Security Plus scheme, available from this June, as well as the measures stimulating demand for government securities (free treasury account management, favourable redemption, cancellation of the tax on interest) also support maintaining the saving ratio at a stable level (See Box 1-3). **In line with the fading of the housing market cycle, households' investment ratio gradually decreases** (Chart 1-9).

Whole-economy investments increase over the entire forecast horizon. Corporate investments continue to rise, even from a high base. The trend is equally supported by the favourable financing environment, the start of the capital-labour substitution and large investments. **Corporate lending increases dynamically and fund-raising by companies is also supported by the Bond Funding for Growth Scheme, in addition to the Funding for Growth Scheme Fix.** The expansion of Samsung SDI's battery manufacturing plant in the amount of HUF 390 billion also contributes to the rise in corporate sector investments. The investment strengthens Hungary's future role in the automotive industry production chains, undergoing a transformation as a result of electro-mobility.

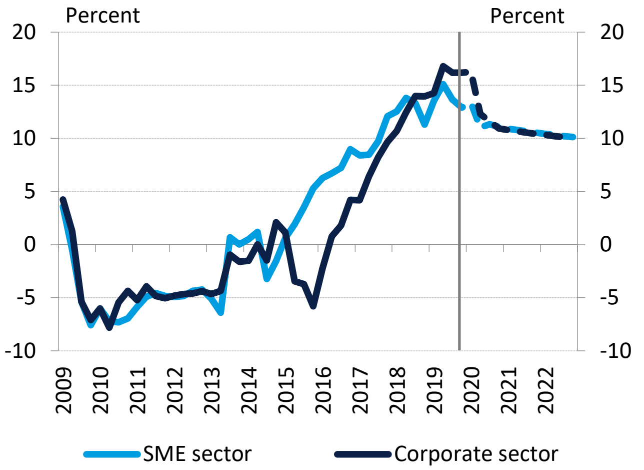
In line with the recovery of the housing market, we expect household investments to peak this year. However, **from 2020 – as the housing market cycle ends – we expect a decline in household investments**, which thus from next year onward will make negative contribution to growth.

From 2020, **government investments may decline.** While **the effective absorption path of EU funds has become slightly flatter**, we still expect it to peak in 2019. Looking ahead, the declining absorption of funds is expected to reduce government investments. According to our current expectations, absorption of transfers from the 2021-2027 programming period may commence in 2022, at the earliest.

Looking ahead, the whole economy investment rate will **rise to around 29 percent this year**, from 25.2 percent last year, **putting Hungary in the vanguard in a European comparison, and it will remain at a stable, high level over the entire forecast horizon** (Chart 1-10).

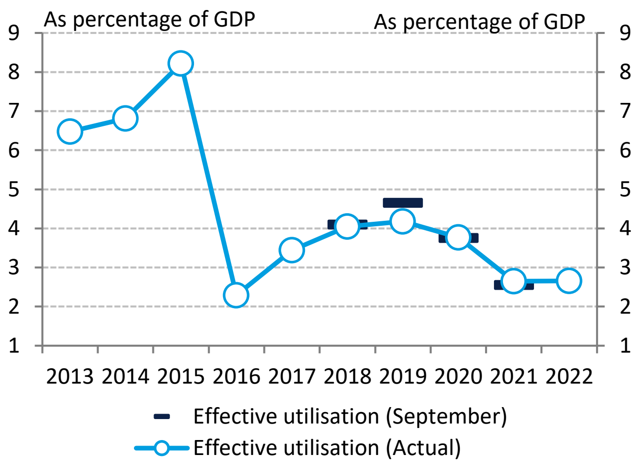
Compared to our September forecast, our expectations related to external demand have not changed significantly. Based on the incoming data and latest forecasts, **the**

Chart 1-11: Annual changes in lending to non-financial corporations and SMEs



Note: Transaction-based, year-on-year data. The SME sector does not include the self-employed. The growth rate of the overall corporate sector is based on the total amount of outstanding credit to the entire financial intermediary system.
Source: MNB

Chart 1-12: Effective use of EU funds



Source: Ministry of Finance, MNB

recession risks faced by Hungary's key trading partners have declined; at the same time, external activity is expected to remain subdued.

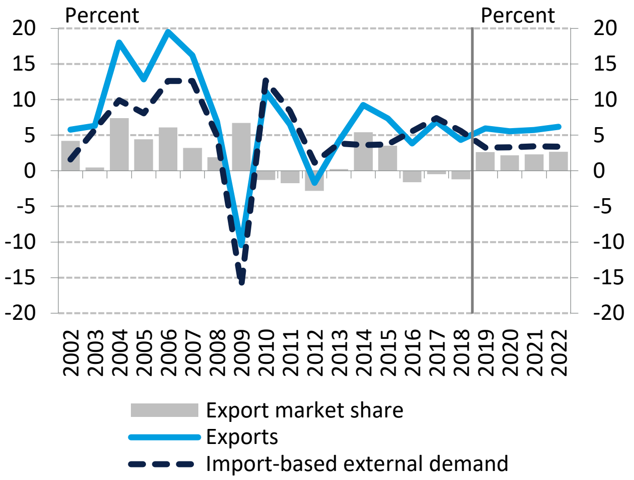
Hungarian exports may rise dynamically, at a rate above 5 percent, in the years ahead as well, increasingly supported by the start of new production capacities. Despite the fall in German manufacturing orders and the poor performance of the German industry in recent months, Hungarian industrial production is expected to keep growing in the next quarters; the decoupling of German and Hungarian industrial production developments (particularly in the automotive industry) which has been seen in the past period will continue over the short run. **The deterioration in global economic activity, especially in Germany, is partly offset by the Hungarian industrial product structure and the effects of earlier FDI over the short run.** With production by Mercedes to ramp up from 2021-22, due to the expansion of its plant in Kecskemét, and the expansion of Samsung SDI's electric battery factory, which is expected to commence production from 2021, **export growth may develop slightly more favourably in the second half of the horizon compared to our previous expectations.** Hungarian export growth, which exceeds the growth rate of foreign demand, is also fostered by the dynamic rise in services exports. As a result of the foregoing, **Hungary's export market share will improve significantly over the forecast horizon** (Chart 1-13).

In parallel with the rise in exports, imports will also continue to grow, which is primarily attributable to the high import intensity of Hungarian exports and the buoyant growth in domestic use.

Over the entire forecast horizon, import growth is significantly influenced by two factors. **On the one hand, the import ratio of investments has been declining since 2016:** whereas in 2016 import machinery investments accounted for almost 33 percent of whole-economy investments, this ratio fell to 28 percent by 2018. This growth can be observed in all of the key Hungarian manufacturing industries, including, among others, rubber manufacture, road vehicle manufacture, machinery manufacture, electric equipment manufacture and the production of chemical substances. **According to our assumption, as a result of the capacity expansions implemented in recent years, the import demand of the Hungarian economy may be lower than previously anticipated.**

Following the high level of inventories observed in 2018, this year we expect declining inventories, which also points to moderate import dynamics this year. The

Chart 1-13: Changes in export market share



Note: Annual change.
Source: HCSO, MNB

favourable Hungarian economic activity and international prospects becoming uncertain together resulted in high inventory levels in 2018 in a wide range of sectors. In 2019, the strong export dynamics led to the absorption of both self-produced and purchased inventories, which contributes to the decline in inventory levels measured on an annual basis.

As the combined result of these, the rising investments reflected in the performance of corporations will increase import growth in 2020 in particular. According to our expectations, in **2019 the contribution of net exports to economic growth will be almost neutral, and will then once again be positive between 2020 and 2022.**

The growth contribution of agriculture may be almost neutral in 2019.

Box 1-3: Effects of the introduction of the MÁP+

The objective of renewing the retail government securities strategy is to increase households' government securities holdings to HUF 11,000 billion by 2023. This objective is in line with **the decline in the country's dependency on external financing and thus with the strengthening of self-financing**. In addition, **the MÁP+ has significance beyond itself: it is not only a product that ensures the stable financing of the general government, it also facilitates sustaining the high savings rate and thus the macrofinancial balance**. Although certain costs and challenges may arise in connection with the MÁP+, they can be reduced and handled with disciplined fiscal policy. Therefore, on the whole, they are less risky than external or FX-based financing.

In view of its attractive yields, the MÁP+ helps to sustain the high savings rate. MÁP+ has significant effect on gross households savings, which increased to HUF 350 billion from the last year-end HUF 250 billion. In parallel, household lending has also picked up in recent months, leaving net savings unchanged overall. Accordingly, the MÁP+ plays a determining role in stabilising the net financial savings at a high level. Looking ahead, the MÁP+ may be able to direct a larger part of inflowing incomes towards savings than before, which contributes to the continuance of the high savings rate, and thus it is of key importance in ensuring the balance of the current account.

By reducing external financing and strengthening self-financing, the MÁP+ reduces Hungary's external vulnerability and improves its financing conditions. As a result of the MÁP+ purchases, the share of households in financing the general government increases, the ratio of external and FX financing within government debt declines, and the average residual maturity of the government debt financed by households becomes longer. It is also worth mentioning that the domestic ownership of public debt supports the country's income and current account balances, which reduces external debt and improves the balance position. All of this results a decline in the country's external exposure and the strengthening of self-financing, improving the financing conditions of the country through a more favourable investor assessment and a reduction of the risk premium.

The MÁP+ also contributes to sustainable convergence and competitiveness by strengthening financial awareness. Initial experiences indicate that the MÁP+ plays a key role in the development of households' financial awareness, as it encourages the accumulation of financial savings and their allocation in a form that is more sophisticated than cash. This is an often underestimated but at the same time important long-term factor, which is corroborated by past experiences as well in Hungary (e.g. foreign currency lending).

In addition to contributing to the macro and financial balances, the MÁP+ has a positive – in some cases well quantifiable – impact on other factors as well, which are worth taking into account when assessing the costs of the MÁP+:

decline in yield caused by the unburdening of the wholesale government securities market: the increase of thousands of billions of forints in retail government securities holdings significantly reduces the need to issue in the wholesale market, thus helping to sustain the low yield environment;

rising tax revenue: the tax revenue originating from the consumption financed from the interest income paid to Hungarian households – with a deferment – partly offsets the disbursed higher interests;

decline in risk premium: the MÁP+ contributes to the decrease in external financing and in the FX ratio of the government debt as well as to strengthening self-financing, which is an important aspect in credit rating assessments, improving the country's risk assessment;

declining cash holdings: cash holdings represent a considerable social cost, which can be reduced by driving cash into the government securities market.

Nevertheless, it is important to see that the government debt strategy denominated in domestic currency and funded by domestic players generates additional costs for the state in terms of interest expenditures. The favourable interest for households that supports sales of the MÁP+ represents an additional cost compared to issuing bonds in the wholesale market and other retail securities, and this cost is further increased by distributor commissions. The interest of the MÁP+ contains a premium compared not only to wholesale market yields but it is also higher than the interest rates paid on other retail securities. Consequently, the issuing of the MÁP+ results in additional interest expenditure, which is further increased by the commission paid by the state to the distributors. At the same time, if households moved in the direction of free state sales channels, it would result in major savings of distributor commissions and bank costs for the state and households, respectively.

On the whole, the advantages tend to have the upper hand: although stemming from their indirect nature the exact degree of the positive effects are uncertain, according to our estimate, the unburdening of the wholesale market alone and taking into account the additional tax revenues may cover a considerable portion of the costs.

In order to achieve the targets of the retail government securities strategy and to preserve the achievements it is important to consider the challenges that arise in connection with the robust demand for the MÁP+. Of them, **the impact on the demand for other financial instruments** as well as **the possibility of mass redemptions** deserve mention.

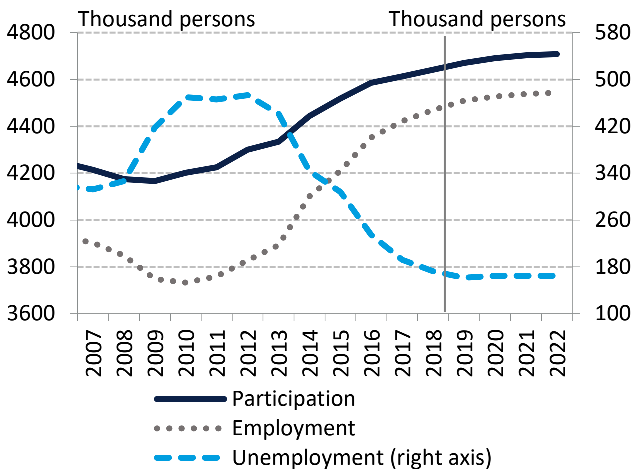
A **crowding-out effect** may arise if the market of other retail investment products becomes jeopardised as a result of the introduction of the MÁP+, or a withdrawal of bank deposits would threaten the stability of the financial system. Nevertheless, taking into account the magnitude and trends of household savings developments in Hungary and the situation of the banking sector, it is easy to see that **the MÁP+ is rather a contributor to maintaining the high savings rate**. This is attributable to the fact that the achievement of the targets of the retail government securities strategy requires the channelling of some HUF 1,100 billion of household savings, which is one third of the annual new household savings of approximately HUF 3,100 billion expected in the coming years. Accordingly, the remaining amount is higher than the total annual amount of new household savings in the period before 2017. Based on all of the above, even in parallel with the implementation of the retail government securities strategy **there will be room in the coming years not only to maintain the volume of alternative investment products, but also to increase them significantly**.

It is important to note that – unlike in the wholesale market – retail government securities are **redeemable** (with certain costs), and thus they may result in a sudden and considerable financing need. This requires special attention by the government, and it is worthwhile to prepare to handle a situation like this (for example by developing the set of instruments that serve the short-term liquidity needs of the state). However, with a credible fiscal policy such situations can be avoided.

1.3 Labour market forecast

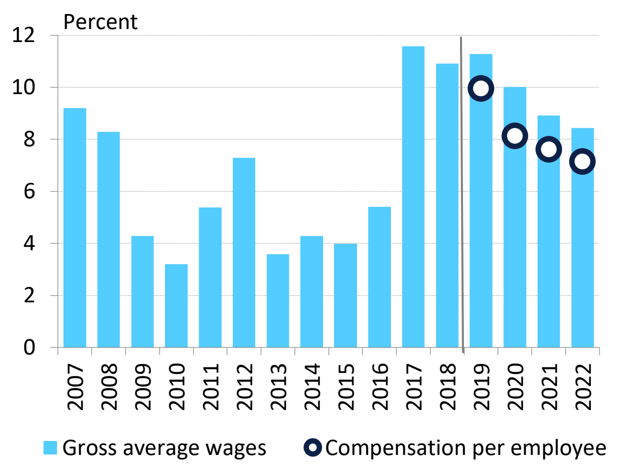
In recent years, the Hungarian economy has approached full employment. At the same time, the rise in employment is gradually decelerating, partly due to demographic constraints, and partly as a result of the development of robotisation observed in certain industries. As result of this trend, looking ahead, the unemployment rate will be around 3.5 percent. Both this year and in 2020, the private sector may see double-digit wage growth, which may gradually decline thereafter, but should remain robust. Inflationary effects from the cost side should be mitigated by faster productivity growth in manufacturing and in the market services sector, as well as by the further reduction of the social contribution tax in the third quarter of 2020 and in the last quarter of 2021, by 2 percentage points on each occasion.

Chart 1-14: Employment, participation and unemployment in the national economy



Source: HCSO, MNB

Chart 1-15: Annual changes in gross average wages and labour cost in the private sector



Source: HCSO, MNB

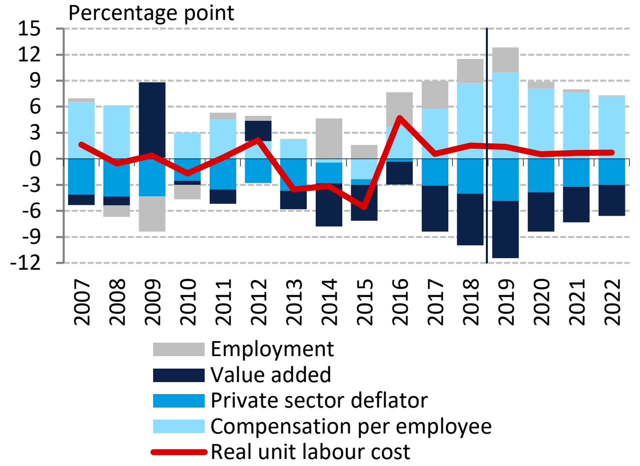
In parallel the demographic constraints becoming increasingly effective, **growth in activity and employment will gradually slow down** in the coming years, and supply and demand may be close to their peak by the end of the forecast horizon (Chart 1-14). With the current demographic trends and in line with the dynamic expansion in employment seen in recent years, the **potential labour reserves will fall to a historic low.**

Companies' efforts to raise the number of employees are rendered extremely difficult by the scarcity of labour reserves, the inadequate skills of the labour force and the lack of job mobility. Looking ahead, **private sector employment growth will gradually slow over the forecast horizon.**

In the past years, the number of **public workers** has declined significantly, and according to our assumption, it will continue to decline moderately in the period ahead. In the tight labour market environment, an increasing portion of those who leave public work are finding employment on the primary labour market. Based on the budget bill, government sector employment will not change significantly in the years to come.

In our forecast, the **unemployment rate will be around 3.5 percent over the forecast horizon**, in parallel with the decelerating rise in employment. According to our expectations, in parallel with the decline in job vacancies, labour market tightness will ease somewhat, but remain at a high level. On the whole, there is strong competition among employers to retain labour and fill vacancies, and thus significant wage growth will take place in the private sector over the entire forecast horizon (Chart 1-15). **Compared to our previous projection, in the private sector we expect wage growth of over 11 percent in 2019.** Dynamic wage growth will also continue in the years ahead, as a result of which the private sector may record double-digit wage growth in 2020 again, followed by a **gradual decline.** Looking ahead, the uncertainty around the minimum wage raise next year is caused by the prospect of renegotiating the two-year wage agreement concluded in 2018.

Chart 1-16: Decomposition of real unit labour cost growth in the private sector



Source: HCSO, MNB

The growth in wage costs this year still exceeds productivity growth, and this may continue in the years to come (Chart 1-16). However**, growth in productivity** accelerated in manufacturing (due to the major investment activity facilitating robotisation), as well as in the market services sector, which mitigates the **cost side inflationary effect.** According to our projection, the reduction of the social contribution tax rate by 2 percentage points from 1 July 2019 may be followed by further cuts of 2 percentage points in the third quarter of 2020 and the last quarter of 2021. On the whole, wage growth adjusted for inflation, which is relevant for households, will remain historically high over the forecast horizon.

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

	2018	2019		2020		2021		2022
	Actual	Projection						
		Previous	Current	Previous	Current	Previous	Current	Current
Inflation (annual average)[1]								
Core inflation	2.5	3.8	3.8	3.8	4.0	3.4	3.4	3.0
Core inflation excluding indirect tax effects	2.4	3.4	3.4	3.4	3.6	3.1	3.1	3.0
Inflation	2.8	3.3	3.3	3.4	3.5	3.3	3.3	3.0
Economic growth								
Household consumer expenditure	4.9	4.7	4.9	3.9	4.2	3.0	3.1	3.0
Government final consumption expenditure[7]	1.1	1.1	0.9	1.1	1.0	0.3	0.3	1.4
Gross fixed capital formation	17.1	15.9	17.8	2.4	4.6	4.0	4.1	3.0
Domestic absorption	7.3	5.4	5.2	2.9	3.6	2.7	2.8	2.7
Exports	4.3	5.2	5.9	5.5	5.6	5.5	5.7	6.2
Imports	6.8	6.3	6.3	5.0	5.4	5.0	5.0	5.4
GDP	5.1	4.5	4.9	3.3	3.7	3.3	3.5	3.5
Labour productivity[6]	2.7	2.5	3.2	2.7	3.3	3.1	3.2	3.4
External balance[2]								
Current account balance	-0.5	-0.9	-0.6	-0.7	-0.5	-0.4	-0.3	0.2
Net lending	2.0	1.8	1.8	2.0	2.0	1.7	1.8	1.8
Government balance[2, 5]								
ESA balance	-2.3	(-1.8)–(-1.7)	(-1.8)–(-1.7)	(-1.4)–(-0.6)	(-1.2)–(-0.4)	(-1.3)–(-0.5)	(-1.1)–(-0.3)	(-0.9)–(-0.1)
Labour market								
Whole-economy gross average earnings[3]	11.3	10.5	10.7	8.5	8.9	7.9	8.0	7.5
Whole-economy employment	1.1	1.1	0.9	0.5	0.4	0.2	0.3	0.1
Private sector gross average earnings[3]	10.9	10.9	11.3	9.6	10.0	8.9	8.9	8.4
Private sector employment	1.3	1.5	1.2	0.7	0.6	0.4	0.4	0.1
Unemployment rate	3.7	3.4	3.5	3.3	3.5	3.3	3.5	3.5
Private sector nominal unit labour cost	5.1	7.1	6.1	4.7	4.3	4.1	3.8	3.6
Household real income[4]	7.9	4.8	5.0	4.1	4.1	2.9	2.9	2.5

[1] Based on seasonally unadjusted data.
[2] As a percentage of GDP.
[3] 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.
[7] Includes government consumption and the transfers from government and non-profit institutions.

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

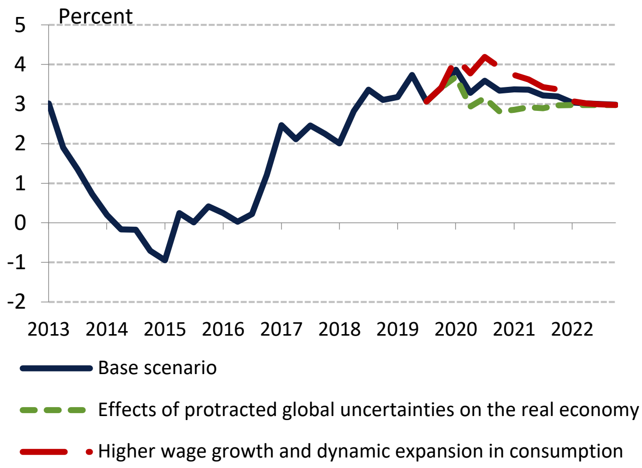
	2019	2020	2021	2022
Consumer Price Index (annual average growth rate, %)				
MNB (December 2019)	3.3	3.5	3.3	3.0
Consensus Economics (November 2019)[1]	3.2 – 3.3 – 3.6	2.5 – 3.2 – 4.4		
European Commission (November 2019)	3.4	3.1	3.0	
IMF (October 2019)	3.4	3.4	3.3	3.0
OECD (November 2019)	3.3	3.4	4.1	
Reuters survey (December 2019)[1]	3.2 – 3.3 – 3.4	2.8 – 3.3 – 3.8	2.8 – 3.2 – 3.5	2.8 – 3.0 – 3.3
GDP (annual growth rate, %)				
MNB (December 2019)	4.9	3.7	3.5	3.5
Consensus Economics (November 2019)[1]	4.2 – 4.6 – 5.2	2.5 – 3.2 – 3.8		
European Commission (November 2019)	4.6	2.8	2.8	
IMF (October 2019)	4.6	3.3	2.9	2.6
OECD (November 2019)	4.8	3.3	3.1	
Reuters survey (December 2019)[1]	4.5 – 4.8 – 5.0	2.8 – 3.4 – 3.9	2.5 – 3.0 – 3.7	2.1 – 2.9 – 3.6
Current account balance[3]				
MNB (December 2019)	-0.6	-0.5	-0.3	0.2
European Commission (November 2019)	-1.2	-0.8	-0.7	
IMF (October 2019)	-0.9	-0.6	-0.5	-0.3
OECD (November 2019)	-0.7	-0.9	-1.0	
Budget balance (ESA 2010 method)[3,4]				
MNB (December 2019)	(-1.8)–(-1.7)	(-1.2)–(-0.4)	(-1.1)–(-0.3)	(-0.9)–(-0.1)
Consensus Economics (November 2019)[1]	(-2.5) – (-1.7) – (-0.5)	(-2.4) – (-1.4) – (-0.3)		
European Commission (November 2019)	-1.8	-1.0	-0.8	
IMF (October 2019)	-1.8	-1.6	-1.5	-1.5
OECD (November 2019)	-1.8	-1.7	-1.4	
Reuters survey (December 2019)[1]	(-2.3) – (-1.7) – (-0.9)	(-2.0) – (-1.2) – (-0.8)	(-2.3) – (-1.3) – (-0.5)	(-2.5) – (-1.0) – (0.0)
Forecasts on the size of Hungary's export markets (annual growth rate, %)				
MNB (December 2019)	3.2	3.2	3.4	3.4
European Commission (November 2019)[2]	2.8	3.0	3.0	
IMF (October 2019)[2]	2.9	3.4	4.0	3.8
OECD (November 2019)[2]	2.2	1.7	2.4	
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)				
MNB (December 2019)	1.8	1.8	1.9	1.9
Consensus Economics (November 2019)[2]	1.6	1.5		
European Commission (November 2019)[2]	1.6	1.7	1.7	
IMF (October 2019)[2]	1.6	1.8	1.9	1.8
OECD (November 2019)[2]	1.5	1.4	1.5	

[1] For 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 forecast for all partner countries.
[3] As a percentage of GDP.
[4] The lower value of the forecast band shows the ESA balance if the Country Protection Fund 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, MNB

2 Effects of alternative scenarios on our forecast

The inflation risks that were still asymmetric and on the downside in September have become symmetrical again. The Monetary Council highlighted two alternative scenarios around the baseline projection in the December Inflation Report. The impacts of the protracted global uncertainties may result in a lower inflation and more restrained growth path compared to the baseline scenario. In the alternative scenario featuring higher wage growth and dynamic expansion in consumption, domestic economic growth is stronger and inflation is higher than in the forecast from the baseline scenario. In addition to these scenarios, as further alternatives, scenarios that assume the implementation of competitiveness reforms and a rise in commodity prices (pork, oil) were discussed by the Monetary Council.

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



Source: MNB

Effects of protracted global uncertainties on the real economy

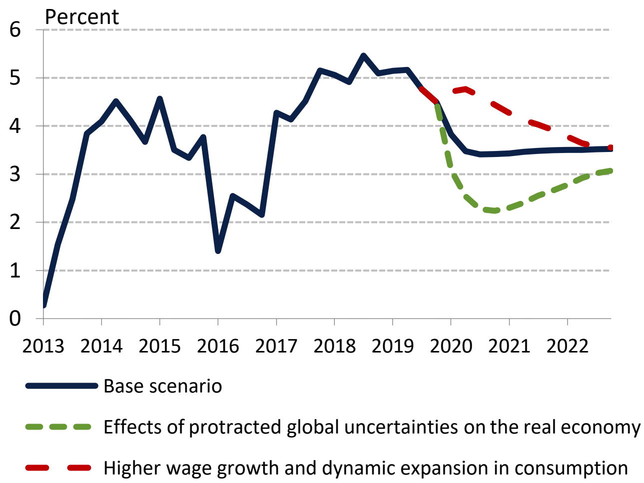
As a result of the **trade war between the United States and China**, **uncertainty about Brexit** and **the stronger-than-expected deceleration in the Chinese economy**, **global uncertainties increased significantly during the past period**. Initially, the protracted trade conflicts only affected manufacturing business confidence, but **concerns are also now reflected in business sentiment in the services sector**. Brexit without a trade deal **would inflict serious damage on European supplier networks**, which – via the close trade relations – **would negatively impact the euro area economy as well**. At the same time, the **negative impression** of external economic activity **may be refined** by the fact that in September German export growth reached the strongest level in the past two years. In addition, on a quarterly basis German economy increased in Q3, and thus the German economy avoided a technical recession. On the whole, the production data and deteriorating business confidence recorded in recent months **point to more restrained global economic activity**.

In the past period, as a result of **the global uncertainties** and **subdued developments in inflation**, the **global leading central banks eased their monetary conditions**. Based on decision makers' guidance and market prices, **the loose external monetary policy environment will persist**.

In our baseline scenario, the effects of the general slowdown in global economic activity are reflected **in subdued growth in Hungary's exports** and **a disinflationary effect from moderate external demand**. Looking ahead, **the global leading central banks will not change their monetary conditions**.

According to the assumptions of **our alternative scenario**, **global economic uncertainties will continue to have a negative impact on business sentiment**. The downside risks to global growth **are being reflected in the real economy**

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



Source: MNB

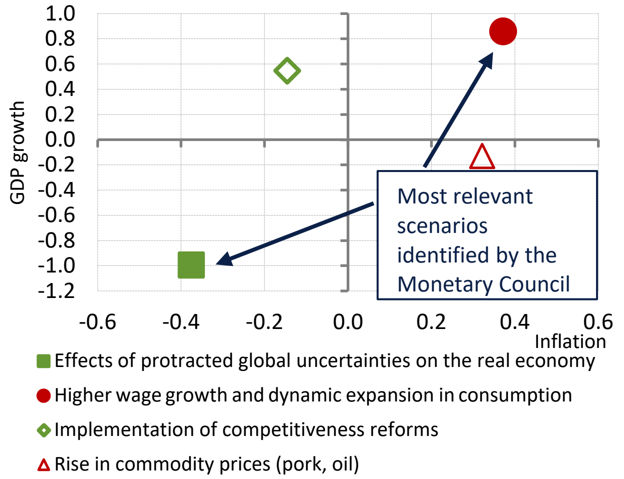
data. The slump entails a restructuring of corporate strategies and postponement of investment, and thus – **in addition to a lasting decline in global industrial production** and **trade intensity** – the **downturn is also becoming visible in the current data on investment in machinery**. In addition, companies are **adjusting** to the increased uncertainty **with layoffs**, which also impairs the prospects of the services sector via a decline in disposable income. **This leads to a further deceleration in European economic activity**, while Germany slips into recession. **Brexit without a trade deal causes serious damage** to the European supplier networks, and all of this **results in lower external demand** compared to the baseline scenario. As a result of the mounting downside risks to growth and inflation, **global leading central banks ease their monetary conditions further**. The looser external monetary policy environment compared to the baseline scenario **may result in a rise in domestic asset prices**, and in addition to that, **faster-than-expected deceleration in Hungary's exports** as well as a **stronger external disinflationary effect materialise**, compared to the baseline scenario.

Higher wage growth and dynamic expansion in consumption

In recent years, in parallel with the dynamic economic growth, employment also increased considerably, and unemployment declined to a historically low level. As a result, **labour market conditions have become increasingly tight, leading to dynamic wage increases**. In addition, **the measures of the 6-year wage agreement** concluded in November 2016 **also contributed significantly to the double-digit wage increase** typical of the previous two years. In addition to the reduction of the social contribution tax and corporate tax, in 2017 the minimum wage and the guaranteed wage minimum rose by 15 and 25 percent, respectively, whereas the corresponding figures for 2018 are 8 and 12 percent. Based on the current wage agreement, both in 2019 and 2020 the minimum wage and the guaranteed wage minimum will increase by 8 percent. **At the same time, the possibility of a higher increase may arise for 2020 within the framework of a new wage agreement.**

In 2019 Q3, gross average earnings in the private sector rose 11.6 percent year on year. This wage growth, which substantially exceeds the rise in the minimum wage and the guaranteed wage minimum, is primarily attributable to the tight labour market conditions determining the underlying wage-setting trend. Buoyant wage dynamics was typical for a wide range of companies, and double-digit wage

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 markers mean tighter and the green markers mean looser monetary policy than in the baseline forecast.
Source: MNB

increases were recorded among both large corporations and small and medium-sized enterprises.

In the baseline scenario, in the private sector we project wage growth of more than 11 percent in 2019. Dynamic wage growth will also continue in the years ahead, as a result of which the **private sector may record double-digit wage growth in 2020 as well**, followed by a gradual decline. **Household consumption will expand in line with income developments**, while the savings rate will remain persistently high.

According to the assumptions of our **alternative scenario**, corporate labour demand will remain high, and thus **double-digit wage growth will continue** throughout the private sector. Compared to the baseline scenario, the **expansion in consumption may be higher**, **resulting in a higher inflation path**.

Other risks

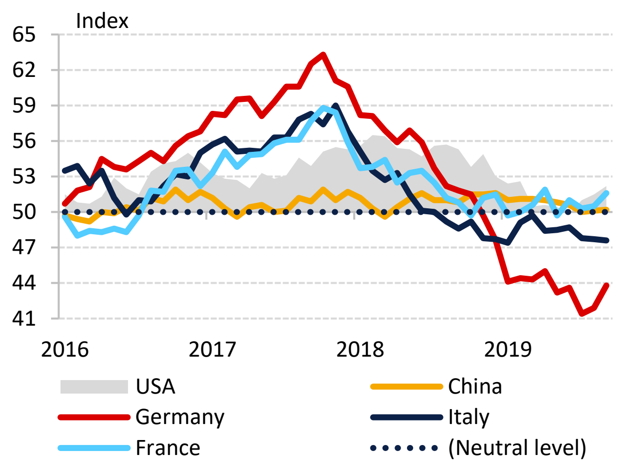
In addition to the scenarios highlighted above, the Monetary Council considered two more alternative scenarios. The scenario that assumes the **implementation of competitiveness reforms** results in a lower inflation path and higher growth compared to the baseline scenario. In this scenario, **with realisation of the 330 points** presented by the Magyar Nemzeti Bank **to improve competitiveness, Hungarian economic growth is likely to remain around 4 percent over the forecast horizon, strengthening the sustainable convergence of the Hungarian economy**. If the alternative scenario that assumes a **rise in commodity prices (pork, oil)** materialises, it will result in higher inflation than in the baseline scenario.

3 Macroeconomic overview

3.1 Evaluation of international macroeconomic developments

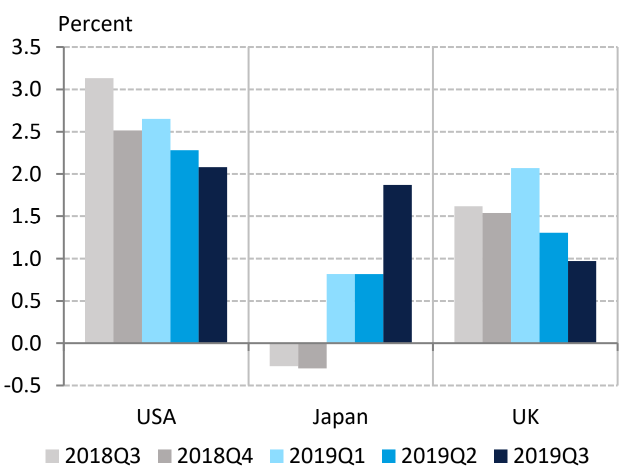
Global economic growth continued in 2019 Q3. Expansion in the euro area economy exceeded expectations, and both Germany and the United Kingdom avoided technical recessions. The Visegrád region continued to be the growth centre of the European Union. The growth prospects of the euro area did not keep deteriorating, and economic sentiment stabilised at a low level. Global inflation has not changed significantly in the past months. Inflation in the United States, Japan and the euro area remains below central bank targets. Inflation in the Visegrád countries was typically above target in the past period. Of the world's leading central banks, since July the Fed has lowered the base rate by 75 basis points, while in September the ECB decided to reduce the deposit rate by 10 basis points and to restart quantitative easing. Regional central banks decided to leave their base rates unchanged during the period under review.

Chart 3-1: Evolution of the manufacturing PMI



Note: Seasonally adjusted series.
Source: Bloomberg

Chart 3-2: Annual changes in GDP in certain key global economies



Note: Seasonally adjusted series.
Source: OECD

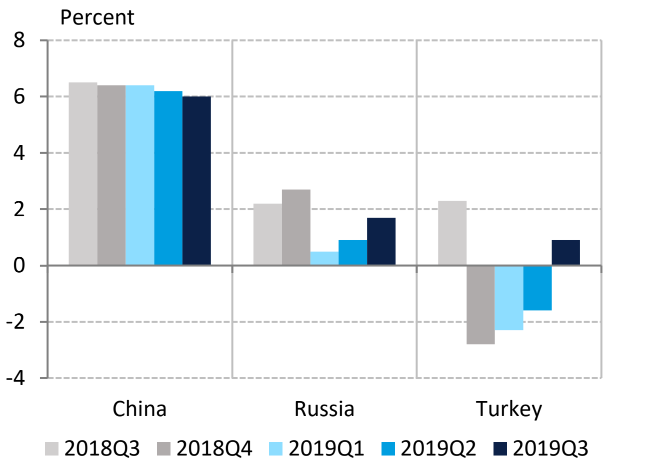
3.1.1. Developments in major global economies

Key global economies continued to expand in 2019 Q3, albeit only slightly. Confidence indicators for manufacturing prospects stopped falling and stabilised during the past months (Chart 3-1). Exceeding expectations, the **US economy expanded by 2.1 percent** compared to the same period of the previous year. This expansion was attributable to household and government consumption, and the contribution of exports to growth was also positive. One unfavourable trend is that **corporate investment, which recorded the sharpest decline in the last three years, restrained the expansion of the economy**.

US economic growth is projected to gradually decelerate, in conjunction with the end of fiscal stimulation programmes (tax cuts and infrastructure investment programme). **Nevertheless,** in view of the two countries' significant weight in global imports, **the trade tensions between the USA and China are considered to be the largest risk to growth by market participants**. As a result of the protracted uncertainties, **the largest decline in the last three years was registered in the growth rate of investments in machinery**, which can be considered as one of the most important factors for long-term growth.

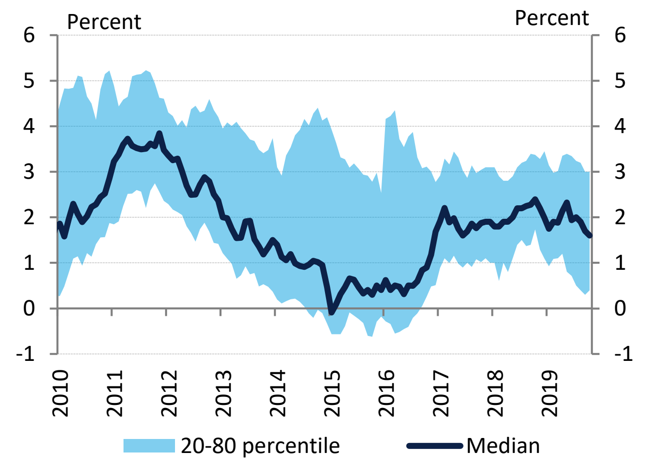
Exceeding the expectations, on a quarterly basis, the economic output of the **United Kingdom expanded by 0.3 percent** in 2019 Q3; on the production side, this was attributable to growth in the services sector and construction industry. As a result of favourable household consumption, **the British economy avoided a technical recession,** but long-term developments continue to show an unfavourable picture. In view of the **unpredictability related to Brexit** and the risk of ensuing trade disruptions as well as the **sustained uncertainties**, **corporate investment in machinery**, which has already exhibited a

Chart 3-3: Annual changes in GDP in certain emerging economies



Source: Trading Economics

Chart 3-4: 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

negative annual rate for 6 consecutive quarters, **declined** by some 14 percent since the beginning of the year.

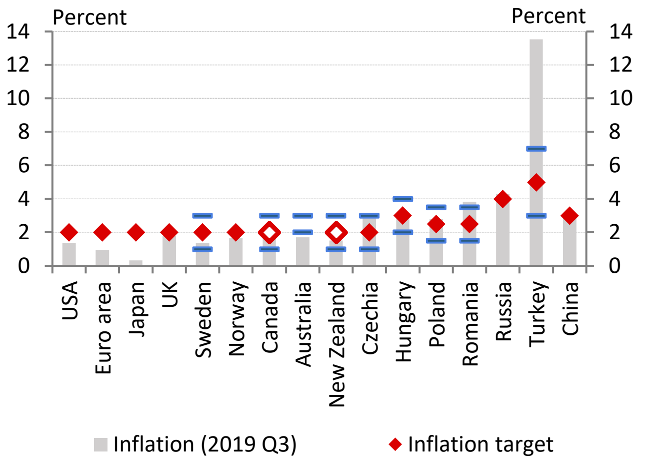
The Japanese economy grew by 0.1 percent compared to the previous quarter and by 1.3 percent year on year (Chart 3-2). **Annual growth in this Asian country has been accelerating for several quarters**, still receiving positive support from domestic demand items. The increase in construction investment due to the 2020 Tokyo Olympics is significantly contributing to the expansion in investment.

In line with expectations, **of the major emerging countries, the economic performance of China continued to decelerate in the third quarter of this year** (Chart 3-3). In Q3, Chinese GDP expanded by 6 percent year on year. Expansion in the economy is mainly attributable to household consumption. In addition, investment also contributed to growth, which was a result of both private and state-financed fixed capital formation. The slowdown in global economic activity, mounting trade tensions between the United States and China and indebtedness at the level of the provinces also contributed to the deceleration, and, looking ahead, these factors may result in a further slowdown in the Chinese economy. **GDP in Russia expanded by 1.7 percent year on year.** Agricultural and industrial production were the main contributors to growth, which exceeded that of the previous quarter.

Global inflation has not changed significantly in the past months (Chart 3-4). **Inflation rates in the United States, Japan and the euro area still fall short of the central bank targets**, while inflation in the other developed and important emerging economies – with the exception of Turkey – **was** still around the central bank targets (Chart 3-5). Commodity prices did not change significantly in the period under review and remain moderate (Chart 3-6).

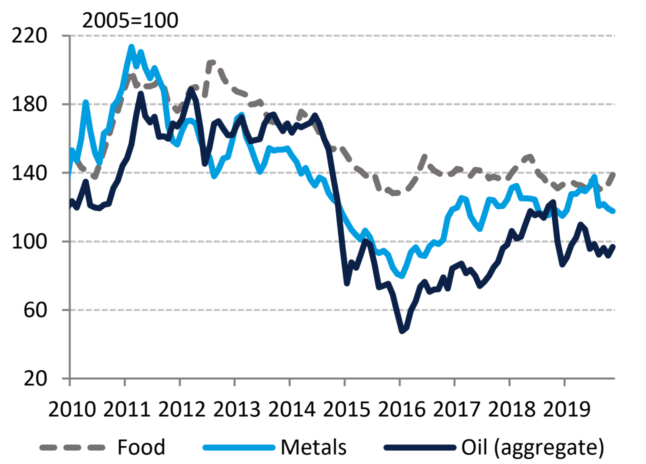
In December, after three consecutive cuts this year, the decision-makers at the Fed did not change the base rate. In relation to the December decision, Chairman Jerome H. Powell highlighted that economic prospects are basically favourable and the labour market is solid, but exports and corporate investment remain weak. For this reason growth is expected to slow slightly, while inflation remains below, but may be close to, the 2 percent target. According to the new FOMC forecast, the decision-makers expects a slight lower unemployment rate than in September. The economic growth and inflation projections remain unchanged. Regarding the federal funds rate projection, decision makers do not expect a change next year, and from 2021 the interest rate may rise slowly (Chart 3-7).

Chart 3-5: 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

Chart 3-6: Major commodity price indices



Note: Calculated from prices in USD.
Source: World Bank

The Bank of Japan did not change its monetary conditions in the past quarter, but it did amend its forward guidance, in which the possibility of an interest rate cut appeared. Accordingly, short- and long-term interest rates will remain at their current or lower levels as long as the possibility of missing the inflation target remains. In connection with the external environment, the Japanese central bank noted that global growth may continue to decelerate, and the ensuing downside risks had strengthened in the past period. However, Governor Haruhiko Kuroda gave a speech recently with a different message, stating that no further monetary stimulus is needed. This may be due to the fiscal easing announced by Japanese Prime Minister Shinzo Abe in December.

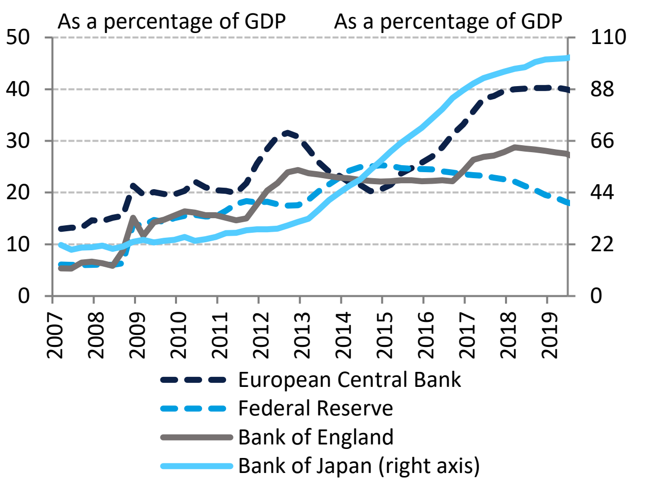
Decision-makers at the Bank of England did not change the base rate or the asset purchase programme during the past period. The central bank expects lower inflation in the short run. While inflation has risen to above the 2-percent inflation target on several occasions since April 2019, it fell to 1.5 by October. GDP growth showed sharp deceleration in the past quarters, strongly affected by weaker global growth, trade tensions and the uncertainty caused by Brexit.

In October, the Russian central bank cut its policy rate by 50 basis points to 6.5 percent. This decision is attributable to the decline in inflation to a level corresponding to the 4 percent target. According to the communication of the Russian central bank, if economic developments are in line with the central bank's forecast, further interest rate cuts may take place at the next meetings. The Russian economy continues to expand at a moderate pace. Growth may be around 0.8–1.3 percent this year, and economic expansion may accelerate to nearly 2–3 percent by 2022.

In China, due to the gradual deceleration in economic growth the PBoC eased its monetary policy. This affected the one-year benchmark borrowing rate, the medium-term central bank lending rate as well as the rate for 7-day reverse repo operations. The central bank's loose stance is also indicated by its announcement of a liquidity expanding measure amounting to CNY 200 billion (USD 28.6 billion) on 14 November. In October, inflation in China was at 3.8 percent, the highest value since January 2012. Between February and September 2019, inflation gradually rose to almost the 3 percent target and then moved above the target in October.

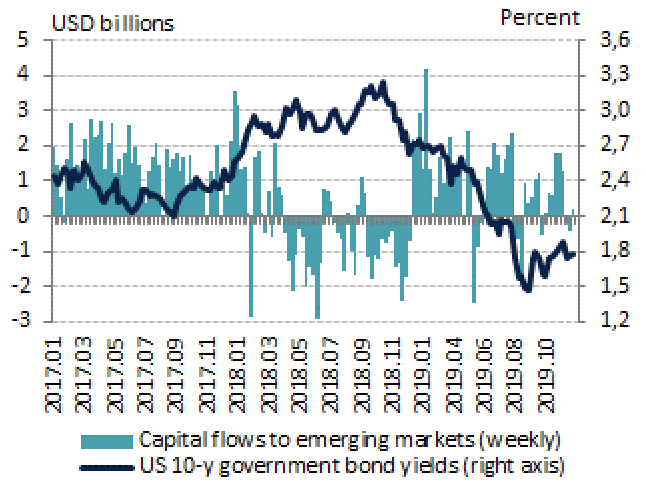
Market sentiment improved in the past quarter, and thus stock exchange indices as well as developed market bond yields typically increased. Investors' risk aversion eased in Q4, which was primarily due to the positive developments

Chart 3-7: Central bank balance sheet totals in developed countries



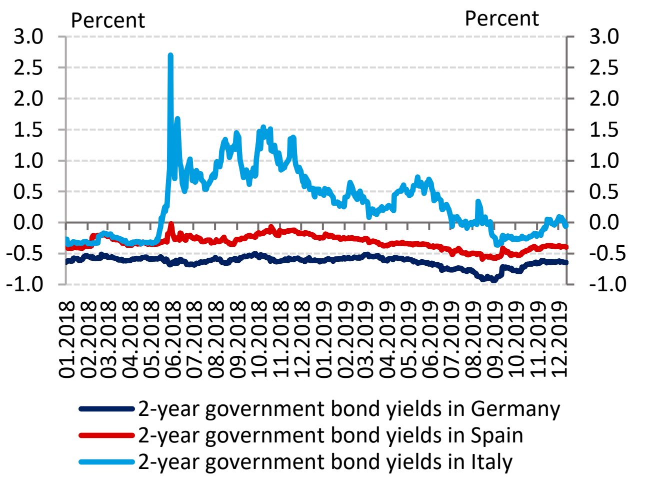
Source: Databases of central banks, Eurostat, FRED

Chart 3-8: Capital flows to emerging markets (weekly) and US 10-year government bond yields



Source: EPFR, Bloomberg

Chart 3-9: 2-year government bond yields in Germany, Italy and Spain



Source: Bloomberg

related to the trade war and the continuation of Brexit negotiations. As a result of long negotiations, according to market expectations the trade deal between the USA and China promised on several occasions during the period by the parties may soon be concluded: this deal may prevent the imposition of further import duties by both sides and thus a further escalation of the trade war. US, Western European and emerging market stock exchange indices typically rose in the favourable atmosphere, but at the same time, as a result of the Hong Kong conflict, the Chinese Shanghai Composite did not change significantly. There were no major movements in the exchange rates of developed currencies – except for the pound, which appreciated by nearly 4 percent during the period. As a result of stronger risk appetite, developed market bond yields rose, while the spread on emerging market bonds declined significantly, which was also attributable to the capital inflow typical of Q4 following the capital outflow in August.

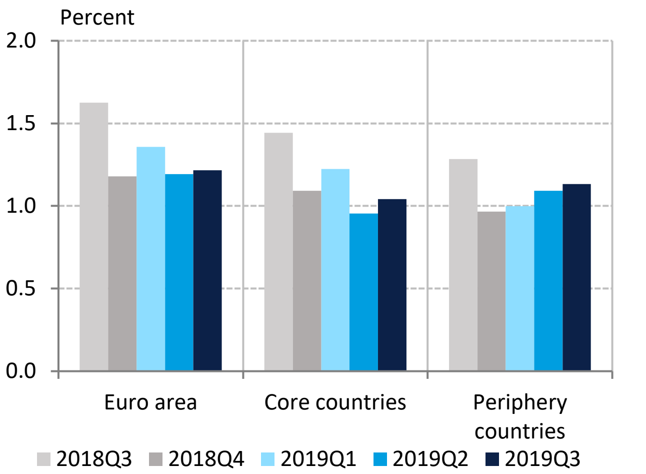
While monetary policy expectations in Q3 were determined by deteriorating macroeconomic prospects, expectations concerning monetary easing declined in the developed countries in the past months. Decision-makers at the Fed reduced the policy rate at their September and October meetings, while the ECB took several measures to ease its policy at its September meeting. At their December meetings, however, none of the major central banks made changes to monetary conditions. In the case of the Fed, market expectations do not price any further interest rate cuts until the second half of next year, whereas by contrast no further reductions in the base rate are being priced in in the euro area. The more moderate expectations concerning the easing of monetary conditions also contributed to the rise in developed market long-term yields. Accordingly, the US 10-year yield rose by 11 basis points.

3.1.2. Developments in the euro area

Despite uncertain external economic activity, **economic growth exceeded analysts' expectations throughout Europe in 2019 Q3**. The **euro area** economy expanded faster than the expectations, with the currency union registering a rate of 1.2 percent year on year and 0.2 percent compared to the previous quarter (Chart 3-10).

Compared to the previous quarter, the economic performance of Germany – Hungary's main trading partner – **was up by 0.1 percent** in 2019 Q3, **and thus it avoided a technical recession**. The expansion, which exceeded analysts' expectations, was driven by household consumption and government expenditure, while **the**

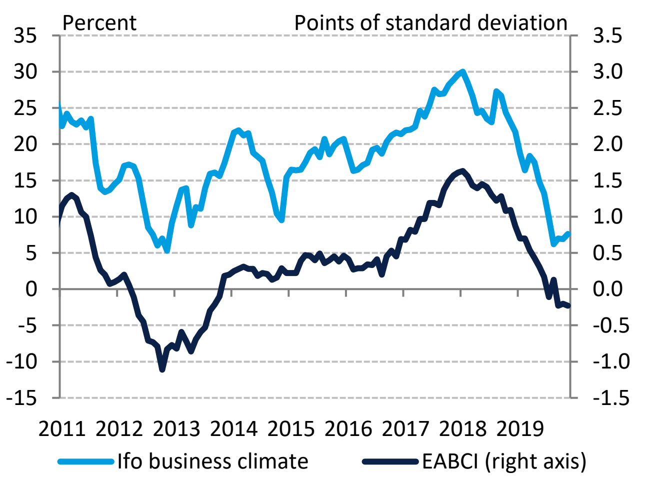
Chart 3-10: Annual changes in euro area GDP



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

Source: Eurostat

Chart 3-11: Business climate indices for Germany and the euro area



Source: European Commission, Ifo

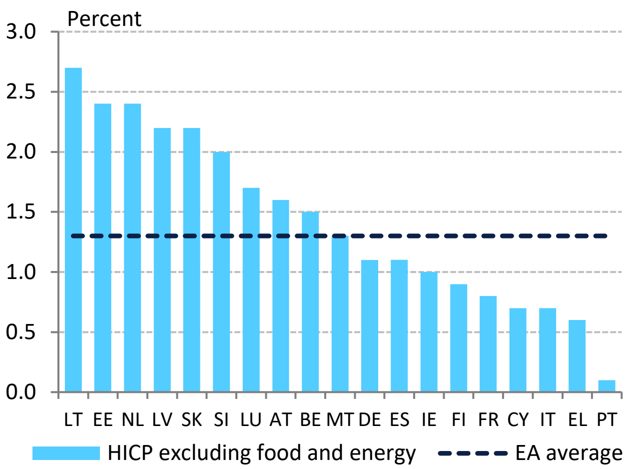
contribution of exports to growth was positive again. In parallel with the European Union's tightening of emission standards in 2018 H2, the spread of alternative (electric) drive technologies and the contraction in global demand, the downward trend in German vehicle production remains visible. At the same time, one indication of an upswing is that **orders in the German manufacturing industry, and in the vehicle industry in a narrow sense, increased in October compared to the previous month**, although the orders in the sector are still below last year's levels. In the past period, **business sentiment improved slightly in Germany**, the Ifo index stopped falling and rose slightly in November, the manufacturing PMI adjusted in a positive direction in October, while the ZEW index has been rising from its August low for 3 months. Analysts' expectations concerning the performance of the German economy did not deteriorate any further.

In the past years, the growth rates of core and periphery countries were identical, showing a decelerating pattern. Favourable Q3 growth figures were recorded in the other large European economies as well. In view of the lower export orientation, growth in **France**, which relies upon household consumption, seems to be riding out the global slowdown with smaller losses, and year-on-year growth of 1.3 percent was registered in Q3. On the periphery of the euro area, **Spain** once again grew strongly (by 2.0 percent year on year), and the Italian economy also expanded slightly (0.3 percent year on year). Supported by a wide range of sectors, economic growth continued in **Austria**, and the rate of 1.5 percent exceeded the GDP growth of the euro area. The business confidence indices capturing the growth prospects of the euro area (EABCI) and the expectations for the German economy (Ifo) both stopped falling and stabilised in the past period (Chart 3-11).

Inflation remained moderate throughout the euro area. The consumer price index was below the 2 percent central bank target in most Member States, and there were only five Member States (Lithuania, Estonia, the Netherlands, Latvia and Slovakia) where inflation was higher than that in September. Core inflation rose from 0.9 percent in August to 1.3 percent by October (Chart 3-12). Examining the changes in core inflation in October at the member state level, decline was observed in seven Member States compared to the previous month, while there was stagnation in five cases and an increase in seven countries.

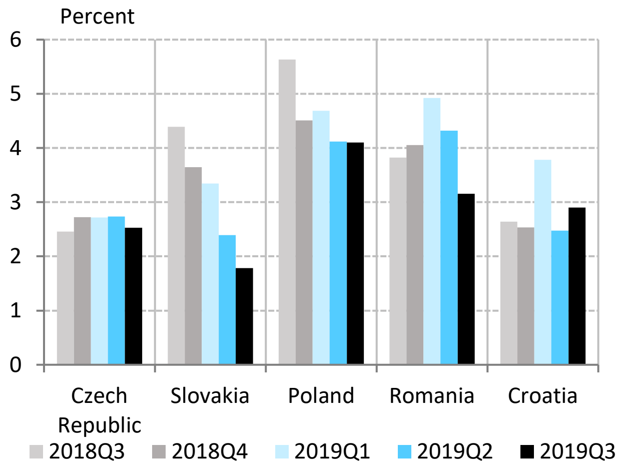
At its December rate-setting meeting, the Governing Council of the ECB left its policy rates unchanged. According to the forward guidance, the policy rates will remain at their current or lower levels until inflation seems

Chart 3-12: HICP excluding energy, food, alcohol and tobacco in the EA members (October 2019)



Source: Eurostat

Chart 3-13: Annual changes in GDP in CEE countries



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

to be approaching a level below, but close to 2 percent. In line with the September decision, net asset purchases restarted from the beginning of November, with a limit amount of EUR 20 billion per month. The asset purchases are expected to be ended shortly before raising the policy rates. At its September meeting, the ECB took various measures to ease monetary conditions. Market expectations are not pricing in an interest rate cut in the euro area. The decline in expectations regarding the easing of monetary conditions contributed to the rise in long-term market yields. The German long-term yield rose by 22 basis points, while in the periphery countries of the euro area 2-year yields increased in parallel with the 15-basis point rise in the German 2-year yield: Portuguese, Spanish and Italian 2-year yields rose by 6, 10 and 21 basis points, respectively (Chart 3-9).

The ECB will reinvest the principal of the securities purchased within the framework of the asset purchase programme even well after starting to raise the policy rates. The Governing Council emphasised the necessity of maintaining the significantly loose stance, as both current inflation and forecast inflation are below target.

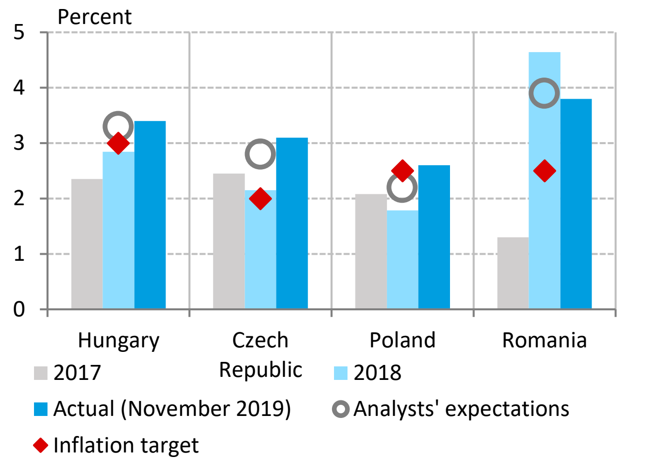
3.1.3. Developments in the CEE region

As in the previous quarters, the CEE region proved to be the growth centre of the European Union in 2019 Q3 as well (Chart 3-13). The GDP expansion of the CEE region, which is high in European comparison, was primarily attributable to domestic demand items, while against the background of weak external economic activity, net exports hindered growth in several countries in 2019 Q3. According to seasonally adjusted data, Poland, Romania, the Czech Republic and Slovakia recorded GDP growth rates of 4.0 percent, 3.2 percent, 2.5 percent and 1.8 percent, respectively.

Looking at the countries of the region, the rate of increase in consumer prices was close to central bank targets in the past period. Inflation in Poland gradually approached the 2.5- percent central bank target in the past quarter. In the Czech Republic, the rate of increase in consumer prices was still above the 2 percent central bank target, amounting to 3.1 percent in November. Compared to the 4-percent levels observed in the middle of the summer, inflation in Romania fell significantly, but in November it moved above of the upper bound of the tolerance band.

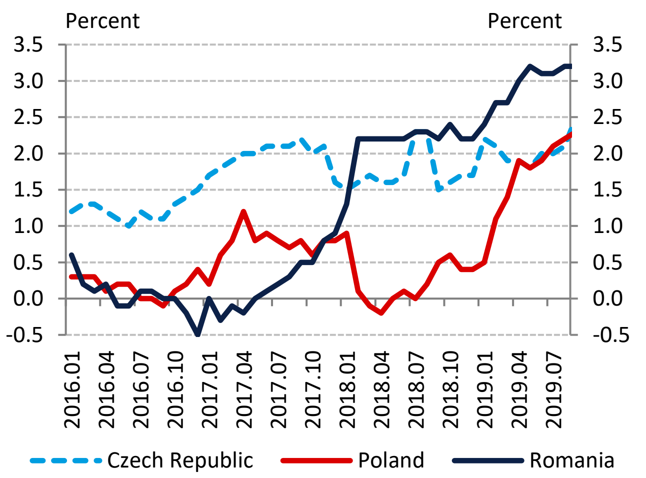
According to the November analyst consensus, average inflation in Romania and the Czech Republic this year may be 1.4 percentage points and 0.8 percentage point higher, respectively, than the central bank targets, while in Poland

Chart 3-14: Inflation targets of central banks, inflation and economic agents' expectations



Note: Analyst's expectations relate to annual average in 2019.
Source: OECD, Trading Economics, National Institute of Statistics Romania, Consensus Economics

Chart 3-15: Development of inflation excluding energy, food, alcohol and tobacco in the countries of the region



Source: Eurostat

the rate of price increase may fall slightly short of the 2.5-percent target (Chart 3-14). Regarding the countries of the region, core inflation fell in Romania, but rose in Hungary, Poland and the Czech Republic during the past period (Chart 3-15).

The decision-makers of the Czech central bank did not change the policy rate in the past period. According to the latest forecast of the central bank, inflation in the coming quarters will be above the 2-percent inflation target, but within the tolerance band. Inflation is expected to start declining at the beginning of next year and projected to decrease to close to the target by the end of next year. According to the central bank's forecast for the interest rate path, a total 50-basis point interest rate hike is anticipated in the coming quarters, followed by a decline again in the second half of 2020. At the same time, the Governor of the central bank indicated that he prefers the smoothing of the interest rate path.

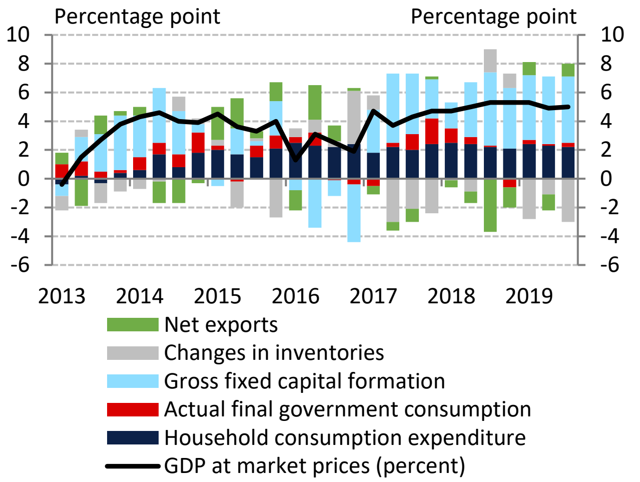
In the past quarter, the Polish central bank's decision-makers did not change the policy rate. Based on their statements, the prospects of the Polish economy remain favourable in spite of the deterioration in global growth expectations in the past period. Compared to the July report, the Polish central bank's latest forecast shows slightly higher inflation and a lower growth path. In the opinion of central bank Governor Adam Glapiński, no change is expected in the interest rate until the expiry of his mandate in 2022.

Decision-makers at the Romanian central bank left the policy rate at an unchanged level in the past quarter. Inflation was near the upper bound of the tolerance band. According to the November 2019 Inflation Report, inflation is expected to remain above the tolerance band during the rest of the year and then decrease and stay within the tolerance band over the entire forecast horizon.

3.2 Analysis of the production and expenditure side of GDP

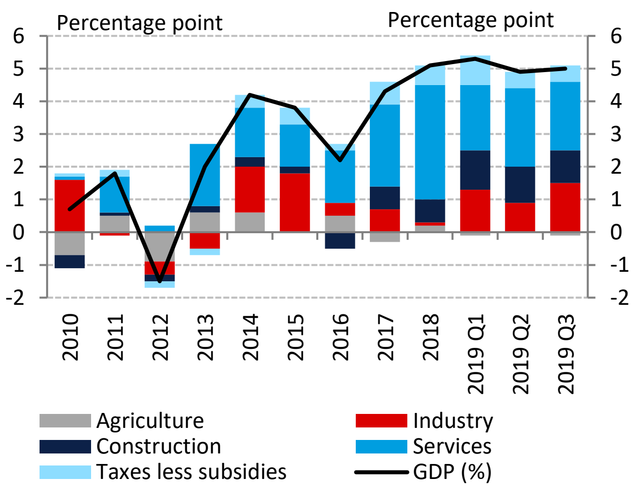
Hungarian GDP increased by 5.0 percent in 2019 Q3 year on year. From the expenditure approach, domestic demand items – investment and consumption – continued to make the strongest contributions to growth. The expansion of household consumption was supported by favourable income developments, growth in household loans outstanding and the high level of consumer confidence. The favourable financing environment, i.e. the double-digit expansion in corporate loans outstanding and the rise in the absorption of EU funds, contributed to the robust increase in investment. The contribution of net exports to domestic economic growth was positive in Q3. On the production side, while market services continued to expand, construction and the industrial sectors also contributed to GDP growth.

Chart 3-16: Contribution to annual changes in GDP



Note: Actual final government consumption includes social transfers in kind from government and NPISHs.
Source: HCSO

Chart 3-17: Decomposition of change in production side GDP



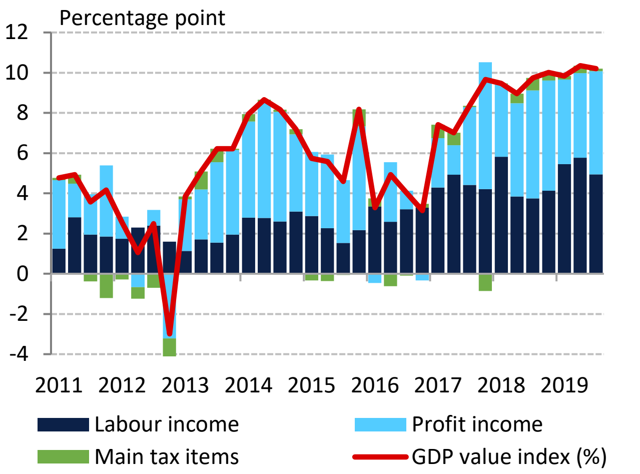
Source: HCSO

In 2019 Q3, **gross domestic product (GDP) increased by 5.0 percent** year on year, while the expansion was 1.1 percent compared to the previous quarter. Hungary takes second place compared to the same period of the previous year in the growth ranking of the European Union. **Economic growth was mainly supported by investment and consumption** on the expenditure side and by **market services as well as industry and construction** on the production side. Despite the increase in domestic demand items, the rate of expansion in goods exports slightly exceeded import growth, and services exports expanded considerably more strongly than services imports. As a result, **net exports made a positive growth contribution** in Q3 (Chart 3-16). From the income approach, labour income made a stronger contribution to growth, which exceed the contribution of the profit income in the first three quarters. The expansion is attributed to the rising wage share in market services, primarily in the retail sector. (Chart 3-18)

On the production side, **the expansion in market services continued** (Chart 3-17), compared to the same period of last year, and the largest increases in value added were recorded in the retail and wholesale, accommodation services, transportation and warehousing as well as information and communication sectors. **Construction** output continued to rise at a fast pace in Q3. In spite of the doldrums in German industry in the past period, domestic **industry continued to contribute significantly to GDP growth**, also supported by the **favourable performance of the vehicle industry**. **Agricultural production fell slightly** (-1.6 percent) year on year, which may be explained by the unfavourable weather at the beginning of the year and the smaller sown area compared to last year.

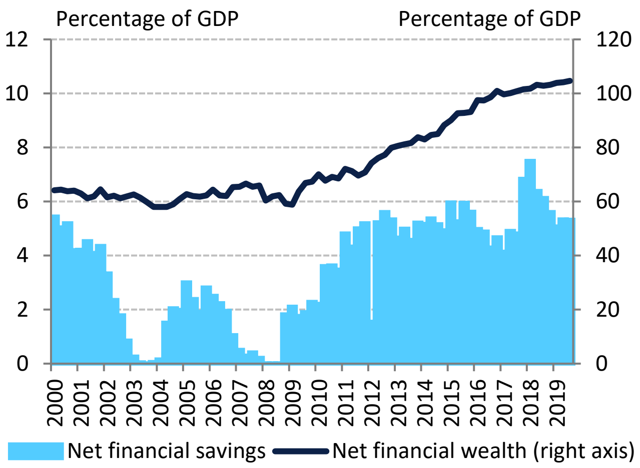
Compared to the previous quarter, **households' consumption expenditures** increased faster **in 2019 Q3**. **Favourable income developments, a buoyant household loan market and the high net financial worth and consumer confidence** contributed to this expansion in consumption (Charts 3-18 and 3-19). The increase in spending on durable and semi-durable goods (17.5 percent and 5.9 percent, respectively) significantly exceeded the aggregate expansion in consumption, while in the case of

Chart 3-18: GDP decomposition based on the income account



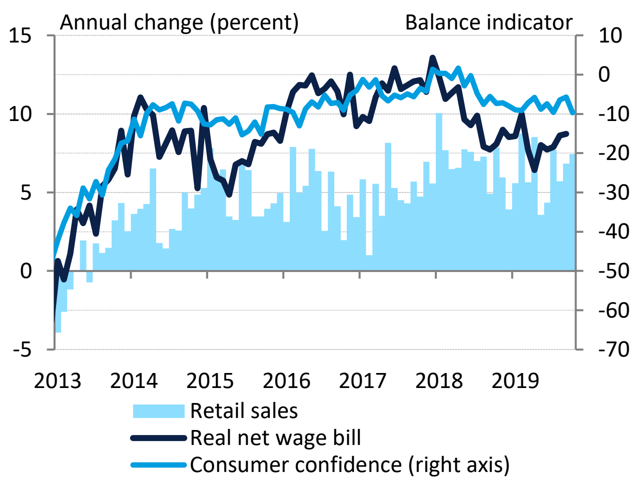
Source: HCSO, MNB

Chart 3-19: Net financial savings of households



Note: Seasonally adjusted series. Source: MNB

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



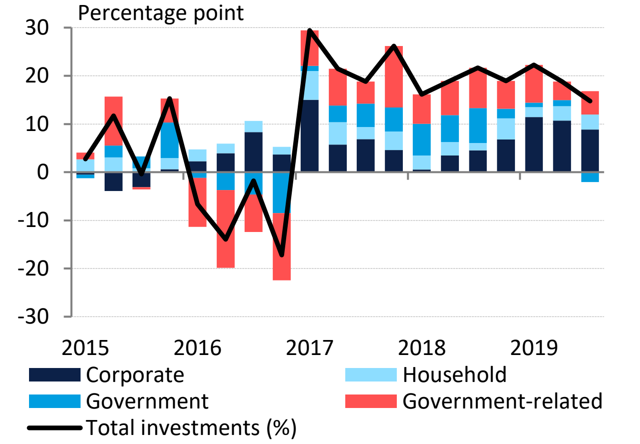
Note: Seasonally adjusted retail sales data.
Source: European Commission, Eurostat, HCSO

expenditures on services the rate of expansion in consumption was slightly below average. Pointing to favourable consumption developments, retail sales rose by 6.2 percent in October (Chart 3-20).

Households' quarterly loan transactions generated 11 percent growth in loans outstanding. In 2019 Q3, the volume of loans disbursed to households by the financial intermediary system as a whole exceeded repayments by HUF 470 billion, and thus household loans outstanding expanded by 11 percent, picking up pace. However, excluding lombard loans, which do not constitute a part of the underlying developments in lending to households, the annual growth rate amounted to 9.8 percent. This **growth is primarily attributable to the popularity of the prenatal baby support scheme launched as part of the Family Protection Action Plan in July**, within the framework of which banks lent nearly HUF 280 billion, thus exceeding the quarterly disbursement of housing loans. The programme may support household credit demand going forward as well, and may also generate additional demand for housing loans as the support can be accepted as own funds. Nevertheless, additionality may fade in the long term, and the product may result in the crowding out of low-amount housing loans and personal loans. Within the framework of the Lending Survey, responding banks reported a temporary decline in demand for housing loans in Q3, but for the next half year they expect a pick-up in demand again for both housing and consumer loans. **Households' expanding credit demand, double-digit wage growth and the low interest rate environment suggest a continued expansion in household consumption.**

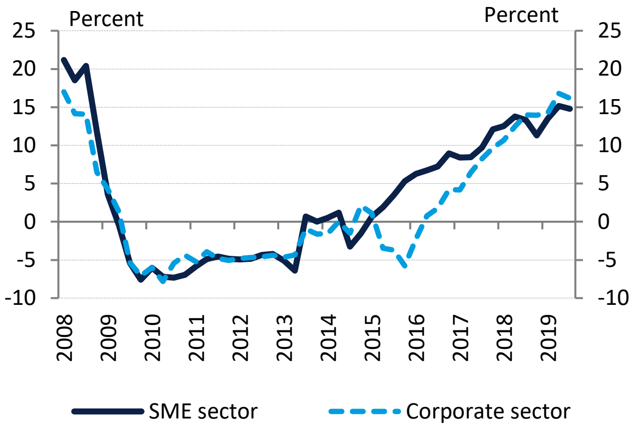
In 2019 Q3, **the volume of whole-economy investment rose 14.8 percent** year on year (Chart 3-21). Both machinery-type (13.6 percent) and building-type (15.8 percent) investment rose year on year. Investment by companies **that produce and provide services for the domestic market increased** in parallel with investment of the sectors **producing for external markets**, supported above all by investment projects in the chemical and machine industries. Investment projects in the corporate sector are facilitated by **the favourable interest environment**, **high capacity utilisation**, **favourable trends in lending** and **previously announced major investment projects**. **Compared to previous years, the expansion in public investment financed from own and EU funds continued at a lower rate**; the investment of companies closely related to the state grew considerably (14.6 percent), while investment in the narrow public sector (administration, health, defence) declined year on year.

Chart 3-21: Decomposition of the annual change in investments



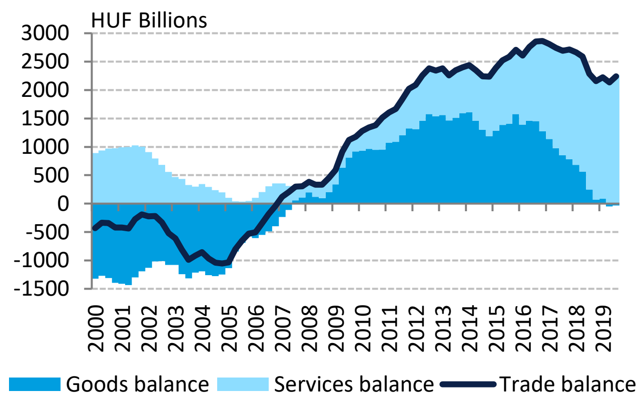
Source: HCSO

Chart 3-22: Annual changes in lending to non-financial corporates and SMEs



Note: Data for the corporate sector are based on transactions with the total financial intermediary system. The SME sector does not include the self-employed. Source: MNB

Chart 3-23: Evolution of the trade balance



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

Corporate loans outstanding continued to expand dynamically during the quarter (Chart 3-22). In 2019 Q3, corporate loans outstanding vis-à-vis the financial intermediary system as a whole expanded by HUF 335 billion as a result of transactions, and thus annual loan growth reached 16 percent in the corporate sector and 15 percent in the SME sector in September. The credit expansion affected a wide range of sectors. According to the responses to the Lending Survey, banks perceived stronger demand for corporate forint loans and long-term loans, which is also attributable to the popularity of the FGS Fix programme. The central bank's Funding for Growth Scheme Fix programme launched in January 2019 efficiently directs corporates towards longer interest rate fixation, and thus, as a result of the scheme, the ratio of fixed-rate loans in the case of low-amount corporate loans with maturities over 3 years was close to 50 percent at the end of the quarter. **The growing demand is driven by enterprises' inventory financing and investment in tangible assets**, and these borrowing requirements may contribute to the pick-up in credit demand in the next half year as well, mainly in view of the rising production of the manufacturing sectors. In terms of commercial real estate loans, the strongest increase in credit demand was typical of the financing of office buildings and shopping centres, supported by favourable developments in the real estate market. Banks experienced the lowest ratio of pick-up in the demand for housing projects which may be explained by the resetting of the VAT concerning residential properties to its previous level.

Households' investment activity increased further in 2019 Q3. In Q3, 3,830 new homes were completed, slightly exceeding the number for the same period of the previous year. In Q3, the number of newly issued home building permits was up by 6.7 percent year on year, and thus its level is still high. Based on the MNB's composite house price index, in 2019 Q2 the **rise in housing prices continued.** According to data released by the HCSO, prices increased further in the market of new homes while the growth of prices of used homes slowed in 2019 Q2.

Exports increased at an accelerating pace compared to the same period of the previous year, with contributions from the goods and services exports as well. Although the expansion in import-intensive domestic demand items (household consumption, investment) continued, as a result of the rise in exports exceeding imports, **net exports supported GDP growth by +0.9 percentage point**. In the case of services exports, the improvement in the balance was due to tourism and exports of transportation services. **As a result, the trade balance improved in Q3** (Chart 3-23).

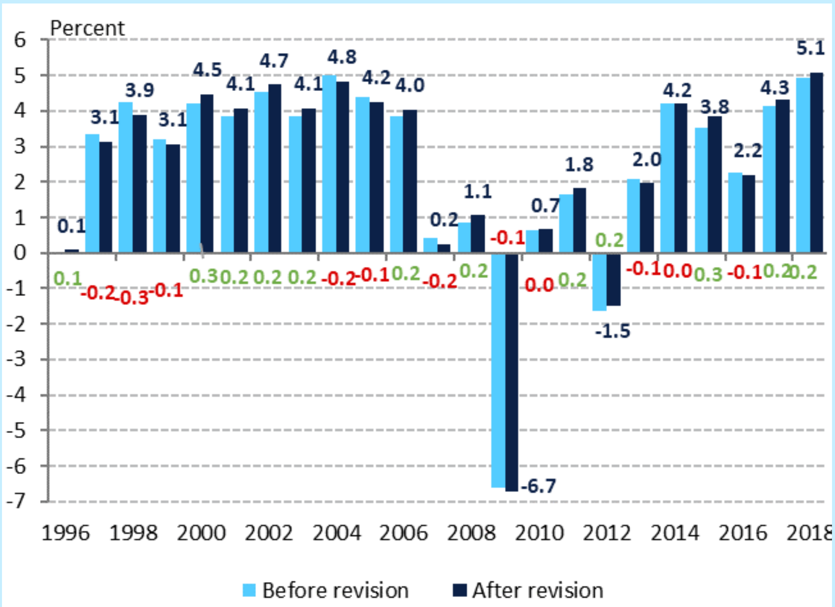
Box 3-1: Effects of the 2019 changes in the methodological revision of the national account

In addition to the annual routine revision, **the Hungarian Central Statistical Office carries out a major methodological revision of the national account data every five years**. In all cases, the main objective of the methodological change is to enable the statistics to provide a more reliable picture of economic developments. In the course of the methodological revision, newly used data sources, international methodological changes, if any, as well as methodological developments are integrated into the calculations, and thus in the case of the so-called *benchmark revision*, the available data change over the longest possible period.

Based on the revised data, the performance of the Hungarian economy measured in past years was better than believed previously. Upward revision of the time series was supported by the revision of export-import data and the knowledge accumulation level of research and development, a more precise estimation of the economy not monitored because of tax avoidance and the valuation of self-produced stocks at market prices, instead of production costs.

In previous years, the HCSO carried out an upward revision of roughly HUF 400–600 billion **in total of the performance of the economy**. Based on the preliminary annual national account data, **domestic GDP expanded by 5.1 percent in 2018, exceeding the previous data release by 0.2 percentage point** (Chart 3-24). **In a historical comparison, as a result of the data revision, economic growth in 2018 proved to be the highest since the political transformation.** Looking at the sectors of the national economy, the performance of agriculture, industry and construction was revised downwards, while the performance of the services sector was revised upwards last year. **As a result of the changed base year levels, the revision may also affect this year's growth of the sectors and of the economy.**

Chart 3-24: Annual changes in GDP

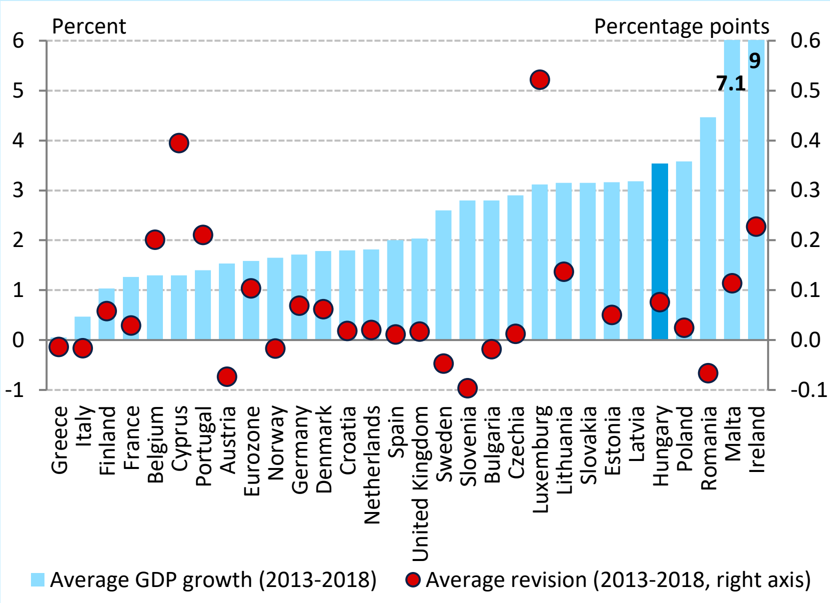


Note: The red and green numbers indicate the degrees of downward and upward revisions, respectively, compared to the previous data release. The dark blue number shows the revised growth dynamics. Source: HCSO

In 2017, the Hungarian economy expanded at a rate of 4.3 percent instead of the previously published 4.1 percent, whereas in 2016 GDP growth amounted to 2.2 percent instead of the previously published 2.3 percent. The biggest revision since 2010 affected economic performance in 2015: instead of the previous 3.5 percent GDP growth, the HCSO recorded an expansion of 3.8 percent. **In cumulative terms, between 2013 and 2018 the volume of GDP increased by 21.2 percent, i.e. 0.6 percentage point faster than the previous data release** (Chart 3-25).

The changes on the expenditure side of the GDP were also amended significantly over the entire horizon. The consumption expenditure of households, which represent the highest weight in absorption, **was revised downwards by 0.3 percentage point for 2017 and by 0.5 percentage point for 2018**, but in the case of this item the whole time series was revised downwards by the HCSO. Likewise, **the time series of transfers also changed downwards**, but the **volume of public consumption has risen for the entire time series**. Major changes in investment have taken place only recently: **investment growth in the past three years became higher than the previously published data by 1.2, 0.5 and 0.7 percentage points, respectively.** Foreign trade items typically changed together over the entire period. Both exports and imports were revised upwards for 2017 and downwards for 2018 by the HCSO. The revision of exports was larger than that of imports, and thus **the contribution of net exports to growth changed** from -2.0 percent to -1.3 percent for 2017 and **from -2.4 percent to -2.5 percent for 2018**.

Chart 3-25: Changes in gross domestic product following the change-over to the new methodology in the countries of the European Union



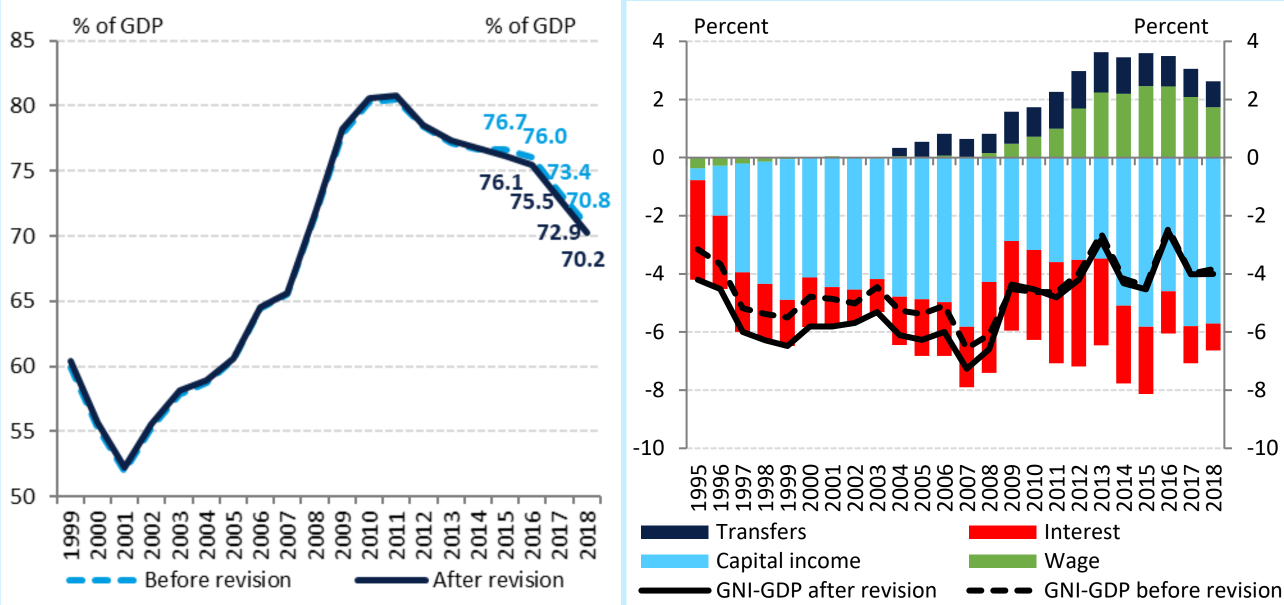
Sources: Eurostat

Based on current-price data, Hungarian GDP **in 2018 was at a level of HUF 42,662 billion instead of the HUF 42,073 billion indicated in the previous data release**. In each of the past four years, the revision exceeded 1 percent of the level of the nominal GDP. The year 2018 was the most affected by the data revision.

The increased level of nominal GDP pushed down the government debt-to-GDP ratio as well. As a result, **in each of the 4 years since 2015 the government debt ratio declined to lower levels by 0.5–0.6 percentage point** (Chart 3-26, left panel). According to the latest figures, **between 2011 and 2018 the debt ratio declined by 10.6 percent of GDP**, whereas previous data showed a decrease of 9.7 percentage points. Looking at the earlier period, for the years between 2000 and 2018 the revision slightly increased the debt ratio due to the classification of the Hungarian Hydrocarbon Stockpiling Association in the government sector, which, however, was offset by the higher GDP level between 2014 and 2018. As a result of the revision of the fiscal deficit, it increased by 0.1–0.2 percentage point of GDP in the past years.

In line with EU recommendations, the HCSO duly revised GNI data as well. In the estimation of **employee income received from abroad**, it is of key importance to terminate the overrepresentation of Austrian and German wages. As a result of the revision, it was **primarily the time series of long past GNI that changed; no major change took place in the past 10 years** (Chart 3-26, right panel).

Chart 3-26: Government debt to GDP ratio (left panel) and gross national income (right panel)

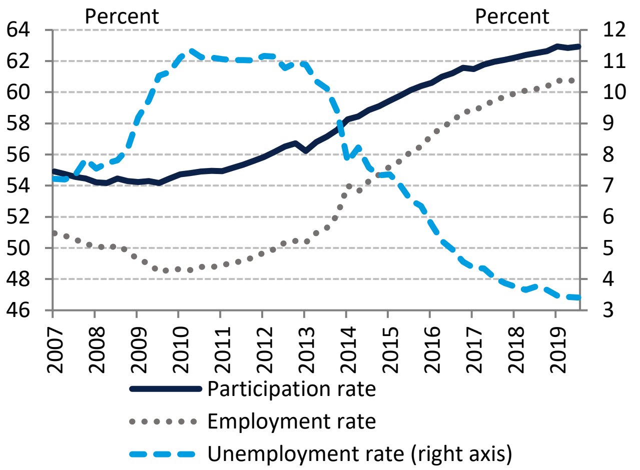


Sources: HCSO

3.3 Labour market

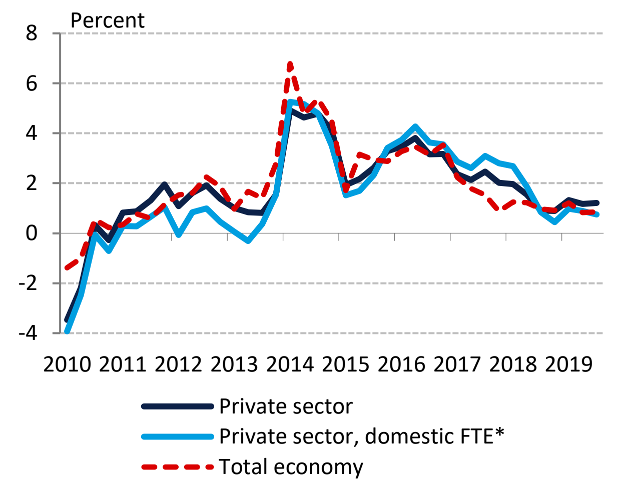
Even though dynamics decelerated, in 2019 Q3 private sector employment continued to increase in annual terms. Within the private sector, employment in manufacturing declined, while the number of employees in market services sector rose considerably compared to the same period of the previous year. The number of fostered workers dropped to 108 thousand. Based on the number of vacancies, corporate labour demand continued to moderate in a wide range of sectors. The seasonally adjusted unemployment rate remained at 3.4 percent. Consequently, labour market tightness eased, but remains at a high level.

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



Note: Seasonally adjusted data.
Source: HCSO

Chart 3-28: Annual change in main employment indicators



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

In 2019 Q3, the participation rate of the 15–74 age group was 63.1 percent, while the proportion of active persons within the population aged 15–64 years amounted to 72.8 percent. **Based on seasonally adjusted data, the number of economically active persons remained practically unchanged** compared to the previous quarter (Chart 3-27).

The private sector contributed to a further increase in the whole-economy employment, while public sector employment reflected a moderate annual decrease. Within the public sector, the **number of fostered workers dropped to 108 thousand,** whereas the number of workers outside the public work scheme remained practically unchanged.

In the private sector, employment in manufacturing fell, while the number of employees in the market services sector rose considerably compared to the same period of the previous year. The number of workers employed at sites abroad rose to 118 thousand. The full-time equivalent number of employed in Hungary adjusted for the number of hours worked grew slower than employment (Chart 3-28).

The number of unemployed decreased, and the **seasonally adjusted unemployment rate remained at 3.4 percent.** Similarly to the previous quarter, the **labour market tightness** indicator, calculated from the rate of vacancies and unemployed persons, **eased but remains at a high level**.

Box 3-2: Changes in labour market depth

The labour market is one of the most important parts of the macroeconomic system. Firstly, changes in economic performance are reflected in the labour market, and secondly, labour market reforms and policies also affect the performance of the economy. **Since the labour market turnaround in the 2010s, Hungary has been characterised by rising employment.** Both the labour demand effects of economic growth and the labour supply effects of changes in regulations contributed to that trend. As a result of this unique labour market turnaround, the Hungarian labour market has approached full employment.

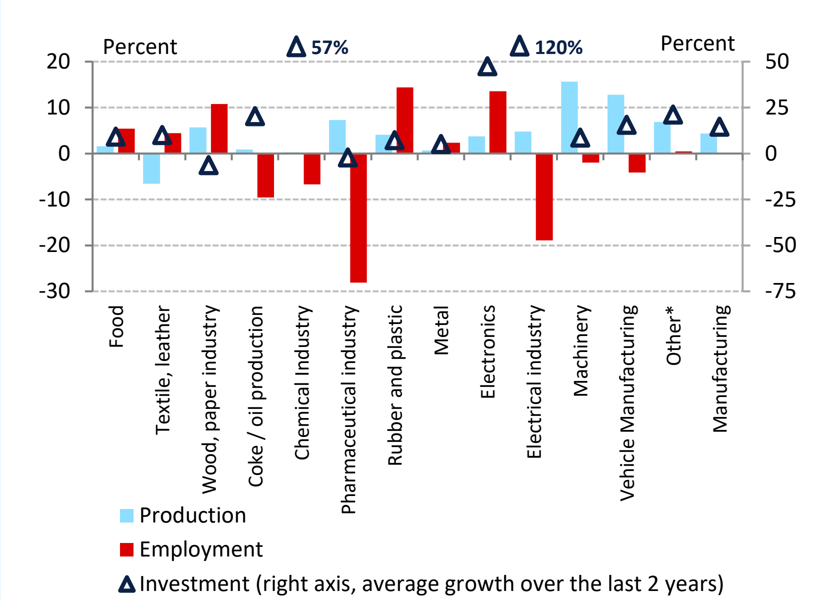
This favourable labour market situation must be sustained in the following years and decades as well. However, global economic activity has remained subdued in the past period, and as a small, open economy, Hungary cannot decouple itself from this over the long term. **Sooner or later, weak external economic activity will also be reflected in the domestic data via the real economy channel, unless measures are taken.** Therefore, monitoring labour market developments is vitally importance. As a result of the turnaround in the labour market, Hungary has come close to full employment, and the unemployment rate is at a historic low. Preserving this situation is crucial and it is also important to examine the signals from the different segments of the labour market in a detailed and up-to-date manner.

The effects and consequences of the 2008 economic crisis on the labour market highlighted the fact **that there is a need to develop an early warning system which is able to identify and forecast labour market risks. We applied two methodologies when formulating this system.** In the first one, **the consistently low unemployment rate was considered to represent full employment, in parallel with a stable or increasing activity rate**. In the correlation-based analysis, **the annual percentage change in the unemployment rate was compared to a labour market variable in each case.** For the correlation analysis, we used data from the institutional-labour statistics and the Labour Force Survey, as well as the public administrative data of the NES, along with the ESI indicators related to the labour market which are published by the European Commission. Accordingly, we examined the strength of the correlations among more than 1,000 labour market variables. Of these, special attention was paid to leading indicators. In evaluating the results, further thorough expert examination is required to reduce the chance of false alarms this way as well. In the second method, **we approached the labour market effects and determined the further indicators via a case study of the 2008 crisis as past experiences.**

Using the case study of the 2008 crisis and the results of the correlation analysis, **20 variables were found to be suitable for forecasting the labour market situation. Most of the labour market indicators suggest a favourable labour market situation, corresponding to the state of nearly full employment.** All in all, in the second and third quarters of 2019, both the manufacturing and construction employment expectations (ESI) data show a decline. Furthermore, in the manufacturing sector a further decline can also be seen in the number of people employed in Budapest.

Nevertheless, the falling employment figures may indicate structural changes as well, and not only a change in business conditions. Available data suggest that **as a result of the historically high – although easing – labour market tightness, companies are striving to substitute tight labour capacities by increasing their stock of capital**. We consider this capital–labour substitution justified in sectors where output is not declining, but employment is moderating, while significant investment activity was recorded in the past years. These developments are mostly observed in the chemical industry, the electrical industry and the machinery and vehicle manufacturing sectors. As the production of the sectors has not declined, but employment has moderated, productivity has increased (Chart 3-29).

Chart 3-29: Annual change in the factors of production in manufacturing (2019 H1)



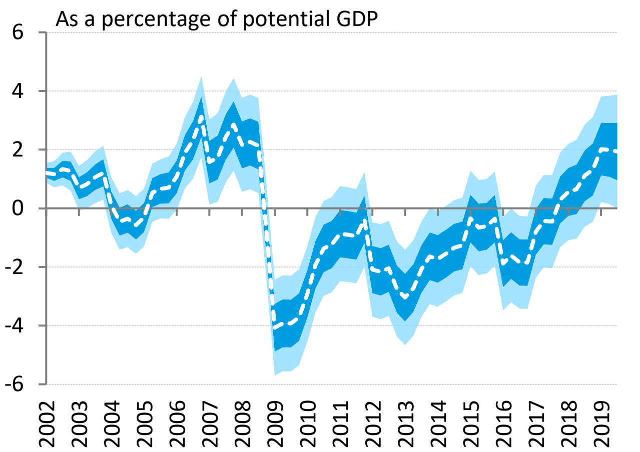
Note: * Other: furniture manufacturing, machine repair, other manufacturing.
Sources: MNB calculations based on Eurostat and HCSO data

The results of our examination are in line with the risks of which we are aware. Employment expectations in manufacturing sector are moderated by the subdued global economic activity; accordingly, the declines in the numbers of vacancies and the headcount in the capital city are correlated with the globally weak manufacturing performance. In addition, the growth dynamics of the construction industry is also expected to peak this year, and the strongly cyclical nature of government investment reduces the sector's output and thus labour utilisation as well.

3.4 Cyclical position of the economy

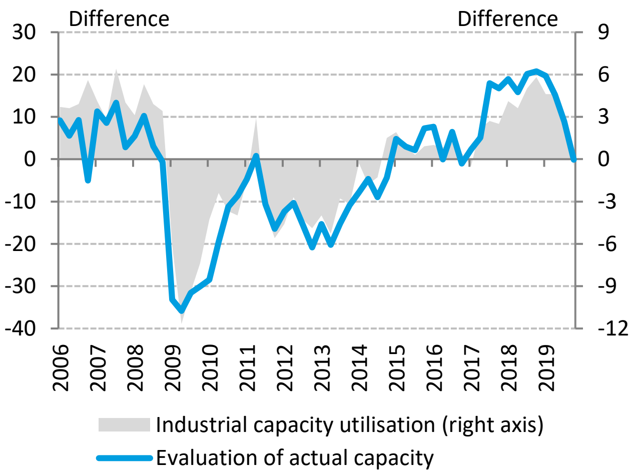
The output gap may have peaked in 2019 Q1, before gradually closing as a result of declining capacity utilisation, easing labour market tightness and persistently weak external demand. According to our estimate, GDP was slightly above its potential level in 2019 Q3. Economic policy can raise the rate of potential growth via specific structural measures aimed at improving competitiveness and increasing productivity while maintaining stability.

Chart 3-30: Uncertainty band of the output gap



Note: The blue areas show the estimation uncertainty band.
Source: MNB

Chart 3-31: Capacity utilisation and evaluation of actual capacity



Note: Deviation from historical average.
Source: ESI

According to our current estimate, the domestic output gap resided in a slightly positive range (Chart 3-30). Therefore, structural and competitiveness measures that expand supply, i.e. the potential output, will be crucial in terms of sustainable convergence in the coming period. Our assessment of the cyclical position of the Hungarian economy remained unchanged compared to our estimate in the September Inflation Report.

Based on questionnaire surveys, **in the past quarters corporate capacity utilisation** declined to its historical average, and industrial capacity utilisation as well as the tightness of the labour market have moderated since end-2018 (Chart 3-31). Following the dynamic expansion in employment in recent years, labour market tightness is now easing, but remains at a high level.

Productivity increased in the past period, although this was primarily attributable to supply factors. Nevertheless, over the medium term, the historically high investment rate, the announced large investment projects and the capacity expansion of the supplier network may also generate a positive feedback loop throughout **market services with higher value added** (infocommunication, finance, logistics, marketing).

3.5 Costs and inflation

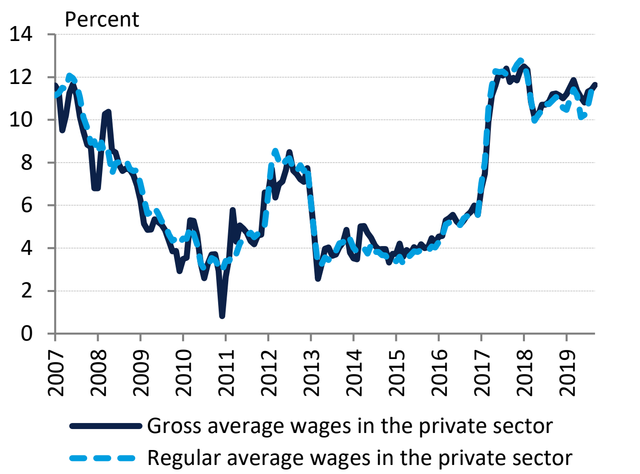
In 2019 Q3, gross average earnings in the private sector increased by 11.6 percent year on year. This double-digit wage growth exceeded the rise in administrative wages and mainly resulted from the tight labour market conditions determining the underlying trend. Inflation was around the central bank's 3-percent target in the autumn months. In the past period, core inflation excluding indirect taxes advanced to 3.6 percent as a result of price increases for tobacco products and market services. In the past months, the indicators capturing longer-term inflationary trends (the price index of demand sensitive products and the inflation of sticky-price products and services) remained practically unchanged.

3.5.1. Wages

In 2019 Q3, gross average earnings in the private sector increased by 11.6 percent year on year (Chart 3-32). In Q3, compared to the usual seasonality, regular average wages were slightly higher on a monthly basis. In addition to the tight labour market environment conditions determining the underlying trend, the continued dynamic wage growth was supported by raising the minimum wage and the guaranteed wage minimum by 8 percent this year. **At the same time, the rise in wage costs was moderated by the 2-percentage point reduction in the social contribution tax rate on 1 July.**

In the private sector, **wage growth accelerated** in the manufacturing and the market services sectors compared to the previous quarter. Wage outflows in sectors paying below-average wages remained higher than in sectors offering above-average wages. Data by headcount category indicate that the **double-digit wage growth continued both among large corporations and small and medium-sized enterprises.**

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



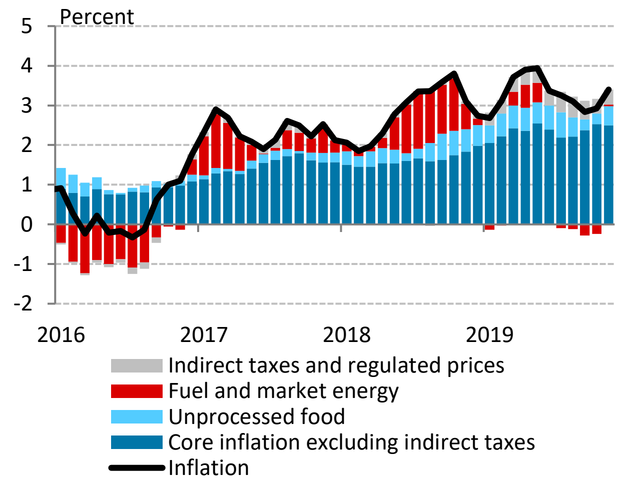
Note: Quarterly moving averages.
Source: HCSO

3.5.2. Producer prices

Agricultural producer prices increased year on year in 2019 Q3, but at a more restrained rate compared to the previous quarter. The price rise is mainly attributable to changes in the prices of products of animal origin. Within the product group, the domestic producer price of pork rose considerably in the past months, presumably as a result of the swine fever epidemic (see Box 1-1). In addition to products of animal origin, grain prices and the prices of seasonal products also rose year on year, although the pace of price increases in these groups was lower compared to 2019 Q2.

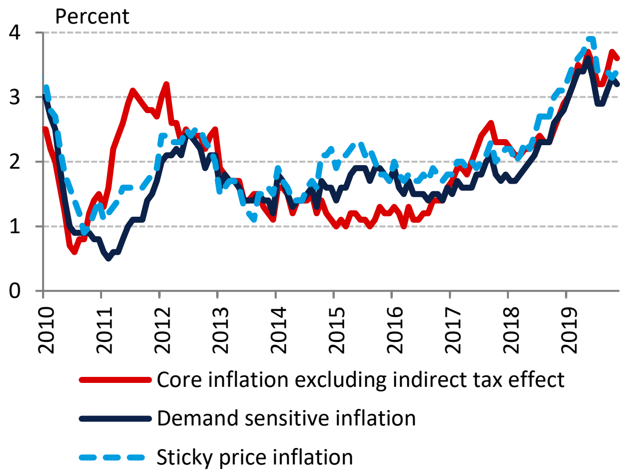
Until October, the producer prices of consumer goods rose at a faster pace than the historical average compared to the same period of the previous year. In the past months, domestic sales prices in industry as a whole rose to a lesser degree than the historical average in year-on-year terms, which was mainly attributable to the continued decrease in the producer prices of the energy-producing sectors.

Chart 3-33: Decomposition of inflation



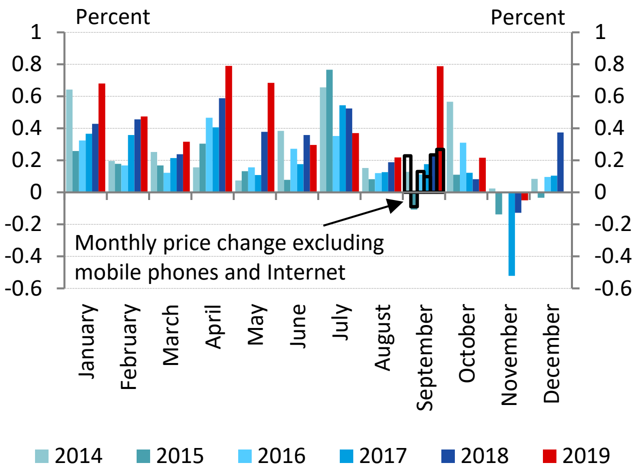
Source: MNB calculation

Chart 3-34: Underlying inflation indicators



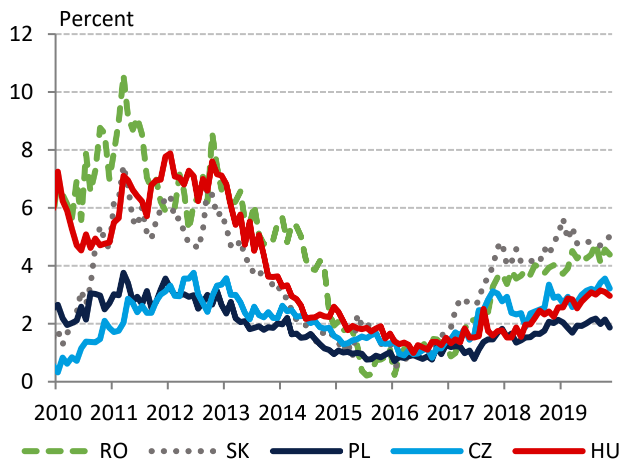
Source: MNB calculation based on HCSO data

Chart 3-35: Monthly price change of market services



Note: Not seasonally adjusted monthly price changes excluding indirect tax effects.
Source: HCSO, MNB

Chart 3-36: Inflation expectations in the region



Source: MNB calculations based on European Commission data

3.5.3. Consumer prices

Inflation was around the central bank's 3-percent target in the autumn months. As a result of the base effect of the significant fuel price decline at the end of last year, inflation rose to 3.4 percent in November (Chart 3-33).

Core inflation excluding indirect taxes advanced to 3.6 percent in the past period, owing to the increase in the prices of tobacco products and market services (due to the exceptional price hike in mobile phone and Internet services in September). In the past months, **the indicators capturing longer-term inflationary trends** (price index of demand sensitive products and inflation of sticky-price products and services) **remained practically unchanged** (Chart 3-34).

Annual inflation of industrial goods remained subdued in recent months, in line with the moderate external inflation environment. Within this product group, inflation of durable goods increased, while the price changes of non-durable goods decreased.

The inflation of market services increased in the past months. The prices related to mobile phone and Internet services increased much faster than in the previous years (Chart 3-35). The inflation of both labour intensive and less labour intensive services rose slightly.

The prices of alcohol and tobacco products rose, which was caused by other market price hikes, in addition to the price-increasing effect of the excise duty rise for tobacco products in July.

On the whole, price dynamics of around 5 percent were typical of food in the past months. The inflation of unprocessed food increased close to 8 percent by November, mainly due to the increase in prices of seasonal vegetables and fruits as well as pork. Processed food prices increased, mainly due to rises in the prices of milk and dairy products.

Fuel prices declined overall in the past months. The base effect of last year's fuel price rise also contributed to the decrease in the annual index of this product group. In November, however, as a result of the base effect from sharp drop in fuel prices registered at the end of 2018, the inflation of fuels was around 0 percent.

Looking at the data from the past months, inflation was broadly consistent with the projection in the September Inflation Report, while core inflation and inflation excluding indirect tax effects were slightly higher. The difference was mainly attributable to the higher-than-expected price dynamics of tobacco products and market services.

3.5.4. Inflation expectations

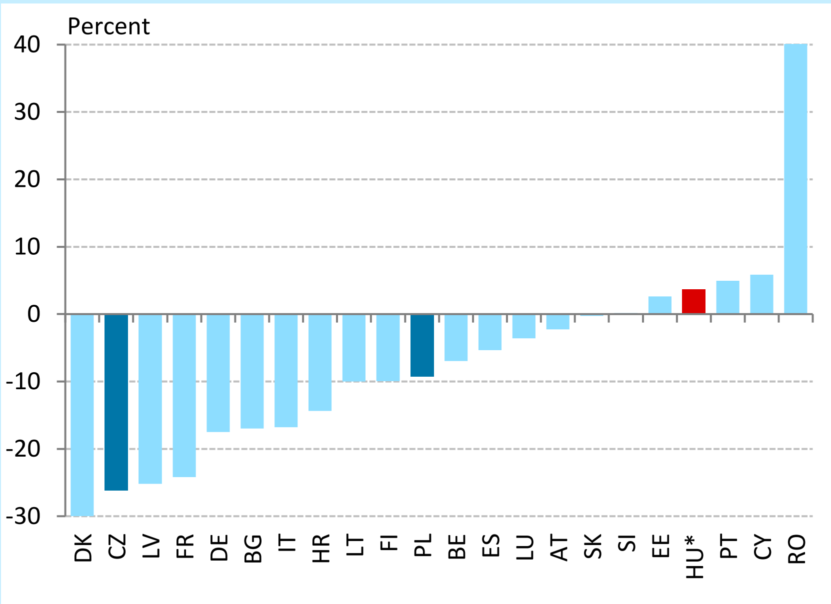
Households' inflation expectations have remained broadly unchanged in recent months, and **their level is consistent with the 3-percent inflation target**. Expectations in Hungary were in line with the expectations observed in the countries of the region, where steadily low inflation was also typical in the past (Chart 3-36).

Box 3-3: Inflation of telecommunications services in September

Changes in the prices of **market services** determine developments in inflation as well as in core inflation excluding indirect taxes, which captures the underlying trends better. **Prices in this group mainly change in the early months of the year, and thus no major price change is expected in H2, especially in the autumn and winter months. In September 2019, however**, the monthly price change of services excluding tax effects was 0.8 percent, which can be considered an unexpected price rise, differing from previous years' pattern. **This outlier price increase** was caused by a **significant 3.0-percent monthly rise in prices of telecommunications services** (mobile phone and Internet). Apart from that, in line with previous years, 0.3-percent monthly repricing was typical of a wide range of services.

Changes in the prices of telecommunications services can mostly reflect the inflationary effects of digitalisation, which generally results in price decreases. Nevertheless, in the more than one decade since 2007, telecommunications and Internet prices generally increased in Hungary. Accordingly, Hungary is one of the few countries where – excluding the effects of indirect tax changes as well – these consumer prices are currently higher than in 2007. A comparison of the prices of the same group of services with those of the neighbouring countries or the euro area reveals that – in line with the inflationary effects of digitalisation –prices have fallen notably below the 2007 level (Chart 3-37).

Chart 3-37: Price changes of mobile phone and Internet services up to October 2019 (2007=100)



Note: *Data excluding indirect taxes in the case of Hungary. Data excluding indirect taxes are not available for the other countries.

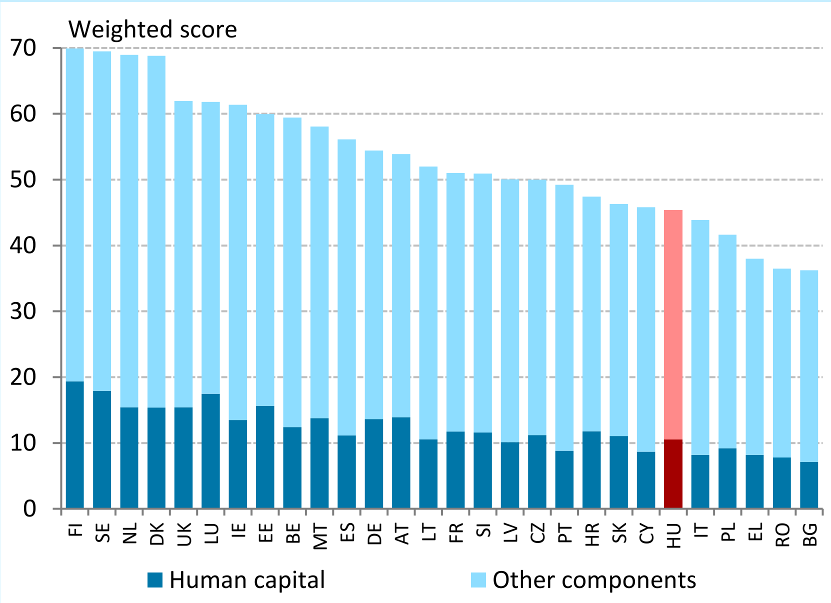
Sources: Eurostat, MNB

Nevertheless, depending on the level of development, different price levels prevail in each country, and therefore it is worth carrying out the analysis at comparable prices as well. Based on the latest available comparable price levels of the European

Commission, in 2015 the average monthly fee for a package containing Internet, television and telephone services as well was EUR 35 in Hungary, which is higher than the average fee of EUR 26 observed in the majority of the countries of the region (excluding Slovakia). **At the same time, among the countries of the European Union, if one also takes into account the purchasing power parity the fee in Hungary is somewhere in the middle.** This value is higher than the monthly fee in the digitally rapidly developing Baltic countries or some West European countries, such as Germany or Austria.

It is worth evaluating the price changes of mobile phone and Internet services analysed in a European comparison in relation to the digital development of the given economies as well. **The Digital Economy and Society Index (DESI) published by the European Commission allows the comparison of the IT and communications development of EU member states.** The DESI evaluates the member states in five dimensions, resulting in a score between 0 and 100 as a weighted average for each country. These dimensions are: connectivity, human capital (Internet users' digital competencies and awareness), use of Internet services, integration of digital technologies and digital public services. According to the latest, 2019 ranking, the digital development of Hungary is 23rd in European comparison, and the human capital dimension is also in the second half of the ranking (Chart 3-38). This indicates that **the prices of domestic telecommunications services may be more expensive compared to the digitally developed and West European countries because in the DESI as a whole, and within that especially in the digital skills and awareness of Internet users, there is still room for catching up**. The latter is also important because many subscribers do not follow the changes in their respective current fee packages, and for years they pay more for the same services that could be available cheaper with renewed conditions. Consequently, monitoring the price changes of this group of services will be worthwhile in the future as well.

Chart 3-38: Digital Economy and Society Index (DESI) 2019 ranking



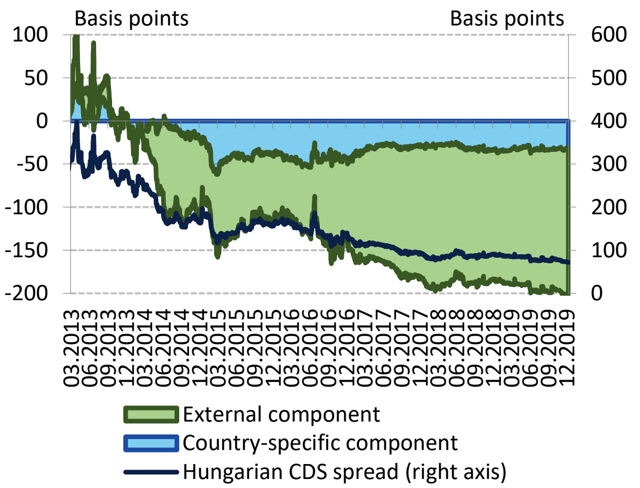
Sources: European Commission

4 Financial markets and interest rates

4.1 Domestic financial market developments

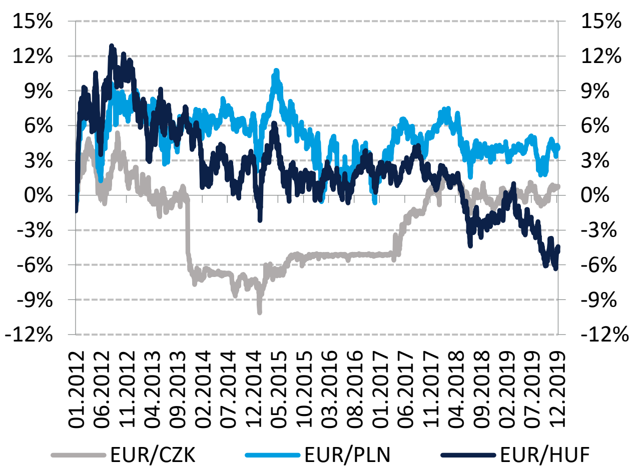
As a result of easing concerns about the Brexit and a trade war, global market sentiment improved in the past quarter. The VIX index, which measures stock market volatility, fell from 16 percent at the start of the period to 11 percent by the beginning of December and then increased slightly. Long-term developed government securities yields have risen since end-September, while the spread on emerging market bonds has fallen considerably. No major movements occurred in the exchange rates of developed currencies, except the British pound, which appreciated by nearly 4 percent against the euro during the period. As opposed to the rise in the region, government securities yields fell at all maturities in the domestic market. The Hungarian credit risk indicator declined slightly further. The 3-month BUBOR, which is a determinant in terms of monetary policy, dropped by 5 basis points, although there were no major changes in longer-term interbank rates. The forint appreciated against the euro, together with other currencies from the region.

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 denote appreciation of the currency.
Source: Bloomberg

4.1.1. Risk assessment of Hungary

Hungary's credit risk premium continued to decline mildly in Q3 (Chart 4-1). The 8-basis point decline in the premium was mainly attributable to the decrease in the international factor. Improving risk tolerance in the positive investment atmosphere was the primary contributor to the drop in the international component.

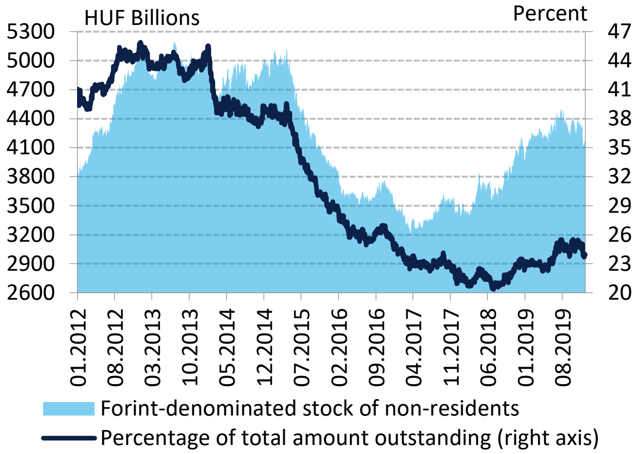
4.1.2. Developments in foreign exchange markets

The forint appreciated by approximately 1.5 percent against the euro, which was broadly in line with regional developments. Of the currencies of the region, the Polish zloty and the Czech koruna appreciated by 2 percent and 1 percent, respectively, while the exchange rate of the Romanian leu weakened slightly (Chart 4-2). For most of the period, the exchange rate of the forint fluctuated between 328–336, tending to strengthen at the beginning and the end of the period. On the whole, the forint closed the period with appreciation of about 1 percent at HUF 330. The forint appreciated 2.5 percent versus the US dollar, whereas the regional currencies strengthened by 3–4 percent.

4.1.3. Government securities market and changes in yields

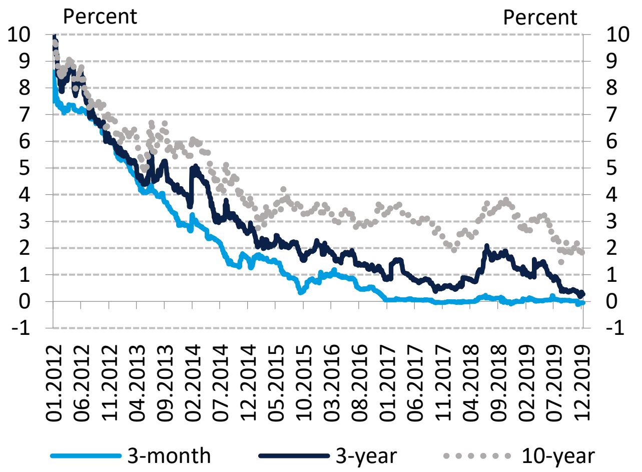
Non-residents' HUF-denominated government securities holdings dropped in the past quarter (Chart 4-3). Following a practically continuous decline since 2015, non-residents' HUF-denominated government securities holdings first stabilised and then started to rise in early 2018. While non-residents' HUF-denominated government securities holdings amounted to roughly HUF 4,300 billion in mid-September 2019, they declined to HUF 4,200 billion by mid-December. At the beginning of the period under review, non-residents' holdings decreased, but then increased until the middle of the period. Ultimately, they fell sharply in the final days of November, moving approximately

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



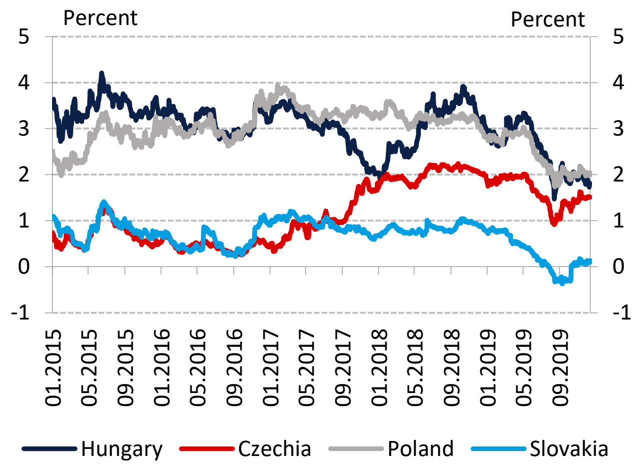
Note: The chart shows the stock of HUF denominated T-bills and T-bonds. Source: MNB

Chart 4-4: Yields of benchmark government securities



Source: Government Debt Management Agency (ÁKK)

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



Source: Bloomberg

HUF 179 billion lower on the whole. Non-residents' ownership share within HUF-denominated government securities sold in the market was less than 24 percent, i.e. below the previous quarter's level.

Demand was generally strong in the primary market for government securities, but the Government Debt Management Agency (ÁKK) usually accepted the announced quantity. In Q4, average auction yields declined for most maturities, and thus at the end of the period the yield of the 3-month auction was at -6 basis points, while the 5-year yield amounted to 1.09 percent. There was continued high interest on the part of households in the new 5-year retail government security (Hungarian Government Security Plus) introduced in June.

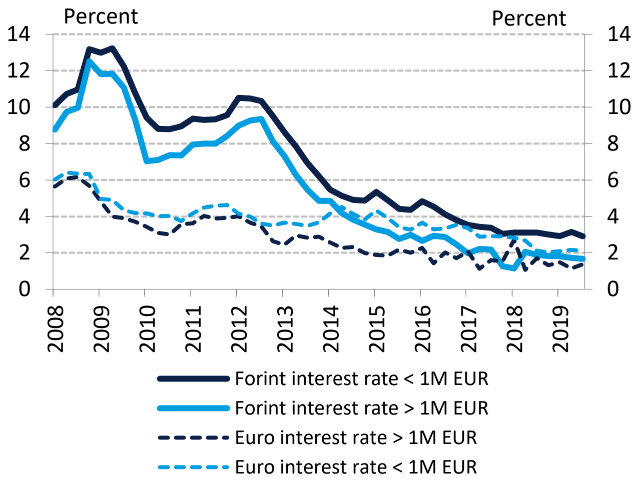
Yields fell 10-12 basis points, i.e. to a roughly similar extent along the entire government securities market yield curve (Chart 4-4). The decline in yields seemed to be stronger in the second half of the period, whereas yields decreased only slightly at the beginning of the period. The downward shift in the domestic yield curve may have been due to the more favourable risk assessment and the improvement in the international environment. The 10-year benchmark yield declined by 7 basis points overall. By the end of the period, the 3-month BUBOR, which is a determinant in terms of monetary policy, declined by 4 basis points. Yields remained practically unchanged in the case of longer interbank transactions: 5-year and 10-year yields are at around 0.7 percent and 1.3 percent, respectively.

Except the Hungarian one, long-term reference yields in the region remained stagnant or increased during the period (Chart 4-5). Initially, the 10-year forint yield rose from 1.96 percent at end-September before declining to 1.8 percent by mid-December. By contrast, the Czech and Polish yields rose 14 and 4 basis points, respectively, while the Slovak long-term yield increased by 44 basis points.

4.2 Credit conditions of the financial intermediary system

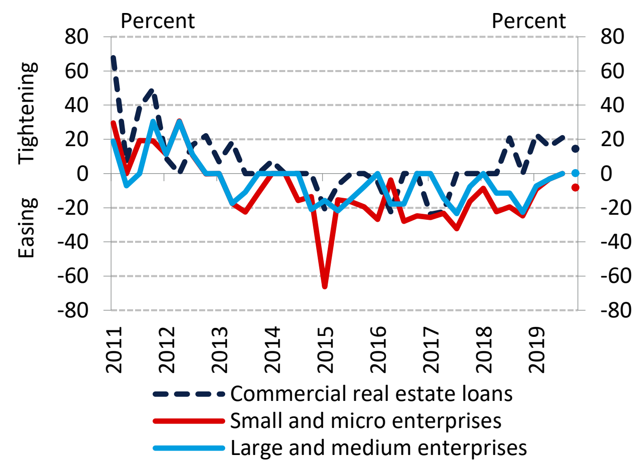
Banks did not make any major changes in corporate credit conditions in 2019 Q3, while they continued to tighten the standards of commercial real estate loans, motivated by worries about the development of a real estate market price bubble. The financing cost of corporate forint loans declined in the period under review, but an increase was observed in the average interest rate level of high-amount euro loans. According to banks' responses to the Lending Survey, household loan conditions remained unchanged in the case of both housing loans and consumer loans. At the same time, several banks mentioned easing price conditions, which was also reflected in the APR on housing loans with interest rate fixation for a longer term. Looking ahead, however, credit institutions do not plan easing in any of the product categories, although the quarterly increase in the financing cost of personal loans allows a reduction of spreads. The decline in inflation expectations resulted in an increase in real interest rates.

Chart 4-6: Interest rates on new corporate loans



Note: Loans with variable interest rate or with up to 1-year initial rate fixation. From 2015, based on data net of money market loans exceeding EUR 1 million.
Source: MNB

Chart 4-7: Changes in credit conditions in the corporate sub-segments



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for Q4 of 2019 and Q1 of 2020.
Source: MNB, based on banks' responses

4.2.1. Corporate credit conditions

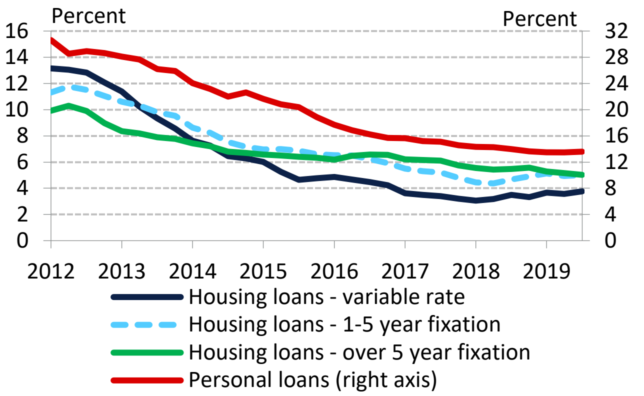
The average financing costs of corporate forint loans fell slightly. The smoothed average interest rate on new corporate HUF loans excluding money market transactions dropped by 0.2 percentage point for low-amount loans, and to a lesser degree, by 0.1 percentage point, for high-amount forint loans. As a result, the average interest rate on HUF loans declined to 2.1 percent by September. In the case of EUR loans, the average interest rate on low-amount loans declined slightly, while a 0.2 percentage point increase was observed for loan amounts exceeding EUR 1 million, and thus the average financing cost of EUR loans rose to 1.4 percent (Chart 4-6). The developments in both HUF and EUR interest rates are explained by changes in interest rate spreads.

Corporate credit conditions remained unchanged during the quarter. In 2019 Q3, the banks participating in the Lending Survey left their corporate credit conditions unchanged (Chart 4-7), but they are planning to ease the credit conditions for small and micro enterprises in the next half year. In spite of the strong market competition, banks reported further tightening in relation to commercial real estate loans, which primarily affected the financing of housing projects and shopping centres. Looking ahead to the next half year, they plan further tightening in the shopping centre and office building segment. According to banks' responses, banks' capital position and the risk of a potential real estate price bubble were behind the tightening.

4.2.2. Household credit conditions

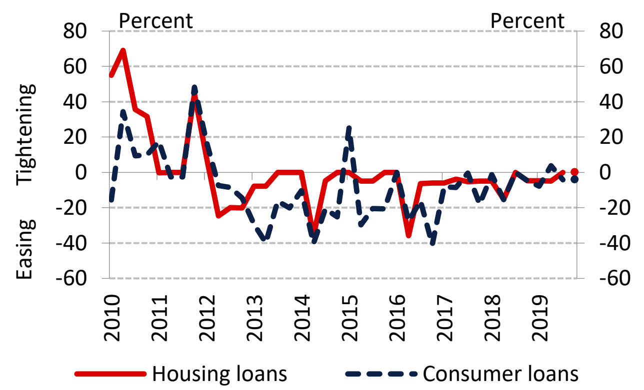
Interest rates on housing loans declined further during the quarter. In 2019 Q3, the average APR on housing loans with interest rate fixation of 1–5 years increased by 0.1 percentage point, while a similar degree of decline was observed in the case of loans with interest rate fixation over 5 years. Accordingly, the average APR stood at 5 percent in both categories (Chart 4-8). The interest rate for one half of

Chart 4-8: Annual percentage rate of charge on new household loans



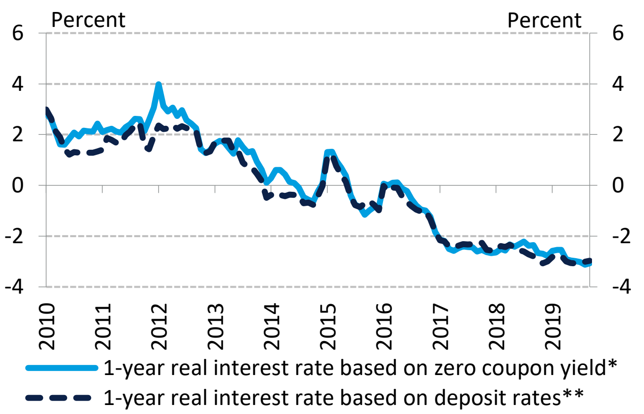
Note: Quarterly average of lending rates on newly disbursed loans. Source: MNB

Chart 4-9: Changes in credit conditions in the household sector



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for Q4 of 2019 and Q1 of 2020. Source: MNB, based on banks' responses

Chart 4-10: Forward-looking real interest rates



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

the volume of the new housing loan contracts concluded during the quarter was fixed for 10 years and for one quarter of them it was fixed for 5 years; the remaining loans are with interest rates fixed for the entire maturity. The decrease in the longer-term costs of funds (relevant IRSs) was not followed by a decline of similar degree in interest rates, and thus the spread on housing loans increased during the quarter. Following an increase of 0.1 percentage point, the average APR on personal loans stood at 13.6 percent at the end of the period under review. Prenatal baby support loans accounted for one third of the quarterly disbursement, and nearly 30 percent of these already became interest free upon conclusion of the contract.

The conditions of housing and consumer loans also remained unchanged in the quarter. According to banks' responses to the Lending Survey, housing loan conditions remained unchanged in 2019 Q3 (Chart 4-9). Banks expect unchanged credit conditions for the next half year, but 50 percent of the responding institutions in net terms indicated reductions of the interest rate spread, which they justified with the change in competition. Consumer loan conditions also did not ease during the quarter, and even looking ahead a mere 11 percent of banks in net terms indicated a reduction of spreads in order to achieve market share targets.

4.2.3. Changes in real interest rates

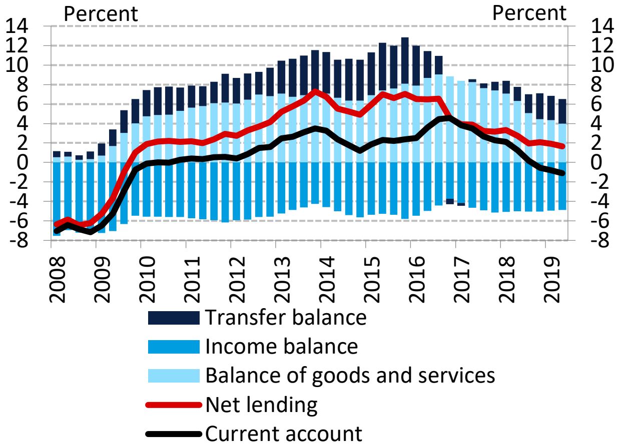
The decline in inflation expectations resulted in an increase in real interest rates. Compared to the previous quarter, the real interest rate level calculated on the basis of government securities market yields declined by 0.1 percentage point to -3.1 percent, whereas the real interest rate estimated on the basis of deposit rates stood at -3 percent in September, following a rise of 0.1 percentage point (Chart 4-10). The fall in government securities market yields and inflation expectations had an opposite effect on real interest rates, resulting in the slight shift observed in the quarter.

5 Balance position of the economy

5.1 External balance and financing

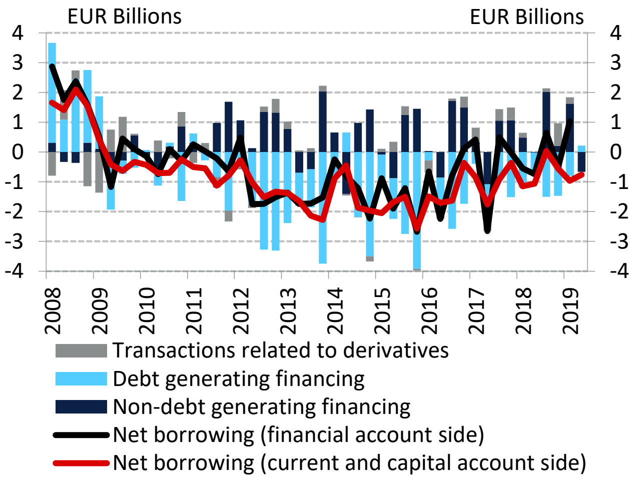
In 2019 Q2, the net lending of the economy was 1.6 percent of GDP: with a current account deficit of 1.1 percent, the capital account showed a surplus of 2.7 percent. The decrease in the external balance indicators observed in the past half year is mostly attributable to the decline in the trade balance. The goods balance continues to be determined by the strong investment dynamics, but in the past half year the use of previously accumulated inventories slowed down the decline in the trade balance. According to preliminary monthly data, both the current account balance and the net lending of the economy expanded in Q3. The rise in the lending was primarily attributable to higher outflows of debt-type liabilities.

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

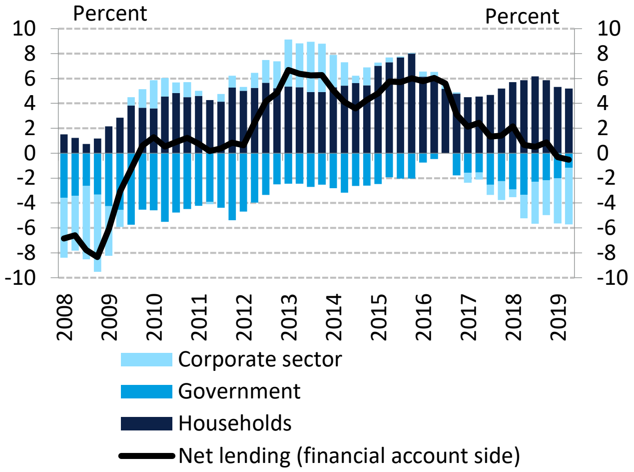
In 2019 Q2, the four-quarter net lending of the Hungarian economy amounted to 1.6 percent, with the current account deficit at 1.1 percent of GDP (Chart 5-1). According to preliminary monthly data, the trade balance rose in Q3, owing to dynamically expanding industrial production as well as a decline in inventories. It is worth emphasising that the trade surplus significantly exceeds the value recorded one year earlier, which is primarily attributable to last year's low base, resulting presumably from the fall in exports due to the new regulation and from higher energy imports. No major change was observed in the income balance during the quarter. In line with the continued significant absorption of EU funds, the transfer balance stabilised at a high level.

5.1.2. Developments in financing

In 2019 H1, significant FDI inflows were recorded, while outflows of debt liabilities continued at a slower pace, in line with the seasonality (Chart 5-2). Based on preliminary monthly data, the net external debt of the economy declined in Q3, which was mainly due to the increase in FX reserves, but the expansion in the banking sector's foreign assets also contributed to these developments.

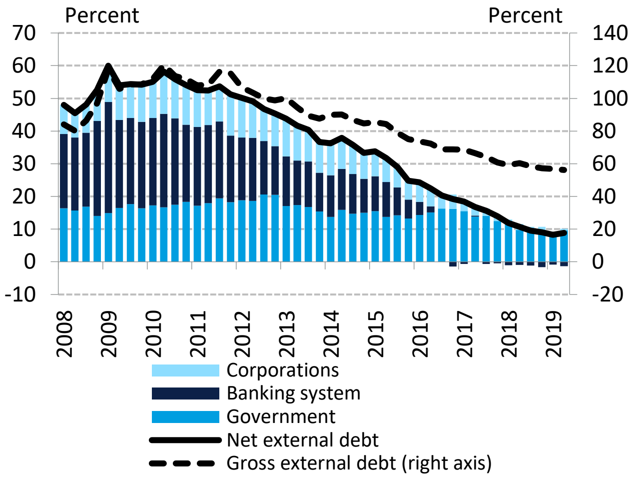
The decrease in net lending in Q2 according to the savings of the sectors was attributable to a reduction in the net position of companies (Chart 5-3). According to Q3 preliminary financial account data, the four-quarter balance of the general government rose slightly, but remains low. The higher net borrowing is partly attributable to the family protection measures launched during the quarter, while its impact was mitigated by the expansion in tax revenues related to the increasing consumption and wages. According to Q3 data, households' financial savings fell slightly, but remain at a high level, supported by the MÁP+ as well. In line with the robust investment activity and

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

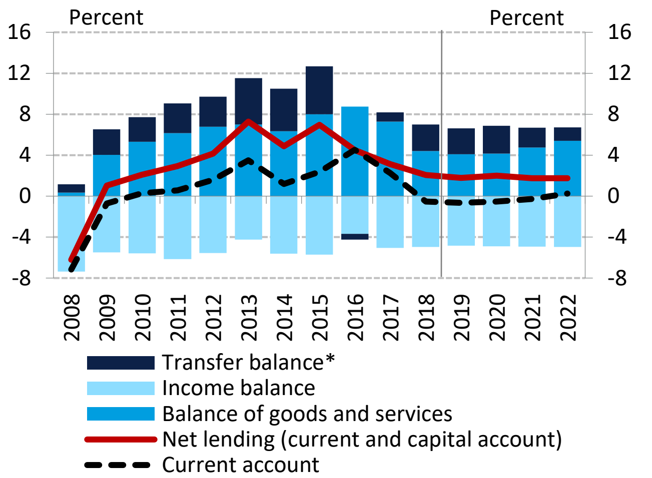
strong wage outflows, corporate net borrowing increased further.

Compared to end-2018, Hungary's net external debt-to-GDP ratio fell slightly and amounted to 8.8 percent at end-June 2019 (Chart 5-4). In addition to the outflow of debt-generating liabilities, the rise in nominal GDP contributed to the decrease in this ratio, while revaluation effects resulted in an increase in net external debt. Hungary's gross external debt as a percentage of GDP declined by 1 percentage point, amounting to 56.2 percent of GDP at the end of Q2. Preliminary monthly data suggest that – in line with the decrease in debt liabilities, primarily in relation to the state – the net external debt of the economy may have continued to decline in Q3.

5.2 Forecast for Hungary's net lending position

Looking ahead, the net lending of the economy may stabilise at close to 2 percent of GDP, resulting in a further decline in the net external debt of the economy. With regard to stabilisation of the current account, a key role is played by the changes in the trade balance, as the trade surplus will only decline slightly and temporarily as a result of the weakening global market demand and dynamically expanding investment. Due to the decline in EU funds from 2020 in line with the EU programming period, investment dynamics will be more restrained. In addition, as past investment projects become productive, Hungary's growing export market share will also generate an increase in the trade balance, resulting in an improvement in the current account. Nevertheless, the net lending of the economy will be stable over the forecast horizon, as the change in the trade balance will roughly be offset by the changes in EU funds reflected in the transfer balance. Net lending will be achieved in a way that households' persistently high net financial savings and the subdued, gradually declining deficit of the general government offset companies' net borrowing, which is rising in connection with the strong investment activity. As a result of the net lending of the economy and the expected continued strong FDI inflows, Hungary's net external debt will decline to nearly zero over the forecast horizon.

Chart 5-5: Evolution of net lending

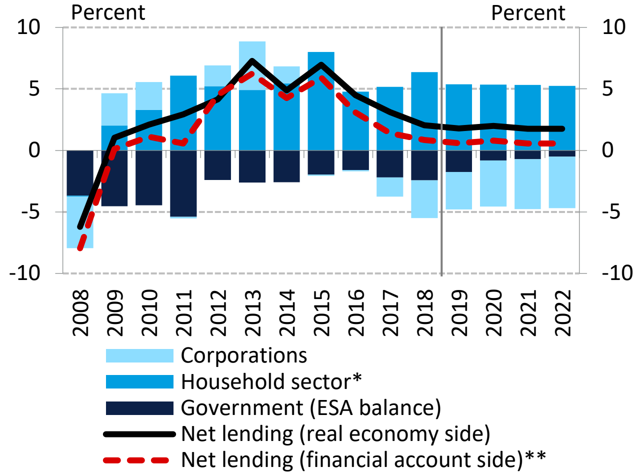


Note: As a percentage of GDP* The sum of the balance of the current transfers and the capital account balance.
Source: MNB

The still stable net lending of the economy ensures a further decline in external debt indicators (Chart 5-5). The roughly unchanged current account deficit results from the slight decline in the trade surplus and a moderate increase in the income and transfer balance. The goods and services surplus is declining due to a deterioration in external demand and the strong investment dynamics in particular. As a result of more restrained investment in line with the expected decline in EU transfers, the rate of import growth will decrease from 2020, while export growth will pick up with the rising export market share, and thus the current account balance will rise. The improvement in the interest balance against the background of the lower interest rate environment and declining outstanding debt will be offset by the impact of corporate incomes growing in line with the expansion in exports, and thus the deficit on the income balance will not change significantly over the longer term. As a result of significant EU fund inflows, the transfer balance will be at a high level in 2019 and will then gradually decline towards the end of the programming period. In view of the above developments, net lending will stabilise at close to 2 percent of GDP, while the current account will show a surplus again by 2022.

The general government deficit will decline gradually over the forecast horizon, while households' financial savings will remain stable at a high level (Chart 5-6). Rising tax revenues as a result of favourable macroeconomic developments and cuts to government expenditures (investment, material expenditures and financial transfers) will also contribute to the fall in general government deficit. In parallel with the investment activity, which is picking up in accordance with the housing market cycle, households' net financial savings will fall slightly but remain significant in 2019. As From 2020, the sector's financing capacity will stabilise at this high level of above 5 percent of GDP, also supported by persistently strong

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

wage dynamics and measures that stimulate government securities market demand. In line with investment, which is extremely high as a proportion of GDP, corporate net borrowing will rise to nearly 4 percent of GDP over the forecast horizon.

Thanks to the persistently positive net lending, Hungary's external vulnerability will continue to decline. In view of the favourable external balance position, as well as the FDI inflows, which will continue in line with the announced investment projects and the reinvestment of the incomes produced, Hungary's external debt indicators will keep declining, and thus net external debt will fall to nearly zero over the forecast horizon.

5.3 Fiscal developments

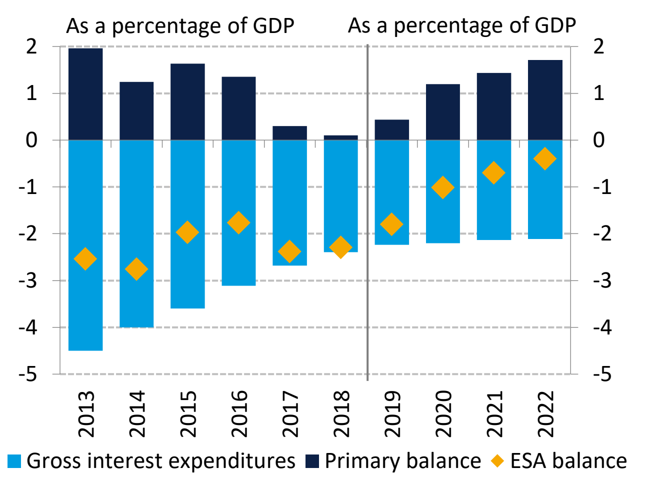
Based on our forecast, the budget deficit may remain low this year and in the coming years as well, which – coupled with dynamic economic growth – will result in a steady decline in the government debt-to-GDP ratio. According to our projection, the accrual-based deficit of the government sector may be in line with the 1.8 percent deficit target in 2019. In the period 2020–2022, the historically low deficit targets can be achieved with partial utilisation of the increased Country Protection Fund. The low budget deficit-to-GDP ratio may result from a rapid expansion of tax bases as well as strong central control over expenditures. On the projected macroeconomic and fiscal path, fiscal policy accumulates countercyclical reserves through the reduction of the budget deficit, and thus it may reduce aggregate demand over the forecast horizon. According to our forecast, the Maastricht government debt-to-GDP ratio calculated with a constant exchange rate from the end of last year will drop to 66.3 percent of GDP by end-2019, then it may gradually decrease to below 60 percent by end-2022. The share of foreign currency within government debt will decrease dynamically over the entire forecast horizon, further reducing Hungary's external financial vulnerability.

Table 5-1: General government balance indicators

	2019	2020	2021	2022
ESA balance	(-1.8)–(-1.7)	(-1.2)–(-0.4)	(-1.1)–(-0.3)	(-0.9)–(-0.1)
Primary ESA balance	0.4–0.5	0.6–1.4	1.0–1.8	1.2–2.0
Fiscal impulse (point estimate)*	-0.5	-1.0	-0.2	-0.2

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. The point estimate assumes either cancellation or utilisation of the Country Protection Fund depending on which one is closer to the government deficit target.
Source: HCSO, MNB

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



Note: The point estimate seen in the chart assumes either cancellation or utilisation of the Country Protection Fund depending on which one is closer to the government deficit target.
Source: HCSO, MNB

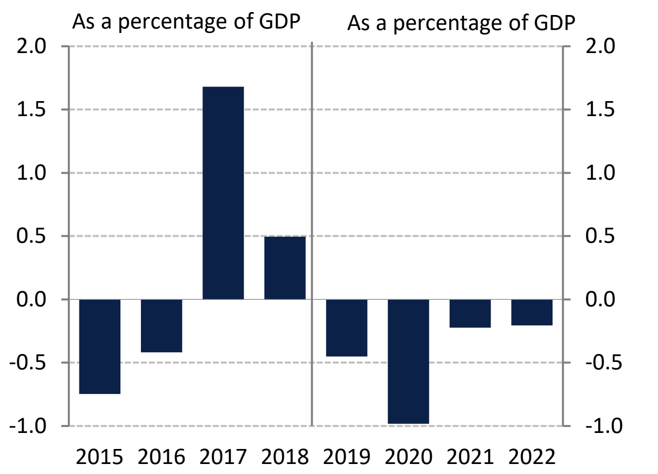
5.3.1. Main balance indicators and the fiscal impulse

Our forecast suggests that the accrual-based deficit of the government sector will be around 1.7–1.8 percent of GDP in 2019. In 2020, in line with the statutory appropriation – and with partial utilisation of the Country Protection Fund – the deficit may amount to 1 percent (Table 5-1). Our forecast is based on the assumption that in 2020–2022 the partial cancellation of the Country Protection Fund may ensure the achievement of the deficit targets (0.7 and 0.4 percent of GDP) once again. The declining trend of the deficit is partly the result of the increase in tax revenues in view of the favourable macroeconomic developments and partly of the decline in government expenditures (investment, material expenditures and financial transfers) as a proportion of GDP. The rise in revenues and control over expenditures provide cover for a further gradual reduction of the social contribution tax as well as for the measures of the Economy Protection Action Plan and the Family Protection Action Plan. With a major reduction of the general government deficit, fiscal policy accumulates countercyclical reserves in 2019 and in the coming years as well (Chart 5-8).

5.3.2. Budget balance in 2019

According to our forecast, the budget deficit in 2019 may be 1.7–1.8 percent of GDP, i.e. in line with the 1.8 percent statutory appropriation. Compared to our September projection, the structure of the components of the deficit changed slightly. In relation to the underlying economic developments, consumption tax revenues and the balance of local governments may be higher than what was expected in the September Inflation Report. At the same time, based on actual data, material and investment expenditures of budgetary organisations may also be higher, offsetting the balance-improving effect of tax revenues and local governments (Table 5-2).

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 2019 ESA balance forecast (compared to the previous Inflation Report)

	Economic developments	Measure and other
I. Central government revenues	0.1	0.0
Taxes on consumption	0.1	
II. Central government expenditures	0.0	-0.3
Expenditures of budgetary organisations and EU co-financing		-0.3
III. Other items	0.0	0.2
Local governments		0.1
Other		0.1
Total (I.+II.+III.)	**0.1**	**-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 of the rounding.
Source: MNB

Our forecast for the 2019 deficit is in line with the deficit target (Table 5-3). Compared to the statutory appropriation, we continue to expect much higher revenues from consumption taxes and payments by economic organisations. Compared to the Budget Act, one-off grants (pension premium, bonuses to public workers) and the family protection measures that entered into force from July increase expenditures by 0.4 percent of GDP. The expenditures of central budgetary institutions are expected to exceed the statutory appropriation, as an acceleration in expenditures has been observed in H2. Due to the pension supplement, the pension premium and the increase in healthcare expenditures, the costs of funding the social insurance system may exceed the appropriations of the Budget Act by 0.3 percent of GDP.

5.3.3. Budget balance in 2020

According to the Budget Act, the ESA budget deficit in 2020 may be 1 percent of GDP, marking a historically low deficit target. This deficit target is 0.8 percentage point lower than the 1.8 percent appropriation for 2019. In view of the more favourable macroeconomic conditions, revenues from taxes on consumption and labour may be higher compared to the September Inflation Report.

In November, the government submitted to the National Assembly further sets of proposals for improving competitiveness; the annual static fiscal effect of these may amount to some HUF 30–35 billion. Most of the measures concern taxation, primarily via a reduction of administration and combating the shadow economy. From 2020 the current four types of employee contributions will be combined, and with the resulting common rate of 18.5 percent it will be possible to completely utilise the family contribution allowance instead of the current 17 percent. The new contribution rules that enter into effect next year will allow every working pensioner to enjoy complete exemption from contributions, and the contribution burdens on private entrepreneurs will also be lower.

The decline in budget deficit compared to 2019 will primarily be attained by cutting expenditures. The decline in the deficit is mainly supported by a decrease in government investment, which rose to a high level in 2018–2019, as well as in material expenditures and financial transfers as a proportion of GDP. The tax measures primarily serve the further reduction of taxes on labour as well as the stimulation of corporate investment and household savings. According to our expectation, as a result of changes in real earnings, the social contribution tax rate may decline by 2 percentage points from 2020 Q3

Table 5-3: Differences between our forecast and the appropriations set out in the 2019 Budget Act

	Difference from appropriation
I. Central government revenues	0.8
Consumption taxes	0.7
Taxes on labour	-0.1
Payments by economic organisations	0.2
II. Central government expenditures	-1.0
Expenditures of budgetary organisations and EU co-financing	-0.4
Family protection action plan	-0.3
Pension and healthcare expenditures	-0.3
One-off allowances	-0.1
Home building subsidies	0.1
III. Other effects	0.1 – 0.2
Cancellation of Country Protection Fund	0.0 – 0.1
Other	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 of the rounding.
Source: MNB

Table 5-4: Differences between our forecast and the appropriations set out in the 2020 Budget Act

	Difference from appropriation
I. Central government revenues	-0.6
Consumption taxes	-0.4
Taxes on labour	-0.1
Payments by economic organisations	-0.1
II. Central government expenditures	0.1
Pension expenditures	-0.1
Housing subsidies	0.1
EU funds co-financing	0.1
III. Other effects	0.1 – 0.9
Cancellation of Country Protection Fund	0.0 – 0.8
Other	0.1
Total (I.+II.+III.)	**(-0.4) – 0.4**

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 the rounding.
Source: MNB

in line with the 6-year wage agreement. Following that, we expect another 2-percentage point reduction of the rate from 2021 Q4. The impact of the tax cuts will be largely offset by an expansion in tax revenues due to significant increases in wages and consumption.

According to our forecast, in 2020 the budget deficit may be between 0.4–1.2 percent depending on the degree of using the Country Protection Fund, and thus the deficit target may be achieved with the partial saving of the reserves (Table 5-4). In our projection, we expect lower tax revenues compared to the appropriation, as in the case of the main tax bases we foresee lower growth than the Budget Act. At the same time, the lower-than-planned revenues are offset by the assumption that – according to our forecast – co-financing related to EU expenditures and expenditures on the home-building subsidy may be lower than the statutory appropriations. At the same time, we expect higher pension expenditure, as the statutory appropriation was based on a 2.8 percent inflation expectation, while our current projection points to an inflation rate expectation of 3.5 percent. The amount of the Country Protection Fund was 0.8 percent of GDP, i.e. higher than in the previous years, which may ensure the achievability of the deficit target if revenues fall short of the appropriation. With full use of the reserves, next year's deficit is estimated to amount to 1.2 percent of GDP, which may be reduced to the targeted 1.0 percent by partial blocking of the reserves.

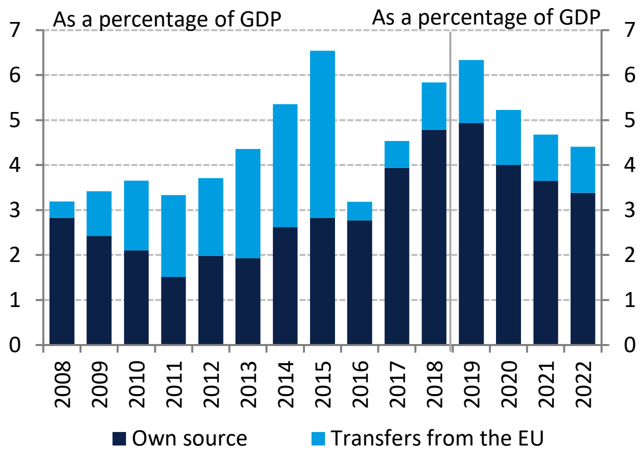
5.3.4. Balances in 2021 and 2022

In the absence of statutory appropriations, technical forecasts were prepared for 2021 and 2022, which indicate a further declining deficit path. The increase in tax revenues as a result of favourable macroeconomic developments and the decrease in government expenditures (investment, material expenditures and financial transfers) as a percentage of GDP also contribute to reducing the general government deficit.

5.3.5. Risks surrounding the baseline scenario

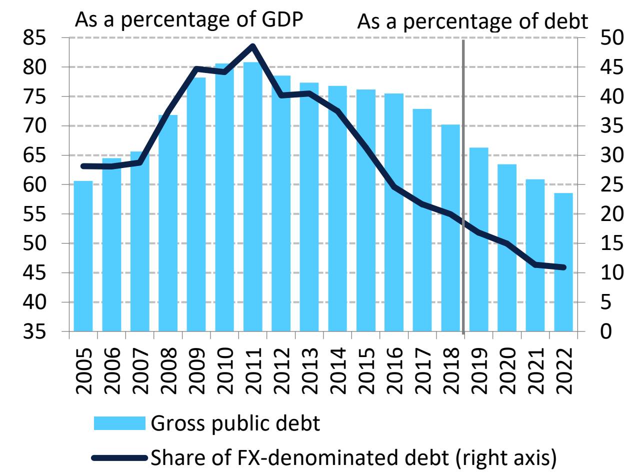
Our forecast is still significantly affected by the uncertainty related to the utilisation of European Union funds, the structure of payments and the transfers received from the EU. The absorption of transfers affects the accrual-based balance and real economy developments, while the advance subsidies and their receipt influence the changes in government debt. The real economy impact of the disbursements, i.e. the actual absorption of EU funds, will decline after 2019, contributing to a decrease in public investment.

Chart 5-9: Development of government investment



Source: HCSO, MNB

Chart 5-10: Gross public debt forecast – calculated with unchanged (end-of-2018) exchange rate over the forecast horizon



Source: MNB

There was keen interest in several measures of the Family Protection Action Plan in the first months. The fiscal effects estimated for the individual years may even be different from the baseline scenario, depending on how much utilisation of the benefits – both on the whole and in terms their distribution over the years – deviates from the preliminary expectations.

5.3.6. Expected developments in public debt

According to preliminary data, at the end of 2019 Q3, the gross government debt-to-GDP ratio was 68.1 percent, which is 2.1 percentage points lower than the end-2018 figure. The debt ratio dropped by 3.9 percentage points year-on-year. In addition to robust economic growth, the moderate net financing need also contributed to the decline.

According to our forecast, assuming an end-2018, constant forint exchange rate, the gross government debt-to-GDP ratio will decline to 66.3 percent by end-2019, and thus the debt rule of the Fundamental Law is expected to be complied with this year as well (Chart 5-10). As a result of the economic growth and the moderate deficit, government debt will decline rapidly over the forecast horizon. According to our projection, following this year's steep decline, between 2020 and 2022 the value of the government debt ratio will drop by around 2.6 percentage points a year, and may thus fall below 60 percent by end-2022. By end-2019, the share of foreign currency within the central government debt may be around 17 percent, subsequently declining to close to 10 percent over the forecast horizon, which may further reduce Hungary's external financial vulnerability.

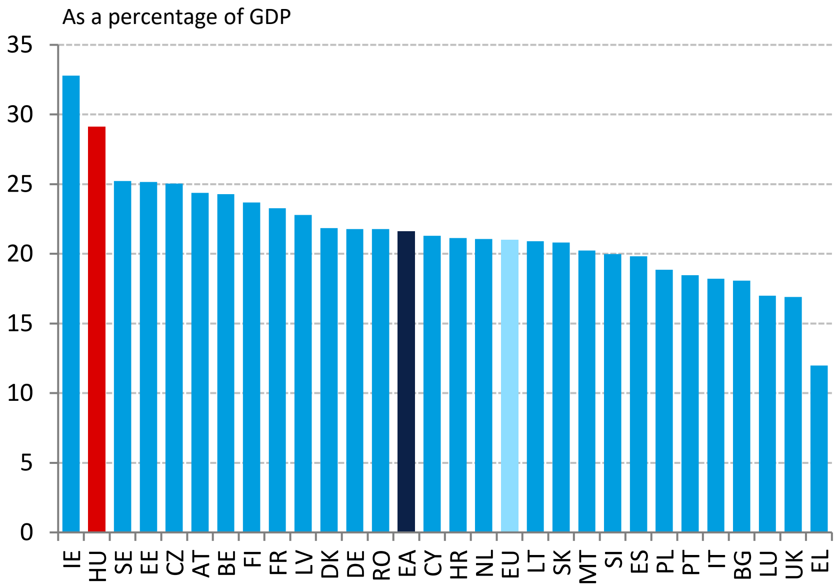
6 Special topics

6.1 An in-depth analysis of investment rates

In the past years, **various large investment projects and capacity expansions were announced in Hungary**, which significantly contributed to the increase in whole-economy investment. **A high investment rate is a pillar of sustainable growth**, since **successfully converging countries were characterised by high investment rates of** 25 percent or more **in the period of catching up**. The **investment rate was around 25 percent in those European countries** that were able to escape the middle-income trap. However, in the convergence period, **the investment rate typically exceeded 30 percent in the Asian economies that were catching up successfully**. The average value of the investment rate in Hungary in the period between 2013 and 2019 may be 23 percent (the figure for 2019 is an MNB forecast), while it may amount to 29.1 percent this year.

The investment rate in Hungary has risen dynamically in recent years, as a result of which **in 2019** it may considerably exceed the averages of the euro area and the European Union with its value of 29.1 percent, which **is extremely high in a European comparison as well** (Chart 6-1). All three sectors (corporations, government, households) made positive contributions to the rise in the investment rate.

Chart 6-1: Development of investment rates in the European Union in 2019



Note: Based on AMECO and MNB forecast.
Sources: European Commission, MNB

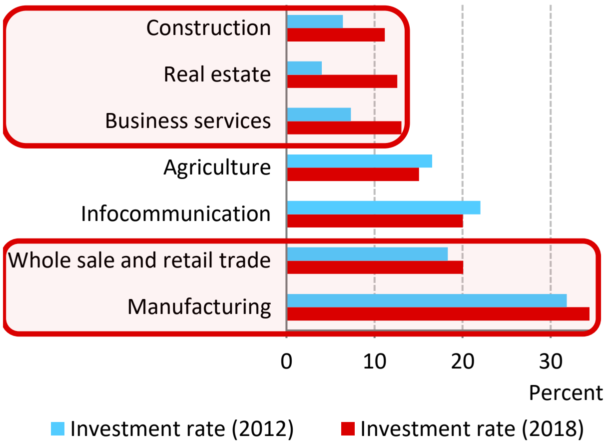
In the past period, **the increase in corporate investment was supported by the favourable interest rate environment, high capacity utilisation, the tight labour market, buoyant lending, the Funding for Growth Scheme and the Bond Funding for Growth Scheme** as well as the decline in the relative price of capital (as compared to labour). Between 2012 and 2018, **market services, construction and manufacturing were the main contributors to the rise in the investment rate** (Chart 6-2, left panel). Construction as well as the building type investment of other sectors were important sources of growth in the past period. At the same time, as a result of large investment projects and capacity expansions in manufacturing, investment in machinery also expanded considerably.

In breakdowns by company size and region, the corporate investment rate shows a rather different picture (Chart 6-2, right panel). In 2018, the investment rate of micro enterprises was around 25 percent on average, while in the case of small, medium-sized and large companies it exceeded 31 percent. **Accordingly, the fragmented corporate structure results in lower investment** as a proportion of value added. **Compared to the situation with company size**, even stronger

heterogeneity is observed when the investment rate is examined in a regional breakdown. The investment rate of micro enterprises only rose in Budapest, Pest County and Central Transdanubia between 2012 and 2018, while in the case of small enterprises a general increase was observed. The investment rate of small companies only declined in the South Great Plain region in the period under review.

Territorial divergence is observed in the case of the announced large manufacturing projects as well, which are typically concentrated close to the large vehicle factories (around Győr, Kecskemét and Miskolc), as a result of the investments and capacity expansions of the major vehicle manufacturers. At the same time, in line with the upswing in the housing market cycle and the buoyant demand in the commercial real estate market, **investment in real estate increased in Budapest** in the past years.

Chart 6-2: Domestic corporate investment rate by industry (left panel) and the 2018 investment rate by company size, by region and the changes in the rate compared to 2012 (right panel)



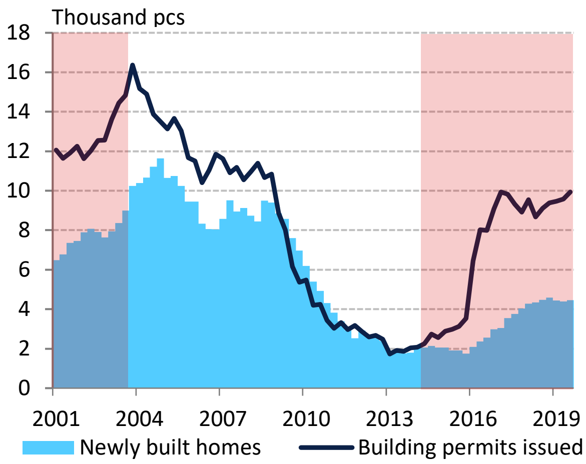
	Micro		Small		Medium		Large	
	2018 (%)	Δ	2018 (%)	Δ	2018 (%)	Δ	2018 (%)	Δ
Pest county	**23.1**	*11*	**25.3**	*1.6*	**28.5**	*11.2*	**30**	*24*
Budapest	**22**	*4.2*	**25**	*8.5*	**30.3**	*16.4*	**30.5**	*16.3*
North Great Plain	**27.1**	*-4.1*	**36.3**	*3.2*	**36.5**	*8.9*	**35.8**	*22.5*
Central Transdanubia	**24.6**	*1.5*	**30.9**	*2.8*	**32.3**	*-0.4*	**31.3**	*16.6*
Western Transdanubia	**25.9**	*-0.7*	**30.7**	*0.5*	**26.1**	*8.8*	**31.3**	*-3.3*
North Hungary	**23.9**	*-8.2*	**35.8**	*2.9*	**36.3**	*5.7*	**28.1**	*-3.3*
South Great Plain	**27.2**	*-9.9*	**34.3**	*-6*	**31.9**	*-2.1*	**30.1**	*-22.5*
Southern Transdanubia	**31.7**	*-1.9*	**36.5**	*8.3*	**31.3**	*-7*	**32.9**	*-77.3*

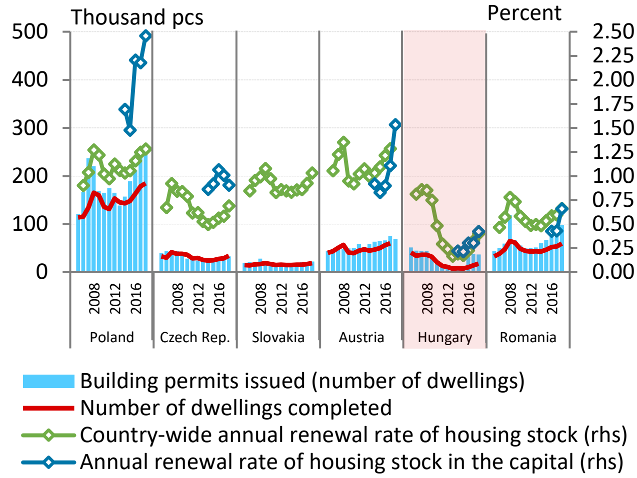
Note: The whole sale and retail trade sector contains the transport, accommodation and food service activities as well (left panel). As a percentage of value added, in the case of businesses employing more than 5 people (right panel).
Sources: HCSO, Eurostat, MNB calculations based on NTCA data

In the past period, the rise in household investment was supported by favourable underlying income and lending trends as well as government measures (Family Housing Allowance, preferential VAT on new homes). The number of building permits issued and new completions had increased dynamically since 2014, but did not reach the number of the permits issued and new completions in the previous housing market cycle (2001–2004) (Chart 6-3, left panel). **The current housing market cycle, which has been underway since 2014, may peak this year**; we expect 19–22 thousand new completions in 2019, which is far below the nearly 44 thousand dwellings completed at the peak of the previous cycle in 2004.

The renewal rate of the domestic housing stock is extremely low in a regional comparison (Chart 6-3, right panel), and despite the growth observed in the past years, it still falls below the value of the previous cycle. The renewal rate was 0.4 percent last year, i.e. the number of new homes built in 2018 corresponded to 0.4 percent of the housing stock that existed at the end of 2017, and this rate is the lowest in the region (the regional average was 1 percent in 2018). **Examining the situations in the regional capitals, an even more significant shortfall can be observed:** last year's 0.42 percent **renewal rate of the housing stock in Budapest is much lower than the average housing stock renewal in the capitals of the region** (1.39 percent).

Chart 6-3: Development of new dwelling construction and building permits (left panel) and building permits issued, new completions, and housing stock annual renewal rates in countries across the region (right panel)

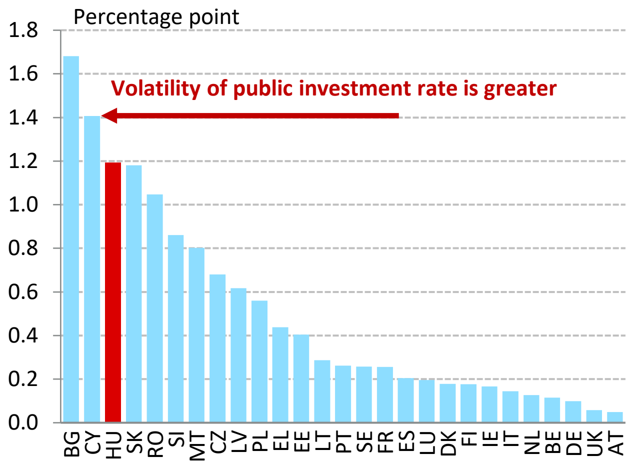


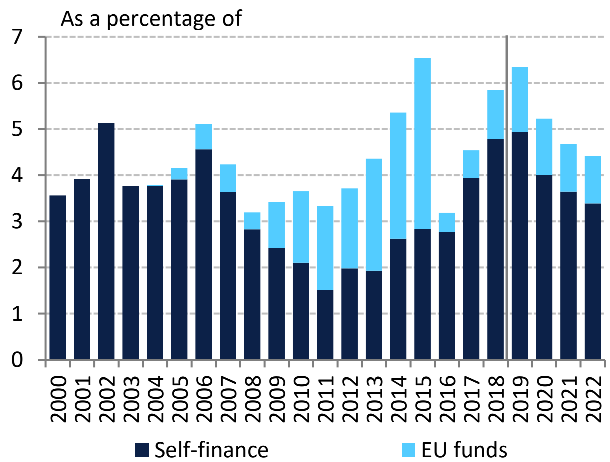


Note: Seasonally adjusted data (left panel). The data related to the residential building permits show the aggregate number of homes indicated in the building permits. We have no data available on the number of new completions in 2018 for Austria. For several countries, the annual renewal rate is calculated on the basis of estimates on existing housing stock (right panel).
Sources: HCSO, ECB, national statistical offices, MNB

In the past years, the contribution of the government to the expansion in investment was typically positive, but the public investment rate shows high volatility in an international comparison as well (Chart 6-4, left panel), which may partly be explained by the changes in EU funds. **Both own funds and EU funds contributed to the rise in the public investment rate. The absorption of EU funds may peak this year, and as of the next year both self-financed and EU-funded investment will decline, resulting in a decrease in the public investment rate as a percentage of GDP** (Chart 6-4, right panel).

Chart 6-4: Dispersion of the public investment rate between 2013 and 2018 (left panel) and the sources of public investment (right panel)

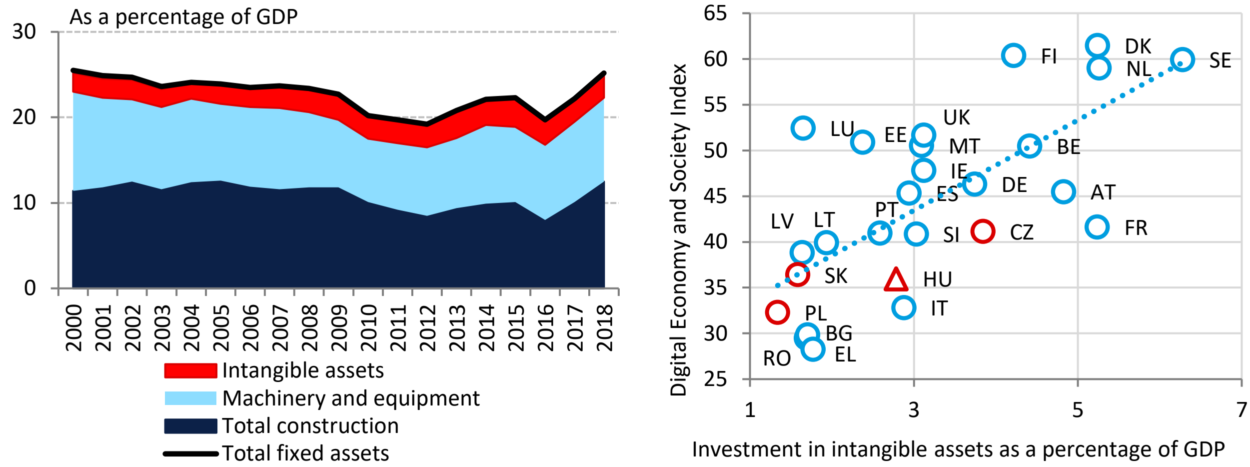




Note: MNB forecast between 2019 and 2022.
Sources: Eurostat, HCSO, MNB

Developments in both the public and private sectors contributed to the increase in building-type investment. **In 2018, buildings accounted for half of the whole-economy investment.** The favourable construction performance, which was also supported by buoyant demand in the housing and commercial real estate markets, contributed to the increase in building-type investment. **The rise in the investment rate is primarily attributable to the expansion in building-type investment** (Chart 6-5, left panel).

Chart 6-5: Domestic investment rate by asset type (left panel), and the relationship between investment in intangible assets and digital development in the European Union (right panel)



Note: The Digital Economy and Society Index (DESI) and the investment in intangible assets are averages between 2014 and 2017.
Sources: HCSO, European Commission, Eurostat

The large investment projects and capacity expansions announced in the past years **contributed to the increase in building-type investment** through the construction of factories, and **to the growth in investment in machinery** through the installation of machines and production lines. **The buoyant investment dynamics contribute to GDP growth, but the structure of investment cannot be considered optimal. Investment in intangible assets**, which facilitates the increase of competitiveness of the economy, **accounted for 11 percent of investments in 2018, while the corresponding ratio in the EU was 20 percent. Investment in intangible assets is closely correlated with digital development** (Chart 6-5, right panel). Countries where the DESI is higher typically invest more in intangible assets. This index measures digital development in five dimensions: last year, Hungary performed well in terms of connectivity and the use of Internet services, but lagged far behind the EU in the fields of human capital, integration of digital technologies and digital public services.

Investment in intangible assets should be increased in the future; investments should primarily be allocated to areas that can contribute to the improvement of the competitiveness of the economy and to sustainable economic growth in the long run as well.

7 Breakdown of the average consumer price index for 2019 and 2020

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

	Effect on CPI in 2019			Effect on CPI in 2020		
	Carry-over effect	Incoming effect	Yearly index	Carry-over effect	Incoming effect	Yearly index
Administered prices	0.0	0.1	0.1	0.0	0.2	0.2
Market prices	0.6	2.4	3.0	1.2	1.8	3.0
Indirect taxes and government measures	0.1	0.1	0.2	0.1	0.2	0.3
CPI	**0.7**	**2.6**	**3.3**	**1.3**	**2.2**	**3.5**

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)

	2019					2020				
	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	1.5	0.0	4.2	-0.3	5.4	1.7	0.0	4.3	0.0	6.0
non-processed	1.6	0.0	7.2	0.0	8.8	0.9	0.0	6.0	0.0	6.9
processed	1.4	0.0	2.9	-0.5	3.8	2.1	0.0	3.5	0.0	5.6
Tradable goods	0.9	0.0	0.4	0.1	1.4	0.5	0.0	0.8	0.0	1.3
durables	0.5	0.0	-0.8	0.0	-0.3	0.3	0.0	0.6	0.0	0.9
non-durables	1.1	0.0	0.9	0.2	2.2	0.4	0.0	1.1	0.0	1.5
Market services	1.3	0.0	3.3	-0.2	4.4	1.8	0.0	3.2	-0.3	4.7
Market energy	5.3	0.0	2.4	0.0	7.7	2.5	0.0	1.5	0.0	4.0
Alcohol and Tobacco	1.6	0.9	3.3	2.3	8.1	2.0	0.9	1.1	2.6	6.6
Fuel	-5.1	0.0	5.5	0.0	0.4	2.0	0.0	-0.5	0.0	1.5
Administered prices	0.2	0.0	0.5	0.0	0.7	0.1	0.0	1.3	0.0	1.4
Inflation	**0.6**	**0.1**	**2.5**	**0.1**	**3.3**	**1.2**	**0.1**	**2.0**	**0.2**	**3.5**
Core inflation	1.3	0.1	2.2	0.2	3.8	1.5	0.1	2.1	0.3	4.0

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

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Mátyás Hunyadi

(23 February 1443 – 6 April 1490)

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

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

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

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

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

INFLATION REPORT

December 2019

Print: Prospektus Kft.

H-8200 Veszprém, Tartu u. 6.

mnb.hu

H-1054 BUDAPEST, SZABADSÁG SQUARE 9.