

# **Macroeconomic Forecast of the Czech Republic**

**July 2018**

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## **of the Czech Republic**

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The Macroeconomic Forecast is prepared by the Economic Policy Department of the Czech Ministry of Finance. It contains a forecast for the current and the following year (i.e. until 2019) and for certain indicators an outlook for another 2 years (i.e. until 2021). It is published on a quarterly basis (usually in January, April, July and November) and is also available on the website of the Ministry of Finance at:

***[www.mfcr.cz/macroforecast](http://www.mfcr.cz/macroforecast)***

Any comments or suggestions that would help us improve the quality of our publication and closer satisfy the needs of its users are welcome. Please send any comments to the following email address:

***[macroeconomic.forecast@mfcr.cz](mailto:macroeconomic.forecast@mfcr.cz)***

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## List of Abbreviations

BoP.....	balance of payments
const.pr.....	constant prices
CNB.....	Czech National Bank
CPI.....	consumer price index
CR.....	Czech Republic
curr.pr.....	current prices
CZSO.....	Czech Statistical Office
EA19.....	euro zone consisting of 19 countries
EC.....	European Commission
ECB.....	European Central Bank
ESI.....	Economic Sentiment Indicator
EU28.....	European Union consisting of 28 countries
Fed.....	Federal Reserve System
GDP.....	gross domestic product
GVA.....	gross value added
IMF.....	International Monetary Fund
LFS.....	Labour Force Survey
MoF.....	Ministry of Finance
pp.....	percentage points
rev.....	revisions
TFP.....	total factor productivity
VAT.....	value added tax

## Basic Terms

Prelim. (preliminary data)	data from quarterly national accounts, released by the CZSO, as yet unverified by annual national accounts
Estimate	data for past period that were unavailable as of the cut-off date
Forecast	forecast of future numbers, using expert and mathematical methods
Outlook	projection of more distant future numbers, using mainly extrapolation methods

## Symbols Used in Tables

-	A dash in place of a number indicates that the phenomenon did not occur.
.	A dot in place of a number indicates that we do not forecast that variable, or the figure is unavailable or unreliable.
x, (space)	A cross or space in place of a number indicates that no entry is possible for logical reasons.

## Cut-off Date for Data Sources

The forecast was made on the basis of data known as of **11 July 2018**.

## Notes

All data in the Macroeconomic Forecast are unadjusted for seasonal and calendar effects, unless stated otherwise. Published aggregate data may not match sums of individual items to the last decimal place due to rounding.

Data from the previous forecast (April 2018) are indicated by italics. Data relating to the years 2020 and 2021 are an extrapolation scenario that indicates only the direction of possible developments, and as such are not commented upon in the following text.



# Introduction and Summary of the Forecast

Growth in the global economy remains stable and robust, but global uncertainties and risks are growing sharply. They concern not only the consequences of a massive fiscal stimulus in the United States, but also – despite the approaching date of withdrawal – the new conditions for relations between the United Kingdom and the European Union. In addition, the price of oil has reached its four-year maximum. Moreover, the future of world trade is of a great concern.

In 2017, economic growth in both the euro area and the European Union was the strongest in the past 10 years, but it slowed down somewhat in early 2018. Although it is generally believed that this slowdown is due to various one-off factors, confidence indicators have not yet reversed. However, fundamental factors still remain positive. Euro area economies can benefit from relaxed financial conditions that reduce the cost of funding for the private and public sectors. The declining unemployment and lower household indebtedness are promising in terms of the future dynamics of private consumption. Similar evaluation – healthy fundamentals and increased uncertainty – also applies to the Czech economy.

Year-on-year **growth of real gross domestic product slowed to 3.4%** in Q1 2018. In the quarter-on-quarter comparison (adjusted for seasonal and calendar effects), the economic growth also decelerated slightly, to 0.5%.

Traditionally, the most robust component of use was **household consumption**. It was up by 4.0% YoY, marking the fifth consecutive quarter with growth of at least 4%. The consistently high dynamics reflects not only wage and salary increases, but also a decline in the savings rate that reflects the labour market situation, low interest rates, and confidence of consumers in further developments. Consumption of the general government sector increased by 3.2%.

Growth in **fixed capital investment** accelerated sharply to 8.1% in Q1. The bulk of the increase was related to construction investment, including investment in dwellings. However, growth was seen in all categories of investment. From the sectoral perspective, high investment activity was driven mainly by private investment. Gross capital formation (including the change in inventories) even reached double-digit growth (10.0%).

In Q1 2018, the contribution of **foreign trade** in goods and services to economic growth was deeply negative (–1.3 pp). This reflected not only an increase in imports, due in particular to the high import intensity of investments, but also – on the export side – the combined effects of a stronger koruna and probably a one-off quarter-on-quarter drop in German imports and exports.

Good economic situation should continue for the rest of **2018** and into **2019**, although with slowing dynamics. The economic growth should continue to be driven by household consumption reflecting strong wage dynamics amid an extremely low unemployment rate, increasing participation rate and a very high number of job vacancies. Investment should be stimulated not only by money from the European Structural and Investment Funds, the need of the private sector to innovate technological equipment while coping with labour market imbalances, but also by decreasing relative cost of capital to the cost of labour at still low real interest rates. Rising uncertainties outside the Czech economy should then negatively affect the balance of foreign trade.

Therefore, the **forecast for real GDP growth** is slightly **reduced from 3.6% to 3.2% for 2018 and from 3.3% to 3.1% for 2019**.

Since the beginning of 2017, the year-on-year growth in consumer prices hovers, with a few exceptions, in the upper half of the tolerance band of the Czech National Bank's 2% inflation target. Given the inflationary effects of wage and salary increases, positive output gap and higher koruna prices of oil, it can be expected to stay at this level until mid-2019. The forecast for the average **inflation rate** thus rises from 2.1% to 2.2% for 2018, and from 1.9% to 2.3% for 2019.

High employment growth, which has steadily exceeded 1% since the end of 2014, has exhausted pretty much all unused resources in the labour market. Lack of employees is thus becoming a barrier for an extensive production growth, which motivates companies to invest with a view to raise labour productivity. The scope for a further decrease in unemployment appears to be quite limited. Given the developments in Q1, the forecast for the **unemployment rate** for 2018 is slightly decreased from 2.4% to 2.3%, while for 2019 it is kept at 2.3%.

**The current account of the balance of payments** has been in a very small surplus since 2014. However, the positive balance of goods has been gradually decreasing as a result of higher domestic demand for imports driven by both consumption and investment growth. In the near future, this will also likely include the impact of the rising oil prices and uncertainties in world trade. We therefore expect the current account balance to go from a surplus to a slight deficit that could reach 0.3% of GDP in 2018 and 0.2% of GDP in 2019.

**The general government sector was in a record surplus of 1.6% of GDP in 2017**. The structural balance increased to 1.1% of GDP, also a historical maximum. Despite faster growth in final consumption expenditure of the general government sector, mainly in compensation of employees, the current forecast for the general government surplus **for 2018** remains at **1.5% of GDP**. The increase in expenditure should be offset by higher tax revenues, including social security contributions. We expect the debt of the general government sector to fall to 33% of GDP.

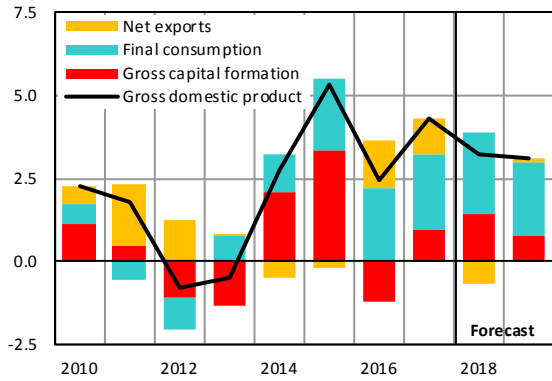
**Table: Main Macroeconomic Indicators**

		2013	2014	2015	2016	2017	2018	2019	2017	2018	2019
		<i>Current forecast</i>							<i>Previous forecast</i>		
<b>Gross domestic product</b>	<i>bill. CZK</i>	<b>4 098</b>	<b>4 314</b>	<b>4 596</b>	<b>4 768</b>	<b>5 045</b>	<b>5 300</b>	<b>5 589</b>	5 055	5 320	5 596
<b>Gross domestic product</b>	<i>real growth in %</i>	<b>-0.5</b>	<b>2.7</b>	<b>5.3</b>	<b>2.5</b>	<b>4.3</b>	<b>3.2</b>	<b>3.1</b>	4.4	3.6	3.3
<b>Consumption of households</b>	<i>real growth in %</i>	<b>0.5</b>	<b>1.8</b>	<b>3.7</b>	<b>3.6</b>	<b>4.3</b>	<b>4.3</b>	<b>3.9</b>	4.0	4.3	4.1
<b>Consumption of government</b>	<i>real growth in %</i>	<b>2.5</b>	<b>1.1</b>	<b>1.9</b>	<b>2.7</b>	<b>1.3</b>	<b>2.1</b>	<b>2.0</b>	1.5	1.9	2.0
<b>Gross fixed capital formation</b>	<i>real growth in %</i>	<b>-2.5</b>	<b>3.9</b>	<b>10.2</b>	<b>-3.1</b>	<b>3.3</b>	<b>7.5</b>	<b>3.2</b>	5.4	5.7	4.4
<b>Net exports</b>	<i>contr. to GDP growth, pp</i>	<b>0.1</b>	<b>-0.5</b>	<b>-0.2</b>	<b>1.4</b>	<b>1.1</b>	<b>-0.7</b>	<b>0.1</b>	1.0	-0.2	-0.1
<b>Change in inventories</b>	<i>contr. to GDP growth, pp</i>	<b>-0.7</b>	<b>1.1</b>	<b>0.8</b>	<b>-0.4</b>	<b>0.1</b>	<b>-0.4</b>	<b>0.0</b>	-0.1	0.0	0.0
<b>GDP deflator</b>	<i>growth in %</i>	<b>1.4</b>	<b>2.5</b>	<b>1.2</b>	<b>1.3</b>	<b>1.5</b>	<b>1.8</b>	<b>2.3</b>	1.4	1.5	1.8
<b>Average inflation rate</b>	<i>%</i>	<b>1.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.7</b>	<b>2.5</b>	<b>2.2</b>	<b>2.3</b>	2.5	2.1	1.9
<b>Employment (LFS)</b>	<i>growth in %</i>	<b>1.0</b>	<b>0.8</b>	<b>1.4</b>	<b>1.9</b>	<b>1.6</b>	<b>1.3</b>	<b>0.2</b>	1.6	0.7	0.2
<b>Unemployment rate (LFS)</b>	<i>average in %</i>	<b>7.0</b>	<b>6.1</b>	<b>5.1</b>	<b>4.0</b>	<b>2.9</b>	<b>2.3</b>	<b>2.3</b>	2.9	2.4	2.3
<b>Wage bill (domestic concept)</b>	<i>growth in %</i>	<b>0.5</b>	<b>3.6</b>	<b>4.8</b>	<b>5.7</b>	<b>8.2</b>	<b>9.3</b>	<b>8.3</b>	8.3	7.7	6.5
<b>Current account balance</b>	<i>% of GDP</i>	<b>-0.5</b>	<b>0.2</b>	<b>0.2</b>	<b>1.6</b>	<b>1.1</b>	<b>-0.3</b>	<b>-0.2</b>	1.1	0.4	0.2
<b>General government balance</b>	<i>% of GDP</i>	<b>-1.2</b>	<b>-2.1</b>	<b>-0.6</b>	<b>0.7</b>	<b>1.6</b>	<b>1.5</b>	<b>.</b>	1.6	1.5	1.1
<b>Assumptions:</b>											
<b>Exchange rate CZK/EUR</b>		<b>26.0</b>	<b>27.5</b>	<b>27.3</b>	<b>27.0</b>	<b>26.3</b>	<b>25.6</b>	<b>25.2</b>	26.3	25.1	24.7
<b>Long-term interest rates</b>	<i>% p.a.</i>	<b>2.2</b>	<b>1.4</b>	<b>0.6</b>	<b>0.4</b>	<b>1.0</b>	<b>2.1</b>	<b>2.5</b>	1.0	1.9	2.2
<b>Crude oil Brent</b>	<i>USD/barrel</i>	<b>109</b>	<b>99</b>	<b>52</b>	<b>44</b>	<b>54</b>	<b>73</b>	<b>72</b>	54	65	61
<b>GDP in Eurozone</b>	<i>real growth in %</i>	<b>-0.2</b>	<b>1.3</b>	<b>2.1</b>	<b>1.8</b>	<b>2.4</b>	<b>2.2</b>	<b>1.8</b>	2.3	2.3	1.8

Source: CNB, CZSO, Eurostat, U. S. Energy Information Administration. Calculations of the MoF.

### Domestic demand should be the main driver of growth

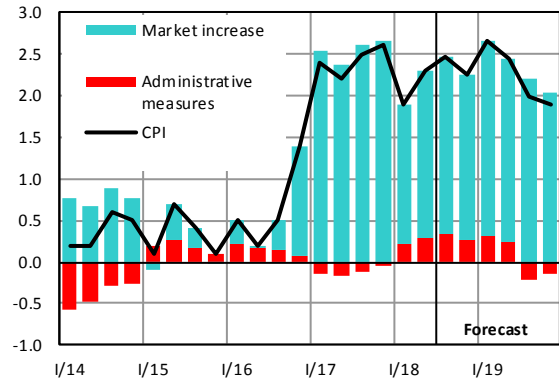
YoY growth rate of real GDP in %, contributions of individual expenditure components in percentage points



Source: CZSO. Calculations of the MoF.

### Inflation should stay close to the 2% target of the CNB

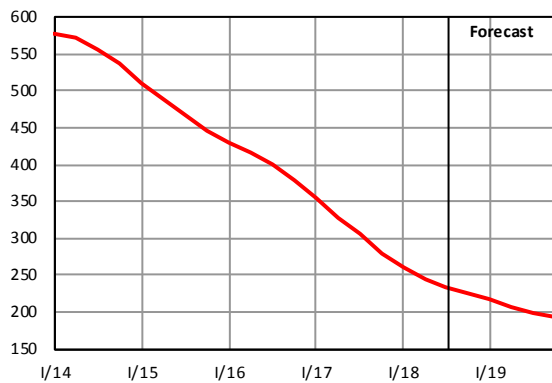
decomposition of YoY growth of CPI, contributions in pp



Source: CZSO. Calculations of the MoF.

### Unemployment should continue to decline further

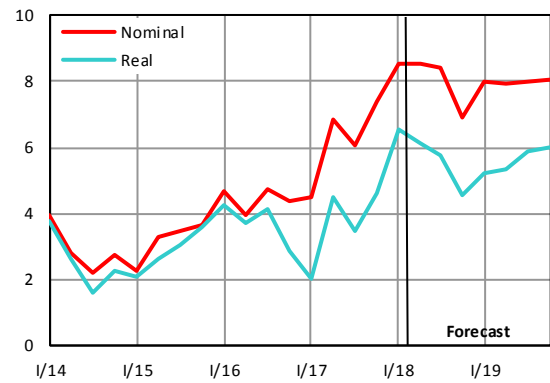
registered unemployment, in thous. of persons, seasonally adjusted



Source: Ministry of Labour and Social Affairs. Calculations of the MoF.

### Dynamic growth of wages should continue

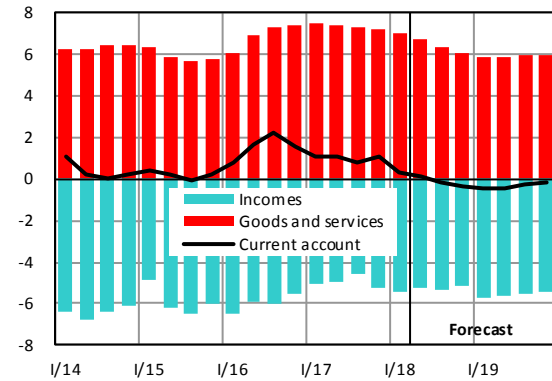
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

### Current account should be slightly deficit

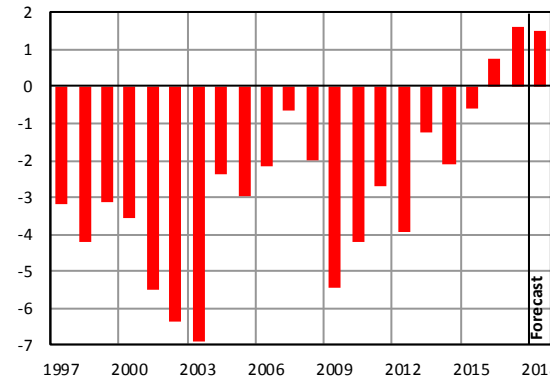
in % of GDP (yearly moving sums)



Source: CNB, CZSO. Calculations of the MoF.

### Balance of the general government should stay positive

in % of GDP



Source: CZSO. Calculations of the MoF.

## Forecast Risks and Uncertainty

The macroeconomic forecast is subject to a number of **risks**, which, in aggregate, we believe are **tilted to the downside**.

For the strongly export-oriented Czech economy, the main negative risk is currently the tendency of rising **protectionism**, which is manifested mainly by the rise of tensions in mutual trade relations between the USA on one side and, in particular, China and the EU on the other. It is to be expected that the increase in existing import duties or their imposition on new commodities will, in addition to their negative effects on the volume of foreign trade and the resulting benefits, also have a negative impact on the confidence of economic agents. Higher uncertainty can then lead to postponement of some investment decisions. The impact of higher tariffs on imported goods and the purchasing power of consumers should also not be overlooked. However, given the high complexity of international supply chains, it cannot be excluded that import tariffs will have a number of unintended consequences, e.g. shifting production to other countries. Although the Czech Republic predominantly trades with other EU countries, indirect exposure to some non-EU countries can potentially be substantial, which makes credible quantification of the effects of higher tariffs (in mutual trade between the US and China, or the US and the EU) difficult.

Through foreign trade, the Czech economy may also be affected by the future **relationship between the United Kingdom and the EU** in the area of free movement of goods and services. However, given the information available and the progress made in the negotiations, any increase in barriers to foreign trade with the United Kingdom would have an impact on the Czech economy only towards the end of the outlook. We continue to expect that both parties to the negotiations will be interested in minimizing the overall impact of the United Kingdom's withdrawal from the EU. Indirectly, the Czech economy could also be adversely influenced by an escalation of problems of the Italian banking sector, as well as by geopolitical factors.

The Czech economy shows marked signs of overheating in some areas, especially in the labour market. In terms of **cyclical development of the economy**, one cannot rule out the possibility of the economy entering the downward phase of the business cycle if some of the risks listed here materialized in the forecast horizon. In business cycle surveys, more and more companies are

pointing to the shortage of employees as a barrier to increasing their production. A key factor in the medium and longer terms will thus be the increase in **labour productivity**, considering the current labour market situation and anticipated demographic developments. In the short term, labour market imbalances create **strong pressure on wage growth**, which results in higher unit labour costs. This could adversely affect the competitiveness of some companies if this effect persists; however, on the other hand, this factor greatly supports the growth of households' disposable income and productivity enhancing investment, and creates an incentive to focus more on the production of goods and services with higher value added.

Another source of uncertainty about the future development of consumption of households and economic growth is a potential further **increase in minimum and guaranteed wages**. In this respect, we assume that with the effect from 1 January 2019, the minimum wage will be increased by CZK 1,000. In terms of **investment**, the recovery of the investment cycle linked to the EU programming period 2014–2020 will be crucial. In the longer term, the gap due to the discontinuation of the United Kingdom's payment to the EU budget will be significant, as well as the new allocation associated with the higher relative development level of the regions of the Czech Republic and possible redirection of funds in the EU budget to other priorities.

The cyclical development of the economy in connection with low interest rates led to an increased dynamics of mortgage loans. Together with factors limiting the supply of residential real estate (some of which are specific to Prague), this development has contributed to a significant growth in asking prices of flats. Continuing **rapid growth in housing loans and property prices** could pose macroeconomic risks in the future as some households might not be able to repay their loans in the case of worsening economic situation or increase in market rates, which would also have an impact on financial stability. The dynamics of housing loans, however, has recently moderated slightly due to interest rate increases, tightening of credit conditions following the CNB's regulatory recommendations for mortgage loans and the high level of housing prices. The CZSO's data on residential construction and issued building permits then suggest that the supply of residential properties should increase in the future.

# 1 Forecast Assumptions

The performance of the global economy was stable in Q1 2018. While emerging economies continued to grow at a considerable pace, the growth dynamics in developed economies declined. The weakest GDP growth was seen mainly in some large EU economies (United Kingdom, France, Germany, Italy), while the US economic performance remained satisfactory despite a moderate slowdown. However, continuation of the economic upswing may be jeopardized by a possible introduction of further protectionist measures by the US and a reciprocal response of the countries concerned.

## 1.1 External Environment

In Q1 2018, the economic growth in the **United States of America** continued to moderate slightly, with real GDP growing by 0.5% QoQ (*as estimated*). Economic growth was driven solely by domestic demand, with all its components, led by investments, having a positive contribution. Growth in gross fixed capital formation, however, was only attributable to companies' investments, because residential investment fell. Despite a good labour market situation and high consumer sentiment, the growth rate of household final consumption expenditure has slowed significantly. This was mainly due to the high base of the previous quarter, which was affected by the increased expenditures associated with the last year's devastating hurricanes. The contribution of net exports to GDP growth was negligible.

With regard to the rising economic activity, strong job creation and declining unemployment, the Fed raised interest rates further to 1.75–2.00% at its June meeting. At the same time, it stated that it plans to increase rates twice more in H2 2018, and three times in 2019. It also continues to sell its assets, currently worth USD 50 billion a month. In mid-2017, the inflation rate started to grow again slowly and in May 2018 it was at 2.8%. However, the Fed expects the rate of inflation to stabilize around the 2% target in the medium term.

We assume that the fiscal stimulus will accelerate the US economy slightly in the short term. Household consumption will remain the main growth driver, supported by the tax reform, high consumer confidence and a very low unemployment rate, which was only 4.0% in June. There is a significant labour shortage in the labour market; since April, the number of vacancies has exceeded the number of the unemployed. However, wage growth remains relatively low. A more dynamic wage growth is still prevented by a relatively high number of involuntary part-time workers or a low employment rate, which has not yet reached the pre-crisis level. The lack of skilled workers, together with a reduction in the corporate income tax rate from 35% to 21%, should then support further growth in investment. After a slight correction at the beginning of the year, the value of the Dow Jones main stock index stabilized; its further increase is prevented mainly by investors' concerns about a trade war. In order to reduce imports of selected products, lower the trade deficit and protect the domestic industry, the

US imposed tariffs on steel and aluminium of 25% and 10% in March and June, and on selected Chinese goods in July. More tariffs on Chinese goods have already been announced; car duties are currently being considered. Overall, all the tariffs, including those currently under consideration, could potentially hit around one third of imports of goods. Many countries have already taken retaliatory measures, but their impact cannot be estimated due to the expected escalation. Leading indicators do not reflect growing protectionism yet and remain high. We expect GDP to grow by 2.8% in 2018 (*vs 2.7%*), then slightly decrease to 2.3% in 2019 (*vs 2.2%*).

The **Chinese economy** still maintains decent growth. Quarter-on-quarter GDP growth was 1.4% in Q1 2018. China thus continues to be the main driver of global economic growth. Services are becoming the dominant sector, while the importance of industry is further weakening. The structure of economic growth is also gradually shifting from investment and exports to household consumption. Although the year-on-year growth rate of retail sales has long been falling, it is still very high and exceeds 8%. Growth in investment is also slowing down as a result of a number of government measures aimed at curbing rising housing prices, shadow banking and risky loans or reducing overcapacity in some industries through stricter environmental regulations.

We expect the pace of economic growth to slow down gradually. The development of leading indicators remains promising, particularly in the case of consumer confidence, which has reached the highest levels since 1993. The financial market situation is stabilized, although since 2017/2018 foreign exchange reserves have been declining again and the stock market has experienced a slight correction due to concerns about the trade war with the US. However, a high public and private sector debt and the share of non-performing loans cause major concerns as they could threaten the macroeconomic stability in the case of a major slowdown in economic growth. From the long-term perspective, a major risk is mainly the adverse demographic development.

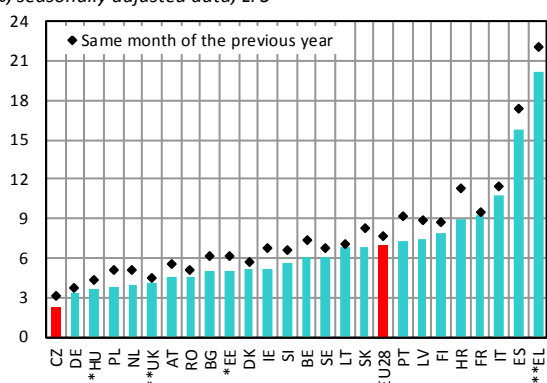
Economic growth in **the European Union** slowed down in Q1 2018, when quarterly GDP growth reached 0.4% in both the EU28 (*vs 0.6%*) and the EA19 (*vs 0.5%*). In the

year-on-year comparison GDP was up by 2.4% in the EU28 (vs 2.6%) and by 2.5% in the EA19 (as estimated). Economic growth was recorded in all EU28 economies except Estonia; however, marked differences remain among individual countries. In a number of these economies a more significant recovery is still being hampered by structural problems connected to the loss of competitiveness, or by high indebtedness of the general government and private sectors.

In May, the price level growth accelerated in the EA19 and the inflation rate reached 1.9%. The ECB has been keeping the main refinancing rate at 0.00% and the deposit rate at -0.40% since March 2016. At the same time it assumes that they will remain at current levels at least until the summer of 2019. Monthly asset purchases of EUR 30 billion will take place until the end of September 2018. If the medium-term inflation outlook (inflation below 2%, but close to this value) is confirmed, the volume of assets will then be reduced to EUR 15 billion until the end of December 2018 and then the net purchases will be terminated.

In the context of growing economic activity, the unemployment rate is decreasing further, though only marginally in a number of countries. It has been decreasing since mid-2013 in the EU28, reaching 7.0% in May (year-on-year decrease of 0.7 pp), the lowest level since August 2008. However, enormous differences still persist among individual economies. The worst situation is still in Greece, where the unemployment rate stood at 20.1% in March. In the EU28 countries, for which data for May was available as of the cut-off date, the unemployment rate exceeded the 10% threshold in Spain (15.8%) and Italy (10.7%). By contrast, the lowest rates were recorded in the Czech Republic (2.3%) and Germany (3.4%).

**Graph 1.1.1: Unemployment rate in the EU in May 2018**  
in %, seasonally adjusted data, LFS



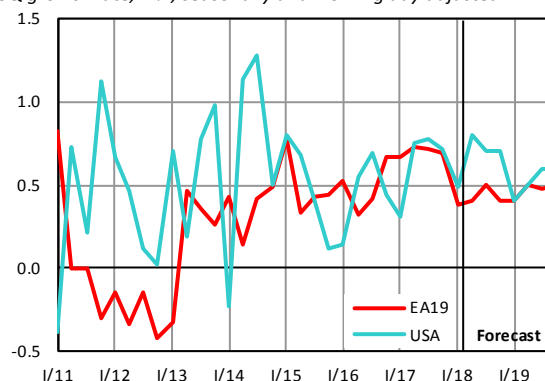
Note: \*) April 2018. \*\*) March 2018.  
Source: Eurostat.

A number of leading indicators have reached their historically highest values at the turn of 2017 and 2018. Despite their declining tendency, their level is still very high from the long-term perspective. The decrease of indicators in the business environment reflects, in particular, the fears of a trade war with the US, lower growth of

new orders and an increase in oil prices. Consumers then have more negative expectations of the future economic situation.

We expect economic growth to be driven mainly by domestic demand in the coming years. Household consumption will remain the main driver of the economy's growth, supported by low interest rates in the short term. The good labour market situation, and a related gradual acceleration of wage growth, will have more permanent effects. Investments, which will continue to be supported by the eased monetary policy of the ECB, will be negatively affected by the uncertainty associated with the United Kingdom's decision to withdraw from the EU because the future set-up of the EU-UK trade relationships has not yet been agreed. However, the United Kingdom should have access to the EU single market and remain in the customs union until the end of 2020. The introduction of steel and aluminium tariffs by the US will only have a negligible impact on exports, but car tariffs that are being considered would have a sizeable impact on exports and pose a significant negative risk. The economic growth in the Euro Area will also be probably hampered by persisting problems in the banking sector or high indebtedness of some economies. We therefore expect the economic growth to reach 2.2% in 2018 (vs 2.3%), and 1.8% in 2019 (unchanged).

**Graph 1.1.2: Growth of GDP in the EA19 and in the USA**  
QoQ growth rate, in%, seasonally and working day adjusted



Source: Eurostat. Calculations of the MoF.

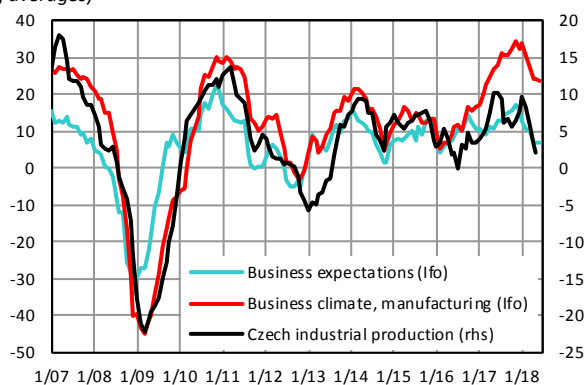
In Q1 2018, **Germany's** GDP grew by only 0.3% QoQ (vs 0.5%). This was also due to numerous strikes in the electric engineering and forge industry, flu epidemic and cold weather. The economic growth was driven exclusively by domestic demand. Household consumption was supported by a good labour market situation and high consumer confidence. Growth in gross fixed capital formation was driven by all sectors, with the fastest growth in investment being recorded in construction. Foreign demand weighed slightly on economic performance. After six quarters of dynamic growth of 1.4% on average, exports fell surprisingly by 1.0%, mainly due to a decrease in new manufacturing orders resulting from rising protectionist tendencies. This, albeit to a lesser extent, was also reflected in the growth rate of imports,

which, to a great extent, negatively affected the growth of Czech exports.

The labour market situation is tense, as the German economy is close to full employment. In May, the unemployment rate was only 3.4% and employment and the number of vacancies were highest since German unification. Although labour shortages are increasingly evident in the labour market, wage growth remains moderate for the time being. The worsening of the leading indicators in the first half of the year is primarily due to the growing concerns of protectionism and trade war with the US. In June, business confidence measured by the Ifo indicator showed the lowest value in the past year, with purchasing managers' index in industry even posting the lowest value over the past year and a half. However, the development of the consumer confidence index (GfK) remains satisfactory.

### Graph 1.1.3: Ifo (Germany) and Czech manufacturing production

indicator balances (Ifo); seasonally adjusted index of industrial production in the Czech manufacturing, YoY growth in% (from quarterly moving averages)



Source: CESifo, CZSO.

We expect economic growth to be driven mainly by domestic demand in the coming years. Household consumption expenditure will be supported mainly by the tense situation in the labour market and the related real wage growth as a result of shortage of workers with adequate qualifications. Next year, the planned tax cuts or increases in child allowances will also contribute to the growth in consumption. A more dynamic growth in business investment can be expected due to relatively high capacity utilization. However, trade war with the US will negatively affect corporate investment and exports, with a significant risk being the introduction of car tariffs (in 2017 exports to the US accounted for 9.6% of total German exports, i.e. 4.6% of GDP). Another risk is related to the United Kingdom's withdrawal from the EU (in 2017 the UK's share of total German exports was 7.4%, i.e. 3.5% of GDP). In 2018, GDP could increase by 2.2% (vs 2.4%), followed by 2.1% (unchanged) in the next year.

After relatively strong performance in previous quarters, the **French** economy slowed considerably, as real GDP growth reached only 0.2% QoQ (vs 0.5%) in Q1. Alt-

hough all demand components contributed to the economic growth, their contributions were virtually negligible. Similarly to the previous quarter the growth of household consumption remained very low despite a relatively strong consumer confidence. The reason for the stagnation of gross fixed capital formation was the decline in investment in industry, while investment in services again showed decent growth. Foreign demand was neutral for economic growth, as both exports and imports declined at the same pace (the decline in imports then adversely affected Czech exports).

We assume that the economic performance remained weak also in Q2, mainly due to massive and several-month-long strikes in transport. Leading indicators also signal a moderate slowdown. Most of them declined after reaching their multi-year highs at the turn of 2017 and 2018. The labour market situation has not improved much, in May the unemployment rate stagnated for the third month in a row at 9.2% (a year-on-year decline of only 0.3 pp). However, a reform of the Labour Code, which facilitated the recruitment and dismissal of employees, should contribute to increasing labour market flexibility. In the short term, household consumption will be affected negatively by the increase in the excise tax on fuel and tobacco; conversely, the reduction of employees' social security contributions will have a positive effect. Economic growth will be further supported by the gradual reduction of corporate income tax from 33.3% to 25% between 2018 and 2022 or adjustments to capital gains tax. Higher economic performance will, however, be prevented by the long-term problems of the French economy, especially high and, moreover, rising debt of the general government and the private sector. GDP growth should reach 1.8% (vs 2.1%) in 2018, and slow down to 1.7% in the following year (unchanged).

The **Polish** economy is still growing dynamically, rising by 1.6% QoQ (vs 1.1%) in Q1. This was due solely to domestic demand, dominated by the change in inventories. Household consumption growth was driven by high consumer confidence and by wage and employment growth. The gradual acceleration of the growth rate of gross fixed capital formation was mainly driven by investment of the general government sector as a result of starting EU funds from the current programming period, and by high utilization of production capacities, which reached its highest level since 2002 in Q2. The negative contribution of net exports, caused by a fall in exports and stagnation of imports, was caused by the cooling of foreign demand.

In the next years, economic growth should be driven mainly by household consumption, although its pace should gradually slow down. In the short term, household consumption expenditure will be supported by low interest rates and high consumer confidence, which in April reached its maximum in the history of measurement since 2000. In the long term, it will be especially supported by wage growth related to the very low

unemployment rate, which reached only 3.8% in May (year-on-year decrease of 1.3 pp). The number of vacancies is at record high and some sectors are already struggling with the lack of suitably qualified staff. With the start of new projects from the 2014–2020 programming period and the need for capital replacement, investments should also accelerate. Risks include a drop in foreign demand and worsened predictability of economic policy. For the long-term sustainability of public finances and the labour market a substantial reduction in the retirement age is a risk. Thanks to the strong growth in Q1, we expect economic growth to reach 4.5% (vs 3.9%) in 2018; in the following year GDP could increase by 3.4% (*unchanged*).

GDP of **Slovakia** rose again by 0.9% QoQ (vs 0.8%) in Q1. Economic growth was driven solely by domestic demand, dominated by contributions of the change in inventories and investment, with the other components also contributing positively. The increase in gross fixed capital formation of 12% YoY was boosted mainly by EU funds projects, rising business confidence and low interest rates. Household consumption expenditure was mainly supported by wage growth. By contrast, net exports weighed on economic performance as imports increased due to strong domestic demand and import intensity of investments, while exports fell slightly due to weaker demand from EU countries.

This year, GDP growth should be driven by consumption expenditures of households and investment. Household consumption will be supported by a high level of consumer confidence, low interest rates and, most importantly, rapidly declining unemployment rate, which was 6.8% in May (a year-on-year decline of 1.5 pp), the lowest value in the measurement history since 1998. The mismatch between supply and demand in the labour market already creates pressures on wages, which in Q1 grew at the fastest pace since 2008, by 6.5%. Finally, the 10.3% increase in the minimum wage or rising salaries in public administration will also contribute to the growth in disposable income in 2018. Gross fixed capital formation will then be supported, in particular, by continued investment in the automotive industry or investment of the general government sector in infrastructure. Start of production of the Volkswagen and Jaguar Land Rover car factories should significantly contribute to an acceleration of exports in 2018 and 2019. Economic activity will also be boosted by tax cuts for businesses and self-employed persons. Significant negative risk, however, is growing protectionism in international trade, given the high share of the automotive industry in the economy. Conversely, faster wage growth in the tense labour market should have a positive effect. We expect GDP to grow by 3.8% (vs 3.7%) in 2018, then to slightly accelerate to 3.9% in the following year (*unchanged*).



**Table 1.1.1: Gross Domestic Product – yearly**

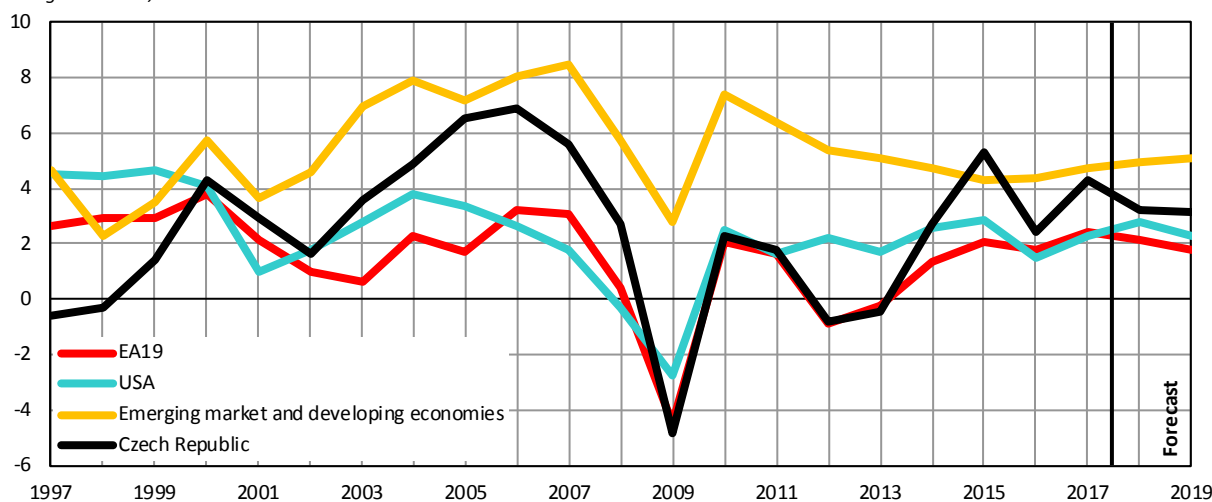
YoY real growth rate, in %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
									Forecast	Forecast
<b>World</b>	5.4	4.3	3.5	3.5	3.6	3.5	3.2	3.8	3.9	3.9
<b>USA</b>	2.5	1.6	2.2	1.7	2.6	2.9	1.5	2.3	2.8	2.3
<b>China</b>	10.6	9.5	7.9	7.8	7.3	6.9	6.7	6.9	6.7	6.5
<b>EU28</b>	2.1	1.7	-0.4	0.3	1.8	2.3	2.0	2.5	2.2	2.0
<b>EA19</b>	2.1	1.6	-0.9	-0.2	1.3	2.1	1.8	2.4	2.2	1.8
<b>Germany</b>	4.1	3.7	0.5	0.5	1.9	1.7	1.9	2.2	2.2	2.1
<b>France</b>	1.9	2.2	0.3	0.6	1.0	1.1	1.2	2.2	1.8	1.7
<b>United Kingdom</b>	1.7	1.6	1.4	2.0	2.9	2.3	1.8	1.7	1.2	1.2
<b>Austria</b>	1.8	2.9	0.7	0.0	0.8	1.1	1.5	3.0	3.1	2.1
<b>Hungary</b>	0.7	1.7	-1.6	2.1	4.2	3.4	2.2	4.0	4.4	3.0
<b>Poland</b>	3.6	5.0	1.6	1.4	3.3	3.8	3.0	4.6	4.5	3.4
<b>Slovakia</b>	5.0	2.8	1.7	1.5	2.8	3.9	3.3	3.4	3.8	3.9
<b>Czech Republic</b>	2.3	1.8	-0.8	-0.5	2.7	5.3	2.5	4.3	3.2	3.1

Source: CZSO, Eurostat, IMF, NBS China. Calculations of the MoF.

**Graph 1.1.4: Gross Domestic Product**

YoY real growth rate, in %

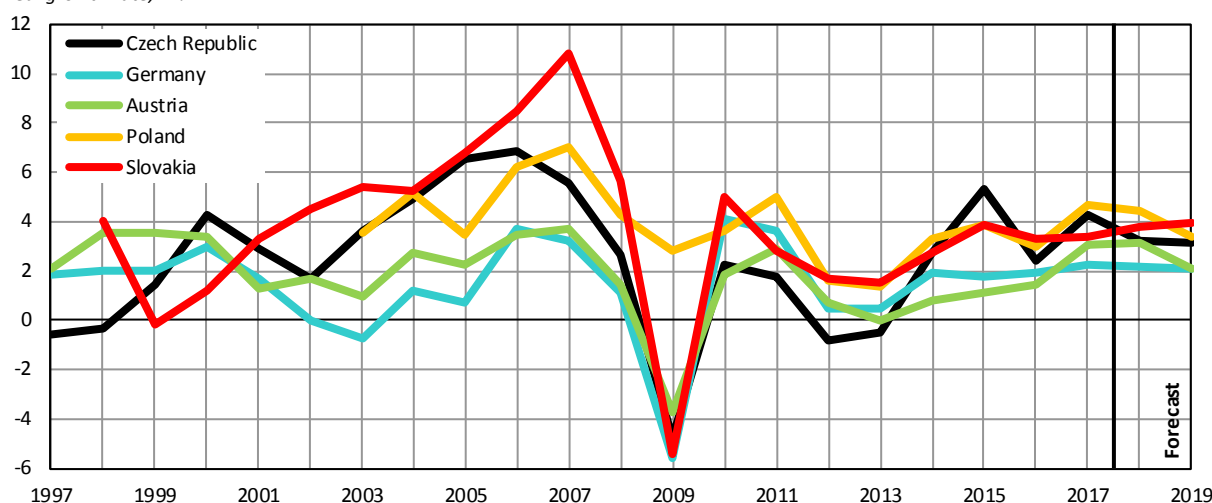


Note: Emerging market and developing economies comprising 154 countries (according to the IMF's classification)

Source: Eurostat, IMF. Calculations of the MoF.

**Graph 1.1.5: Gross Domestic Product – Czech Republic and the neighbouring states**

YoY real growth rate, in %



Source: Eurostat. Calculations of the MoF.

**Table 1.1.2: Gross Domestic Product – quarterly**

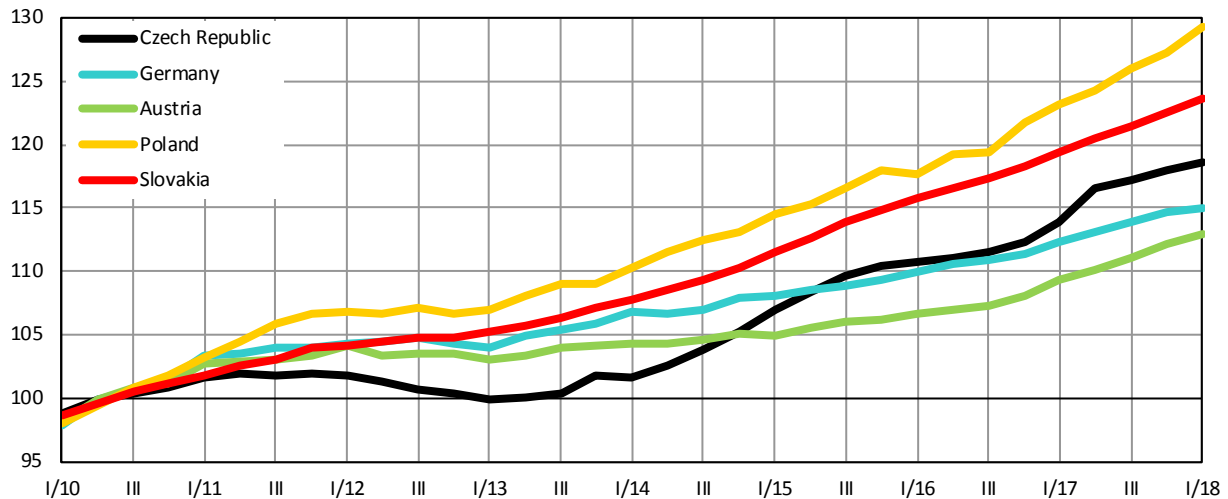
real growth rate, in %, seasonally adjusted data

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Estimate		Forecast		Forecast		Forecast	
USA	QoQ	<b>0.3</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.5</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>
	YoY	2.0	2.2	2.3	2.6	2.8	2.8	2.7	2.7
China	QoQ	<b>1.5</b>	<b>1.8</b>	<b>1.8</b>	<b>1.6</b>	<b>1.4</b>	<b>1.8</b>	<b>1.6</b>	<b>1.5</b>
	YoY	6.9	6.9	6.8	6.8	6.8	6.8	6.6	6.4
EU28	QoQ	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
	YoY	2.3	2.5	2.8	2.7	2.4	2.3	2.1	1.9
EA19	QoQ	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>
	YoY	2.1	2.5	2.8	2.8	2.5	2.2	2.0	1.7
Germany	QoQ	<b>0.9</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.3</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>
	YoY	2.1	2.3	2.7	2.9	2.3	2.2	1.9	1.8
France	QoQ	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>
	YoY	1.4	2.3	2.7	2.8	2.2	1.8	1.5	1.3
United Kingdom	QoQ	<b>0.4</b>	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>
	YoY	1.8	1.8	1.7	1.3	1.2	1.2	1.2	1.0
Austria	QoQ	<b>1.1</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.6</b>	<b>0.4</b>	<b>0.5</b>
	YoY	2.5	2.9	3.5	3.7	3.4	3.2	2.8	2.3
Hungary	QoQ	<b>1.4</b>	<b>1.1</b>	<b>1.1</b>	<b>1.3</b>	<b>1.2</b>	<b>0.9</b>	<b>0.7</b>	<b>0.7</b>
	YoY	3.9	3.8	4.3	4.9	4.7	4.6	4.2	3.6
Poland	QoQ	<b>1.1</b>	<b>0.9</b>	<b>1.4</b>	<b>1.0</b>	<b>1.6</b>	<b>0.8</b>	<b>0.7</b>	<b>0.8</b>
	YoY	4.6	4.2	5.5	4.4	5.0	4.9	4.2	4.0
Slovakia	QoQ	<b>0.8</b>	<b>1.0</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.1</b>	<b>0.9</b>
	YoY	3.1	3.4	3.5	3.5	3.6	3.6	3.9	3.9
Czech Republic	QoQ	<b>1.3</b>	<b>2.3</b>	<b>0.5</b>	<b>0.7</b>	<b>0.5</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>
	YoY	2.9	4.9	5.1	5.0	4.2	2.6	3.0	3.2

Source: Eurostat, NBS China. Calculations of the MoF.

**Graph 1.1.6: Gross Domestic Product – Czech Republic and the neighbouring states**

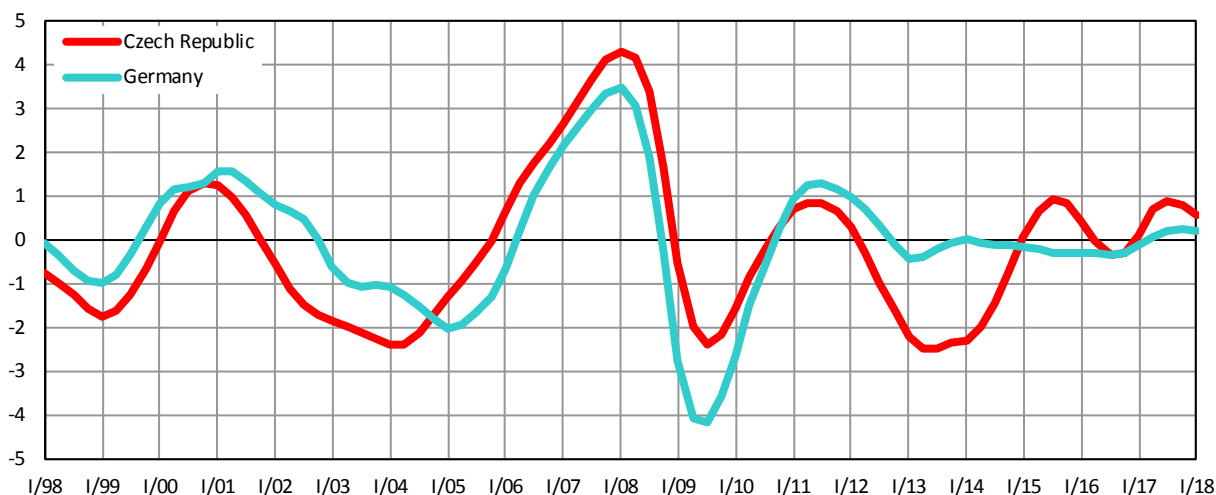
2010=100, seasonally adjusted data, constant prices



Source: Eurostat. Calculations of the MoF.

### Graph 1.1.7: Cyclical Component of GDP – Czech Republic and Germany

in % of GDP, derived using the Hodrick-Prescott filter



Source: Eurostat. Calculations of the MoF.

## 1.2 Commodity Prices

In the second quarter of 2018, the average price of Brent crude oil reached USD 74.5/barrel (vs USD 66/barrel). It increased by 12.9% QoQ and by significant 50.2% YoY.

The rise in geopolitical tensions, especially in the Middle East, contributed to the increase in oil prices. Following the withdrawal of the United States from the so-called nuclear agreement with Iran, the decline in oil exports from this country is expected. Oil production has fallen due to economic and political instability in Venezuela. By contrast, the growth of oil extraction in the United States continues. Global economic growth supports demand for oil, which in a limited supply environment leads to the use of global reserves of extracted oil, which was particularly pronounced in Q1 2018 according to the US Energy Information Administration. In June, the oil market situation led members of the Organization of the Petroleum Exporting Countries to agree on an increase in oil output by 1 million barrels per day with the effect from mid-2018.

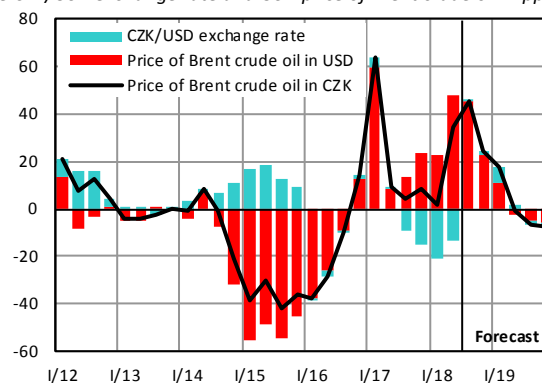
Further projected development in Brent crude oil prices reflects the declining curve of the futures prices. In 2018, the average price should reach USD 73/barrel (vs USD 65 per barrel), and we expect almost the same average price of USD 72/barrel in 2019 (vs USD 61/barrel). The

increase in the forecast is due to a shift in the futures prices. (See Box 1.2 for more details on oil price forecasts.)

Compared to the previous forecast, the Brent oil price in CZK terms increased even more than the dollar price as we expect the koruna to be weaker against the dollar. In 2018, the CZK price should go up by approximately 24%, but in 2019 it should *de facto* stagnate (see Graph 1.2.1).

### Graph 1.2.1: Koruna Price of Brent Crude Oil

YoY change of the koruna price of Brent crude oil in %, contributions of the CZK/USD exchange rate and USD price of Brent crude oil in pp



Source: CNB, U. S. Energy Inf. Administration. Calculations of the MoF.

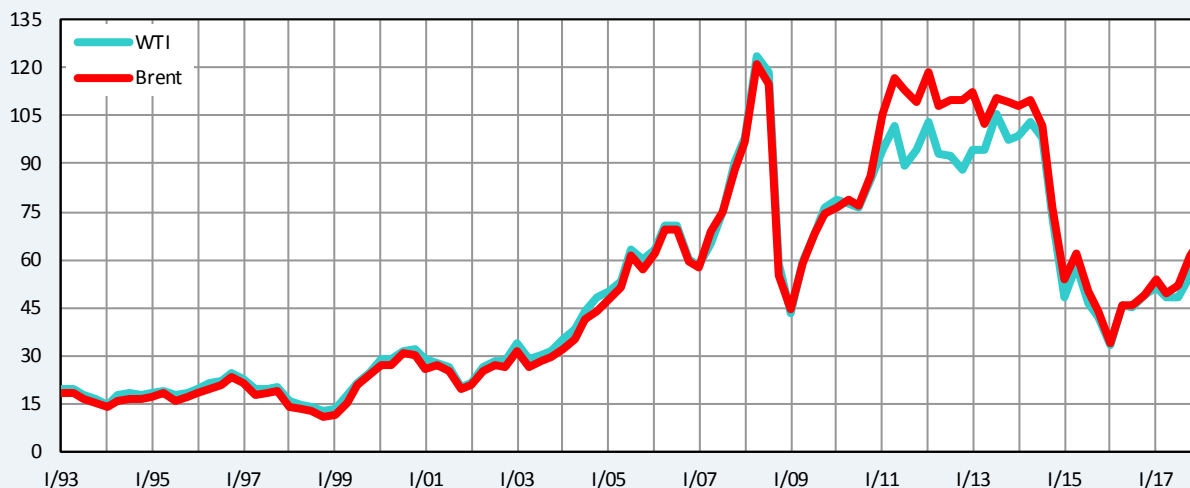
### Box 1.2: Price of Oil in Macroeconomic Forecasts

One of the basic exogenous variables in the macroeconomic forecast is the price of oil. It fundamentally affects main variables such as e.g. the foreign trade balance, GDP or price developments.

The Czech Republic is a net importer of crude oil. Crude oil imports amounted to between 2% and 5% of GDP in the past decade (see Graph 3.4.2). The Czech Republic accounts for only a tiny part of the world's consumption and it is a price taker of crude oil's price, which is formed on the global market. This justifies the view of the price of oil as an exogenous variable. There are several types of crude oil, the most famous being WTI, Brent or Dubai. Crude oil Brent, in particular, is important for the Czech economy; its price is treated as an exogenous assumption in macroeconomic forecasts of the Ministry of Finance.

**Graph 1: Price of Brent and WTI Oil**

*in USD/barrel*



Source: U. S. Energy Information Administration.

The importance of oil prices for macroeconomic forecasts is also reflected by published alternative scenarios of macroeconomic developments that were based on different assumptions of future oil price developments (for example, the box in the January 2015 macroeconomic forecast, or sensitivity analyses of macroeconomic variables to oil prices in convergence programmes of the Czech Republic). The importance of oil thus raises the question of how best to predict its future price. The forecasts of the Czech Ministry of Finance have not yet been based solely on one method consistent over time, but have taken into account various information such as forecasts of international institutions, the current price, or prices of futures.

In practice, macroeconomic forecasting basically has the following approaches to determining future oil prices:

- 1) futures prices;
- 2) fixed price ("naïve forecast");
- 3) own approach (model, expert estimate, etc.);
- 4) using another institution's forecast or consensus forecast.

The reason for using futures prices is the assumption that they should reflect all information available to market participants. The justification for using a fixed price is the assumption that its changes are random and zero on average. In this case, the best estimate of the future price is the current price. As far as modelling is concerned, it is very difficult in practice to base the oil price forecast on a structural model using fundamental factors, as these are themselves subject to an enormous degree of uncertainty. The uncertainty is often due to factors such as poor and rapidly changing political and security situation in the extraction areas as well as weather-related factors. Moreover, the complexity of any oil price modelling is enhanced by the fact that the oil market is not characterized by perfect competition, but rather by strategic play among the largest producers, whether the independent ones or those associated in the Organization of the Petroleum Exporting Countries. In addition, the lack of cohesion among the countries of this organization is worth highlighting.

Approaches of different institutions to forecasting oil prices differ. For example, the CNB uses Consensus Forecast as one of the inputs, the European Commission and the International Monetary Fund use futures prices (the EC their 10-day average), while the OECD applies fixed prices.

To assess the quality of the Ministry of Finance's forecasts, we also evaluate, in addition to the MoF's approaches, a naïve forecast based on the latest oil price known as of the cut-off date for the forecast's assumptions, and the most recent forecast of the US Energy Information Administration (EIA) available on the same day.

The oil price forecasts are also evaluated according to several characteristics that answer the question of whether they were systematically biased (mean forecast error, ME), how large errors were recorded regardless of the deviation direction (mean absolute error, MAE), also with a penalty for large errors (root mean square error, RMSE). The results have the same unit of measure as the input values. The definitions are as follows:

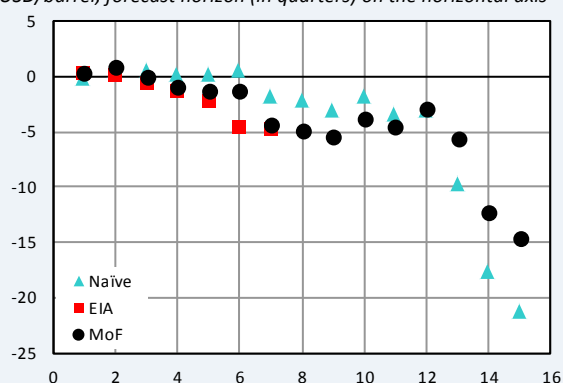
$$ME = \frac{\sum_{t=1}^T (A_t - F_t)}{T}, \quad MAE = \frac{\sum_{t=1}^T |A_t - F_t|}{T}, \quad RMSE = \sqrt{\frac{\sum_{t=1}^T (A_t - F_t)^2}{T}}$$

where  $A_t$  means the actual value in period  $t$ ,  $F_t$  stands for the forecast value for the same period, and  $T$  is the number of evaluated prognoses.

These characteristics are calculated for the individual horizons of the forecast. Calculations include data from 53 macroeconomic forecasts, the oldest from January 2005, and the latest from January 2018. The evaluation is carried out up to a 15-quarter horizon. The number of evaluated forecasts differs naturally in the calculations for individual horizons, the largest being for the one-quarter horizon (53 forecasts), and the smallest for the 15-quarter horizon (only 20 forecasts). Naïve forecasts could also be calculated up to the 15-quarter horizon, but the EIA forecasts are only calculated up to the 7-quarter horizon with respect to data availability. The results are shown in Graphs 2–4.

**Graph 2: Mean Forecast Error**

in USD/barrel, forecast horizon (in quarters) on the horizontal axis



Source: MoF, U. S. Energy Information Administration. Calculations of the MoF.

Graph 2 shows that the Ministry of Finance's forecasts were not biased during the period under review up to around the 6-quarter horizon, i.e. the horizon of macroeconomic forecasts used in the draft State budgets of the Czech Republic. Over the longer horizon, forecasts were biased upwards (i.e. the actual price was lower than the forecast). Nearly the same applies to EIA forecasts and naïve forecasts. In the 7–10 quarter horizon, naïve forecasts were slightly less biased. On the contrary, for the three most remote periods evaluated in Graph 1 (horizons of 13 to 15 quarters), the results of the Czech Ministry of Finance were visibly better compared to the naïve forecast.

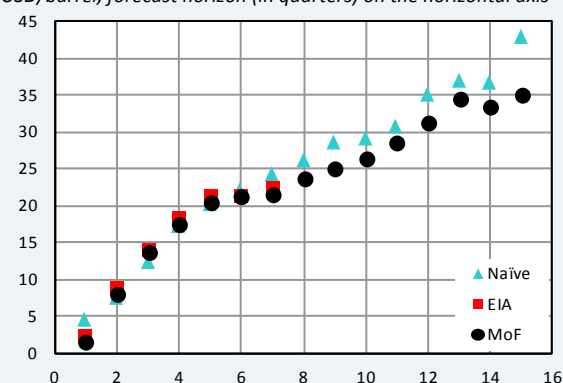
In the mean forecast error indicator, positive and negative deviations are offset, so the evaluation is supplemented by the mean absolute error. It can be seen from Graph 3 that up to the 7-quarter horizon, when all three types of forecasts are available, mean absolute errors are almost identical. In the 8- to 15-quarter horizon, MoF forecasts proved to be more suitable than the naïve forecast.

Virtually the same applies to the root mean square error indicator. In all cases, the error rate of the forecasts is large and growing relatively quickly with increasing forecast horizon.

It can be concluded that the quality of the forecasts of the Ministry of Finance corresponds to the quality of EIA forecasts and was slightly better than the quality of naïve forecasts. The disadvantage of current practice is its low transparency. Due to the efforts to increase it and taking into account the results of this analysis, we have chosen to use futures to determine the future oil price, in line with prevailing forecasting practice. Futures prices will thus no longer be just one of the inputs to the oil price forecast, but the forecast will be based solely on them. Like the EC, the Ministry of Finance will not base its forecasts on futures prices from a single business day, but on the average over 10 business days preceding the cut-off date for the assumptions of macroeconomic forecast. This reduces the problem of a one day fluctuation.

**Graph 3: Mean Absolute Error**

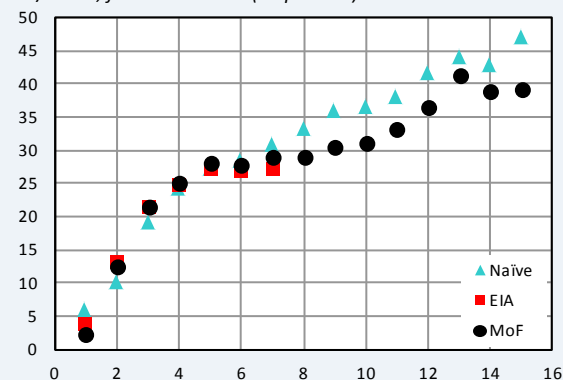
in USD/barrel, forecast horizon (in quarters) on the horizontal axis



Source: MoF, U. S. Energy Information Administration. Calculations of the MoF.

**Graph 4: Root Mean Square Error**

in USD/barrel, forecast horizon (in quarters) on the horizontal axis



Source: MoF, U. S. Energy Information Administration. Calculations of the MoF.

**Table 1.2.1: Prices of Selected Commodities – yearly**

spot prices

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
											Forecast	Forecast
<b>Crude oil Brent</b>	USD/barrel	<b>79.6</b>	<b>111.3</b>	<b>111.5</b>	<b>108.6</b>	<b>99.0</b>	<b>52.4</b>	<b>43.6</b>	<b>54.2</b>	<b>73</b>	<b>72</b>	
	growth in %	29.3	39.8	0.2	-2.6	-8.8	-47.1	-16.9	24.3	34.7	-0.8	
<b>Crude oil Brent index (in CZK)</b>	2010=100	<b>100.0</b>	<b>129.5</b>	<b>143.8</b>	<b>139.9</b>	<b>134.6</b>	<b>85.0</b>	<b>70.1</b>	<b>83.1</b>	<b>104</b>	<b>104</b>	
	growth in %	31.3	29.5	11.0	-2.7	-3.8	-36.9	-17.4	18.5	25.2	-0.3	
<b>Natural gas</b>	USD/MMBtu	<b>8.3</b>	<b>10.5</b>	<b>11.5</b>	<b>11.8</b>	<b>10.1</b>	<b>7.3</b>	<b>4.6</b>	<b>5.6</b>	.	.	
	growth in %	-4.9	26.9	9.1	2.7	-14.7	-27.8	-37.2	23.9	.	.	
<b>Natural gas index (in CZK)</b>	2010=100	<b>100.0</b>	<b>117.9</b>	<b>142.2</b>	<b>145.9</b>	<b>131.7</b>	<b>113.0</b>	<b>70.6</b>	<b>83.4</b>	.	.	
	growth in %	-6.2	17.9	20.6	2.6	-9.8	-14.2	-37.6	18.1	.	.	

Source: CNB, IMF, U. S. Energy Information Administration. Calculations of the MoF.

**Table 1.2.2: Prices of Selected Commodities – quarterly**

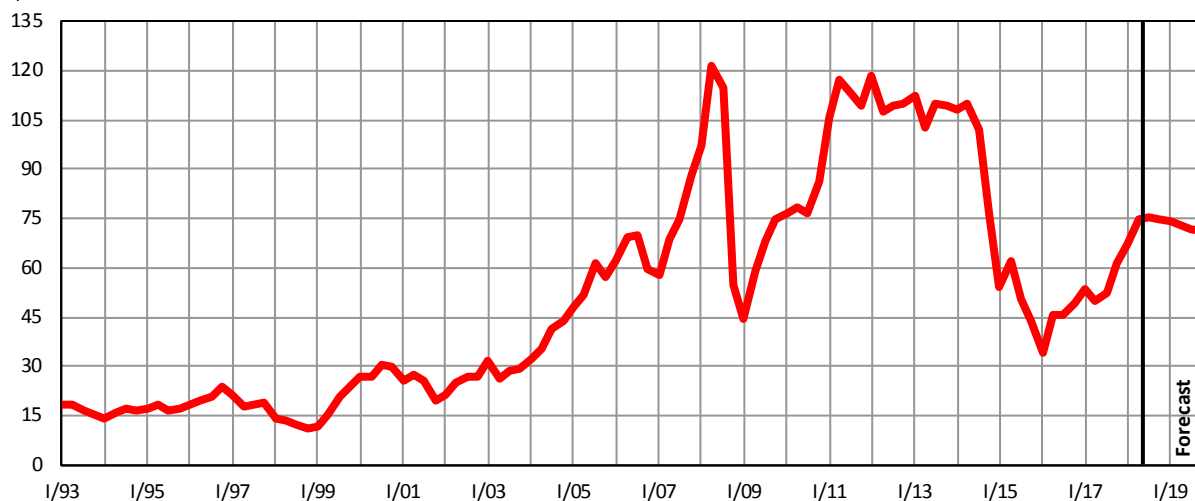
spot prices

		2017				2018					
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
										Forecast	Forecast
<b>Crude oil Brent</b>	USD/barrel	<b>53.6</b>	<b>49.6</b>	<b>52.1</b>	<b>61.4</b>	<b>66.9</b>	<b>74.5</b>	<b>76</b>	<b>75</b>		
	growth in %	58.6	8.8	13.8	25.1	24.8	50.2	44.9	22.2		
<b>Crude oil Brent index (in CZK)</b>	2010=100	<b>89.6</b>	<b>78.7</b>	<b>76.1</b>	<b>88.1</b>	<b>91.0</b>	<b>105.6</b>	<b>111</b>	<b>109</b>		
	growth in %	64.0	9.4	4.3	8.7	1.6	34.2	45.3	23.9		
<b>Natural gas</b>	USD/MMBtu	<b>5.7</b>	<b>5.3</b>	<b>5.3</b>	<b>6.2</b>	<b>7.2</b>	.	.	.		
	growth in %	17.8	30.1	21.3	26.9	25.6	.	.	.		
<b>Natural gas index (in CZK)</b>	2010=100	<b>91.5</b>	<b>81.3</b>	<b>74.9</b>	<b>85.8</b>	<b>93.5</b>	.	.	.		
	growth in %	21.8	30.9	11.2	10.4	2.2	.	.	.		

Source: CNB, U. S. Energy Information Administration, World Bank. Calculations of the MoF.

**Graph 1.2.2: Dollar Prices of Oil**

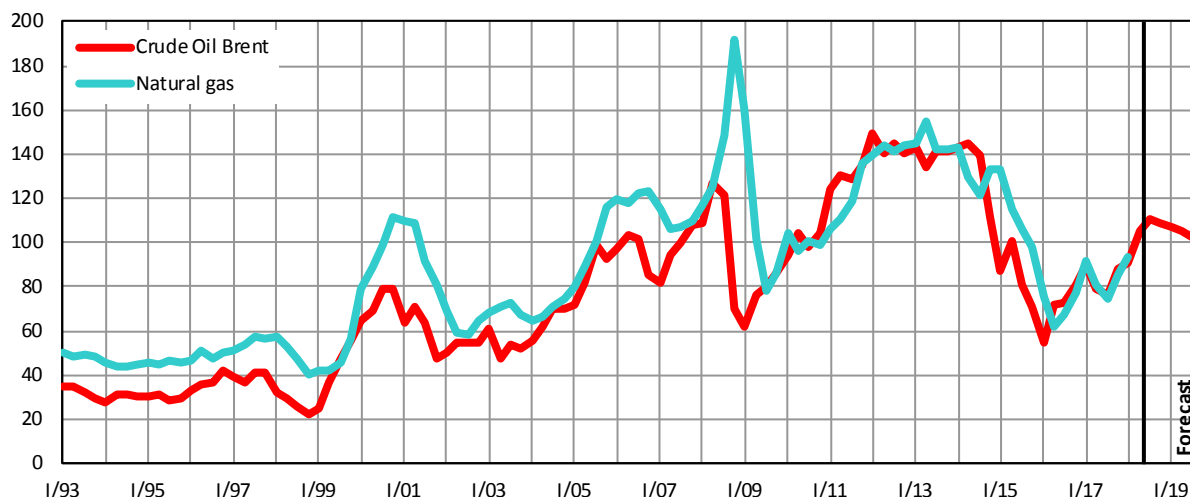
USD/barrel



Source: U. S. Energy Information Administration. Calculations of the MoF.

**Graph 1.2.3: Koruna Indices of Prices of Selected Commodities**

index 2010=100



Source: CNB, U.S. Energy Information Administration, World Bank. Calculations of the MoF.

### 1.3 Fiscal Policy

The general government sector reached a record surplus of CZK 80.6 billion in **2017**, which amounted to 1.6% of GDP. All sub-sectors contributed positively to this result. In a year-on-year comparison, the balance increased by 0.9 pp. The structural balance saw a modest improvement to 1.1% of GDP, the primary structural balance remained unchanged at 1.8% of GDP.

Better economic result of the general government sector in 2017 was due to positive developments on the revenue side of public budgets, especially taxes and social security contributions. Their growth of 7.7% YoY was due to both economic developments and measures against tax evasion (VAT reporting and electronic registration of sales). On the other hand, total expenditure increased by 4.2%. Compared to 2016, it was primarily the final consumption expenditure of the general government sector (up by 5.4%), with compensation of employees having the largest weight (up by 10.2%). Expenditure on social benefits and investment expenditure on fixed assets also increased. A further decline in interest costs of almost 14% had a positive effect.

The expected general government balance **for 2018** remains unchanged compared with the April forecast, i.e. we expect a surplus of 1.5% of GDP. In terms of the structural balance, we expect a slight year-on-year decline of the surplus by 0.2 percentage points to 0.9% of GDP, which is rather indicative of an expansionary fiscal policy.

When updating the forecast, new information led to partial changes in the revenue and expenditure structure. The updated scenario envisages a 6.9% (vs 5.0%) increase of final consumption expenditure of the general government. The reason for this reassessment is the results for the general government sector accounts for Q1 2018 indicating a higher rate of growth in consump-

tion expenditure, mainly due to higher compensation of employees.

The increase in general government consumption should be offset by higher tax revenues, including social security contributions. Their accelerating growth is evidenced both by the accrual data of quarterly national accounts and by the cash revenue data.

Nominal investment of the general government sector in the form of gross fixed capital formation increased by 3.8% YoY in Q1. Slower implementation of investments is also indicated by cash revenues for the first half of the year. However, this is not unusual, as investments show relatively high seasonality. We continue to assume that investment spending will accelerate in Q3 and Q4.

According to the cash performance, State budget deficit at the end of June 2018 was CZK 5.9 billion, which is CZK 10.5 billion worse than in the same period of 2017. If income and expenditure were adjusted for revenue transfers and expenditure related to EU funds and financial mechanisms, the balance would deteriorate by CZK 15.6 billion YoY. A positive factor in this development is the growth of expenditure for the financing of joint programmes of the Czech Republic and the EU, or programmes from financial mechanisms, most of which were of an investment nature. There are two factors that have a significant impact on the year-on-year deterioration of the State budget. The first one is the transfer of CZK 5.8 billion from the “privatization account” to the budget revenue to cover the pension insurance deficit in April 2017 (this year there was no such transfer). However, this factor explaining the deterioration of cash revenue will only be reflected in the isolated assessment of the State budget performance, but it does not affect the general government sector’s overall performance. The second factor is CZK 4.3 billion, which was transferred to

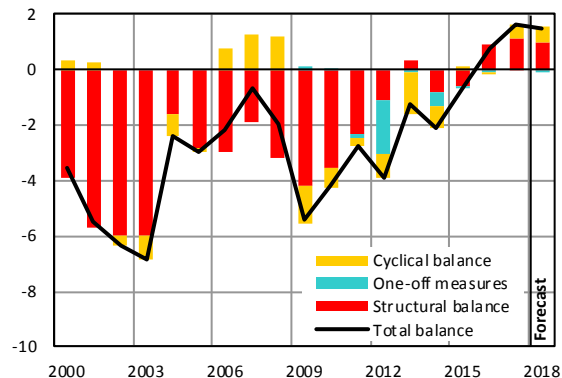
the Export Guarantee and Insurance Corporation in April 2018 (last year, the insurance funds received CZK 2.8 billion only in December). By contrast, regional budgets show consistent and significant surpluses, reaching a cash surplus of CZK 14.1 billion for the first five months of this year. Also, the health insurance companies' performance in the same period showed a cash surplus of CZK 4.8 billion.

General government sector debt reached 34.7% of GDP in 2017. With the expected general government sector

surplus and GDP growth, a further decline in the debt-to-GDP ratio to 33.0% at the end of 2018 is expected. In spite of the expected decline in both absolute and relative debt of the general government sector, the forecast predicts a change in the trend of decreasing interest costs, taking into account the development of the monetary policy in the Czech Republic and the reaction of the financial markets, resulting in a gradual increase in interest rates.

**Graph 1.3.1: Decomposition of the Government Balance**

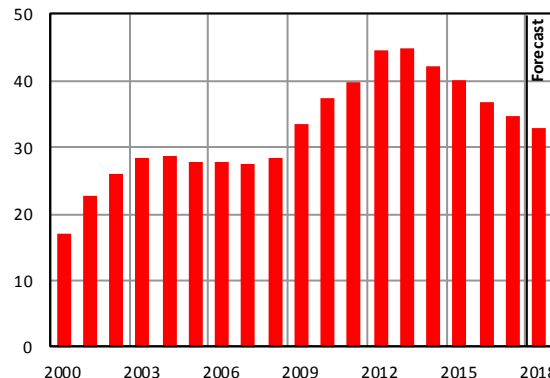
in % of GDP



Source: CZSO. Calculations of the MoF.

**Graph 1.3.2: General Government Debt**

in % of GDP



Source: CZSO. Calculations of the MoF.

**Table 1.3.1: Net Lending/Borrowing and Debt**

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
		<i>Forecast</i>									
<b>General government balance</b>	% GDP	-5.5	-4.2	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.6	1.5
	bill. CZK	-214	-166	-110	-160	-51	-91	-28	35	81	79
<b>Cyclical balance</b>	% GDP	-1.3	-0.7	-0.3	-0.9	-1.5	-0.8	0.1	-0.1	0.5	0.6
<b>Cyclically adjusted balance</b>	% GDP	-4.1	-3.5	-2.5	-3.1	0.2	-1.3	-0.7	0.8	1.1	0.9
<b>One-off measures <sup>1)</sup></b>	% GDP	0.1	0.1	-0.1	-1.9	-0.1	-0.5	-0.1	-0.1	0.0	-0.1
<b>Structural balance</b>	% GDP	-4.2	-3.6	-2.3	-1.1	0.4	-0.8	-0.6	0.9	1.1	0.9
<b>Fiscal effort <sup>2)</sup></b>	pp	-1.0	0.6	1.2	1.2	1.5	-1.2	0.2	1.5	0.2	-0.2
<b>Interest expenditure</b>	% GDP	1.2	1.3	1.3	1.4	1.3	1.3	1.1	0.9	0.7	0.7
<b>Primary balance</b>	% GDP	-4.2	-2.9	-1.4	-2.5	0.1	-0.8	0.5	1.6	2.3	2.2
<b>Cyclically adjusted primary balance</b>	% GDP	-2.9	-2.2	-1.1	-1.6	1.6	0.0	0.4	1.7	1.8	1.6
<b>General government debt</b>	% GDP	33.6	37.4	39.8	44.5	44.9	42.2	40.0	36.8	34.7	33.0
	bill. CZK	1 319	1 480	1 606	1 805	1 840	1 819	1 836	1 755	1 749	1 748
<b>Change in debt-to-GDP ratio</b>	pp	5.3	3.8	2.5	4.6	0.4	-2.7	-2.2	-3.1	-2.1	-1.7

<sup>1)</sup> One-off and temporary measures are such measures that have only a temporary impact on public budgets. Besides their temporary impact on overall balance, these measures are usually of non-recurring nature and very often result from the events that are beyond the direct power of the government.

<sup>2)</sup> Change in structural balance.

Source: CZSO. Calculations of the MoF.



## 1.4 Monetary Policy, Financial Sector and Exchange Rates

### 1.4.1 Monetary Policy

At its meeting at the end of June, the CNB Bank Board decided to increase the two-week repo rate by 0.25 pp, to 1.00%. In its statement<sup>1</sup> following the monetary policy meeting, the Bank Board stated that it “assessed the risks to the current inflation forecast at the monetary policy horizon as being inflationary and speaking in favour of an earlier interest rate increase.” Compared to the CNB’s forecast, the koruna’s exchange rate was weaker, and the expected tightening of monetary conditions in the exchange rate component did not materialize. “Higher-than-forecasted domestic inflation and stronger-than-forecasted inflationary pressures from abroad, linked mainly with oil prices” were also factors favouring an interest rate increase, according to the CNB (2018).

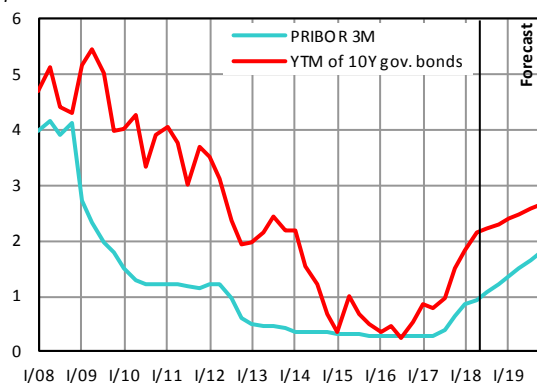
Thus, monetary conditions were tightened further in the interest rate component. Given the expected future path of monetary policy and the assumed gradual appreciation of the koruna (see below), monetary conditions should tighten in the forecast horizon not only in the interest rate but also in the exchange rate component.

### 1.4.2 Financial Sector and Interest Rates

In Q2 2018, the 3M (three-month) PRIBOR rate stood at 0.9% (vs 1.0%). We expect it to reach 1.0% in 2018 (unchanged) on average. Given the faster increase in monetary policy interest rates, the 3M PRIBOR could increase to an average of 1.6% (vs 1.4%) in 2019.

**Graph 1.4.1: Interest Rates**

in % p.a.



Source: CNB. Calculations of the MoF.

Long-term interest rates have been steadily increasing over the recent period due to tightening monetary policy. **Yield to maturity of 10-year government bonds** for convergence purposes averaged 1.8% in Q1 2018 (as estimated), and 2.1% in Q2 2018 (vs 1.9%). Given the anticipated inflation and the monetary policy of the CNB and the ECB, we expect long-term interest rates to continue

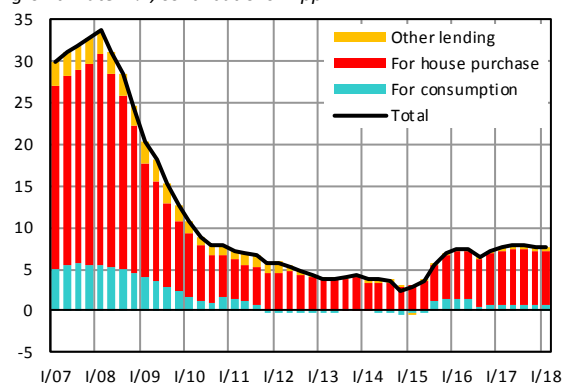
<sup>1</sup> CNB (2018). Statement of the Bank Board for the press conference following the monetary policy meeting. Prague, Czech National Bank, 27 June 2018, [retrieved on 11 July 2018], <[https://www.cnb.cz/en/monetary\\_policy/bank\\_board\\_minutes/2018/180627\\_prohlaseni.html](https://www.cnb.cz/en/monetary_policy/bank_board_minutes/2018/180627_prohlaseni.html)>.

to rise further. In 2018 and 2019 they could reach 2.1% and 2.5%, respectively (vs 1.9% and 2.2%, respectively).

In Q1 2018 loans to households increased by 7.7%; their dynamics thus increased slightly in comparison with the previous quarter. Loans to households continued to be mainly driven by housing loans (about 75% of all loans to households).

**Graph 1.4.2: Loans to Households**

YoY growth rate in%, contributions in pp



Source: CNB. Calculations of the MoF.

Acceleration of housing loans since the beginning of 2015, supported by low interest rates in addition to the favourable economic situation, has in combination with restricted supply led to a dynamic increase in prices of residential real estate. Continuing concurrence of these trends represents a negative risk for the economy (especially for households), which could materialise, for example, in the case of economic deterioration or a more marked increase in interest rates.

In response to this development, in June 2018 the CNB adjusted the Recommendation on the management of risks associated with the provision of retail loans secured by residential property (effective from 1 October 2018). In addition to the existing loan-to-value limits, the CNB issued a new recommendation on the debt-to-income (should not exceed 9) and the debt service-to-income (should not exceed 45 %) ratios.

The increase in housing loans started to slow down moderately in mid-2017 to below 9% in the first five months of this year. The cooling of the housing loans market is confirmed by data on net new housing loans<sup>2</sup> provided by banks to households. Whereas between Q1 2015 and Q2 2017, the year-on-year growth of these loans exceeded 20% on average, since the second half of last year there has been a decrease of 5%. This was probably due to higher interest rates, stricter credit conditions following the CNB’s recommendations and the

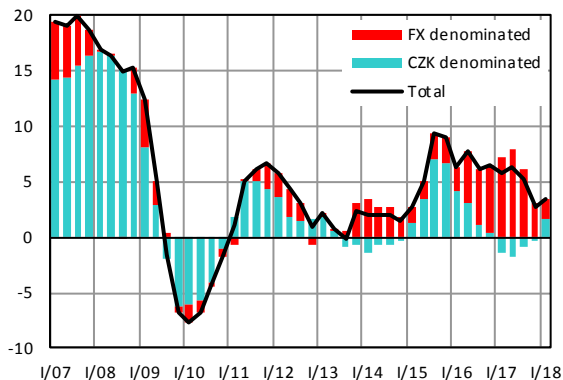
<sup>2</sup> These include loans that entered the economy for the first time in a given period. Net new loans also include an increase in refinanced and existing loans.

high housing prices, which significantly reduced availability of own housing even for middle-income groups.

The year-on-year growth in total loans to non-financial corporations amounted to 3.5% in Q1 2018, mainly due to a renewed increase in the dynamics of medium- and long-term loans. Compared to Q4 2017, loan growth accelerated, but did not reach the values of the previous three years. This may have been due to good financial situation of companies, which could finance their expenditures to a greater extent from their own sources, or from alternative sources of funding (for example, by issuing bonds). For the first time since the end of 2016, koruna loans grew in year-on-year terms (by 2.3%). There was another marked slowdown in the growth of foreign currency loans (to 6.3%), a decline of 18.5 pp since Q3 2017.

**Graph 1.4.3: Loans to Non-financial Corporations**

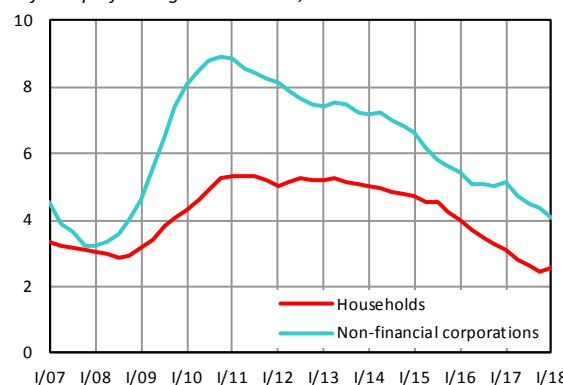
YoY growth rate in%, contributions in pp



Source: CNB. Calculations of the MoF.

**Graph 1.4.4: Non-performing Loans**

ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

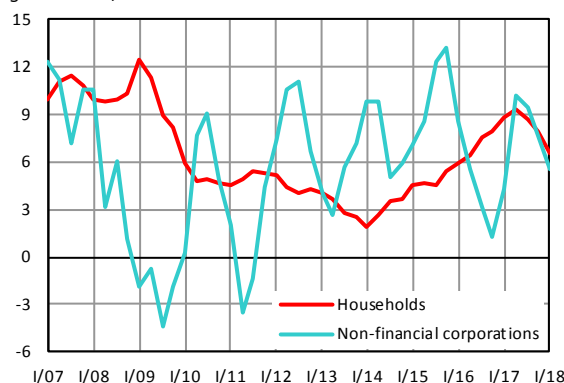
The share of non-performing loans to total loans reflects the positive economic development. In Q1 2018 it was 2.6% for households, and 4.1% for non-financial corporations. The low and consistently declining share of non-performing loans (in the case of households, the quarter-on-quarter increase of 0.2 pp was most probably due to methodological changes) indicates a very good financial condition of households and companies. However, in the case of loans to households, almost one fifth of consumer loans is provided by non-bank intermediaries. Ac-

ording to the Financial Stability Report 2017/2018, the rate of defaults on these loans is significantly higher than in the case of consumer loans provided by banks. In the case of loans to non-financial corporations, loans from non-bank intermediaries are similarly risky as loans from banks.

In Q1 2018 the year-on-year growth of deposits was 6.6% for households and 5.6% for non-financial corporations; thus the growth has slowed down since Q2 2017.

**Graph 1.4.5: Deposits**

YoY growth rate, in%



Source: CNB. Calculations of the MoF.

### 1.4.3 Exchange Rates

At the beginning of this year, the koruna continued to appreciate against the euro. At the beginning of February, however, it gradually started to depreciate from around CZK 25.2/EUR to CZK 26/EUR at the end of June. On average, the koruna's exchange rate against the euro reached CZK 25.6/EUR in Q2 2018 (vs CZK 25.2/EUR). Although it depreciated in quarter-on-quarter terms, the exchange rate appreciated by 3.6% YoY. The weaker-than-expected koruna is explained primarily by an outflow of portfolio investments denominated in koruna. The depreciation of the national currency was also seen in other non-euro area Central and Eastern European countries. Rather than economic fundamentals, the recent development of the koruna's exchange rate reflects the increased aversion of investors to risk. However, a relatively strong outflow of profits could have also played a role.

We expect the koruna's exchange rate against the euro to average CZK 25.6/EUR in 2018 (vs CZK 25.1/EUR). In 2019 the koruna could strengthen to an average of CZK 25.2/EUR (vs CZK 24.7/EUR). Gradual appreciation should be supported not only by continued convergence but also by the positive interest rate differential against the euro area. The closing of speculative positions of foreign investors could have the opposite effect.

The expected development of the koruna against the US dollar is implied by the USD/EUR exchange rate for which a technical assumption of stability at USD 1.16/EUR (average of the previous 10 business days before the closure of forecast input data) was made.

**Table 1.4.1: Interest Rates – yearly**  
average of period, unless stated otherwise

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
										Forecast	Forecast
Repo 2W rate CNB (end of period)	in % p.a.	0.75	0.75	0.05	0.05	0.05	0.05	0.05	0.50	.	.
Main refinancing rate ECB (end of period)	in % p.a.	1.00	1.00	0.75	0.25	0.05	0.05	0.05	0.00	.	.
Federal funds rate (end of period)	in % p.a.	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.50	.	.
PRIBOR 3M	in % p.a.	1.31	1.19	1.00	0.46	0.36	0.31	0.29	0.41	1.0	1.6
YTM of 10Y government bonds	in % p.a.	3.88	3.63	2.73	2.19	1.41	0.63	0.40	1.03	2.1	2.5
<b>Client interest rates</b>											
Loans to households	in % p.a.	7.01	6.84	6.47	6.05	5.59	5.15	4.65	4.10	.	.
Loans to non-financial corporations	in % p.a.	4.11	3.94	3.72	3.20	3.01	2.78	2.59	2.57	.	.
Deposits of households	in % p.a.	1.25	1.20	1.18	1.02	0.85	0.65	0.47	0.36	.	.
Deposits of non-financial corporations	in % p.a.	0.56	0.51	0.56	0.41	0.29	0.19	0.10	0.05	.	.

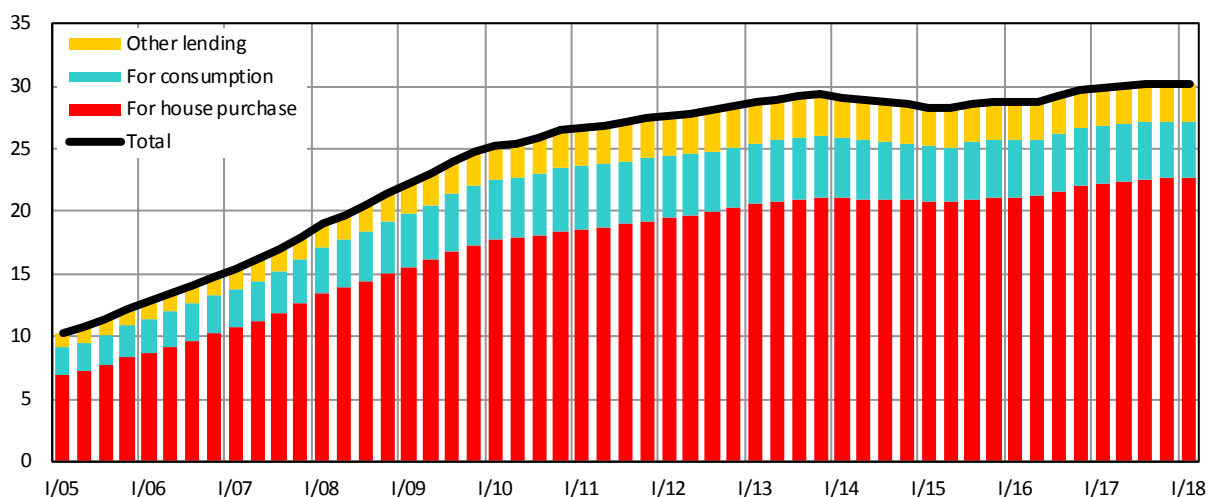
Source: CNB, ECB, Fed. Calculations of the MoF.

**Table 1.4.2: Interest Rates – quarterly**  
average of period, unless stated otherwise

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Forecast	Forecast
Repo 2W rate CNB (end of period)	in % p.a.	0.05	0.05	0.25	0.50	0.75	1.00	.	.
Main refinancing rate ECB (end of period)	in % p.a.	0.00	0.00	0.00	0.00	0.00	0.00	.	.
Federal funds rate (end of period)	in % p.a.	1.00	1.25	1.25	1.50	1.75	2.00	.	.
PRIBOR 3M	in % p.a.	0.28	0.29	0.40	0.65	0.86	0.92	1.1	1.2
YTM of 10Y government bonds	in % p.a.	0.87	0.77	0.97	1.50	1.81	2.14	2.2	2.3
<b>Client interest rates</b>									
Loans to households	in % p.a.	4.29	4.15	4.04	3.94	3.85	.	.	.
Loans to non-financial corporations	in % p.a.	2.57	2.55	2.53	2.64	2.81	.	.	.
Deposits of households	in % p.a.	0.38	0.36	0.35	0.34	0.33	.	.	.
Deposits of non-financial corporations	in % p.a.	0.06	0.05	0.05	0.04	0.05	.	.	.

Source: CNB, ECB, Fed. Calculations of the MoF.

**Graph 1.4.6: Loans to Households**  
in % of GDP (from yearly moving sums)



Source: CNB, CZSO. Calculations of the MoF.

**Table 1.4.3: Loans and Deposits – yearly averages**

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Households</b>											
<b>Loans</b>	<i>growth in %</i>	<b>29.2</b>	<b>16.5</b>	<b>8.9</b>	<b>6.6</b>	<b>5.0</b>	<b>4.0</b>	<b>3.4</b>	<b>4.8</b>	<b>7.2</b>	<b>7.8</b>
For consumption	<i>growth in %</i>	25.7	16.4	7.3	4.2	-1.0	-0.1	-0.9	3.4	6.0	4.3
For house purchase	<i>growth in %</i>	30.8	15.5	8.9	6.5	6.4	5.5	4.5	5.6	8.1	9.0
Other lending	<i>growth in %</i>	24.9	23.9	11.6	11.1	6.0	1.2	2.9	1.0	3.0	4.2
CZK denominated	<i>growth in %</i>	29.3	16.5	8.8	6.6	4.9	4.0	3.4	4.7	7.2	7.7
FX denominated	<i>growth in %</i>	-8.9	0.1	31.0	2.4	30.8	-1.3	0.0	12.7	8.5	36.3
<b>Deposits</b>	<i>growth in %</i>	<b>10.0</b>	<b>10.2</b>	<b>5.1</b>	<b>5.0</b>	<b>4.5</b>	<b>3.3</b>	<b>2.9</b>	<b>4.8</b>	<b>7.0</b>	<b>8.7</b>
CZK denominated	<i>growth in %</i>	10.7	10.1	5.6	5.4	4.7	3.3	2.7	4.1	6.9	9.7
FX denominated	<i>growth in %</i>	-3.4	13.1	-6.8	-4.0	-2.1	2.3	8.5	22.5	7.3	-13.9
<b>Non-performing loans (banking statistics)</b>	<i>share, in %</i>	<b>3.0</b>	<b>3.6</b>	<b>4.8</b>	<b>5.3</b>	<b>5.2</b>	<b>5.2</b>	<b>4.9</b>	<b>4.5</b>	<b>3.6</b>	<b>2.7</b>
<b>Loans to deposits ratio</b>	<i>in %</i>	<b>56</b>	<b>59</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>
<b>Non-financial corporations</b>											
<b>Loans</b>	<i>growth in %</i>	<b>15.9</b>	<b>1.9</b>	<b>-5.2</b>	<b>4.7</b>	<b>3.5</b>	<b>1.3</b>	<b>1.9</b>	<b>6.5</b>	<b>6.6</b>	<b>5.0</b>
CZK denominated	<i>growth in %</i>	18.7	0.5	-5.2	4.9	2.6	0.3	-1.0	5.9	2.8	-1.4
FX denominated	<i>growth in %</i>	3.4	9.1	-5.4	3.7	7.8	5.7	13.7	9.0	20.5	24.4
<b>Deposits</b>	<i>growth in %</i>	<b>5.1</b>	<b>-2.2</b>	<b>5.5</b>	<b>0.4</b>	<b>8.9</b>	<b>4.9</b>	<b>7.6</b>	<b>10.3</b>	<b>4.6</b>	<b>7.9</b>
CZK denominated	<i>growth in %</i>	6.4	-3.2	6.9	2.0	8.2	4.2	5.6	6.7	4.5	14.0
FX denominated	<i>growth in %</i>	0.5	1.6	0.2	-6.1	11.8	8.0	15.2	23.2	4.8	-11.1
<b>Non-performing loans (banking statistics)</b>	<i>share, in %</i>	<b>3.5</b>	<b>6.0</b>	<b>8.6</b>	<b>8.5</b>	<b>7.8</b>	<b>7.4</b>	<b>7.0</b>	<b>6.0</b>	<b>5.2</b>	<b>4.7</b>
<b>Loans to deposits ratio</b>	<i>in %</i>	<b>129</b>	<b>135</b>	<b>121</b>	<b>126</b>	<b>120</b>	<b>116</b>	<b>110</b>	<b>106</b>	<b>108</b>	<b>105</b>

Note: All indicators, except for the share of non-performing loans, are from the monetary statistics.

Source: CNB, ECB. Calculations of the MoF.

**Table 1.4.4: Loans and Deposits – quarterly averages**

		2016			2017				2018
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Households</b>									
<b>Loans</b>	<i>growth in %</i>	<b>7.5</b>	<b>6.6</b>	<b>7.2</b>	<b>7.6</b>	<b>8.0</b>	<b>8.0</b>	<b>7.6</b>	<b>7.7</b>
For consumption	<i>growth in %</i>	8.7	2.3	3.7	4.2	4.6	4.5	3.9	4.2
For house purchase	<i>growth in %</i>	8.0	8.0	8.5	8.9	9.2	9.2	8.8	8.8
Other lending	<i>growth in %</i>	2.6	3.0	3.5	3.7	4.7	4.4	4.1	4.7
CZK denominated	<i>growth in %</i>	7.5	6.6	7.2	7.6	7.9	7.9	7.5	7.7
FX denominated	<i>growth in %</i>	18.3	6.1	-2.0	12.0	48.5	49.4	35.8	11.1
<b>Deposits</b>	<i>growth in %</i>	<b>6.4</b>	<b>7.6</b>	<b>8.0</b>	<b>8.8</b>	<b>9.3</b>	<b>8.6</b>	<b>8.0</b>	<b>6.6</b>
CZK denominated	<i>growth in %</i>	6.3	7.6	8.2	9.4	10.6	9.8	8.9	7.1
FX denominated	<i>growth in %</i>	8.6	6.6	3.1	-5.6	-18.7	-17.3	-13.7	-7.4
<b>Non-performing loans (banking statistics)</b>	<i>share, in %</i>	<b>3.7</b>	<b>3.5</b>	<b>3.3</b>	<b>3.1</b>	<b>2.8</b>	<b>2.6</b>	<b>2.4</b>	<b>2.6</b>
<b>Loans to deposits ratio</b>	<i>in %</i>	<b>63</b>	<b>63</b>	<b>64</b>	<b>62</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>63</b>
<b>Non-financial corporations</b>									
<b>Loans</b>	<i>growth in %</i>	<b>7.8</b>	<b>6.1</b>	<b>6.4</b>	<b>5.8</b>	<b>6.3</b>	<b>5.3</b>	<b>2.6</b>	<b>3.5</b>
CZK denominated	<i>growth in %</i>	3.8	1.5	0.5	-1.7	-2.3	-1.2	-0.5	2.3
FX denominated	<i>growth in %</i>	22.0	22.7	27.1	31.1	32.6	24.8	11.5	6.3
<b>Deposits</b>	<i>growth in %</i>	<b>5.6</b>	<b>3.2</b>	<b>1.3</b>	<b>4.3</b>	<b>10.2</b>	<b>9.5</b>	<b>7.7</b>	<b>5.6</b>
CZK denominated	<i>growth in %</i>	4.5	3.2	2.4	8.5	19.8	15.6	12.4	6.8
FX denominated	<i>growth in %</i>	8.9	3.0	-2.2	-8.8	-18.0	-9.4	-7.8	1.0
<b>Non-performing loans (banking statistics)</b>	<i>share, in %</i>	<b>5.1</b>	<b>5.1</b>	<b>5.0</b>	<b>5.1</b>	<b>4.7</b>	<b>4.5</b>	<b>4.3</b>	<b>4.1</b>
<b>Loans to deposits ratio</b>	<i>in %</i>	<b>108</b>	<b>110</b>	<b>109</b>	<b>105</b>	<b>104</b>	<b>106</b>	<b>104</b>	<b>103</b>

Note: All indicators, except for the share of non-performing loans, are from the monetary statistics.

Source: CNB, ECB. Calculations of the MoF.

**Table 1.4.5: Exchange Rates – yearly**

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook	Outlook
<b>Nominal exchange rates</b>											
CZK / EUR	average	25.14	25.97	27.53	27.28	27.03	26.33	25.6	25.2	24.6	24.0
	appreciation in %	-2.2	-3.2	-5.7	0.9	0.9	2.7	2.8	1.4	2.5	2.5
CZK / USD	average	19.58	19.56	20.75	24.60	24.43	23.39	21.6	21.8	21.2	20.7
	appreciation in %	-9.7	0.1	-5.7	-15.7	0.7	4.5	8.1	-0.6	2.5	2.5
NEER	average of 2015=100	108.9	106.4	100.8	100.0	102.4	105.4	109	111	113	116
	appreciation in %	-3.5	-2.3	-5.2	-0.8	2.4	2.9	3.5	1.3	2.5	2.5
Real exchange rate to EA19 <sup>1)</sup>	average of 2010=100	99.8	96.8	92.7	93.3	94.7	97.6	101	103	106	109
	appreciation in %	-2.0	-3.0	-4.2	0.7	1.4	3.1	3.3	2.2	2.7	2.8
REER <sup>2)</sup>	average of 2010=100	99.2	96.9	91.8	91.2	93.5	96.8	.	.	.	.
	appreciation in %	-2.8	-2.3	-5.2	-0.7	2.5	3.6	.	.	.	.

<sup>1)</sup> Deflated by GDP deflators.

<sup>2)</sup> Eurostat calculations, deflated by CPI, versus 42 countries.

Source: CNB, Eurostat. Calculations of the MoF.

**Table 1.4.6: Exchange Rates – quarterly**

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
<b>Nominal exchange rates</b>									
CZK / EUR	average	27.02	26.53	26.08	25.65	25.40	25.60	25.8	25.6
	appreciation in %	0.1	1.9	3.6	5.4	6.4	3.6	1.1	0.0
CZK / USD	average	25.38	24.09	22.19	21.79	20.66	21.51	22.2	22.1
	appreciation in %	-3.3	-0.6	9.1	15.0	22.8	12.0	-0.2	-1.4
NEER	average of 2015=100	101.9	104.0	107.1	108.9	110.1	109.3	108	109
	appreciation in %	-0.5	1.5	4.5	6.3	8.0	5.1	1.0	0.0
Real exchange rate to EA19 <sup>1)</sup>	average of 2010=100	94.7	96.4	98.7	100.5	102.1	100	100	100
	appreciation in %	0.1	1.8	3.9	6.6	7.8	4.2	1.3	-0.2
REER <sup>2)</sup>	average of 2010=100	93.5	95.2	98.5	100.2	102.0	.	.	.
	appreciation in %	-0.6	1.9	5.4	7.7	9.1	.	.	.

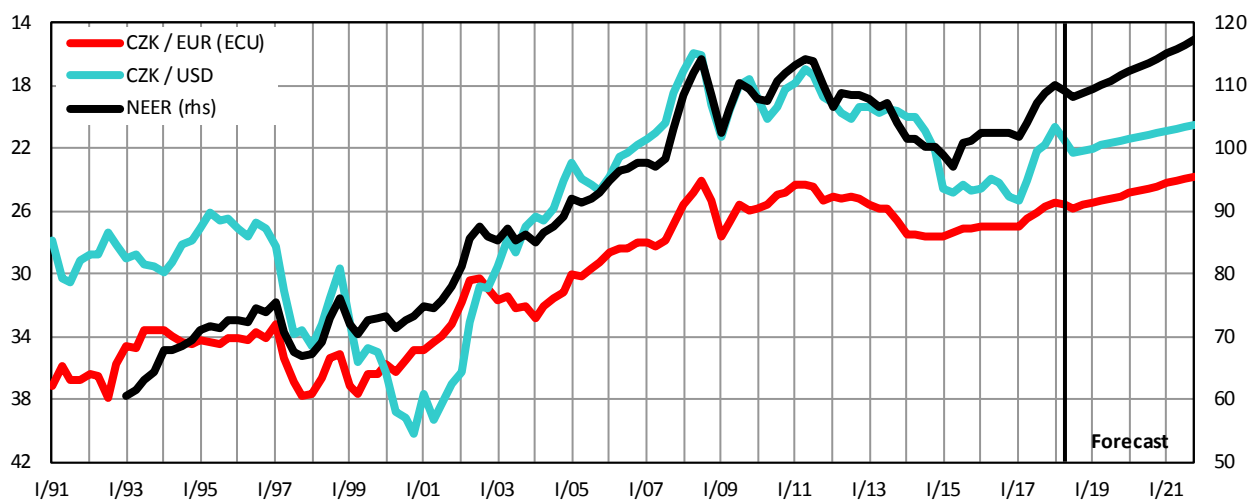
<sup>1)</sup> Deflated by GDP deflators.

<sup>2)</sup> Eurostat calculations, deflated by CPI, versus 42 countries.

Source: CNB, Eurostat. Calculations of the MoF.

**Graph 1.4.7: Nominal Exchange Rates**

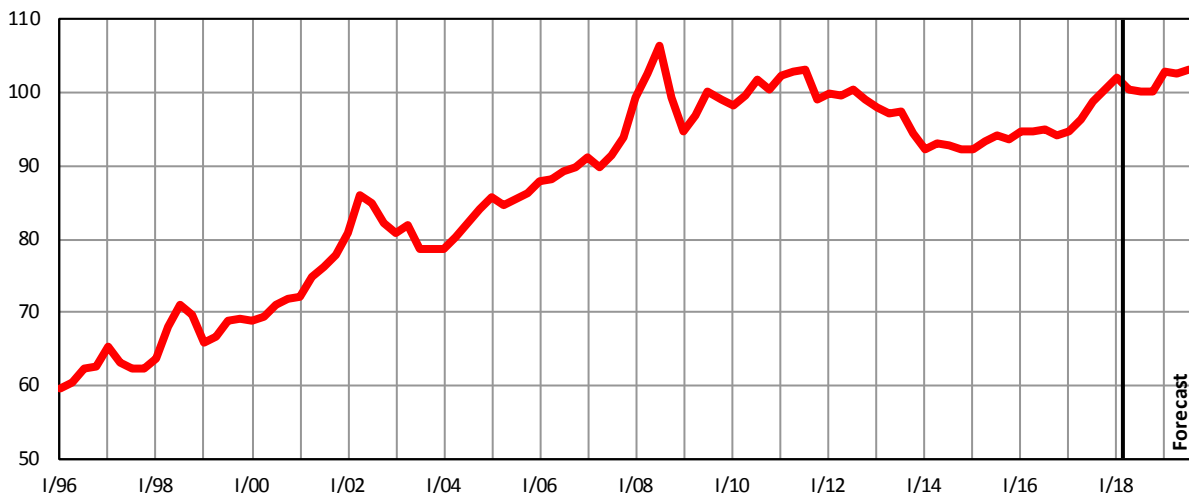
quarterly averages, average 2015=100 (rhs)



Source: CNB. Calculations of the MoF.

**Graph 1.4.8: Real Exchange Rate to EA19**

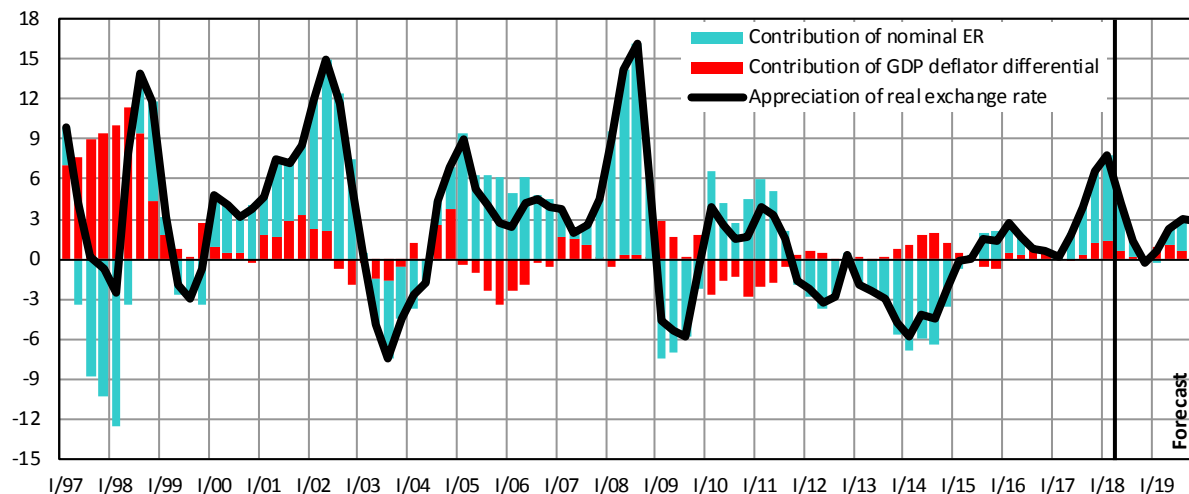
quarterly averages, deflated by GDP deflators, average 2010=100



Source: CNB, Eurostat. Calculations of the MoF.

**Graph 1.4.9: Real Exchange Rate to EA19**

deflated by GDP deflators, YoY growth rate in %, contributions in percentage points



Source: CNB, Eurostat. Calculations of the MoF.

## 1.5 Structural Policies

### 1.5.1 Business Environment

In order to prevent the existence of inactive companies, on 6 June 2018 the government approved an amendment to the Business Corporations Act, which tightens the sanctions for not submitting the financial statements to the collection of documents. In an extreme case, a company may be terminated without liquidation. The Act will come into effect on 1 January 2020.

### 1.5.2 Taxes

The amendment to the Sales Registration Act, which was approved by the Government on 13 June 2018, narrows the range of business entities that are subject to the obligation to register sales through a permanent electronic link. Entrepreneurs who are not subject to VAT and have a maximum of two employees and their income from registered sales does not exceed CZK 200,000 in the last 12 calendar months will be able to issue paper receipts provided by the Ministry of Finance. At the same time, the amendment transfers selected services (water and sewerage, catering services, draught beer as part of catering services, cleaning work, home care services, minor repairs, hairdressing services, etc.) from the basic VAT rate (21%) and the first reduced VAT rate (15%) to the second reduced VAT rate (10%). The authorization for the registration of sales under the special regime will become effective on the first day of the fourth calendar month following its publication; the tax changes will be-

come effective on the first day of the seventh calendar month.

On the same day, the government approved the Act amending certain tax-related acts. The Act introduces a new excise duty on heated tobacco products. The Act will come into effect on 1 January 2019.

On 11 April 2018, the Government issued a Memorandum on long-term cooperation in the development of gas-powered vehicles until 2025 which includes a commitment to maintain a reduced rate of excise tax on the use of natural gas in cars in 2020–2025.

### 1.5.3 Social and Health Care Systems

On 27 March 2018, the government decided by a resolution to introduce a 75% discount on rail and bus fares for students under 26 and the elderly over 65. The discount will apply from 1 September 2018.

The draft amendment to the Pension Insurance Act, approved by the Chamber of Deputies on 29 June 2018, increases the basic pension assessment for newly granted and existing pensions from 9% to 10% of the average wage. At the same time, it increases pensions to pensioners who have reached the age of 85 by CZK 1,000 per month. The amendment will become effective on 1 September 2018 and the new rules on 1 January 2019.

## 1.6 Demographic Trends

The population of the Czech Republic has seen a moderate but steady long-term increase. At the end of March 2018, the population of the Czech Republic stood at 10.613 million. Year-on-year, the population increased by 33.6 thousand, i.e. by 0.3%, and by 3.3 thousand in Q1.

This small increase was due to a positive net migration of 7.9 thousand persons with a year-on-year increase of 2.2 thousand. While 14.1 thousand persons moved from abroad to the Czech Republic, 6.2 thousand people moved abroad from the Czech Republic. The highest net migration balance was seen with the citizens of Ukraine (2.5 thousand) and Slovakia (1.4 thousand).

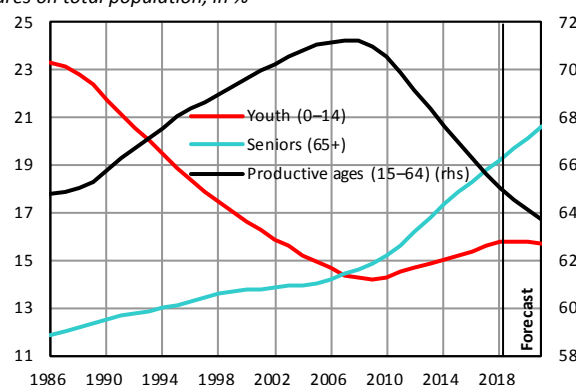
By contrast, the difference between the number of births and deaths, similarly to 2017, resulted in a decrease of 4.6 thousand persons. Also, the number of live births (27.0 thousand) and the number of deceased (31.6 thousand) roughly corresponded to the same period of the previous year.

The population of the Czech Republic increased by 31 thousand in 2017. Population ageing was reflected in the growth of the senior category of 65 years and over by 51 thousand people. The high number of women born in the late 1970s and 1980s and the gradually rising birth rate led to an increase in the number of children

under the age of 14 by 24 thousand. On the other hand, the number of persons aged 15–64 decreased considerably, by 44 thousand.

Graph 1.6.1: Age Groups

shares on total population, in %



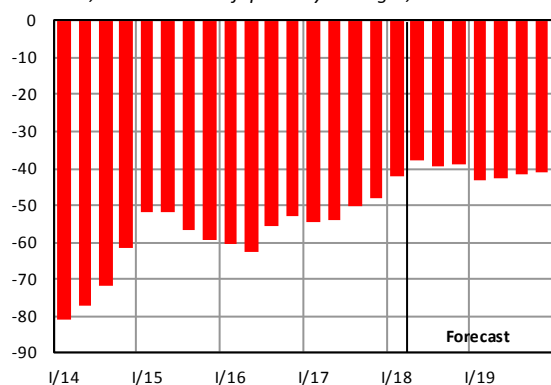
Source: CZSO. Calculations of the MoF.

With respect to past fluctuations in the birth-rate, however, the development in this category is far from homogeneous. The decline was concentrated in the age group of 18–42 years, which decreased by 84 thousand. By contrast, there was a considerable increase of 69 thousand in the age group 43–57. People in this age group show the highest employment and participation rates

and this, thus far, contributes to eliminating the impact of population ageing on the supply side of the economy.

### Graph 1.6.2: Population Aged 15–64

based on LFS, YoY increases of quarterly averages, in thousands



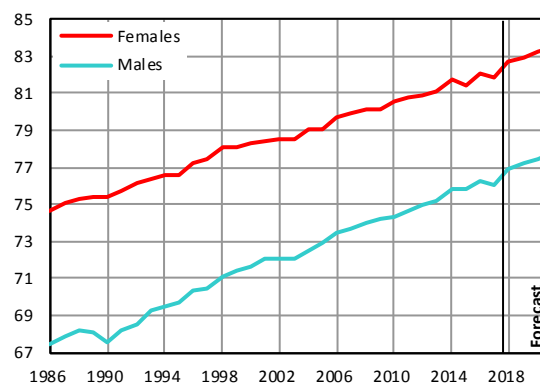
Source: CZSO. Calculations of the MoF.

The increasing number of **old-age pensioners** is probably due to the economic boom lower than would correspond to demographic developments and the increase of the statutory retirement age. At the end of March 2018, a total of 2.405 million old-age pensioners were clients of the pension system, i.e., 22.7% of the Czech population.

The YoY increase was 14 thousand persons, i.e. 0.6%. Because the increase in the number of old-age pensioners lags behind the growth of employment, since 2012 there has been a notable decrease in the effective dependency ratio by 2.2 pp. (Graph 1.6.4), which is one of the factors of improvement in the balance on the pension account.

### Graph 1.6.3: Life Expectancy at Birth

in years



Note: Change in methodology since 2017.

Source: CZSO.

### Table 1.6.1: Demographics

in thousands of persons (unless stated otherwise)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook
<b>Population (as of 1 January)</b>	<b>10 505</b>	<b>10 516</b>	<b>10 512</b>	<b>10 538</b>	<b>10 554</b>	<b>10 579</b>	<b>10 610</b>	<b>10 623</b>	<b>10 635</b>	<b>10 645</b>
growth in %	0.2	0.1	0.0	0.2	0.1	0.2	0.3	0.1	0.1	0.1
0–14 years	<b>1 541</b>	<b>1 560</b>	<b>1 577</b>	<b>1 601</b>	<b>1 624</b>	<b>1 647</b>	<b>1 671</b>	<b>1 678</b>	<b>1 678</b>	<b>1 671</b>
growth in %	1.3	1.2	1.1	1.5	1.4	1.5	1.4	0.5	0.0	-0.4
15–64 years	<b>7 263</b>	<b>7 188</b>	<b>7 109</b>	<b>7 057</b>	<b>6 998</b>	<b>6 943</b>	<b>6 899</b>	<b>6 855</b>	<b>6 814</b>	<b>6 780</b>
growth in %	-0.9	-1.0	-1.1	-0.7	-0.8	-0.8	-0.6	-0.6	-0.6	-0.5
65 and more years	<b>1 701</b>	<b>1 768</b>	<b>1 826</b>	<b>1 880</b>	<b>1 932</b>	<b>1 989</b>	<b>2 040</b>	<b>2 089</b>	<b>2 142</b>	<b>2 194</b>
growth in %	3.9	3.9	3.3	3.0	2.8	2.9	2.6	2.4	2.5	2.4
<b>Old-age pensioners (as of 1 January)<sup>1)</sup></b>	<b>2 340</b>	<b>2 341</b>	<b>2 340</b>	<b>2 355</b>	<b>2 377</b>	<b>2 395</b>	<b>2 403</b>	<b>2 410</b>	<b>2 424</b>	<b>2 434</b>
growth in %	3.5	0.0	0.0	0.6	0.9	0.8	0.3	0.3	0.6	0.4
<b>Old-age dependency ratios (as of 1 January, in %)</b>										
Demographic <sup>2)</sup>	<b>23.4</b>	<b>24.6</b>	<b>25.7</b>	<b>26.6</b>	<b>27.6</b>	<b>28.6</b>	<b>29.6</b>	<b>30.5</b>	<b>31.4</b>	<b>32.4</b>
Under current legislation <sup>3)</sup>	<b>37.8</b>	<b>38.3</b>	<b>38.8</b>	<b>39.3</b>	<b>39.8</b>	<b>40.1</b>	<b>40.4</b>	<b>40.5</b>	<b>40.8</b>	<b>41.1</b>
Effective <sup>4)</sup>	<b>47.9</b>	<b>47.6</b>	<b>47.2</b>	<b>46.9</b>	<b>46.8</b>	<b>46.2</b>	<b>45.7</b>	<b>45.4</b>	<b>45.6</b>	<b>45.7</b>
<b>Fertility rate (number of children)</b>	<b>1.452</b>	<b>1.456</b>	<b>1.528</b>	<b>1.570</b>	<b>1.630</b>	<b>1.687</b>	<b>1.47</b>	<b>1.47</b>	<b>1.48</b>	<b>1.48</b>
<b>Population increase</b>	<b>11</b>	<b>-4</b>	<b>26</b>	<b>16</b>	<b>25</b>	<b>31</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>9</b>
<b>Natural increase</b>	<b>0</b>	<b>-2</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>-6</b>	<b>-8</b>	<b>-9</b>	<b>-11</b>
Live births	109	107	110	111	113	114	98	96	95	93
Deaths	108	109	106	111	108	111	104	104	104	104
<b>Net migration</b>	<b>10</b>	<b>-1</b>	<b>22</b>	<b>16</b>	<b>20</b>	<b>28</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>20</b>
Immigration	30	30	42	35	38	46	.	.	.	.
Emigration	20	31	20	19	17	18	.	.	.	.

<sup>1)</sup> In 2010 disability pensions of pensioners over 64 were transferred into old-age pensions.

<sup>2)</sup> Demographic dependency: ratio of people in senior ages (65 and more) to people in productive age (15–64).

<sup>3)</sup> Dependency under current legislation: ratio of people above the official retirement age to the people over 19 below the official retirement age.

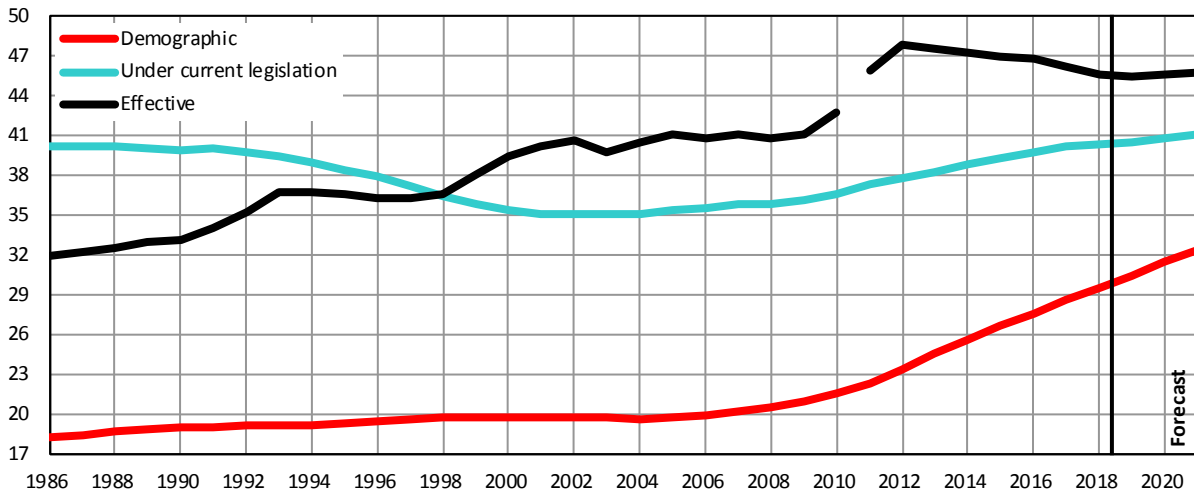
<sup>4)</sup> Effective dependency: ratio of old-age pensioners to working people (LFS methodology).

Source: Czech Social Security Administration, CZSO. Calculations of the MoF.



### Graph 1.6.4: Dependency Ratios

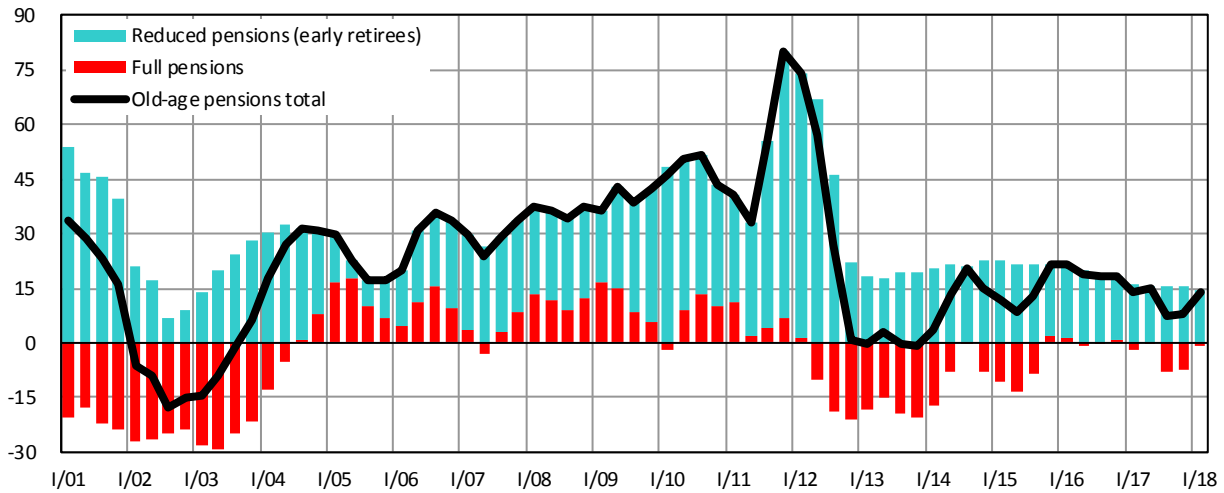
As of January 1, in %, inconsistent between 2010 and 2011 due to transfer of disability pensions to old-age pensions for people over 64 years



Source: CZSO. Calculations of the MoF.

### Graph 1.6.5: Old-Age Pensioners

absolute increase over a year in thousands of persons



Note: Adjusted for the transfer of disability pensions to old-age pensions for people over 64 years in 2010.

Source: Czech Social Security Administration, CZSO. Calculations of the MoF.

## 2 Economic Cycle

### 2.1 Position within the Economic Cycle

In Q1 2018, the **positive output gap** reached 1.7% of the potential product (see Graph 2.1.1), a level similar to that of the previous three quarters. Given the forecast for economic growth and the anticipated potential output development, the output gap should be just below 2% in this and the next year.

The positive output gap is most reflected in the **situation in the labour market**, which shows clear symptoms of overheating (see Chapter 3.3). In Q1 2018, as in the previous quarter, the unemployment rate (LFS) reached 2.4%. This is not only a record low in the history of the Czech Republic's market economy, but also a value that has not been seen in the EU over the past 16 years. The number of vacancies (according to data of the Ministry for Labour and Social Affairs) has increased dramatically and exceeded the number of registered unemployed persons by more than a third. Lack of workers is a visible barrier to an extensive economic growth.

The positive output gap is also one of the reasons for a visible reduction in the trade surplus relative to GDP and for increased inflation, which is above the CNB's target.

In Q1 2018 the year-on-year **potential product** growth was 2.9%. This is slightly better than the long-term average growth of gross value added (as well as of potential product) since 1995 of 2.5%.

The main factor of potential growth and its acceleration is the **total factor productivity**. In Q1 2018 the contribution of its trend component was 2.1 pp.

**Labour supply** is influenced by population ageing (see Chapter 1.6). This is reflected, among other things, by the long-term decline in the number of working-age inhabitants (15–64 years), which took away 0.3 pp from year-on-year potential product growth in Q1 2018.

However, the negative impact of ageing population on the labour supply is wholly offset by a dynamic **increase in the participation rate**, which leads to the labour force steadily increasing in the economy. Not only structural factors, especially an increase in the number of persons in age groups with naturally high participation and an increase in the statutory and effective retirement ages, but also a broader supply of jobs are predominating here. Since 2016, the contribution of the participation rate to potential product growth has stably reached 0.7 pp. From a long-run perspective, the regular **average working time** is shortening in the Czech Republic, which brings the Czech Republic closer to developed economies. In Q1 2018, the contribution of the number of hours usually worked was –0.2 pp.

The high growth in gross fixed capital formation in Q1 2018 led to an increase in the contribution of the **capital stock** to 0.6 pp.

**Table 2.1.1: Output Gap and Potential Product**

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Q1
<b>Output gap</b>	%	-3.8	-2.0	-0.8	-2.4	-4.0	-2.2	0.2	-0.2	1.4	1.7
<b>Potential product</b> <sup>1)</sup>	growth in %	2.0	0.8	0.7	0.9	1.2	1.4	2.3	2.7	2.8	2.9
<b>Contributions</b>											
Trend total factor productivity	pp	1.1	0.6	0.4	0.4	0.7	1.2	1.7	2.0	2.1	2.1
Fixed assets	pp	0.8	0.6	0.6	0.5	0.4	0.4	0.6	0.6	0.5	0.6
Demography <sup>2)</sup>	pp	0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.3
Participation rate	pp	0.3	0.1	0.3	0.8	1.0	0.5	0.5	0.7	0.7	0.7
Usually worked hours	pp	-0.3	-0.3	-0.2	-0.3	-0.3	-0.2	-0.1	-0.1	-0.2	-0.1

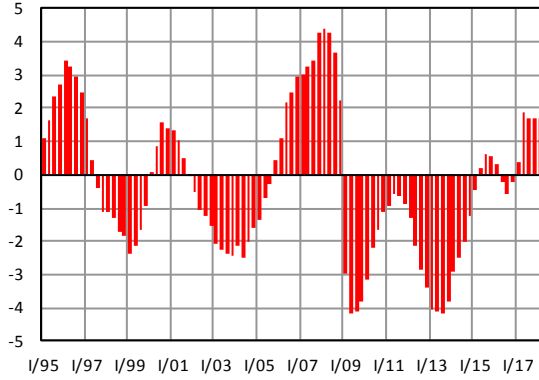
<sup>1)</sup> Based on gross value added.

<sup>2)</sup> Contribution of growth of working-age population (15–64 years).

Source: CZSO. Calculations of the MoF.

**Graph 2.1.1: Output Gap**

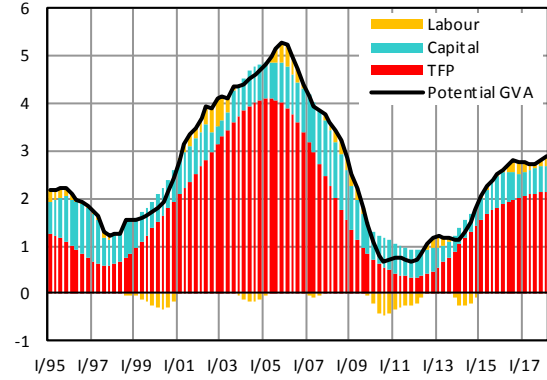
in % of potential product



Source: CZSO. Calculations of the MoF.

**Graph 2.1.2: Potential Product**

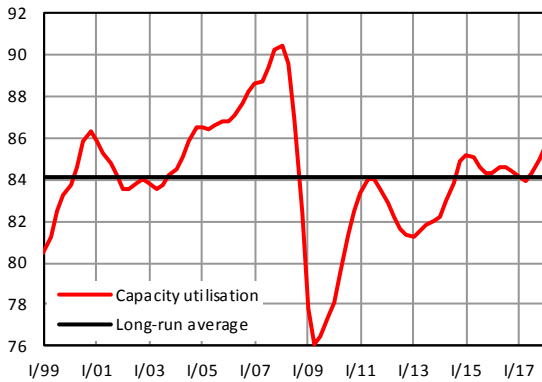
YoY growth rate in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

**Graph 2.1.3: Capacity Utilisation in Industry**

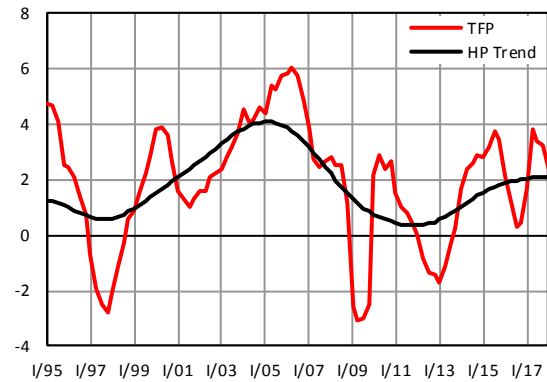
smoothed by Hodrick-Prescott filter, in %



Source: CZSO.

**Graph 2.1.4: Total Factor Productivity**

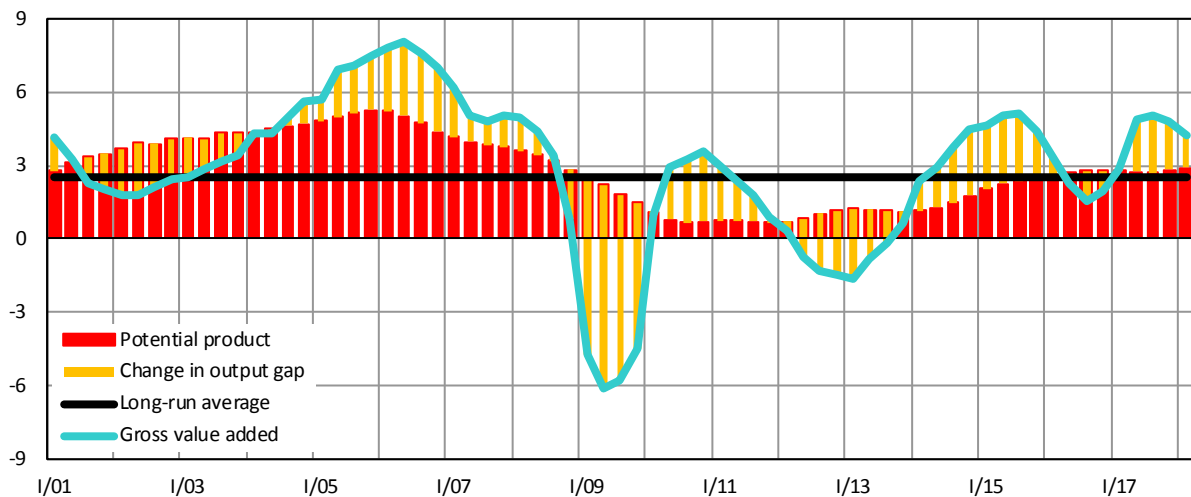
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

**Graph 2.1.5: Decomposition of the Growth in Gross Value Added – Business Cycle Perspective**

YoY growth rate in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

## 2.2 Business Cycle Indicators

The confidence indicator in industry dipped in Q2 2018, suggesting a likely moderate slowdown in year-on-year dynamics of gross value added in industry.

In construction, the confidence indicator rose again significantly in Q2 2018. This signals a continued recovery in gross value added in this sector, although the correlation between confidence and gross value added in construction is very low (see Graph 2.2.2).

Confidence in trade and services declined slightly in Q2 2018, but because it is still high, it rather indicates that the year-on-year growth in gross value added in this sector will be maintained.

The consumer confidence indicator increased significantly in Q2 2018 to reach record highs (the indicator has been monitored since 1998). Consumer confidence sig-

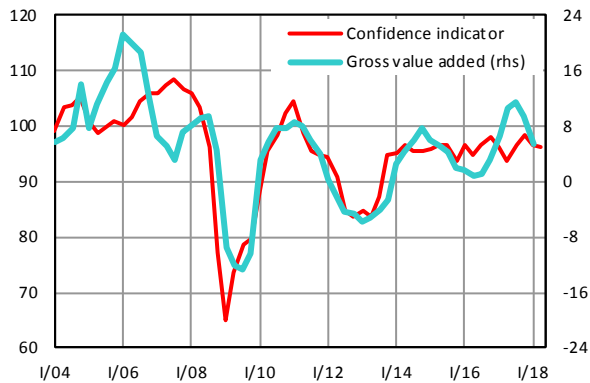
nals an increase in the growth dynamics of household final consumption expenditure in H2 2018, because the confidence indicator leads household consumption by 1–2 quarters.

Overall, the composite confidence indicator stagnated, indicating for Q2 2018 a steady year-on-year growth in total gross value added.

The composite leading indicator signals the likely peak of the economic cycle in Q2 2018. For the upcoming quarter, a narrowing of the output gap is indicated. In the forecast, however, we expect that the positive output gap will widen slightly this year. Thus, the signal from the composite leading indicator is considered a downward risk.

**Graph 2.2.1: Confidence and GVA in Industry**

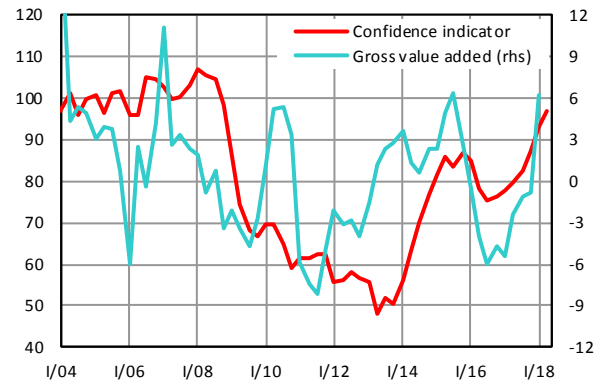
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

**Graph 2.2.2: Confidence and GVA in Construction**

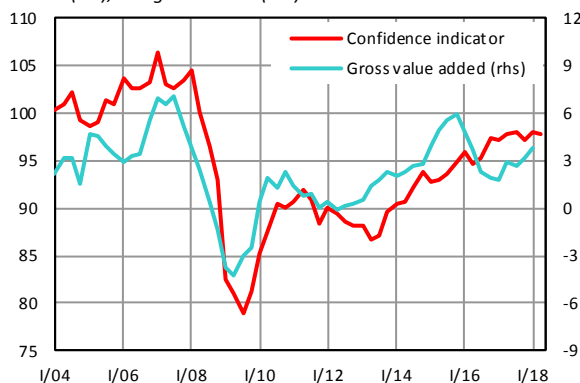
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

**Graph 2.2.3: Confidence and GVA in Trade and Services**

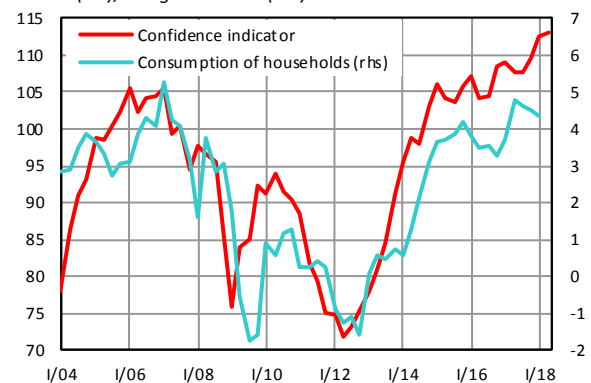
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

**Graph 2.2.4: Consumer Confidence and Consumption**

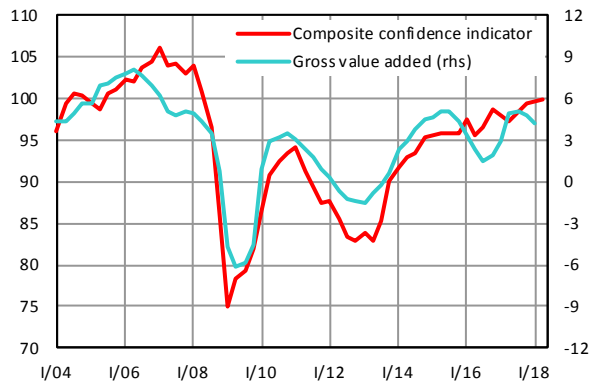
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

**Graph 2.2.5: Composite Confidence Indicator and GVA**

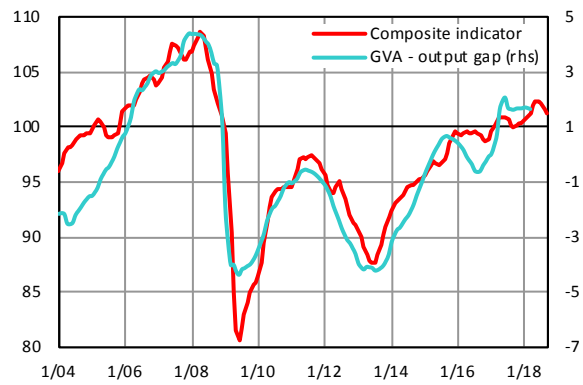
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

**Graph 2.2.6: Composite Leading Indicator**

2005=100 (lhs), in % of GVA (rhs)



Note: Synchronized with the output gap (based on GVA) derived from the Cobb-Douglas production function (see Chapter 2.1), on a monthly basis.

Source: CZSO. Calculations of the MoF.

## 3 Forecast of Macroeconomic Developments in the CR

### 3.1 Economic Output

#### 3.1.1 GDP in the First Quarter of 2018

Economic performance measured by real GDP increased by 3.4% YoY (vs 4.3%) in Q1 2018, while seasonally adjusted GDP increased by 0.5% QoQ (vs 1.0%). Economic growth, however, remains relatively strong despite certain slowdown. The biggest contribution to quarter-on-quarter GDP growth was attributable to construction and the trade, transportation, accommodation and food service sector. By contrast, other (i.e. non-manufacturing) industry and agriculture reduced its growth dynamics. The Czech Statistical Office revised the data on GDP and its components for 2016 and 2017 in the published annual national accounts. The dynamics of total GDP was slightly reduced by 0.1 pp in both years, with more significant changes in the structure of growth, in particular the reduction in the growth rate of gross capital formation in 2017.

The year-on-year increase in GDP in Q1 2018 was exclusively due to the growing domestic demand. The main driver of growth was investment activity of companies and household final consumption expenditure. The contribution of the balance of foreign trade in goods and services was significantly negative.

The increase in household consumption was due to rising disposable income amid unprecedentedly high consumer confidence. Final consumption expenditure of households was also supported by a slight year-on-year decrease in the savings rate. Expenditures on semi-durable and durable goods were the most dynamic components of household consumption, which suggests optimism of households regarding their future economic situation and the economic development. Expenditure on non-durable goods and services also grew strongly. Real consumption expenditure of households increased by 4.0% (vs 4.1%). General government consumption rose by 3.2% (vs 1.9%) thanks to the dynamics of employment and intermediate consumption.

Growth in gross fixed capital formation accelerated significantly to 8.1% (vs 5.8%). This was due to investments in non-residential buildings and structures, dwellings and machinery and equipment. The growth in investment activity was driven mainly by continued strengthening of private investment and to a lesser extent by renewed investments of the general government sector that were supported by co-financing from EU funds (see Graph 3.1.7). Considering the positive YoY contribution of the change in inventories, gross capital formation increased more than investment in fixed capital, by 10.0% (vs 10.9%).

Due to the slowdown of growth in both export markets and export performance, the year-on-year growth in exports of goods and services declined sharply compared to the previous quarter. Total exports thus increased by 2.4% in Q1 2018 (vs 3.3%). The deceleration in the growth of imports of goods and services to 4.4% (vs 4.3%) was not so pronounced due to strong investment demand.

A higher decrease in import prices compared to export prices resulted in an improvement of the terms of trade of 1.0% (vs 0.2%). The trading gain resulting from foreign trade brought about a situation where real gross domestic income increased by 4.3% YoY (vs 4.5%).

Gross operating surplus grew by 2.7% (vs 3.6%), compensation of employees increased by 10.2% (vs 8.3%) and net taxes on production were up by 4.9% YoY (vs 6.2%). As a result, nominal GDP recorded growth of 6.1% (vs 5.8%). The strong growth in compensation of employees, which was higher than GDP growth in 2016 and 2017, led to a further shift in the distribution of income in favour of the production factor of labour.

#### 3.1.2 Estimate for the Second Quarter of 2018

We estimate that in Q2 2018 real GDP increased by 2.9% YoY (vs 3.6%) and by 0.8% QoQ (*unchanged*). The estimated development in the quarter-on-quarter GDP dynamics reflects the data on the development of the economy in Q2 2018 available as of the cut-off date of the forecast (confidence indicators, production in industry and construction, sales in retail and services).

We believe that GDP growth was solely due to the growth in domestic demand. Due to increasing disposable income of households and very high consumer confidence, the final consumption expenditure of households may have risen by 4.2% YoY (vs 4.3%). Consumption of the general government sector could have increased by 1.7% (vs 1.9%). Gross capital formation was up, according to our estimates, by 4.2% (vs 3.8%) due to an increase in investment in fixed capital. The negative change in inventories is likely to have significantly decreased the growth of total investment.

Foreign trade is likely to have had a negative effect on GDP dynamics, mainly due to a significant increase in import-intensive investment demand. We estimate that exports of goods and services increased by 4.9% (vs 6.0%) and imports, in relation to the development of domestic demand and exports rose by 6.0% (vs 6.3%).

### 3.1.3 Forecast for the Years 2018 and 2019

In total, economic growth in 2018 should be exclusively driven by domestic demand led by strong final consumption expenditure of households and investment activity. GDP growth should also be strengthened by consumption of the general government sector. However, foreign trade balance should negatively affect the dynamics of GDP. We expect real GDP to increase by 3.2% (*vs 3.6%*) in 2018 and by 3.1% (*vs 3.3%*) in 2019.

Household consumption will be supported by growing real disposable income and declining savings rate. In 2018 the development of household consumption should positively reflect a number of discretionary changes in the social area, the dynamics of consumer loans and consumers' optimistic expectations (see Chapter 2.2). Moreover, changes in the pension system will have a positive effect on private consumption in 2019. Final consumption expenditure of households could thus rise by 4.3% (*unchanged*) this year and by 3.9% (*vs 4.1%*) in 2019.

We expect final consumption expenditure of the general government sector to increase by 2.1% (*vs 1.9%*) in 2018 and by 2.0% in 2019 (*unchanged*). The main factor in the growth of general government consumption in 2018 will be the increase in social benefits in kind based primarily on health insurance plans and the medium-term outlook of health insurance companies. Growth will also be driven by increased employment and spending on goods and services, with the help of gradually increasing current EU subsidies.

The gross fixed capital formation in 2018 should grow especially due to private investments but to a lesser extent also due to investments by the general government sector. Private investment is stimulated by growth of gross operating surplus, economic activity abroad, low

interest rates, and slightly above-average capacity utilization in manufacturing. Also, the growing lack of employees could motivate businesses to invest in order to increase labour productivity. Conversely, certain risks in the external environment could hamper private investments. In the case of the general government sector investment, we expect stable growth in investment expenditure financed from national resources in both these years. Investments should also be supported in 2018 and 2019 by the gradual start-up of projects co-financed by EU funds under the 2014–2020 programming period. The gross fixed capital formation could thus increase by 7.5% in 2018 (*vs 5.7%*) and by 3.2% in 2019 (*vs 4.4%*) with a positive contribution of government and especially private investment. The decrease in dynamics of investment activity in 2019 reflects tighter monetary conditions, slower growth of major trading partners and a slowdown of investment of the general government sector.

We expect the contribution of change in inventories to GDP growth to be negative in 2018; for 2019 a technical assumption of zero contribution was made. In 2018 we thus expect gross capital formation to increase by 5.6% (*vs 5.4%*), with its growth slowing down to 2.9% in 2019 (*vs 4.0%*).

We expect that exports of goods and services will grow by 4.2% (*vs 5.2%*) in 2018 and by 4.8% (*vs 4.9%*) in 2019. The dynamics of exports of goods and services reflects mainly the expected export market growth (see Chapter 3.4), and to a lesser extent also an increase in export performance. On the side of imports of goods and services, we expect an influence of growth in exports and gross domestic expenditure, especially import-intensive investment demand. Hence, imports will probably grow by 5.5% (*vs 5.9%*) in 2018 and by 5.0% (*vs 5.4%*) in 2019.

**Table 3.1.1: Real GDP by Type of Expenditure – yearly***chained volumes, reference year 2010*

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
<b>Gross domestic product</b>	<i>bill. CZK 2010</i>	4 001	3 981	4 089	4 307	4 412	4 601	4 750	4 898	5 029	5 150
	<i>growth in %</i>	<b>-0.8</b>	<b>-0.5</b>	<b>2.7</b>	<b>5.3</b>	<b>2.5</b>	<b>4.3</b>	<b>3.2</b>	<b>3.1</b>	<b>2.7</b>	<b>2.4</b>
	<i>growth in %<sup>1)</sup></i>	<b>-0.7</b>	<b>-0.5</b>	<b>2.7</b>	<b>5.4</b>	<b>2.4</b>	<b>4.5</b>	<b>3.2</b>	<b>3.0</b>	<b>2.7</b>	<b>2.3</b>
<b>Private consumption expenditure<sup>2)</sup></b>	<i>bill. CZK 2010</i>	1 921	1 931	1 966	2 038	2 113	2 203	2 298	2 386	2 454	2 517
	<i>growth in %</i>	<b>-1.2</b>	<b>0.5</b>	<b>1.8</b>	<b>3.7</b>	<b>3.6</b>	<b>4.3</b>	<b>4.3</b>	<b>3.9</b>	<b>2.8</b>	<b>2.6</b>
<b>Government consumption exp.</b>	<i>bill. CZK 2010</i>	783	803	812	827	849	860	878	896	912	928
	<i>growth in %</i>	<b>-2.0</b>	<b>2.5</b>	<b>1.1</b>	<b>1.9</b>	<b>2.7</b>	<b>1.3</b>	<b>2.1</b>	<b>2.0</b>	<b>1.8</b>	<b>1.8</b>
<b>Gross capital formation</b>	<i>bill. CZK 2010</i>	1 051	997	1 083	1 223	1 171	1 214	1 282	1 319	1 354	1 389
	<i>growth in %</i>	<b>-3.9</b>	<b>-5.1</b>	<b>8.6</b>	<b>13.0</b>	<b>-4.3</b>	<b>3.7</b>	<b>5.6</b>	<b>2.9</b>	<b>2.7</b>	<b>2.5</b>
Gross fixed capital formation	<i>bill. CZK 2010</i>	1 042	1 016	1 056	1 164	1 127	1 165	1 252	1 291	1 328	1 365
	<i>growth in %</i>	<b>-3.1</b>	<b>-2.5</b>	<b>3.9</b>	<b>10.2</b>	<b>-3.1</b>	<b>3.3</b>	<b>7.5</b>	<b>3.2</b>	<b>2.9</b>	<b>2.8</b>
Change in stocks and valuables	<i>bill. CZK 2010</i>	9	-19	26	59	43	49	30	28	26	24
<b>Exports of goods and services</b>	<i>bill. CZK 2010</i>	2 978	2 984	3 242	3 437	3 586	3 828	3 987	4 178	4 363	4 555
	<i>growth in %</i>	<b>4.3</b>	<b>0.2</b>	<b>8.7</b>	<b>6.0</b>	<b>4.3</b>	<b>6.7</b>	<b>4.2</b>	<b>4.8</b>	<b>4.4</b>	<b>4.4</b>
<b>Imports of goods and services</b>	<i>bill. CZK 2010</i>	2 732	2 734	3 008	3 212	3 302	3 499	3 692	3 878	4 051	4 234
	<i>growth in %</i>	<b>2.7</b>	<b>0.1</b>	<b>10.1</b>	<b>6.8</b>	<b>2.8</b>	<b>6.0</b>	<b>5.5</b>	<b>5.0</b>	<b>4.5</b>	<b>4.5</b>
<b>Gross domestic expenditure</b>	<i>bill. CZK 2010</i>	3 756	3 733	3 860	4 087	4 132	4 276	4 456	4 598	4 717	4 829
	<i>growth in %</i>	<b>-2.1</b>	<b>-0.6</b>	<b>3.4</b>	<b>5.9</b>	<b>1.1</b>	<b>3.5</b>	<b>4.2</b>	<b>3.2</b>	<b>2.6</b>	<b>2.4</b>
<b>Methodological discrepancy<sup>3)</sup></b>	<i>bill. CZK 2010</i>	-1	-1	-4	-7	-5	-5	-3	-3	-4	-4
<b>Real gross domestic income</b>	<i>bill. CZK 2010</i>	3 942	3 956	4 112	4 344	4 486	4 641	4 783	4 935	5 072	5 175
	<i>growth in %</i>	<b>-1.2</b>	<b>0.4</b>	<b>3.9</b>	<b>5.6</b>	<b>3.3</b>	<b>3.5</b>	<b>3.0</b>	<b>3.2</b>	<b>2.8</b>	<b>2.0</b>
<b>Contributions to GDP growth<sup>4)</sup></b>											
<b>Gross domestic expenditure</b>	<i>pp</i>	<b>-2.1</b>	<b>-0.6</b>	<b>3.2</b>	<b>5.5</b>	<b>1.0</b>	<b>3.2</b>	<b>3.9</b>	<b>3.0</b>	<b>2.4</b>	<b>2.2</b>
Consumption	<i>pp</i>	<b>-1.0</b>	<b>0.8</b>	<b>1.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>2.5</b>	<b>2.2</b>	<b>1.7</b>	<b>1.6</b>
Household expenditure	<i>pp</i>	<b>-0.6</b>	<b>0.3</b>	<b>0.9</b>	<b>1.8</b>	<b>1.7</b>	<b>2.0</b>	<b>2.0</b>	<b>1.9</b>	<b>1.4</b>	<b>1.2</b>
Government expenditure	<i>pp</i>	<b>-0.4</b>	<b>0.5</b>	<b>0.2</b>	<b>0.4</b>	<b>0.5</b>	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>
Gross capital formation	<i>pp</i>	<b>-1.1</b>	<b>-1.3</b>	<b>2.1</b>	<b>3.4</b>	<b>-1.2</b>	<b>1.0</b>	<b>1.4</b>	<b>0.8</b>	<b>0.7</b>	<b>0.6</b>
Gross fixed capital formation	<i>pp</i>	<b>-0.8</b>	<b>-0.6</b>	<b>1.0</b>	<b>2.6</b>	<b>-0.8</b>	<b>0.8</b>	<b>1.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>
Change in stocks	<i>pp</i>	<b>-0.2</b>	<b>-0.7</b>	<b>1.1</b>	<b>0.8</b>	<b>-0.4</b>	<b>0.1</b>	<b>-0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Foreign balance</b>	<i>pp</i>	<b>1.3</b>	<b>0.1</b>	<b>-0.5</b>	<b>-0.2</b>	<b>1.4</b>	<b>1.1</b>	<b>-0.7</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>
External balance of goods	<i>pp</i>	<b>1.4</b>	<b>0.1</b>	<b>-0.1</b>	<b>-1.1</b>	<b>1.0</b>	<b>0.8</b>	<b>-0.8</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>
External balance of services	<i>pp</i>	<b>-0.1</b>	<b>0.0</b>	<b>-0.4</b>	<b>0.9</b>	<b>0.4</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>
<b>Gross value added</b>	<i>bill. CZK 2010</i>	3 624	3 606	3 729	3 905	3 999	4 166	.	.	.	.
	<i>growth in %</i>	<b>-0.8</b>	<b>-0.5</b>	<b>3.4</b>	<b>4.7</b>	<b>2.4</b>	<b>4.2</b>	.	.	.	.
<b>Net taxes and subsidies on products</b>	<i>bill. CZK 2010</i>	376	375	363	402	414	436	.	.	.	.

<sup>1)</sup> From working day adjusted data.<sup>2)</sup> The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.<sup>3)</sup> Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.<sup>4)</sup> Calculated on the basis of prices and structure of the previous year with perfectly additive contributions.

Source: CZSO. Calculations of the MoF.



**Table 3.1.2: Real GDP by Type of Expenditure – quarterly**

chained volumes, reference year 2010

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						<i>Prelim.</i>	<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>
<b>Gross domestic product</b>	<i>bill. CZK 2010</i>	1 069	1 162	1 174	1 196	1 106	1 195	1 210	1 239
	<i>growth in %</i>	<b>3.6</b>	<b>3.6</b>	<b>4.9</b>	<b>4.9</b>	<b>3.4</b>	<b>2.9</b>	<b>3.0</b>	<b>3.6</b>
	<i>growth in %<sup>1)</sup></i>	<b>2.9</b>	<b>4.9</b>	<b>5.1</b>	<b>5.0</b>	<b>4.2</b>	<b>2.6</b>	<b>3.0</b>	<b>3.2</b>
	<i>QoQ in %<sup>1)</sup></i>	<b>1.3</b>	<b>2.3</b>	<b>0.5</b>	<b>0.7</b>	<b>0.5</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>
<b>Private consumption expenditure<sup>2)</sup></b>	<i>bill. CZK 2010</i>	521	549	558	575	542	572	582	602
	<i>growth in %</i>	<b>4.0</b>	<b>4.2</b>	<b>4.4</b>	<b>4.5</b>	<b>4.0</b>	<b>4.2</b>	<b>4.3</b>	<b>4.7</b>
<b>Government consumption exp.</b>	<i>bill. CZK 2010</i>	200	211	208	240	207	215	212	245
	<i>growth in %</i>	<b>2.1</b>	<b>1.5</b>	<b>0.6</b>	<b>1.0</b>	<b>3.2</b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>
<b>Gross capital formation</b>	<i>bill. CZK 2010</i>	238	306	347	323	262	319	360	340
	<i>growth in %</i>	<b>-4.2</b>	<b>1.3</b>	<b>7.2</b>	<b>8.9</b>	<b>10.0</b>	<b>4.2</b>	<b>3.9</b>	<b>5.5</b>
Gross fixed capital formation	<i>bill. CZK 2010</i>	255	281	302	327	275	304	323	350
	<i>growth in %</i>	<b>0.0</b>	<b>3.6</b>	<b>4.6</b>	<b>4.6</b>	<b>8.1</b>	<b>7.9</b>	<b>6.7</b>	<b>7.2</b>
Change in stocks and valuables	<i>bill. CZK 2010</i>	-16	25	44	-4	-13	15	38	-10
<b>Exports of goods and services</b>	<i>bill. CZK 2010</i>	958	972	909	988	981	1 020	947	1 039
	<i>growth in %</i>	<b>7.8</b>	<b>4.5</b>	<b>6.7</b>	<b>7.9</b>	<b>2.4</b>	<b>4.9</b>	<b>4.1</b>	<b>5.2</b>
<b>Imports of goods and services</b>	<i>bill. CZK 2010</i>	849	876	846	929	886	929	890	988
	<i>growth in %</i>	<b>5.8</b>	<b>3.5</b>	<b>6.4</b>	<b>8.2</b>	<b>4.4</b>	<b>6.0</b>	<b>5.2</b>	<b>6.3</b>
<b>Gross domestic expenditure</b>	<i>bill. CZK 2010</i>	960	1 066	1 112	1 138	1 011	1 105	1 153	1 187
	<i>growth in %</i>	<b>1.5</b>	<b>2.8</b>	<b>4.5</b>	<b>4.9</b>	<b>5.3</b>	<b>3.7</b>	<b>3.7</b>	<b>4.3</b>
<b>Methodological discrepancy<sup>3)</sup></b>	<i>bill. CZK 2010</i>	0	-2	-2	0	-1	-2	-2	1
<b>Real gross domestic income</b>	<i>bill. CZK 2010</i>	1 074	1 169	1 188	1 210	1 120	1 200	1 216	1 247
	<i>growth in %</i>	<b>1.9</b>	<b>2.3</b>	<b>4.3</b>	<b>5.2</b>	<b>4.3</b>	<b>2.6</b>	<b>2.4</b>	<b>3.0</b>
<b>Gross value added</b>	<i>bill. CZK 2010</i>	975	1 052	1 061	1 078	1 008	.	.	.
	<i>growth in %</i>	<b>3.6</b>	<b>3.5</b>	<b>4.9</b>	<b>4.6</b>	<b>3.4</b>	.	.	.
	<i>growth in %<sup>1)</sup></i>	<b>2.8</b>	<b>4.9</b>	<b>5.1</b>	<b>4.8</b>	<b>4.3</b>	.	.	.
	<i>QoQ in %<sup>1)</sup></i>	<b>1.3</b>	<b>2.2</b>	<b>0.5</b>	<b>0.8</b>	<b>0.7</b>	.	.	.
<b>Net taxes and subsidies on products</b>	<i>bill. CZK 2010</i>	95	109	113	119	98	.	.	.

<sup>1)</sup> From seasonally and working day adjusted data<sup>2)</sup> The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.<sup>3)</sup> Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.

Source: CZSO. Calculations of the MoF.

**Table 3.1.3: Nominal GDP by Type of Expenditure – yearly**

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook	Outlook
<b>Gross domestic product</b>	<i>bill. CZK</i>	<b>4 060</b>	<b>4 098</b>	<b>4 314</b>	<b>4 596</b>	<b>4 768</b>	<b>5 045</b>	<b>5 300</b>	<b>5 589</b>	<b>5 838</b>	<b>6 091</b>
	<i>growth in %</i>	0.6	0.9	5.3	6.5	3.7	5.8	5.1	5.5	4.5	4.3
<b>Private consumption expenditure <sup>1)</sup></b>	<i>bill. CZK</i>	<b>1 998</b>	<b>2 025</b>	<b>2 074</b>	<b>2 152</b>	<b>2 243</b>	<b>2 394</b>	<b>2 561</b>	<b>2 722</b>	<b>2 854</b>	<b>2 980</b>
	<i>growth in %</i>	1.0	1.4	2.4	3.8	4.2	6.7	7.0	6.3	4.9	4.4
<b>Government consumption exp.</b>	<i>bill. CZK</i>	<b>804</b>	<b>826</b>	<b>849</b>	<b>883</b>	<b>919</b>	<b>969</b>	<b>1 036</b>	<b>1 100</b>	<b>1 148</b>	<b>1 197</b>
	<i>growth in %</i>	-1.1	2.7	2.8	4.0	4.0	5.4	6.9	6.2	4.3	4.3
<b>Gross capital formation</b>	<i>bill. CZK</i>	<b>1 063</b>	<b>1 011</b>	<b>1 116</b>	<b>1 285</b>	<b>1 239</b>	<b>1 303</b>	<b>1 372</b>	<b>1 425</b>	<b>1 476</b>	<b>1 533</b>
	<i>growth in %</i>	-2.2	-4.9	10.4	15.1	-3.6	5.2	5.3	3.8	3.6	3.8
Gross fixed capital formation	<i>bill. CZK</i>	<b>1 052</b>	<b>1 027</b>	<b>1 084</b>	<b>1 216</b>	<b>1 189</b>	<b>1 246</b>	<b>1 336</b>	<b>1 391</b>	<b>1 443</b>	<b>1 501</b>
	<i>growth in %</i>	-1.4	-2.4	5.5	12.2	-2.3	4.8	7.2	4.1	3.7	4.0
Change in stocks and valuables	<i>bill. CZK</i>	<b>11</b>	<b>-16</b>	<b>32</b>	<b>68</b>	<b>50</b>	<b>57</b>	<b>36</b>	<b>34</b>	<b>33</b>	<b>31</b>
<b>External balance</b>	<i>bill. CZK</i>	<b>195</b>	<b>236</b>	<b>275</b>	<b>276</b>	<b>368</b>	<b>379</b>	<b>331</b>	<b>343</b>	<b>361</b>	<b>381</b>
Exports of goods and services	<i>bill. CZK</i>	<b>3 092</b>	<b>3 150</b>	<b>3 561</b>	<b>3 725</b>	<b>3 793</b>	<b>4 025</b>	<b>4 151</b>	<b>4 374</b>	<b>4 570</b>	<b>4 793</b>
	<i>growth in %</i>	7.5	1.9	13.0	4.6	1.8	6.1	3.1	5.4	4.5	4.9
Imports of goods and services	<i>bill. CZK</i>	<b>2 897</b>	<b>2 914</b>	<b>3 286</b>	<b>3 449</b>	<b>3 425</b>	<b>3 645</b>	<b>3 819</b>	<b>4 031</b>	<b>4 209</b>	<b>4 412</b>
	<i>growth in %</i>	6.5	0.6	12.8	5.0	-0.7	6.4	4.8	5.6	4.4	4.8
<b>Gross national income</b>	<i>bill. CZK</i>	<b>3 808</b>	<b>3 854</b>	<b>4 023</b>	<b>4 286</b>	<b>4 459</b>	<b>4 735</b>	<b>5 007</b>	<b>5 289</b>	<b>5 531</b>	<b>5 774</b>
	<i>growth in %</i>	2.1	1.2	4.4	6.5	4.0	6.2	5.7	5.6	4.6	4.4
<b>Primary income balance</b>	<i>bill. CZK</i>	<b>-252</b>	<b>-245</b>	<b>-291</b>	<b>-310</b>	<b>-309</b>	<b>-310</b>	<b>-294</b>	<b>-300</b>	<b>-307</b>	<b>-317</b>

<sup>1)</sup> The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.

Source: CZSO. Calculations of the MoF.

**Table 3.1.4: Nominal GDP by Type of Expenditure – quarterly**

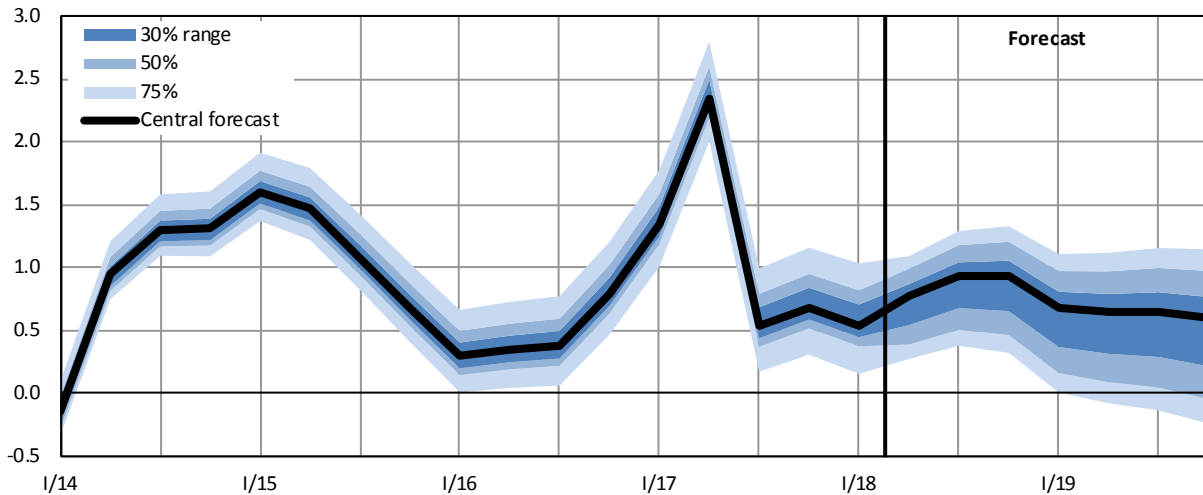
		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Prelim.	Estimate	Forecast	Forecast
<b>Gross domestic product</b>	<i>bill. CZK</i>	<b>1 157</b>	<b>1 266</b>	<b>1 289</b>	<b>1 334</b>	<b>1 227</b>	<b>1 327</b>	<b>1 349</b>	<b>1 397</b>
	<i>growth in %</i>	4.4	4.7	6.6	7.4	6.1	4.8	4.7	4.8
<b>Private consumption expenditure <sup>1)</sup></b>	<i>bill. CZK</i>	<b>562</b>	<b>594</b>	<b>608</b>	<b>630</b>	<b>598</b>	<b>635</b>	<b>651</b>	<b>676</b>
	<i>growth in %</i>	6.5	6.5	6.8	7.2	6.5	6.9	7.2	7.2
<b>Government consumption exp.</b>	<i>bill. CZK</i>	<b>217</b>	<b>234</b>	<b>233</b>	<b>285</b>	<b>239</b>	<b>252</b>	<b>248</b>	<b>296</b>
	<i>growth in %</i>	5.2	5.1	4.8	6.4	10.1	8.0	6.5	3.9
<b>Gross capital formation</b>	<i>bill. CZK</i>	<b>257</b>	<b>330</b>	<b>371</b>	<b>345</b>	<b>279</b>	<b>342</b>	<b>386</b>	<b>365</b>
	<i>growth in %</i>	-2.4	3.5	8.9	9.3	8.9	3.6	4.0	5.7
Gross fixed capital formation	<i>bill. CZK</i>	<b>273</b>	<b>302</b>	<b>323</b>	<b>349</b>	<b>292</b>	<b>324</b>	<b>345</b>	<b>375</b>
	<i>growth in %</i>	2.2	5.3	6.0	5.4	7.1	7.5	6.9	7.5
Change in stocks and valuables	<i>bill. CZK</i>	<b>-16</b>	<b>28</b>	<b>49</b>	<b>-3</b>	<b>-13</b>	<b>18</b>	<b>41</b>	<b>-10</b>
<b>External balance</b>	<i>bill. CZK</i>	<b>122</b>	<b>108</b>	<b>77</b>	<b>72</b>	<b>111</b>	<b>97</b>	<b>63</b>	<b>60</b>
Exports of goods and services	<i>bill. CZK</i>	<b>1 028</b>	<b>1 031</b>	<b>946</b>	<b>1 019</b>	<b>1 010</b>	<b>1 056</b>	<b>994</b>	<b>1 091</b>
	<i>growth in %</i>	9.7	5.1	4.9	4.7	-1.7	2.4	5.1	7.0
Imports of goods and services	<i>bill. CZK</i>	<b>907</b>	<b>923</b>	<b>869</b>	<b>947</b>	<b>899</b>	<b>958</b>	<b>931</b>	<b>1 031</b>
	<i>growth in %</i>	9.8	6.0	5.4	4.7	-0.8	3.8	7.1	8.9

<sup>1)</sup> The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.

Source: CZSO. Calculations of the MoF.

### Graph 3.1.1: Gross Domestic Product (real)

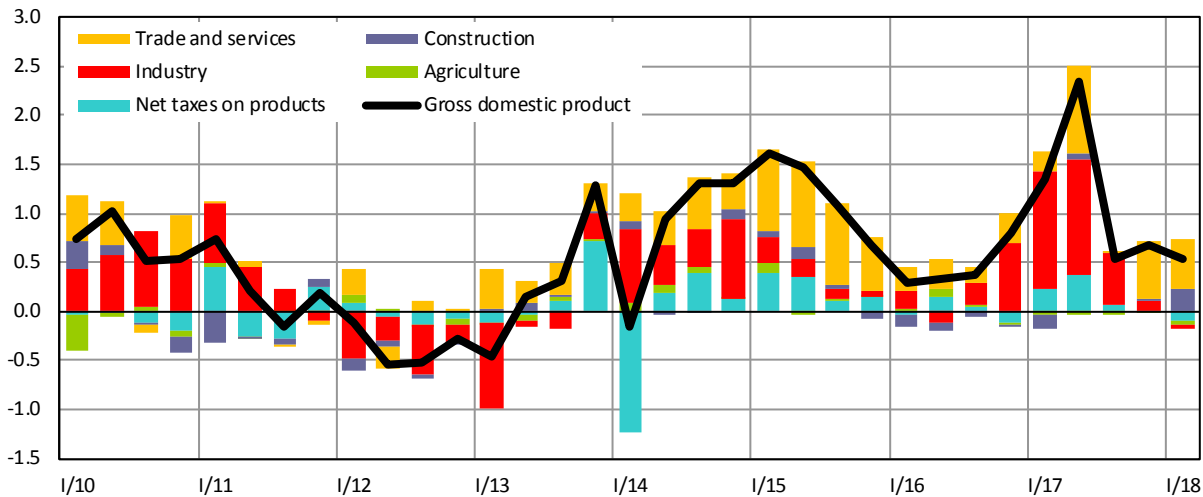
QoQ growth rate, in %, seasonally adjusted, past probability distribution reflects the actual distribution of data revisions, future probability distribution is based upon the MoF's forecasting performance



Source: CZSO. Calculations of the MoF.

### Graph 3.1.2: Resources of Gross Domestic Product

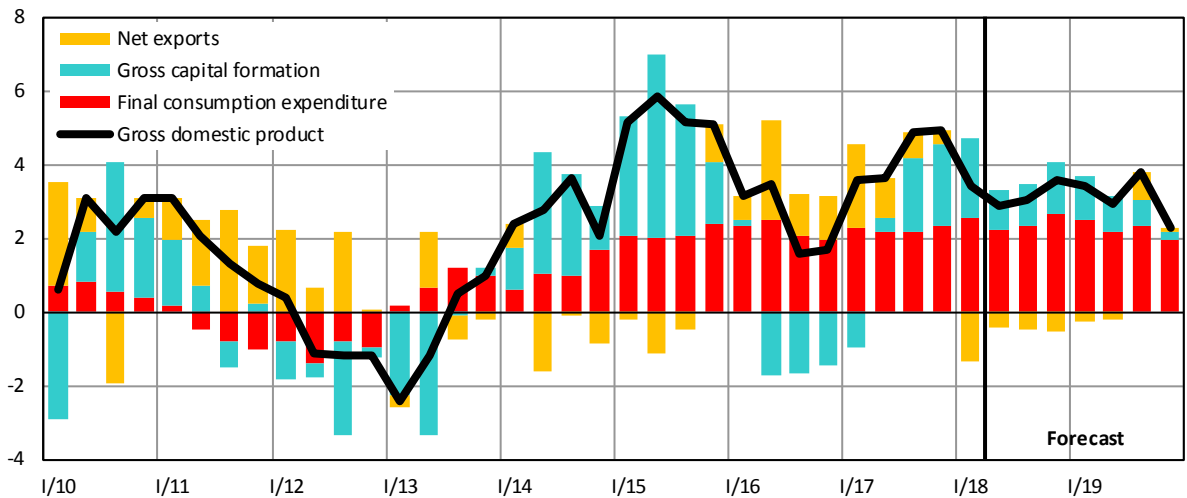
QoQ real growth rate of GDP in %, contributions of individual components in percentage points, seasonally adjusted



Source: CZSO. Calculations of the MoF.

### Graph 3.1.3: Gross Domestic Product by Type of Expenditure

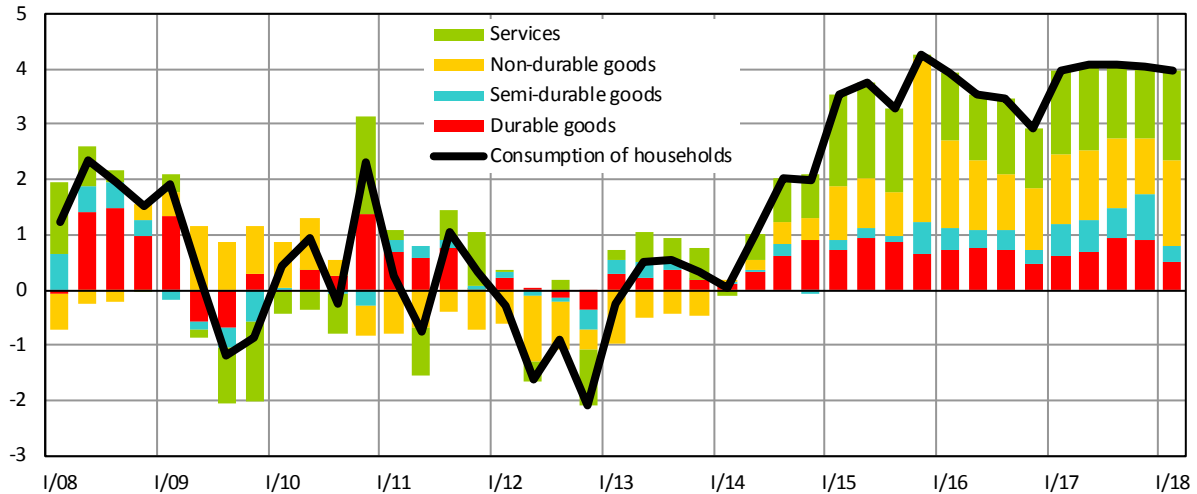
YoY real growth rate of GDP in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

### Graph 3.1.4: Consumption of Households

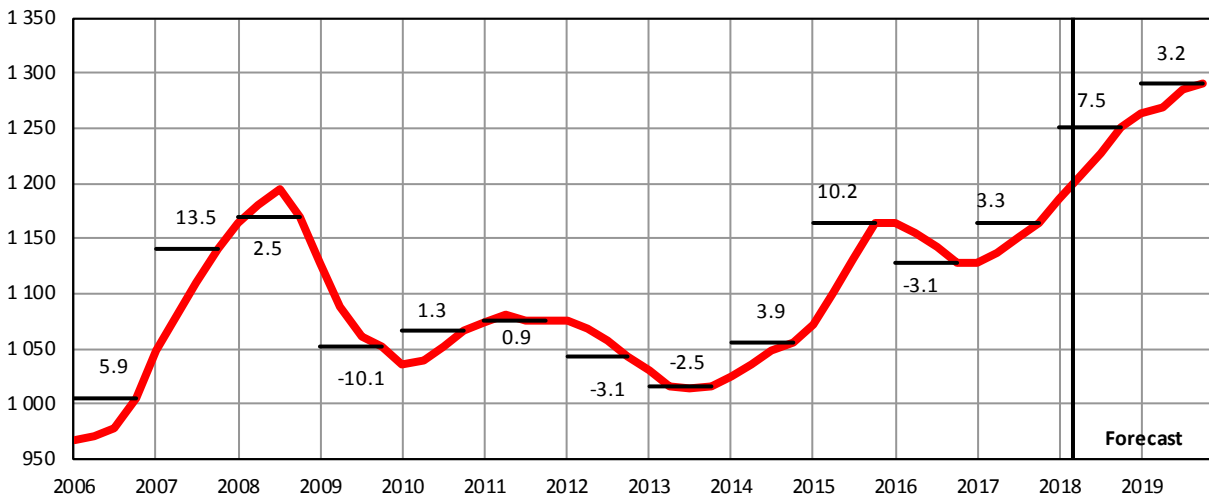
consumption of households in domestic concept, YoY real growth rate in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

### Graph 3.1.5: Gross Fixed Capital Formation

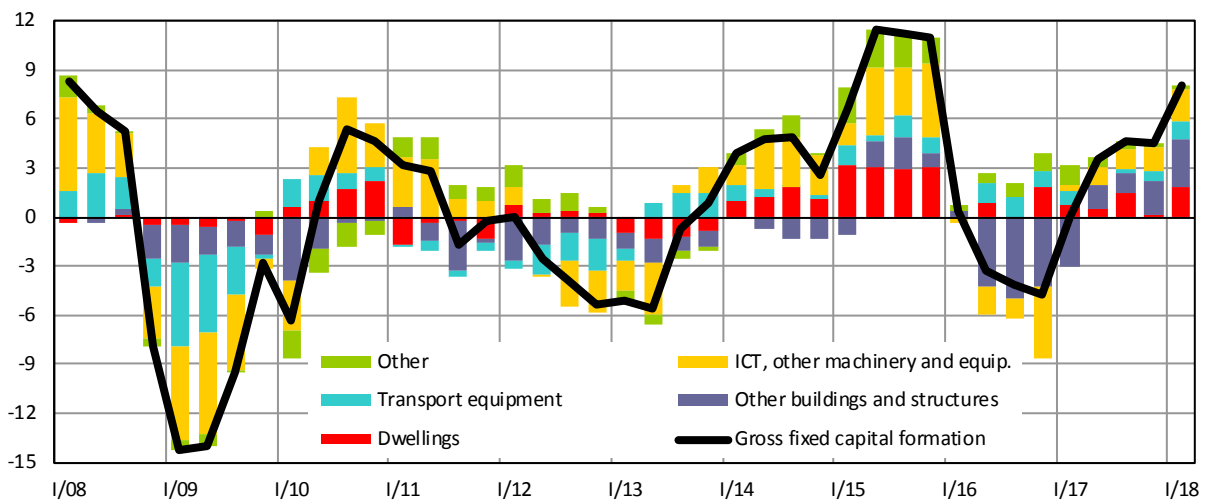
yearly moving sums, bill. CZK in const. prices of 2010, black lines with labels show the average level and growth rate in the given year



Source: CZSO. Calculations of the MoF.

### Graph 3.1.6: Gross Fixed Capital Formation by Type of Expenditure

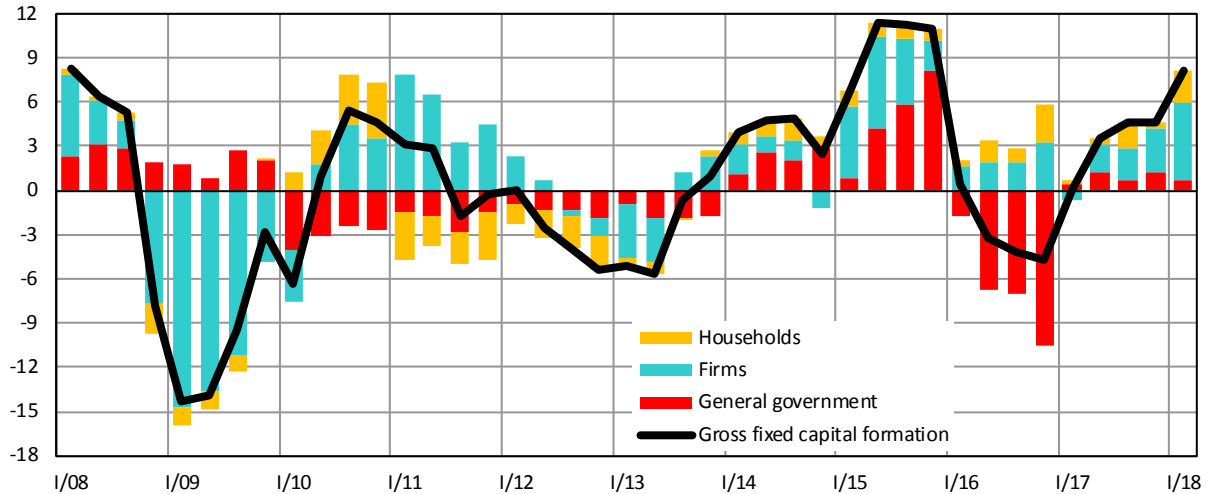
YoY real growth rate in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

### Graph 3.1.7: Gross Fixed Capital Formation by Sector

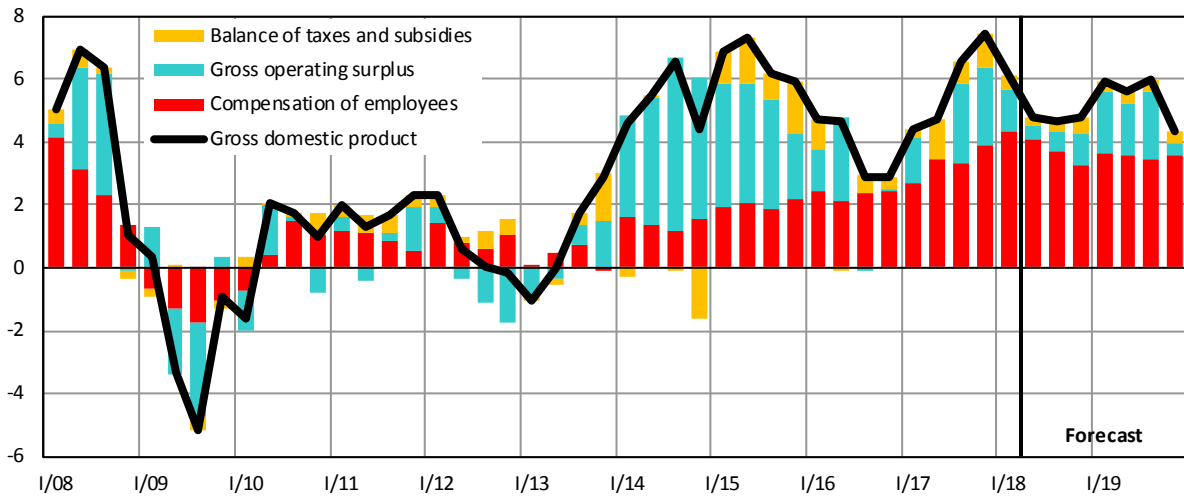
YoY real growth rate in %, contributions of individual sectors in percentage points



Source: CZSO. Calculations of the MoF.

### Graph 3.1.8: Nominal Gross Domestic Product

YoY growth rate of GDP in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

**Table 3.1.5: GDP by Type of Income – yearly**

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook	Outlook
<b>GDP</b>	<i>bill. CZK</i>	<b>4 060</b>	<b>4 098</b>	<b>4 314</b>	<b>4 596</b>	<b>4 768</b>	<b>5 045</b>	<b>5 300</b>	<b>5 589</b>	<b>5 838</b>	<b>6 091</b>
	<i>growth in %</i>	0.6	0.9	5.3	6.5	3.7	5.8	5.1	5.5	4.5	4.3
<b>Balance of taxes and subsidies</b>	<i>bill. CZK</i>	<b>385</b>	<b>402</b>	<b>381</b>	<b>434</b>	<b>454</b>	<b>495</b>	<b>515</b>	<b>535</b>	<b>555</b>	<b>574</b>
	<i>% of GDP</i>	9.5	9.8	8.8	9.4	9.5	9.8	9.7	9.6	9.5	9.4
	<i>growth in %</i>	4.4	4.2	-5.1	13.8	4.7	8.9	4.0	3.9	3.8	3.4
Taxes on production and imports	<i>bill. CZK</i>	<b>508</b>	<b>528</b>	<b>518</b>	<b>571</b>	<b>595</b>	<b>638</b>	.	.	.	.
	<i>growth in %</i>	4.1	3.9	-1.8	10.1	4.3	7.2	.	.	.	.
Subsidies on production	<i>bill. CZK</i>	<b>123</b>	<b>126</b>	<b>137</b>	<b>137</b>	<b>141</b>	<b>143</b>	.	.	.	.
	<i>growth in %</i>	3.0	2.7	8.5	-0.1	3.3	1.5	.	.	.	.
<b>Compensation of employees</b> <i>(domestic concept)</i>	<i>bill. CZK</i>	<b>1 665</b>	<b>1 676</b>	<b>1 735</b>	<b>1 821</b>	<b>1 928</b>	<b>2 089</b>	<b>2 282</b>	<b>2 472</b>	<b>2 608</b>	<b>2 749</b>
	<i>% of GDP</i>	41.0	40.9	40.2	39.6	40.4	41.4	43.1	44.2	44.7	45.1
	<i>growth in %</i>	2.4	0.7	3.5	5.0	5.9	8.3	9.3	8.3	5.5	5.4
Wages and salaries	<i>bill. CZK</i>	<b>1 269</b>	<b>1 275</b>	<b>1 321</b>	<b>1 384</b>	<b>1 464</b>	<b>1 584</b>	<b>1 731</b>	<b>1 875</b>	<b>1 978</b>	<b>2 086</b>
	<i>growth in %</i>	2.6	0.5	3.6	4.8	5.7	8.2	9.3	8.3	5.5	5.4
Social security contributions	<i>bill. CZK</i>	<b>396</b>	<b>402</b>	<b>414</b>	<b>437</b>	<b>464</b>	<b>505</b>	<b>551</b>	<b>597</b>	<b>630</b>	<b>664</b>
	<i>growth in %</i>	1.6	1.4	3.1	5.5	6.4	8.6	9.2	8.3	5.5	5.4
<b>Gross operating surplus</b>	<i>bill. CZK</i>	<b>2 010</b>	<b>2 020</b>	<b>2 198</b>	<b>2 341</b>	<b>2 386</b>	<b>2 462</b>	<b>2 504</b>	<b>2 583</b>	<b>2 676</b>	<b>2 768</b>
	<i>% of GDP</i>	49.5	49.3	50.9	50.9	50.0	48.8	47.2	46.2	45.8	45.4
	<i>growth in %</i>	-1.4	0.5	8.8	6.5	1.9	3.2	1.7	3.2	3.6	3.4
Consumption of capital	<i>bill. CZK</i>	<b>880</b>	<b>906</b>	<b>939</b>	<b>969</b>	<b>998</b>	<b>1 027</b>	<b>1 062</b>	<b>1 126</b>	<b>1 194</b>	<b>1 265</b>
	<i>growth in %</i>	1.8	3.0	3.6	3.2	3.0	2.9	3.4	6.1	6.0	5.9
Net operating surplus	<i>bill. CZK</i>	<b>1 130</b>	<b>1 114</b>	<b>1 259</b>	<b>1 372</b>	<b>1 388</b>	<b>1 435</b>	<b>1 442</b>	<b>1 457</b>	<b>1 481</b>	<b>1 503</b>
	<i>growth in %</i>	-3.8	-1.4	13.0	9.0	1.2	3.4	0.5	1.0	1.7	1.4

Source: CZSO. Calculations of the MoF.

**Table 3.1.6: GDP by Type of Income – quarterly**

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						<i>Prelim.</i>	<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>
<b>GDP</b>	<i>bill. CZK</i>	<b>1 157</b>	<b>1 266</b>	<b>1 289</b>	<b>1 334</b>	<b>1 227</b>	<b>1 327</b>	<b>1 349</b>	<b>1 397</b>
	<i>growth in %</i>	4.4	4.7	6.6	7.4	6.1	4.8	4.7	4.8
<b>Balance of taxes and subsidies</b>	<i>bill. CZK</i>	<b>103</b>	<b>128</b>	<b>135</b>	<b>129</b>	<b>108</b>	<b>132</b>	<b>139</b>	<b>135</b>
	<i>growth in %</i>	2.5	14.1	6.7	11.9	4.9	3.1	3.2	5.1
<b>Compensation of employees</b> <i>(domestic concept)</i>	<i>bill. CZK</i>	<b>492</b>	<b>517</b>	<b>517</b>	<b>563</b>	<b>542</b>	<b>569</b>	<b>565</b>	<b>606</b>
	<i>growth in %</i>	6.5	8.7	8.5	9.5	10.2	10.0	9.3	7.8
	Wages and salaries	<i>bill. CZK</i>	<b>372</b>	<b>391</b>	<b>392</b>	<b>429</b>	<b>411</b>	<b>430</b>	<b>429</b>
	<i>growth in %</i>	6.7	8.4	8.2	9.5	10.3	10.0	9.3	7.8
Social security contributions	<i>bill. CZK</i>	<b>120</b>	<b>127</b>	<b>125</b>	<b>134</b>	<b>131</b>	<b>139</b>	<b>136</b>	<b>144</b>
	<i>growth in %</i>	5.9	9.8	9.4	9.2	9.9	10.0	9.3	7.8
<b>Gross operating surplus</b>	<i>bill. CZK</i>	<b>562</b>	<b>620</b>	<b>637</b>	<b>642</b>	<b>577</b>	<b>625</b>	<b>645</b>	<b>656</b>
	<i>growth in %</i>	2.9	-0.1	5.0	4.9	2.7	0.9	1.2	2.1

Source: CZSO. Calculations of the MoF.

## 3.2 Prices

Growth in **consumer prices** was 2.6% YoY (*vs 2.3%*) in June 2018. Inflation was mainly driven by market factors, as the contribution of administrative measures reached only 0.4 pp. An increase in electricity prices accounted for the largest part (0.2 pp).

In terms of individual sections of the consumer basket, the largest contribution in June was recorded by housing (0.7 pp), while slightly smaller contributions were made by food and non-alcoholic beverages and transport (0.5 pp each). Fuel and oil prices grew by 10.5% YoY following the CZK oil price development.

We raise slightly our forecast for the average inflation rate in 2018 and 2019. The reasons stem from the changed assumptions of the macroeconomic forecast for the exchange rate, where we expect weaker koruna against the euro and even more against the US dollar compared with the April forecast (see Chapter 1.4.3). In addition, the expected USD price of oil increased (see Chapter 1.2). Last but not least, a reason for raising the inflation forecast is an expected higher increase in unit labour costs.

Administrative measures should only play a small role in the inflation rate in 2018. In terms of regulated prices, the latest electricity price increase will probably have the biggest pro-inflationary impact (contribution of 0.2 pp). By contrast, the biggest negative impact can be expected from the introduction of discounts in transport (see Chapter 1.5). The increase in excise duty on tobacco products, which is already reflected in consumer prices, had very little effect. We expect the contribution of administrative measures to the YoY increase in consumer prices in December 2018 to reach 0.3 pp (*vs 0.1 pp*).

The only significant anti-inflationary factor this year is the expected appreciation (but not so pronounced compared to the previous forecast) of the Czech koruna against the euro by 2.8% and the US dollar by 8.1%. On the other hand, the strong pro-inflationary effect of the continued robust growth of unit labour costs and the growth of domestic demand in the positive output gap environment should be taken into account. A year-on-year rise in oil prices will also play a significant role.

Year-on-year inflation is likely to hover in the upper half of the tolerance band around the CNB's 2% target in Q3 and Q4. **In 2018**, the **average inflation rate** should reach 2.2% (*versus 2.1%*), with a YoY increase in consumer prices of 2.5% (*versus 2.0%*) in December.

**In 2019** the pro-inflationary effect of several factors should be mitigated. Growth of unit labour costs and domestic demand should slow down marginally, and crude oil price should basically stagnate. Year-on-year inflation could thus slow down in the second half of 2019. The output gap, however, will probably remain clearly positive in 2019. The Czech koruna exchange rate against both major world currencies should have an almost neutral effect on inflation.

The contribution of regulated prices should be about the same as in 2018, but we consider the risks to be tilted to the upside. As for the changes in indirect taxes, we assume that in mid-2019 the selected price representatives will be transferred to the second reduced rate of value-added-tax (see Chapter 1.5). However, the estimated technical price impact of this measure (-0.4 pp) will most likely not correspond to the effective impact, which will not be so significant. The effective price impact and the timing of this measure are associated with a considerable degree of uncertainty.

In line with the above, we expect the **average inflation rate in 2019 to reach 2.3% (*vs 1.9%*)** and the December year-on-year rise in consumer prices 1.9% (*vs 1.8%*).

In Q1 2018, the **GDP deflator** was up by 2.6% (*vs 1.4%*), with the gross domestic expenditure deflator rising by 2.4% (*vs 1.8%*) and terms of trade improving by 1.0% (*vs 0.2%*). Within the gross domestic expenditure deflator, the impact of a decrease in the deflator of gross capital formation (a moderate increase had been estimated) was outweighed by a faster-than-expected growth in the deflators of consumption of household and the general government sector. In the case of terms of trade, growth was significantly higher than projected due to a lower-than-expected fall in export prices.

GDP deflator should increase by 1.8% (*vs 1.5%*) in 2018, solely due to the growth of the gross domestic expenditure deflator. In 2019 GDP deflator growth could further accelerate to 2.3% (*vs 1.8%*). The situation is clearly shown in Graph 3.2.6.

The anticipated development of both export and import prices will be affected mainly by the expected appreciation of the koruna exchange rate and the dynamics of the oil price. As a result, the terms of trade could worsen by 0.3% in 2018 (*vs 0.1% improvement*), then slightly increase by 0.1% (*vs 0.0%*) in 2019.

Table 3.2.1: Prices – yearly

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook	Outlook
<b>Consumer Price Index</b>											
<b>Average of a year</b>	<i>average 2005=100</i>	121.0	122.7	123.2	123.6	124.4	127.4	130.3	133.2	135.7	138.2
	<i>growth in %</i>	<b>3.3</b>	<b>1.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.7</b>	<b>2.5</b>	<b>2.2</b>	<b>2.3</b>	<b>1.9</b>	<b>1.8</b>
<b>December</b>	<i>average 2005=100</i>	121.1	122.8	122.9	123.0	125.4	128.3	131.5	133.9	136.5	138.9
	<i>growth in %</i>	<b>2.4</b>	<b>1.4</b>	<b>0.1</b>	<b>0.1</b>	<b>2.0</b>	<b>2.4</b>	<b>2.5</b>	<b>1.9</b>	<b>1.9</b>	<b>1.8</b>
<b>Of which the contribution of:</b>											
Administrative measures <sup>1)</sup>	<i>percentage points</i>	<b>2.2</b>	<b>1.0</b>	<b>-0.2</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>-0.1</b>	<b>0.3</b>	<b>0.3</b>
Market increase	<i>percentage points</i>	<b>0.2</b>	<b>0.4</b>	<b>0.3</b>	<b>0.0</b>	<b>2.0</b>	<b>2.3</b>	<b>2.2</b>	<b>2.0</b>	<b>1.7</b>	<b>1.5</b>
<b>Harmonized index of consumer prices</b>	<i>average 2005=100</i>	120.3	121.9	122.4	122.8	123.6	126.6	129.2	132.1	134.6	137.0
	<i>growth in %</i>	<b>3.5</b>	<b>1.4</b>	<b>0.4</b>	<b>0.3</b>	<b>0.6</b>	<b>2.4</b>	<b>2.1</b>	<b>2.2</b>	<b>1.9</b>	<b>1.8</b>
<b>Offering prices of flats</b>											
<b>Czech Republic</b>	<i>average 2010=100</i>	96.1	97.2	100.7	106.9	117.6	130.7	.	.	.	.
	<i>growth in %</i>	<b>1.1</b>	<b>1.1</b>	<b>3.6</b>	<b>6.2</b>	<b>10.0</b>	<b>11.1</b>	.	.	.	.
<b>Czech Republic excluding Prague</b>	<i>average 2010=100</i>	92.5	91.3	93.0	97.7	107.1	112.1	.	.	.	.
	<i>growth in %</i>	<b>-4.2</b>	<b>-1.3</b>	<b>1.9</b>	<b>5.1</b>	<b>9.6</b>	<b>4.7</b>	.	.	.	.
<b>Prague</b>	<i>average 2010=100</i>	99.6	103.1	108.5	116.1	128.2	149.2	.	.	.	.
	<i>growth in %</i>	<b>6.4</b>	<b>3.5</b>	<b>5.2</b>	<b>7.0</b>	<b>10.4</b>	<b>16.4</b>	.	.	.	.
<b>Deflators</b>											
<b>GDP</b>	<i>average 2010=100</i>	101.5	102.9	105.5	106.7	108.1	109.7	111.6	114.1	116.1	118.3
	<i>growth in %</i>	<b>1.5</b>	<b>1.4</b>	<b>2.5</b>	<b>1.2</b>	<b>1.3</b>	<b>1.5</b>	<b>1.8</b>	<b>2.3</b>	<b>1.7</b>	<b>1.9</b>
<b>Domestic final use</b>	<i>average 2010=100</i>	102.9	103.5	104.6	105.7	106.5	109.1	111.5	114.1	116.1	118.2
	<i>growth in %</i>	<b>1.8</b>	<b>0.5</b>	<b>1.1</b>	<b>1.0</b>	<b>0.7</b>	<b>2.5</b>	<b>2.2</b>	<b>2.3</b>	<b>1.8</b>	<b>1.8</b>
<b>Consumption of households</b>	<i>average 2010=100</i>	104.0	104.9	105.5	105.6	106.2	108.7	111.4	114.0	116.3	118.4
	<i>growth in %</i>	<b>2.2</b>	<b>0.8</b>	<b>0.6</b>	<b>0.1</b>	<b>0.5</b>	<b>2.4</b>	<b>2.6</b>	<b>2.3</b>	<b>2.0</b>	<b>1.8</b>
<b>Consumption of government</b>	<i>average 2010=100</i>	102.7	102.8	104.6	106.7	108.1	112.6	117.9	122.9	125.9	129.1
	<i>growth in %</i>	<b>0.9</b>	<b>0.2</b>	<b>1.7</b>	<b>2.0</b>	<b>1.3</b>	<b>4.1</b>	<b>4.7</b>	<b>4.2</b>	<b>2.5</b>	<b>2.5</b>
<b>Fixed capital formation</b>	<i>average 2010=100</i>	100.9	101.1	102.7	104.5	105.4	107.0	106.8	107.7	108.6	110.0
	<i>growth in %</i>	<b>1.7</b>	<b>0.1</b>	<b>1.6</b>	<b>1.8</b>	<b>0.9</b>	<b>1.5</b>	<b>-0.2</b>	<b>0.9</b>	<b>0.9</b>	<b>1.3</b>
<b>Exports of goods and services</b>	<i>average 2010=100</i>	103.8	105.6	109.8	108.4	105.8	105.1	104.1	104.7	104.7	105.2
	<i>growth in %</i>	<b>3.1</b>	<b>1.7</b>	<b>4.0</b>	<b>-1.3</b>	<b>-2.4</b>	<b>-0.6</b>	<b>-1.0</b>	<b>0.6</b>	<b>0.1</b>	<b>0.5</b>
<b>Imports of goods and services</b>	<i>average 2010=100</i>	106.1	106.6	109.2	107.4	103.7	104.2	103.4	104.0	103.9	104.2
	<i>growth in %</i>	<b>3.7</b>	<b>0.5</b>	<b>2.5</b>	<b>-1.7</b>	<b>-3.4</b>	<b>0.4</b>	<b>-0.7</b>	<b>0.5</b>	<b>-0.1</b>	<b>0.3</b>
<b>Terms of trade</b>	<i>average 2010=100</i>	97.9	99.0	100.5	100.9	102.0	100.9	100.6	100.7	100.8	101.0
	<i>growth in %</i>	<b>-0.6</b>	<b>1.2</b>	<b>1.5</b>	<b>0.4</b>	<b>1.0</b>	<b>-1.0</b>	<b>-0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>

<sup>1)</sup> The contribution of increase in regulated prices and in indirect taxes to increase of December YoY consumer price inflation.

Source: CZSO, Eurostat. Calculations of the MoF.



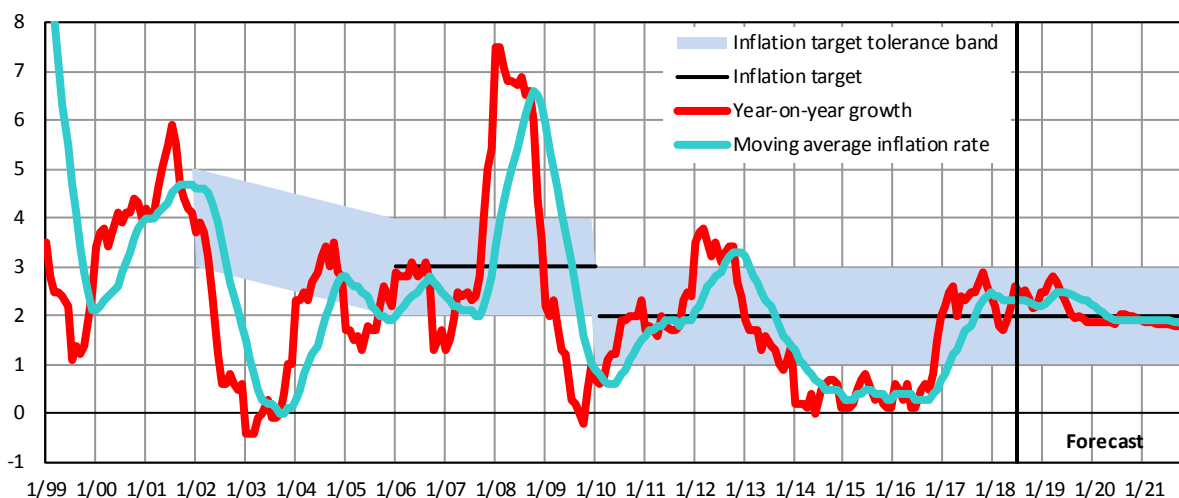
**Table 3.2.2: Prices – quarterly**

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	
<b>Consumer Price Index</b>	<i>average 2005=100</i>	126.7	127.1	127.6	128.3	129.1	130.0	130.7	131.2
	<i>growth in %</i>	2.4	2.2	2.5	2.6	1.9	2.3	2.5	2.3
<b>Of which the contribution of:</b>									
Administrative measures <sup>1)</sup>	<i>percentage points</i>	-0.2	-0.2	-0.1	-0.1	0.2	0.3	0.3	0.3
Market increase	<i>percentage points</i>	2.6	2.4	2.6	2.7	1.7	2.0	2.1	2.0
<b>Harmonized index of consumer prices</b>	<i>average 2005=100</i>	125.9	126.3	126.7	127.3	128.1	129.0	129.6	130.1
	<i>growth in %</i>	2.5	2.3	2.4	2.5	1.8	2.1	2.3	2.2
<b>Offering prices of flats</b>									
<b>Czech Republic</b>	<i>average 2010=100</i>	124.2	127.6	133.7	137.1	140.1	143.2	.	.
	<i>growth in %</i>	9.5	9.5	12.5	12.5	12.8	12.2	.	.
<b>Czech Republic excluding Prague</b>	<i>average 2010=100</i>	108.3	109.9	114.6	115.4	119.1	120.3	.	.
	<i>growth in %</i>	4.6	3.6	5.7	4.7	10.0	9.5	.	.
<b>Prague</b>	<i>average 2010=100</i>	140.0	145.3	152.8	158.8	161.1	166.0	.	.
	<i>growth in %</i>	13.6	14.6	18.3	18.8	15.1	14.2	.	.
<b>Deflators</b>									
<b>GDP</b>	<i>average 2010=100</i>	108.2	109.0	109.8	111.5	111.0	111.0	111.5	112.7
	<i>growth in %</i>	0.7	1.0	1.6	2.4	2.6	1.8	1.6	1.1
<b>Domestic final use</b>	<i>average 2010=100</i>	107.8	108.6	109.0	110.8	110.4	111.3	111.5	112.7
	<i>growth in %</i>	2.4	2.5	2.4	2.5	2.4	2.5	2.3	1.7
<b>Consumption of households</b>	<i>average 2010=100</i>	107.8	108.2	108.9	109.6	110.4	111.1	111.9	112.3
	<i>growth in %</i>	2.3	2.2	2.3	2.6	2.4	2.7	2.7	2.5
<b>Consumption of government</b>	<i>average 2010=100</i>	108.2	110.6	111.9	118.6	115.4	117.5	117.1	121.0
	<i>growth in %</i>	3.1	3.6	4.2	5.3	6.7	6.2	4.6	2.0
<b>Fixed capital formation</b>	<i>average 2010=100</i>	107.2	107.3	106.7	106.7	106.2	106.8	106.9	107.0
	<i>growth in %</i>	2.2	1.7	1.3	0.8	-0.9	-0.4	0.1	0.3
<b>Exports of goods and services</b>	<i>average 2010=100</i>	107.3	106.1	104.0	103.2	103.0	103.5	105.0	104.9
	<i>growth in %</i>	1.7	0.6	-1.7	-3.0	-4.1	-2.4	0.9	1.7
<b>Imports of goods and services</b>	<i>average 2010=100</i>	106.8	105.4	102.7	101.9	101.5	103.2	104.5	104.4
	<i>growth in %</i>	3.8	2.3	-0.9	-3.2	-5.0	-2.1	1.8	2.5
<b>Terms of trade</b>	<i>average 2010=100</i>	100.5	100.6	101.2	101.2	101.4	100.3	100.4	100.5
	<i>growth in %</i>	-2.0	-1.7	-0.8	0.3	1.0	-0.3	-0.8	-0.7

<sup>1)</sup> The contribution of increase in regulated prices and in indirect taxes to increase of December YoY consumer price inflation.  
Source: CZSO, Eurostat. Calculations of the MoF.

**Graph 3.2.1: Consumer Prices**

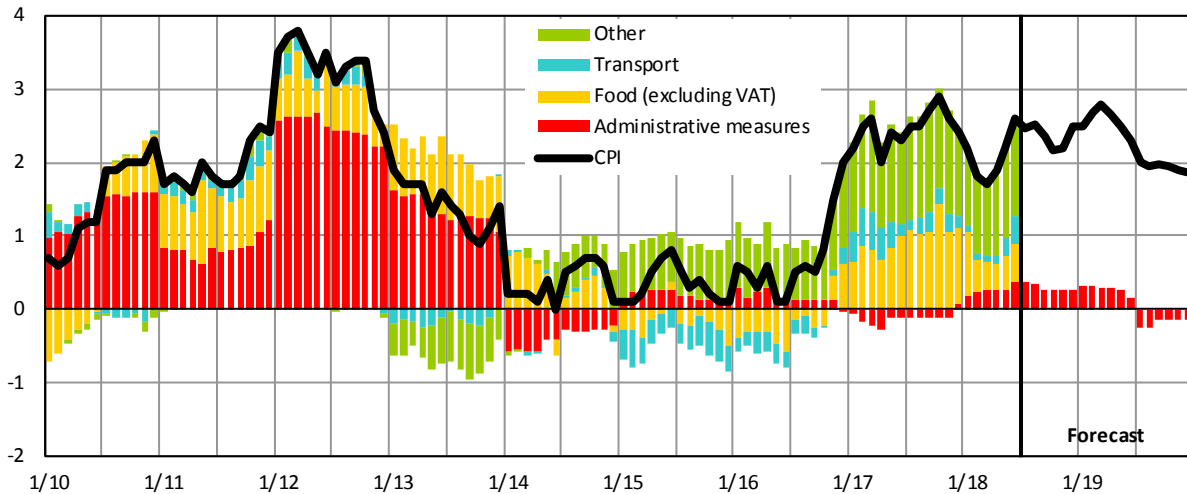
YoY growth rate, in %



Note: For the years 2002–2005 the highlighted area represents target band for headline inflation, whereas from 2006 on it is the tolerance band of the CNB's point target for headline inflation.  
Source: CNB, CZSO. Calculations of the MoF.

### Graph 3.2.2: Consumer Prices in Main Divisions

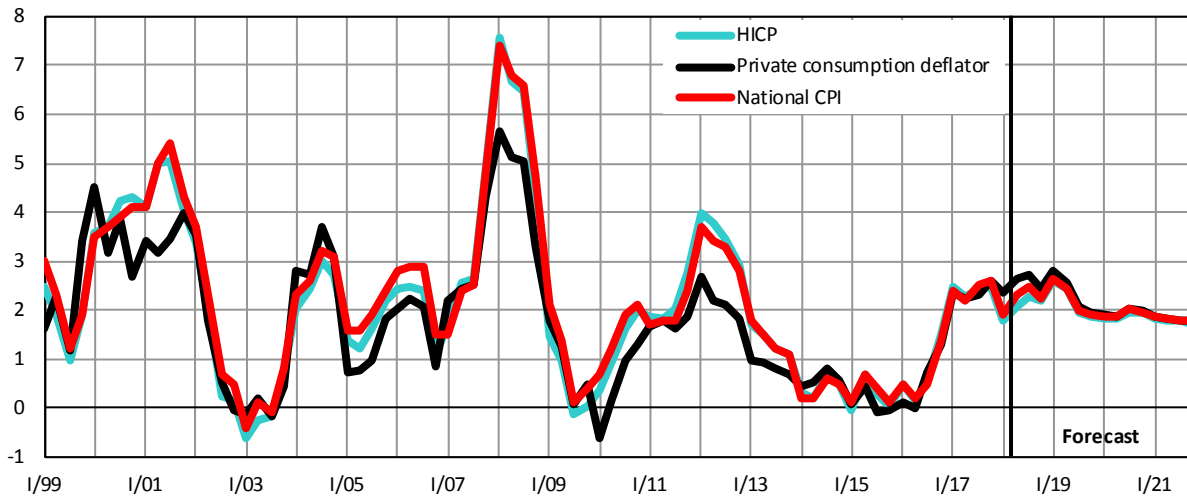
YoY growth of consumer price index, contributions in percentage points, Transport excluding administrative measures and excises



Source: CZSO. Calculations of the MoF.

### Graph 3.2.3: Indicators of Consumer Prices

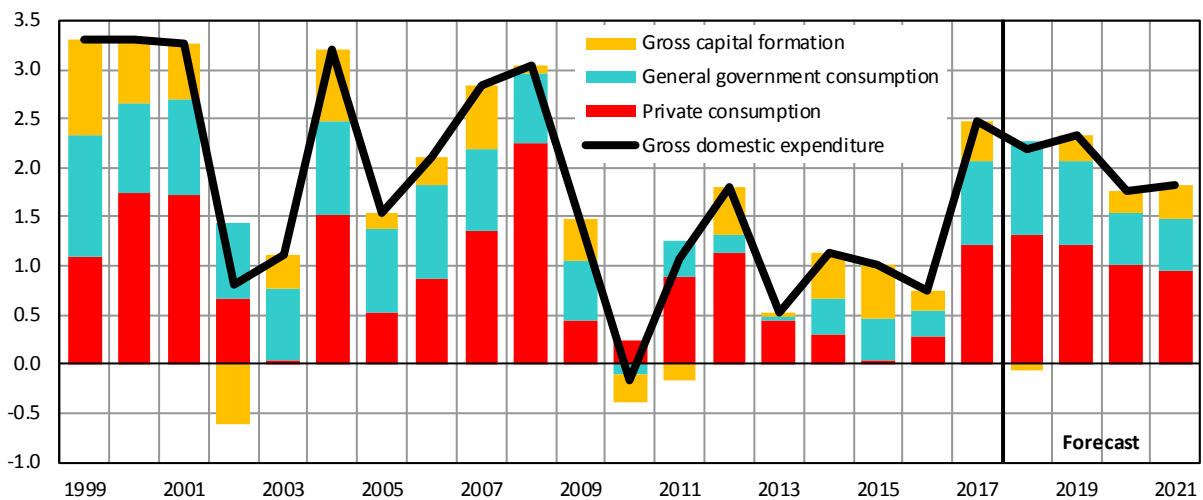
YoY growth rate, in %



Source: CZSO, Eurostat. Calculations of the MoF.

### Graph 3.2.4: Gross Domestic Expenditure Deflator

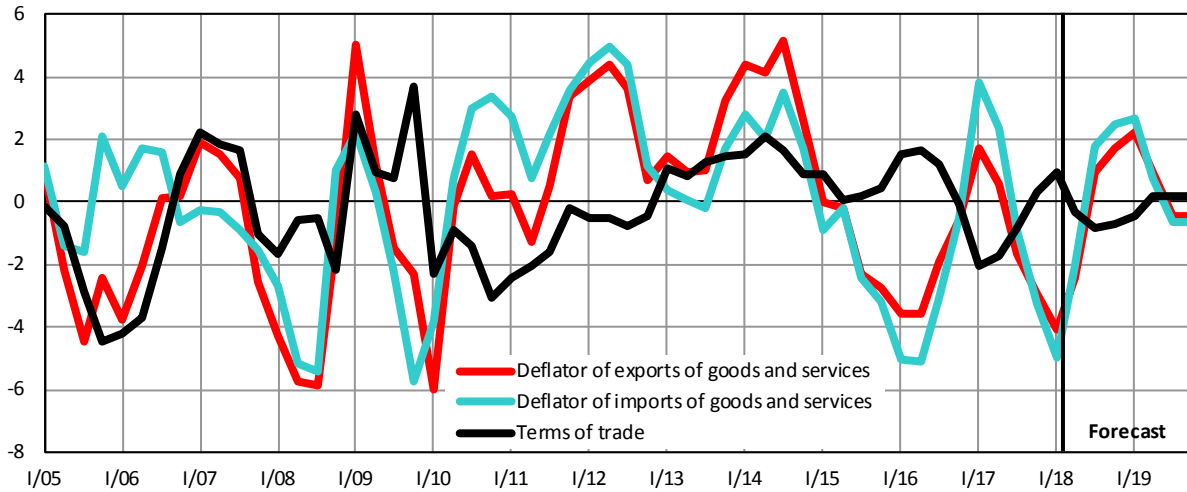
YoY growth rate in %, contributions of growth of deflators of individual components of gross domestic expenditure in percentage points



Source: CZSO. Calculations of the MoF.

### Graph 3.2.5: Terms of Trade

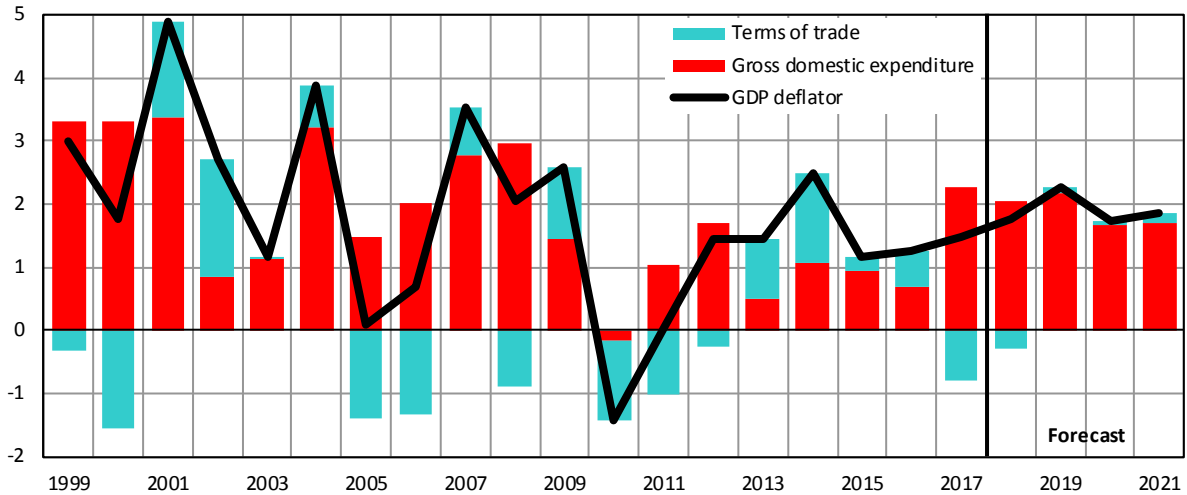
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

### Graph 3.2.6: GDP deflator

YoY change in %, contributions of growth of gross domestic expenditure deflator and change in terms of trade in percentage points



Source: CZSO. Calculations of the MoF.

### 3.3 Labour Market

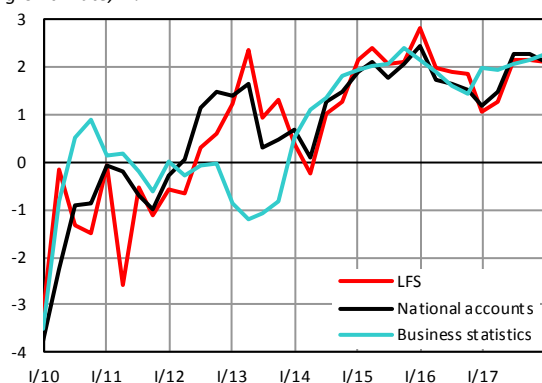
The labour market has long been showing signs of overheating. According to all available statistics, dynamic growth in employment continues. While the internationally comparable unemployment rate is likely to have reached its bottom, registered unemployment is declining further. The number of vacancies has reached more than 300 thousand, significantly exceeding the previous maximum from 2008. This development is associated with strong growth in wages and salaries.

**Employment (LFS)** surprisingly rose in Q1 2018 by 1.7% YoY (vs 1.1%) and by 0.6% QoQ (vs 0.0%). The number of employees increased by 2.1% (vs 1.2%), but the number of entrepreneurs decreased by 0.2%. This was due in particular to a decrease of 1.9% in the number of self-employed persons without employees, while the number of entrepreneurs with employees increased by 0.2%.

From the sectoral point of view, manufacturing contributed the most to the growth in employment (according to business statistics) in absolute terms. Significant increases were also seen in the energy sector, information and communication activities, or in accommodation and food service activities. A sharp decline continues to be seen in mining and quarrying.

**Graph 3.3.1: Employees in Different Statistics**

YoY growth rate, in%



Source: CZSO.

Lack of workers is evident in all sectors of the economy and practically in all regions. It thus represents a significant barrier to labour-driven economic growth.

Although employment is still rising dynamically, its further increases from unemployed persons are no longer practically possible. A natural response is therefore the effort to attract workers from economically inactive people and to hire foreign workers. In the long term, there is space for the development of automation, robotization and digitalization, as well as greater orientation of the economy to less labour-intensive sectors with higher value added.

Due to the higher growth in Q1 2018, we are increasing the forecast for employment growth in 2018 to 1.3% (vs 0.7%). We assume that due to the general labour

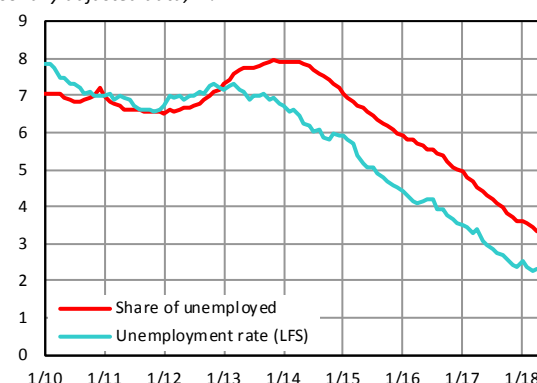
shortage, employment will increase only marginally in 2019 by 0.2% (unchanged).

**Unemployment rate (LFS)** declined to 2.4% in Q1 2018 (vs 2.5%). It can be assumed that it has bottomed, and further significant decrease is no longer likely. The average unemployment rate could thus reach 2.3% this year (vs 2.4%) and should remain at this level in 2019 (unchanged).

The year-on-year decrease in the **share of unemployed persons** (Ministry for Labour and Social Affairs) has recently been moderating slightly, though it still exceeds 70 thousand in absolute terms. We assume that for registered unemployment, contrary to the LFS, there is still room for further decline. There are several reasons for this, for example that some job seekers have so-called non-colliding part-time jobs and are therefore likely to be able to leave the registration and take up a full-time job. Another aspect may be that many people subject to seizures of property work in the informal economy and may be motivated to become officially employed in the case of strong wage growth. For 2018, we expect a further decline in the share of unemployed persons to 3.2% (vs 3.4%) and then to 2.8% (vs 3.0%) in 2019.

**Graph 3.3.2: Indicators of Unemployment**

seasonally adjusted data, in%



Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

The **economic activity rate** (15–64 year-olds) grew by 0.6 pp YoY to 76.1% in Q1 2018 (vs 76.0%). Extremely high number of vacancies, coupled with strong wage growth, motivates previously economically inactive individuals to engage in the labour process. We suppose there is still some room for further growth in the participation rate (see Box 3.3), with demographic aspects in the form of growing weight of cohorts with naturally high economic activity rate (especially in the 40–49 years age group) and gradual increases in the statutory as well as actual retirement age playing a crucial role.

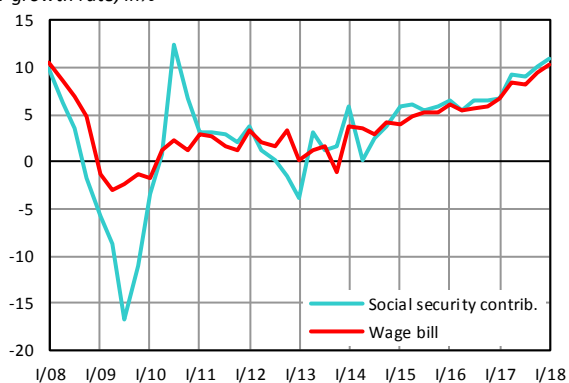
For 2018, we expect the participation rate to increase by 0.8 pp to 76.7% (vs 76.5%), and for 2019 we expect a further increase to 77.3% (vs 77.0%).

The **wage and salary** growth accelerated sharply and reached 10.3% in Q1 2018 (vs 8.3%). The dynamics of earnings was clearly driven by non-market sectors, as salaries in public administration, defence, education and health care grew by 14.8%. In the economically significant manufacturing, however, the growth rate slowed slightly to 9.1%, but it is still well above the time series average. Thanks to the recovery in construction output, the wage bill in construction increased markedly (7.1%).

This year's wage developments continue to reflect salary increases in the general government sector from the previous year, the impact of which should weaken in the second half of this year. In addition to the persistent significant labour shortages, there has been year-on-year increase in minimum and guaranteed wages. Thanks to these factors, the dynamics of cash contributions to social insurance maintains a double-digit rate of growth. The wage and salary growth could reach 10.0% (vs 7.8%) in Q2 2018.

**Graph 3.3.3: Collection of Social Security Contributions and the Wage Bill**

YoY growth rate, in%



Note: Time series of the collection of social security contributions is influenced, among other factors, by a legislative change in 2009 and a pay-out of exceptional bonuses at the end of 2012.  
Source: CZSO, Ministry of Finance.

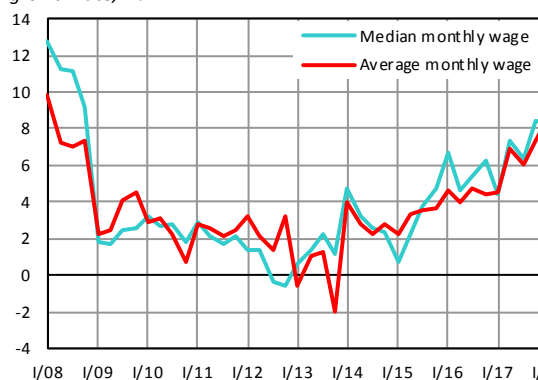
In addition to the lack of available jobseekers, this year's earnings growth will be supported by competitive pressure. Another risk is potential earlier increase in salary tariffs as compared with the current date from 1 January 2019. Due to persistent labour market imbalances and expected robust employee dynamics, the wage bill could grow by 9.3% (vs 7.7%) this year.

In 2019 there will be a further increase in salaries and probably also a rise in the minimum wage (and a corresponding increase in the guaranteed wage) by CZK 1,000 a month (by 8.2%), which we now envisage in the baseline scenario of the forecast. Conversely, employment dynamics should be considerably reduced for reasons outlined above, which may strengthen wage pressures, given the high number of job vacancies. The wage and salary growth could thus reach 8.3% in 2019 (vs 6.5%).

The **average wage** (business statistics, full-time equivalent) increased by 8.6% in nominal terms (vs 7.6%) in Q1 2018. The wage median showed only a slightly lower rate of growth (8.3%) due to an almost even shift in the distribution. In Q2 2018 the average nominal wage in the economy as a whole could increase by 8.5% (vs 7.2%). This year its growth rate could reach 8.0% (vs 7.3%) and 8.0% (vs 6.3%) in 2019.

**Graph 3.3.4: Nominal Monthly Wage**

YoY growth rate, in%



Source: CZSO.

### Box 3.3: Possible Sources of Labour Force in the Czech Economy

Due to its focus on labour-intensive industries, especially manufacturing (Graph 1), at the current cyclical position the Czech economy is characterized by an extremely high demand for labour, to which supply cannot fully respond. The result is low unemployment and a very high number of vacancies. The aim of this box is to map out possible sources of labour force growth in the context of the current situation.

The size of the labour supply is primarily influenced by the demographic, educational and socio-economic structure of the population. Since 2009, population ageing has resulted in a decline in the number of working-age population aged 15–64. Between 2013 and 2017, population in this age group decreased by 237,000 persons. In the following years, the intensity of this decline should moderate – by 2021, the decrease should be 150,000.

The working-age population is very heterogeneous both in terms of the age structure and labour market participation. The age structure of the Czech population shows that the largest age group is that of people born between 1971 and 1981. Male participation is highest (over 97%) between 30–44 years. For women, at the end of the normal reproduction age, it gradually increases to 93% in the 45–49 age group. The demographic effect of the age structure of the Czech working-age population is thus now very favourable for increasing participation, although it is gradually fading out. This trend should continue in the coming years.

Graph 2 shows the breakdown of the ratio of labour force to the 15–64 age group. The demographic effect involves a shift of the population structure into age cohorts with higher participation, though raising the statutory retirement age also plays an important role. The remaining effects can be summarized as “behaviour”, reflecting the willingness of persons in the given age cohort to participate or not to participate in work activities. However, based on known data, it is difficult to estimate the effect of cyclical factors on this component.

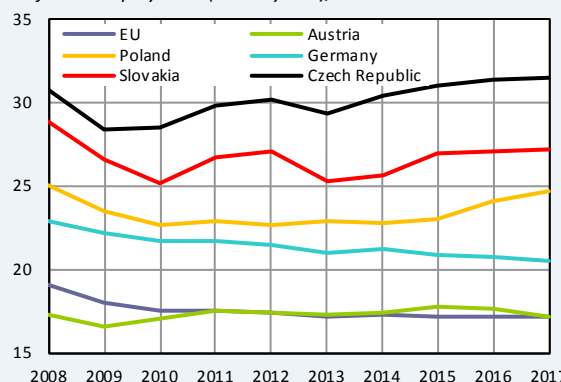
Participation rate at age 15–64 (Graph 3) has long exhibited a tendency to increase in the Czech Republic, which is also the trend in most EU countries, although the growth is particularly high in the Czech Republic. Between 2008 and 2017 it increased by more than 6 pp and has been higher than the EU average since 2012. This offsets unfavourable demographic developments, bringing the workforce increase between 2013 and 2017 to 71 thousand persons. By 2021 there could be another increase of 25 thousand persons.

**Persons aged 60–64**, who are subject to the extension of the statutory retirement age, can be considered the main additional source of labour force. The participation rate in this group (Graph 4) has been relatively quickly approaching the EU average in recent years. This is due to a higher increase in women’s participation amid a gradual unification of the retirement age. The contribution of later retirement to the change of the workforce in 2013–2017 could be estimated to reach about 90 thousand persons; we expect the same for 2017–2021. In the upcoming period, women should account for about two-thirds of this increase.

Gradual increase in participation in this group is typical practically in all EU countries. In addition to raising the retirement age, lack of workforce can in recent years explain this effect not only in the Czech Republic but also in other countries with low unemployment (e.g. in Germany). People at this age are generally still able to work adequately and are motivated by employers to postpone their retirement. However, the structure of the Czech economy can be problematic, as a large part of the vacancies is physically demanding and therefore inappropriate for people of this age.

**Graph 1: Employment in Manufacturing**

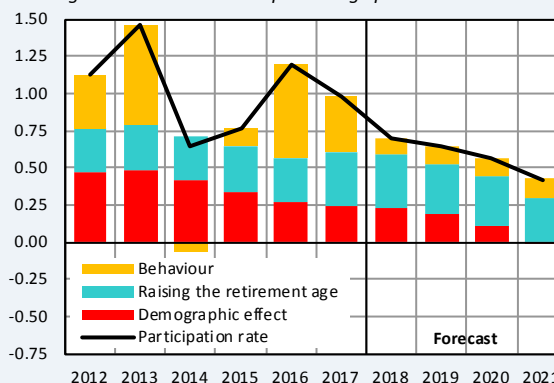
share of total employment (15–64 years), in %



Source: Eurostat. Calculations of the MoF.

**Graph 2: Activity Rate (15–64 Years)**

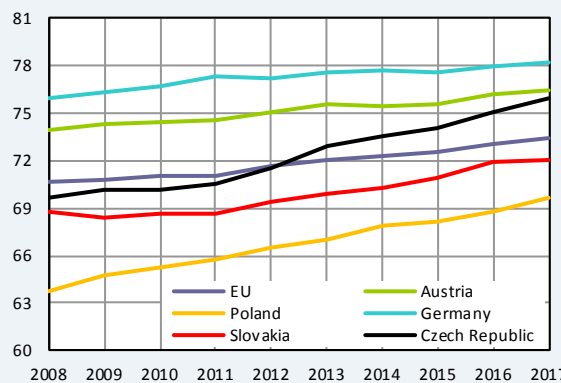
YoY change and contributions in percentage points



Source: CZSO. Calculations of the MoF.

**Graph 3: Activity Rate (15–64 Years)**

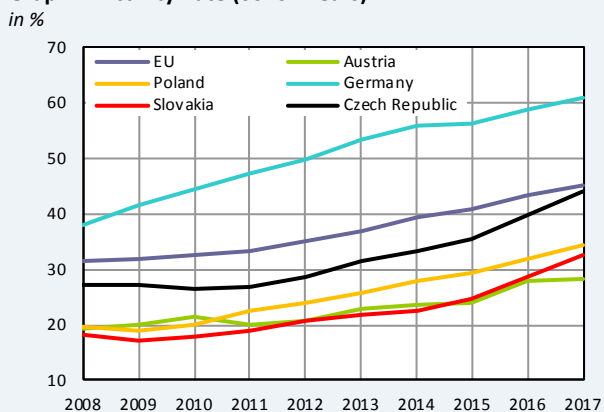
in %



Source: Eurostat.

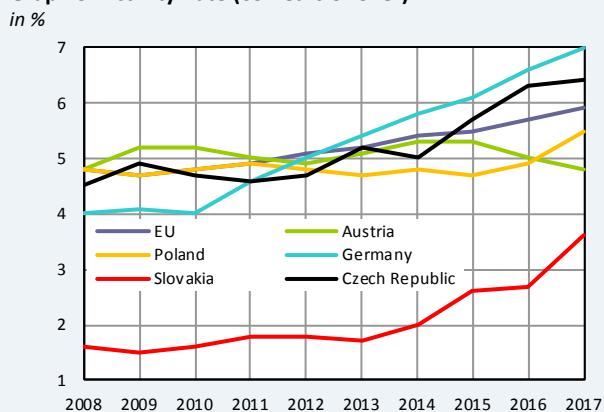
In the **age group of 65 and over** (Graph 5), the rate of participation is increasing (although moderately) in the Czech Republic and in most countries. The ability to work is limited; one cannot expect that, even with the current shortage of workforce, it will be possible to engage large numbers of persons of this age, often also due to the loss of working habits. Employees in this age group will largely be those who have not interrupted the work process. Relatively most workers of this age are in entertainment, cultural and leisure activities, as well as professional, scientific, technical and real estate activities. At the age of 75 and over, participation rates in the Czech Republic and the EU have long been only around 1.5%. However, in some sectors (e.g. paediatricians or general practitioners) employees of very high age are no exception in the Czech Republic. Between 2013–2017 the workforce in the over-64 age group grew by 37 thousand persons; for the years 2017–2021 the growth can be expected to continue due to the expected shortage of workers.

**Graph 4: Activity Rate (60–64 Years)**



Source: Eurostat.

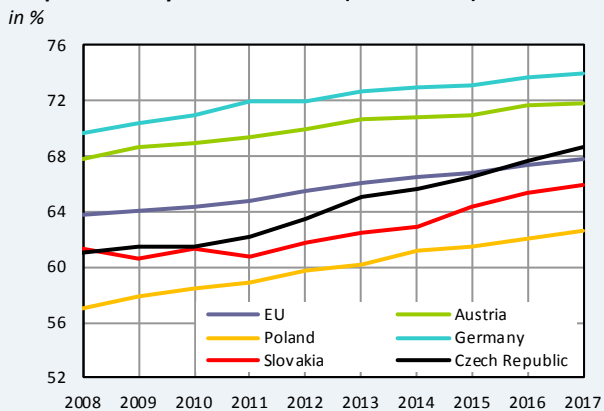
**Graph 5: Activity Rate (65 Years or over)**



Source: Eurostat.

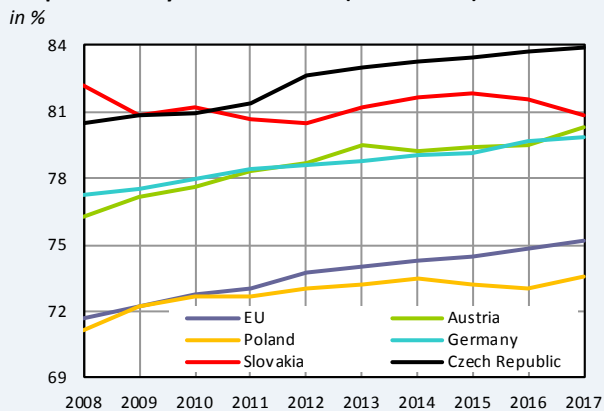
The participation rate of women in the working age in the Czech Republic (Graph 6) has a slightly increasing trend and since 2016 it has exceeded the EU average. In Slovakia and especially in Poland it is noticeably lower, which is probably due to historically higher birth rates. In the 35–64 age group (Graph 7) the level of women’s participation in the Czech Republic is considerably higher than the EU average (in 2017 by about 8 pp). The greatest difference is between the age of 50 and 60, where the difference is more than 10 pp. Additional workforce is therefore very limited in this area.

**Graph 6: Activity Rate of Women (15–64 Years)**



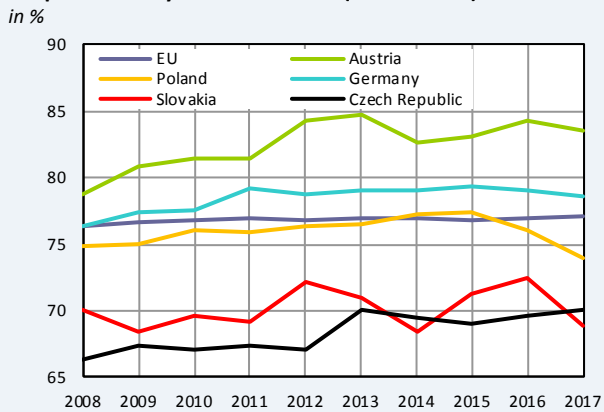
Source: Eurostat.

**Graph 7: Activity Rate of Women (35–64 Years)**



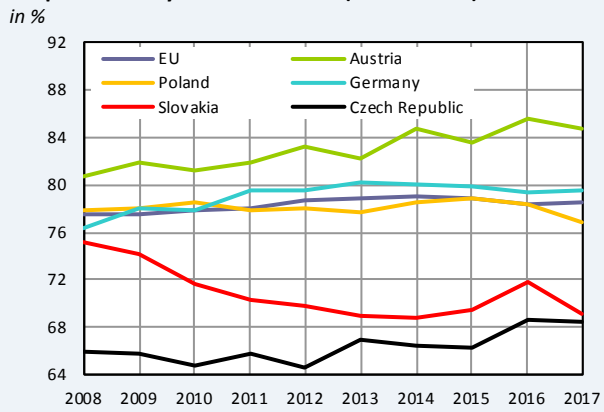
Source: Eurostat.

**Graph 8: Activity Rate of Women (25–29 Years)**



Source: Eurostat.

**Graph 9: Activity Rate of Women (30–34 Years)**



Source: Eurostat.

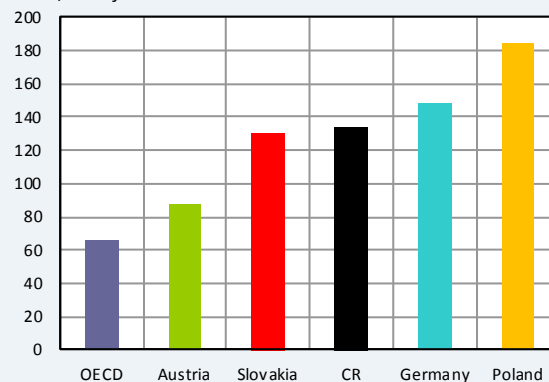
The participation rate of women in the normal reproductive age (Graph 8, Graph 9) has consistently been below the EU average in the Czech Republic. The difference is greater in the 25–29 age group. Recently both rates of participation tend to grow in the Czech Republic, which can again be linked to the labour market situation – in the last four years the high growth of wages and salaries incentivizing women to increase their participation has outweighed the increase in birth rates, which acts in the opposite direction. For men, participation rates in these age cohorts are significantly higher than the EU average.

This issue is related to the question of the **length of paid childcare** (Graph 10), which is often referred to. Although it exceeds the OECD average, it is comparable, for example, with Slovakia and is significantly lower than in Poland. The employment of child caring women is complicated by the relatively low share of part-time work (Graph 16) or the current shortage of facilities for pre-school children<sup>3</sup>. In this respect, the Czech labour market has space for improvement. It is also necessary to take into account the structure of the economy, namely the high share of employees in shift-working operations<sup>4</sup> (in the Czech Republic this share was 29.0% in 2016, while only 18.8% in the EU). For this reason, it can be expected that support for part-time work or increased access to care for preschool children will have in international comparison relatively smaller impact on the participation rate of women with small children.

A discussed aspect is the higher involvement of **foreigners** in the Czech labour market. Companies and institutions are trying to tackle labour shortages by importing workers from outside the EU (mainly from Eastern Europe, but increasingly from Asia), but often face administrative hurdles as well as insufficient adaptability of these persons to the Czech culture<sup>5</sup>. Nevertheless, assuming a careful selection of candidates and temporary (and potentially renewable) contracts, foreigners could, though perhaps only partially, ease the tensions on the Czech labour market. The number of foreigners working in the Czech Republic increased by 158,000 between the end of 2011 and 2016.

The participation rate of people with lower education (Graph 12) has long been around 30%, well below the EU average. It can be assumed that with the current distribution on the labour market, which is characterized by a very high number of vacancies for unqualified applicants, the willingness of these persons to integrate into the work process could increase. These people, however, deal with a number of social problems. One of them is the heavy burden of property seizures that leads to lack of interest in working; regions with a high number of seizures such as Karlovy Vary or Ústí regions<sup>6</sup> coincide with regions with a high share of people with basic education<sup>7</sup>.

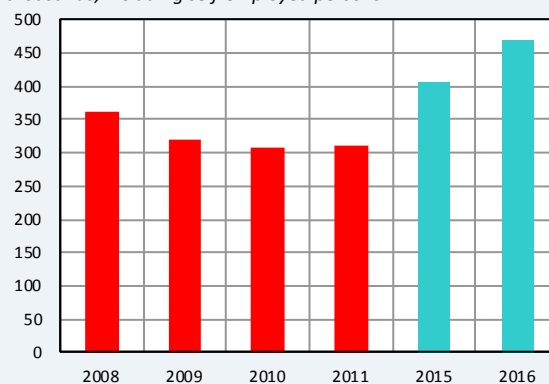
**Graph 10: Average Length of Paid Childcare Leave**  
in weeks, data for 2016



Source: OECD.

**Graph 11: Number of Foreigners Legally Working in the Czech Republic<sup>8</sup>**

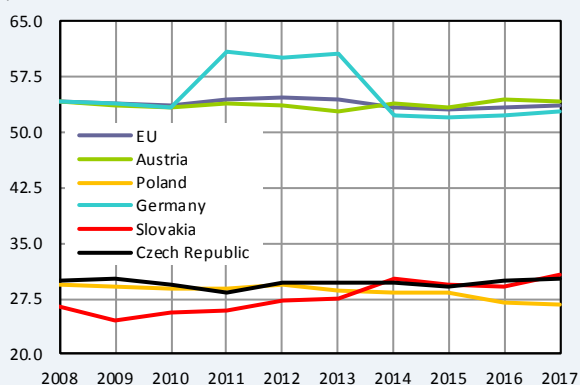
in thousands, including self-employed persons



Note: Data for the years 2012–2014 and 2017 are not available.

Source: CZSO.

**Graph 12: Activity Rate of Persons with Lower Education<sup>9</sup>**  
in %



Source: Eurostat.

<sup>3</sup> Bičáková A., Kalíšková K. (2016): Výskyt a vznik nezaměstnanosti u žen s předškolními dětmi: případ České republiky. Politická ekonomie, 64(6), pp. 695–712.

<sup>4</sup> CZSO (2017): Čtvrtletní analýza VŠPS na aktuální téma – 3. čtvrtletí 2017. Prague, Czech Statistical Office, 3 November 2017, [retrieved on 11 July 2018], <[https://www.czso.cz/documents/10180/46239589/czam110317\\_analyza.pdf](https://www.czso.cz/documents/10180/46239589/czam110317_analyza.pdf)>.

<sup>5</sup> MVČR (2016) Koncepce integrace cizinců – ve vzájemném respektu. Praha, Ministerstvo vnitra České republiky, 29 January 2016, [retrieved on 11 July 2018], <<http://www.mvcr.cz/ViewFile.aspx?docid=21973681>>.

<sup>6</sup> Mapa exekucí (2018): Exekuce v datech 2017. Praha, Otevřená společnost, Ekumenická akademie, [retrieved on 11 July 2018], <<http://mapaexekuci.cz/index.php/studie-a-analyzy/infografiky/>>.

<sup>7</sup> CZSO (2014): Úroveň vzdělání obyvatelstva podle výsledků sčítání lidu – 2011. Prague, Czech Statistical Office, 23 December 2014, [retrieved on 11 July 2018], <<https://www.czso.cz/csu/czso/uroven-vzdelani-obyvatelstva-podle-vysledku-scitani-lidu-2011-xmlg5xjb8q>>.

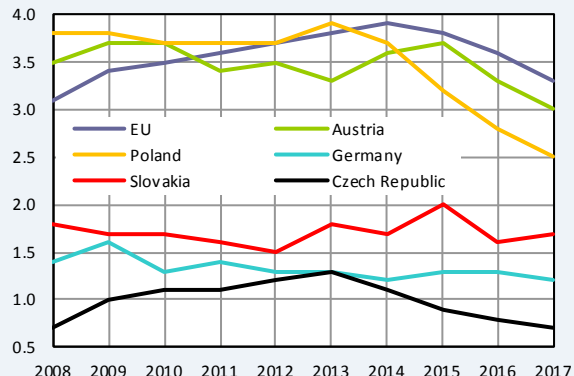
<sup>8</sup> These statistics are based on administrative data sources and relate to the year-end. As a result, they are not comparable to the LFS data. Data for the years 2012–2014 and 2017 are not available.



The share of persons **able to work but not seeking a job** (see Graph 13), as well as **job seekers who are unable to take up the job immediately** (Graph 14), is well below the EU average in the Czech Republic, in Slovakia and, in the latter case, also in Poland. Persons in these two groups are mostly those with health problems or caring for a family member.

**Graph 13: Persons Available to Work but Not Seeking**

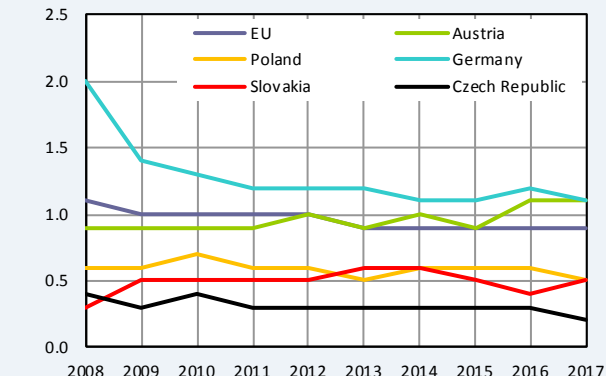
*in % of active population*



Source: Eurostat.

**Graph 14: Persons Seeking Work but Not Immediately Available**

*in % of active population*

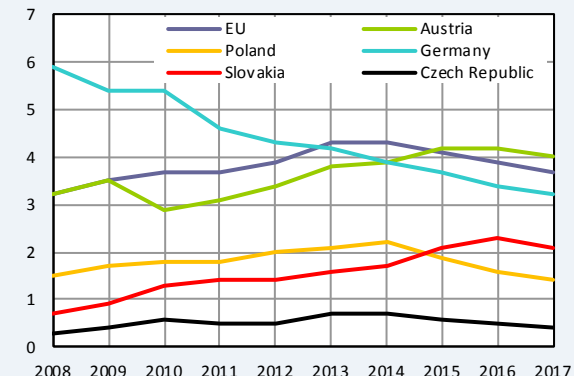


Source: Eurostat.

The number of persons who prefer working more hours than they currently are, so-called **underemployed persons** (Graph 15), is significantly lower in the Czech Republic compared to the EU, which can be related to a similarly smaller share of part-time work (Graph 16). The lower value of this indicator compared to Poland or Slovakia is associated with lower unemployment and high number of job vacancies. Some employees (such as mothers with small children, see above) would instead prefer part-time to full-time. The share of part-time work (Graph 16) in the Czech Republic, as well as in other countries that have undergone transformation, is well below the EU average and there is no obvious trend towards increasing it. In addition to the structure of the economy (high share of the secondary sector with shift-working), this is probably due to the higher share of entrepreneurs.

**Graph 15: Underemployed Part-Time Workers**

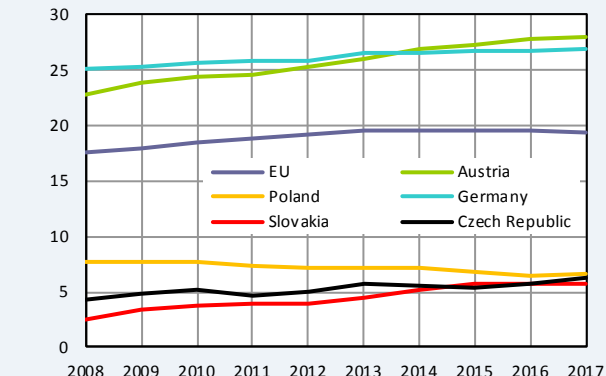
*in % of active population*



Source: Eurostat.

**Graph 16: Part-Time Employment**

*in % of employment*



Source: Eurostat.

In conclusion, the current labour shortage can be partly addressed by using domestic sources, but the possibilities are limited. The most suitable source are persons aged 60–64. It is also possible to increase the participation of women with small children. Here, however, changes in the legal and social system would have to be made. As a priority, it would be suitable to provide the labour force for sectors necessary for the functioning of the State and the economy due to the aging of the population, for example health or social services. The situation of long unmet demand for labour can act as an incentive for investments in new technologies that increase labour productivity and a stronger inclination towards higher value added sectors.

<sup>9</sup> Persons without education, and with elementary or lower-secondary education.

**Table 3.3.1: Labour Market – yearly**

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Forecast	Forecast	Outlook	Outlook
<b>Labour Force Survey</b>											
<b>Employment</b>	<i>av. in thous.persons</i>	<b>4 890</b>	<b>4 937</b>	<b>4 974</b>	<b>5 042</b>	<b>5 139</b>	<b>5 222</b>	<b>5 292</b>	<b>5 304</b>	<b>5 312</b>	<b>5 317</b>
	<i>growth in %</i>	0.4	1.0	0.8	1.4	1.9	1.6	1.3	0.2	0.2	0.1
Employees	<i>av. in thous.persons</i>	<b>3 997</b>	<b>4 055</b>	<b>4 079</b>	<b>4 168</b>	<b>4 257</b>	<b>4 327</b>	<b>4 393</b>	<b>4 407</b>	<b>4 419</b>	<b>4 428</b>
	<i>growth in %</i>	-0.1	1.5	0.6	2.2	2.1	1.7	1.5	0.3	0.3	0.2
Entrepreneurs and self-employed	<i>av. in thous.persons</i>	<b>893</b>	<b>882</b>	<b>895</b>	<b>874</b>	<b>882</b>	<b>894</b>	<b>899</b>	<b>896</b>	<b>893</b>	<b>890</b>
	<i>growth in %</i>	2.4	-1.3	1.5	-2.3	0.9	1.4	0.5	-0.3	-0.3	-0.4
<b>Unemployment</b>	<i>av. in thous.persons</i>	<b>367</b>	<b>369</b>	<b>324</b>	<b>268</b>	<b>211</b>	<b>156</b>	<b>126</b>	<b>124</b>	<b>123</b>	<b>123</b>
<b>Unemployment rate</b>	<i>average in %</i>	<b>7.0</b>	<b>7.0</b>	<b>6.1</b>	<b>5.1</b>	<b>4.0</b>	<b>2.9</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>
<b>Long-term unemployment <sup>1)</sup></b>	<i>av. in thous.persons</i>	<b>161</b>	<b>163</b>	<b>141</b>	<b>127</b>	<b>89</b>	<b>80</b>	.	.	.	.
<b>Labour force</b>	<i>av. in thous.persons</i>	<b>5 257</b>	<b>5 306</b>	<b>5 298</b>	<b>5 310</b>	<b>5 350</b>	<b>5 377</b>	<b>5 418</b>	<b>5 428</b>	<b>5 435</b>	<b>5 440</b>
	<i>growth in %</i>	0.7	0.9	-0.2	0.2	0.8	0.5	0.8	0.2	0.1	0.1
<b>Population aged 15–64</b>	<i>av. in thous.persons</i>	<b>7 229</b>	<b>7 154</b>	<b>7 081</b>	<b>7 026</b>	<b>6 968</b>	<b>6 917</b>	<b>6 877</b>	<b>6 835</b>	<b>6 798</b>	<b>6 769</b>
	<i>growth in %</i>	-0.9	-1.0	-1.0	-0.8	-0.8	-0.7	-0.6	-0.6	-0.5	-0.4
<b>Employment/Pop. 15–64</b>	<i>average in %</i>	<b>67.6</b>	<b>69.0</b>	<b>70.2</b>	<b>71.8</b>	<b>73.7</b>	<b>75.5</b>	<b>76.9</b>	<b>77.6</b>	<b>78.1</b>	<b>78.6</b>
<b>Employment rate 15–64 <sup>2)</sup></b>	<i>average in %</i>	<b>66.5</b>	<b>67.7</b>	<b>69.0</b>	<b>70.2</b>	<b>72.0</b>	<b>73.6</b>	<b>74.9</b>	<b>75.5</b>	<b>76.1</b>	<b>76.5</b>
<b>Labour force/Pop. 15–64</b>	<i>average in %</i>	<b>72.7</b>	<b>74.2</b>	<b>74.8</b>	<b>75.6</b>	<b>76.8</b>	<b>77.7</b>	<b>78.8</b>	<b>79.4</b>	<b>80.0</b>	<b>80.4</b>
<b>Participation rate 15–64 <sup>3)</sup></b>	<i>average in %</i>	<b>71.6</b>	<b>72.9</b>	<b>73.5</b>	<b>74.0</b>	<b>75.0</b>	<b>75.9</b>	<b>76.7</b>	<b>77.3</b>	<b>77.9</b>	<b>78.3</b>
<b>Registered unemployment</b>											
<b>Unemployment</b>	<i>av. in thous.persons</i>	<b>504</b>	<b>564</b>	<b>561</b>	<b>479</b>	<b>406</b>	<b>318</b>	<b>241</b>	<b>204</b>	<b>187</b>	<b>185</b>
<b>Share of unemployed <sup>4)</sup></b>	<i>average in %</i>	<b>6.8</b>	<b>7.7</b>	<b>7.7</b>	<b>6.6</b>	<b>5.6</b>	<b>4.3</b>	<b>3.2</b>	<b>2.8</b>	<b>2.5</b>	<b>2.5</b>
<b>Wages and salaries</b>											
<b>Average monthly wage <sup>5)</sup></b>											
Nominal	CZK	25 067	25 035	25 768	26 591	27 764	29 496	31 900	34 400	36 200	38 100
	<i>growth in %</i>	<b>2.5</b>	<b>-0.1</b>	<b>2.9</b>	<b>3.2</b>	<b>4.4</b>	<b>6.2</b>	<b>8.0</b>	<b>8.0</b>	<b>5.2</b>	<b>5.2</b>
Real	CZK 2005	20 717	20 403	20 916	21 514	22 318	23 152	24 500	25 800	26 700	27 600
	<i>growth in %</i>	<b>-0.8</b>	<b>-1.5</b>	<b>2.5</b>	<b>2.9</b>	<b>3.7</b>	<b>3.7</b>	<b>5.6</b>	<b>5.6</b>	<b>3.2</b>	<b>3.4</b>
<b>Median monthly wage</b>	CZK	20 828	21 110	21 786	22 414	23 692	25 279	.	.	.	.
	<i>growth in %</i>	<b>0.4</b>	<b>1.4</b>	<b>3.2</b>	<b>2.9</b>	<b>5.7</b>	<b>6.7</b>	.	.	.	.
<b>Wage bill</b>	<i>growth in %</i>	<b>2.6</b>	<b>0.5</b>	<b>3.6</b>	<b>4.8</b>	<b>5.7</b>	<b>8.2</b>	<b>9.3</b>	<b>8.3</b>	<b>5.5</b>	<b>5.4</b>
<b>Labour productivity</b>	<i>growth in %</i>	<b>-1.2</b>	<b>-0.8</b>	<b>2.2</b>	<b>3.8</b>	<b>0.8</b>	<b>2.7</b>	<b>1.9</b>	<b>2.9</b>	<b>2.5</b>	<b>2.3</b>
<b>Unit labour costs <sup>6)</sup></b>	<i>growth in %</i>	<b>3.0</b>	<b>0.5</b>	<b>0.4</b>	<b>-0.8</b>	<b>3.1</b>	<b>3.6</b>	<b>5.7</b>	<b>4.9</b>	<b>2.7</b>	<b>2.9</b>
<b>Compens. of employees / GDP</b>	%	<b>41.0</b>	<b>40.9</b>	<b>40.2</b>	<b>39.6</b>	<b>40.4</b>	<b>41.4</b>	<b>43.1</b>	<b>44.2</b>	<b>44.7</b>	<b>45.1</b>

<sup>1)</sup> Persons in unemployment for longer than 12 months.

<sup>2)</sup> The indicator does not include employment over 64 years.

<sup>3)</sup> The indicator does not include labour force over 64 years.

<sup>4)</sup> Share of available job seekers aged 15 to 64 years in the population of the same age.

<sup>5)</sup> Derived from full-time-equivalent employers in the entire economy.

<sup>6)</sup> Ratio of nominal compensation per employee to real productivity of labour.

Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

**Table 3.3.2: Labour Market – quarterly**

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	
<b>Labour Force Survey</b>									
<b>Employment</b>	<i>av. in thous. persons</i>	<b>5 169</b>	<b>5 197</b>	<b>5 257</b>	<b>5 263</b>	<b>5 258</b>	<b>5 293</b>	<b>5 306</b>	<b>5 310</b>
	<i>YoY growth in %</i>	1.6	1.3	2.0	1.5	1.7	1.8	0.9	0.9
	<i>QoQ growth in %</i>	0.3	0.0	1.0	0.1	0.6	0.2	0.1	0.1
Employees	<i>av. in thous. persons</i>	<b>4 276</b>	<b>4 298</b>	<b>4 360</b>	<b>4 375</b>	<b>4 367</b>	<b>4 382</b>	<b>4 405</b>	<b>4 419</b>
	<i>growth in %</i>	1.1	1.3	2.2	2.1	2.1	1.9	1.0	1.0
Entrepreneurs and self-employed	<i>av. in thous. persons</i>	<b>893</b>	<b>899</b>	<b>897</b>	<b>888</b>	<b>891</b>	<b>911</b>	<b>901</b>	<b>892</b>
	<i>growth in %</i>	4.4	1.6	1.5	-1.8	-0.2	1.4	0.4	0.4
<b>Unemployment</b>	<i>av. in thous. persons</i>	<b>185</b>	<b>159</b>	<b>150</b>	<b>129</b>	<b>130</b>	<b>123</b>	<b>127</b>	<b>125</b>
<b>Unemployment rate</b>	<i>average in %</i>	<b>3.4</b>	<b>3.0</b>	<b>2.8</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>
<b>Long-term unemployment<sup>1)</sup></b>	<i>av. in thous. persons</i>	<b>68</b>	<b>59</b>	<b>49</b>	<b>41</b>	<b>41</b>	.	.	.
<b>Labour force</b>	<i>av. in thous. persons</i>	<b>5 354</b>	<b>5 356</b>	<b>5 407</b>	<b>5 391</b>	<b>5 388</b>	<b>5 415</b>	<b>5 433</b>	<b>5 435</b>
	<i>growth in %</i>	0.7	0.3	0.8	0.2	0.6	1.1	0.5	0.8
<b>Population aged 15–64</b>	<i>av. in thous. persons</i>	<b>6 936</b>	<b>6 921</b>	<b>6 911</b>	<b>6 900</b>	<b>6 894</b>	<b>6 883</b>	<b>6 872</b>	<b>6 861</b>
	<i>growth in %</i>	-0.8	-0.8	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6
<b>Employment/Pop. 15–64</b>	<i>average in %</i>	<b>74.5</b>	<b>75.1</b>	<b>76.1</b>	<b>76.3</b>	<b>76.3</b>	<b>76.9</b>	<b>77.2</b>	<b>77.4</b>
	<i>increase over a year</i>	1.8	1.6	2.1	1.6	1.7	1.8	1.1	1.1
<b>Employment rate 15–64<sup>2)</sup></b>	<i>average in %</i>	<b>72.8</b>	<b>73.3</b>	<b>74.1</b>	<b>74.3</b>	<b>74.3</b>	<b>74.9</b>	<b>75.2</b>	<b>75.4</b>
	<i>increase over a year</i>	1.8	1.6	1.9	1.4	1.5	1.6	1.0	1.0
<b>Labour force/Pop. 15–64</b>	<i>average in %</i>	<b>77.2</b>	<b>77.4</b>	<b>78.2</b>	<b>78.1</b>	<b>78.2</b>	<b>78.7</b>	<b>79.1</b>	<b>79.2</b>
	<i>increase over a year</i>	1.1	0.9	1.2	0.7	1.0	1.3	0.8	1.1
<b>Participation rate 15–64<sup>3)</sup></b>	<i>average in %</i>	<b>75.5</b>	<b>75.6</b>	<b>76.3</b>	<b>76.2</b>	<b>76.1</b>	<b>76.6</b>	<b>77.0</b>	<b>77.2</b>
	<i>increase over a year</i>	1.1	0.8	1.0	0.5	0.7	1.1	0.7	1.0
<b>Registered unemployment</b>									
<b>Unemployment</b>	<i>av. in thous. persons</i>	<b>379.5</b>	<b>320.8</b>	<b>297.0</b>	<b>273.1</b>	<b>280.7</b>	<b>238.7</b>	<b>226</b>	<b>219</b>
<b>Share of unemployed<sup>4)</sup></b>	<i>average in %</i>	<b>5.1</b>	<b>4.3</b>	<b>4.0</b>	<b>3.6</b>	<b>3.8</b>	<b>3.1</b>	<b>3.0</b>	<b>2.9</b>
<b>Wages and salaries</b>									
<b>Average monthly wage<sup>5)</sup></b>									
Nominal	CZK	27 880	29 335	29 058	31 661	30 265	31 800	31 500	33 800
	<i>growth in %</i>	<b>4.5</b>	<b>6.9</b>	<b>6.1</b>	<b>7.4</b>	<b>8.6</b>	<b>8.5</b>	<b>8.4</b>	<b>6.9</b>
Real	CZK 2005	22 005	23 080	22 773	24 677	23 443	24 500	24 100	25 800
	<i>growth in %</i>	<b>2.0</b>	<b>4.5</b>	<b>3.5</b>	<b>4.6</b>	<b>6.5</b>	<b>6.1</b>	<b>5.8</b>	<b>4.5</b>
<b>Median monthly wage</b>	CZK	23 709	24 887	25 188	27 333	25 674	.	.	.
	<i>growth in %</i>	<b>4.4</b>	<b>7.4</b>	<b>6.4</b>	<b>8.4</b>	<b>8.3</b>	.	.	.
<b>Wage bill</b>	<i>growth in %</i>	<b>6.7</b>	<b>8.4</b>	<b>8.2</b>	<b>9.5</b>	<b>10.3</b>	<b>10.0</b>	<b>9.3</b>	<b>7.8</b>

<sup>1)</sup> Persons in unemployment for longer than 12 months.

<sup>2)</sup> The indicator does not include employment over 64 years.

<sup>3)</sup> The indicator does not include labour force over 64 years.

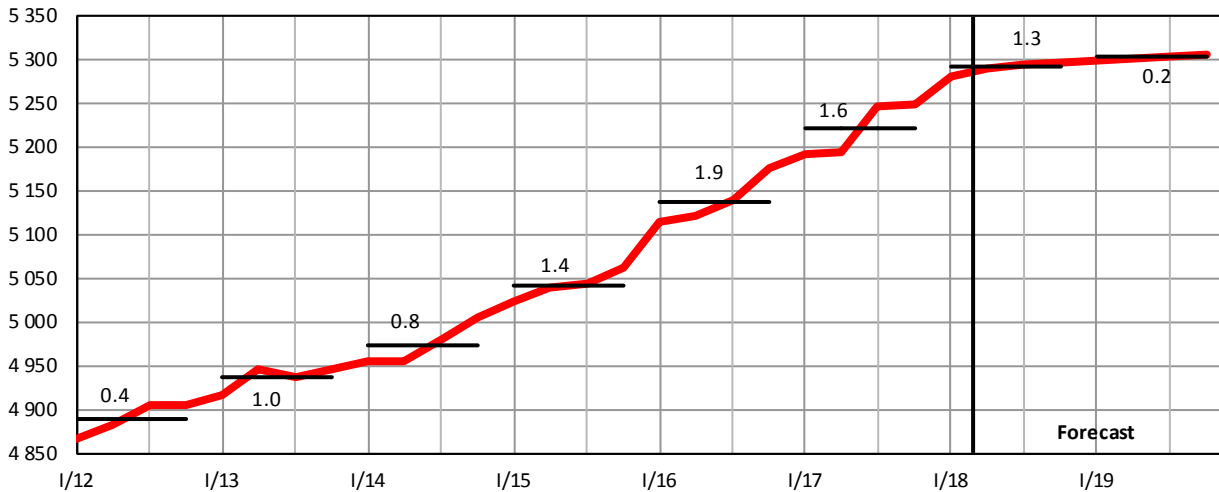
<sup>4)</sup> Share of available job seekers aged 15 to 64 years in the population of the same age.

<sup>5)</sup> Derived from full-time-equivalent employers in the entire economy.

Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

### Graph 3.3.5: Employment (LFS)

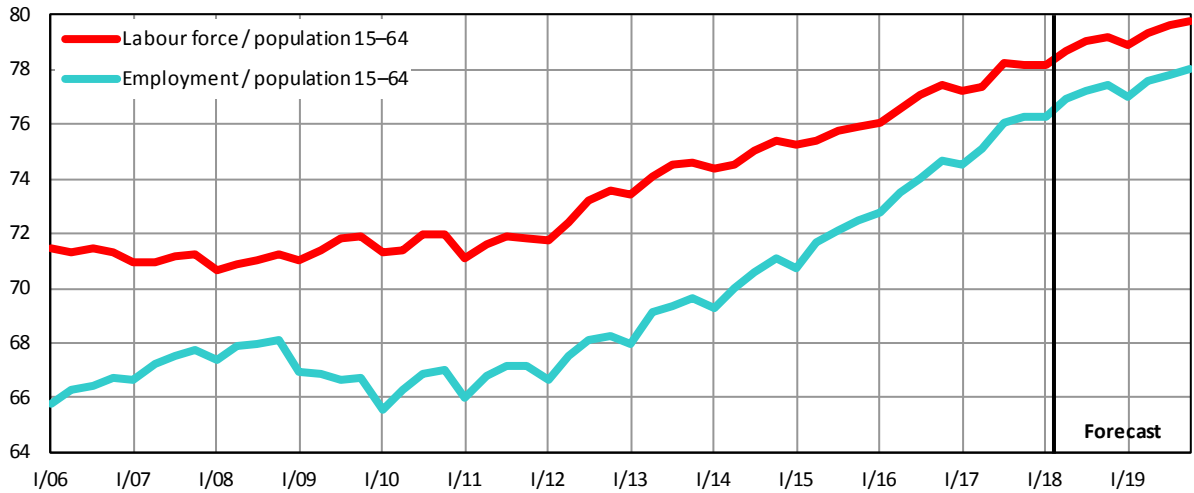
seasonally adjusted data, in thousands of persons, black lines with labels show the average level and growth rate in the given year



Source: CZSO. Calculations of the MoF.

### Graph 3.3.6: Ratio of Labour Force and Employment to Population Aged 15–64

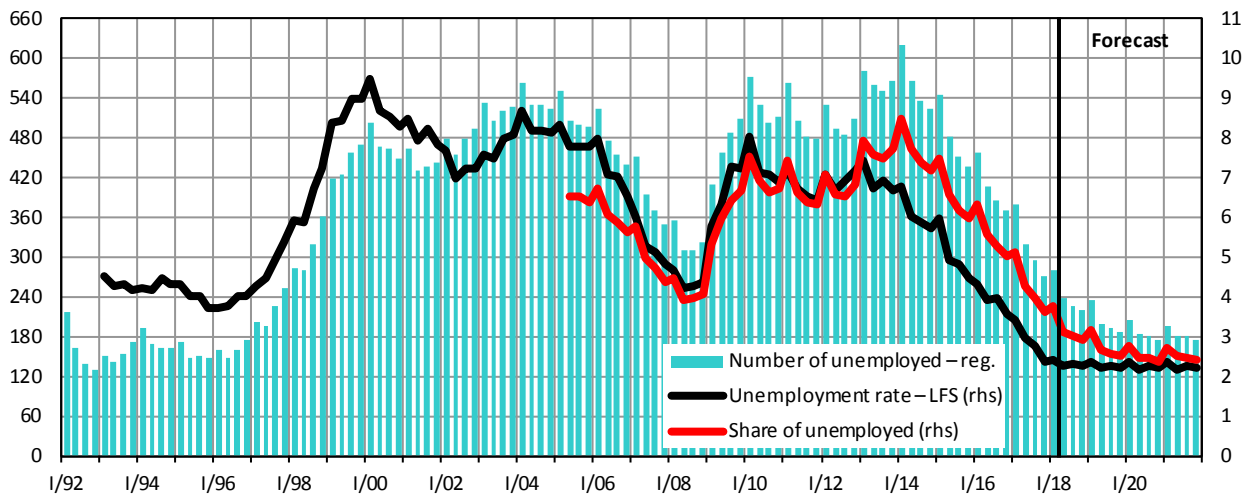
in %



Source: CZSO. Calculations of the MoF.

### Graph 3.3.7: Unemployment

quarterly average, in thousands of persons, in % (rhs)

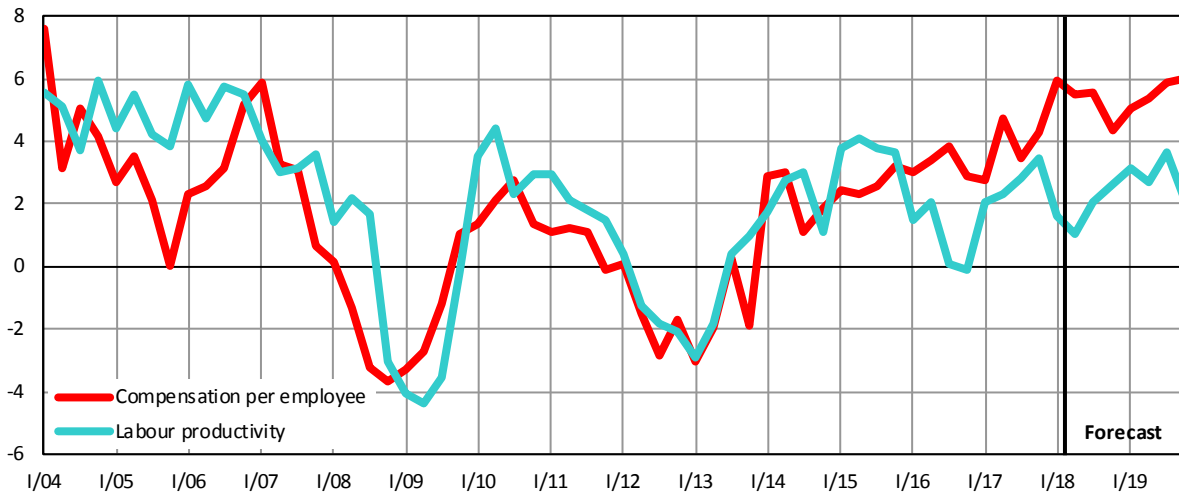


Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

**Graph 3.3.8: Compensation per Employee and Real Productivity of Labour**

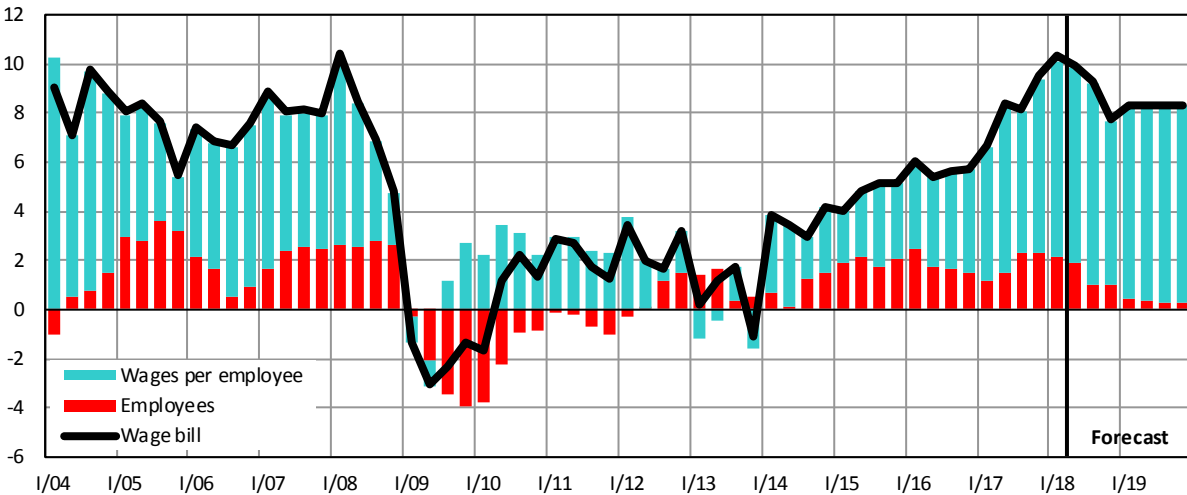
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

**Graph 3.3.9: Wage Bill – nominal, domestic concept**

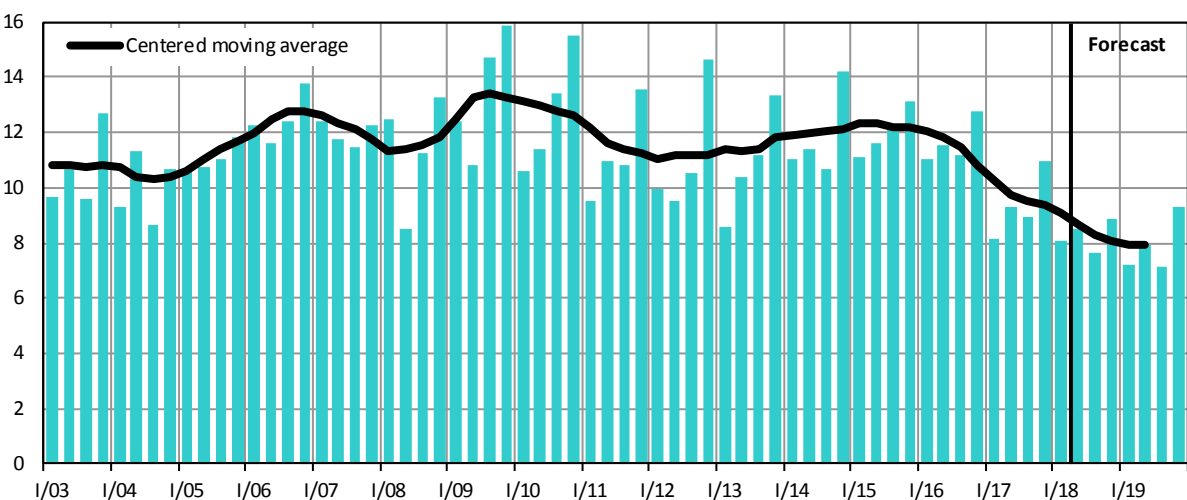
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

**Graph 3.3.10: Gross Savings Rate of Households**

in % of disposable income



Source: CZSO. Calculations of the MoF.

**Table 3.3.3: Income and Expenditures of Households – yearly**
*SNA methodology – national concept*

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
											<i>Forecast</i>	<i>Forecast</i>
<b>Current income</b>												
<b>Compensation of employees</b>	<i>bill.CZK</i>	<b>1 587</b>	<b>1 627</b>	<b>1 669</b>	<b>1 692</b>	<b>1 760</b>	<b>1 852</b>	<b>1 964</b>	<b>2 126</b>	<b>2 318</b>	<b>2 508</b>	
	<i>growth in %</i>	2.2	2.5	2.6	1.3	4.0	5.3	6.0	8.3	9.0	8.2	
<b>Gross operating surplus and mixed income</b>	<i>bill.CZK</i>	<b>685</b>	<b>674</b>	<b>654</b>	<b>645</b>	<b>662</b>	<b>691</b>	<b>711</b>	<b>728</b>	<b>759</b>	<b>776</b>	
	<i>growth in %</i>	-0.2	-1.7	-2.9	-1.3	2.6	4.3	2.9	2.5	4.2	2.3	
<b>Property income received</b>	<i>bill.CZK</i>	<b>154</b>	<b>153</b>	<b>147</b>	<b>158</b>	<b>166</b>	<b>166</b>	<b>175</b>	<b>165</b>	<b>175</b>	<b>183</b>	
	<i>growth in %</i>	-2.5	-0.6	-4.0	7.8	5.1	-0.4	5.7	-5.8	5.9	4.9	
<b>Social benefits not-in-kind</b>	<i>bill.CZK</i>	<b>541</b>	<b>553</b>	<b>566</b>	<b>563</b>	<b>576</b>	<b>591</b>	<b>606</b>	<b>623</b>	<b>660</b>	<b>705</b>	
	<i>growth in %</i>	1.1	2.1	2.4	-0.6	2.2	2.6	2.6	2.9	5.9	6.8	
<b>Other current transfers received</b>	<i>bill.CZK</i>	<b>140</b>	<b>139</b>	<b>151</b>	<b>146</b>	<b>160</b>	<b>181</b>	<b>217</b>	<b>244</b>	<b>261</b>	<b>277</b>	
	<i>growth in %</i>	-1.0	-0.5	8.6	-3.1	9.2	13.3	19.4	12.7	6.8	6.4	
<b>Current expenditure</b>												
<b>Property income paid</b>	<i>bill.CZK</i>	<b>23</b>	<b>21</b>	<b>15</b>	<b>21</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>16</b>	<b>19</b>	<b>20</b>	
	<i>growth in %</i>	17.7	-8.5	-27.2	40.5	-24.3	-10.7	0.2	8.3	18.5	8.2	
<b>Curr. taxes on income and property</b>	<i>bill.CZK</i>	<b>144</b>	<b>156</b>	<b>158</b>	<b>166</b>	<b>177</b>	<b>183</b>	<b>203</b>	<b>225</b>	<b>257</b>	<b>283</b>	
	<i>growth in %</i>	-2.5	8.1	1.6	4.9	6.9	3.2	11.1	10.9	14.0	10.1	
<b>Social contributions</b>	<i>bill.CZK</i>	<b>621</b>	<b>640</b>	<b>654</b>	<b>670</b>	<b>696</b>	<b>732</b>	<b>775</b>	<b>836</b>	<b>922</b>	<b>997</b>	
	<i>growth in %</i>	2.9	3.1	2.3	2.4	3.8	5.3	5.8	7.8	10.3	8.2	
<b>Other current transfers paid</b>	<i>bill.CZK</i>	<b>141</b>	<b>145</b>	<b>154</b>	<b>140</b>	<b>150</b>	<b>168</b>	<b>205</b>	<b>235</b>	<b>253</b>	<b>269</b>	
	<i>growth in %</i>	-1.6	3.2	6.2	-9.3	6.9	11.9	22.5	14.6	7.7	6.2	
<b>Gross disposable income</b>	<i>bill.CZK</i>	<b>2 179</b>	<b>2 184</b>	<b>2 206</b>	<b>2 208</b>	<b>2 285</b>	<b>2 383</b>	<b>2 474</b>	<b>2 575</b>	<b>2 722</b>	<b>2 881</b>	
	<i>growth in %</i>	0.8	0.2	1.0	0.1	3.5	4.3	3.8	4.1	5.7	5.8	
<b>Final consumption</b>	<i>bill.CZK</i>	<b>1 913</b>	<b>1 952</b>	<b>1 970</b>	<b>1 997</b>	<b>2 044</b>	<b>2 125</b>	<b>2 213</b>	<b>2 362</b>	<b>2 527</b>	<b>2 685</b>	
	<i>growth in %</i>	1.5	2.0	0.9	1.3	2.4	3.9	4.1	6.7	7.0	6.3	
<b>Change in share in pension funds</b>	<i>bill.CZK</i>	<b>15</b>	<b>16</b>	<b>15</b>	<b>35</b>	<b>35</b>	<b>33</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>36</b>	
<b>Gross savings</b>	<i>bill.CZK</i>	<b>282</b>	<b>248</b>	<b>250</b>	<b>246</b>	<b>276</b>	<b>291</b>	<b>292</b>	<b>245</b>	<b>228</b>	<b>231</b>	
<b>Capital transfers</b>												
<i>(income (-) / expenditure (+))</i>	<i>bill.CZK</i>	<b>-29</b>	<b>-25</b>	<b>-21</b>	<b>-13</b>	<b>-32</b>	<b>-12</b>	<b>-14</b>	<b>-11</b>	<b>-19</b>	<b>-23</b>	
<b>Gross capital formation</b>	<i>bill.CZK</i>	<b>230</b>	<b>198</b>	<b>183</b>	<b>181</b>	<b>195</b>	<b>208</b>	<b>228</b>	<b>242</b>	<b>255</b>	<b>265</b>	
	<i>growth in %</i>	8.8	-13.9	-7.8	-1.3	8.3	6.6	9.6	5.8	5.7	3.8	
<b>Change in financial assets and liab.</b>	<i>bill.CZK</i>	<b>79</b>	<b>73</b>	<b>87</b>	<b>77</b>	<b>110</b>	<b>93</b>	<b>76</b>	<b>14</b>	<b>-8</b>	<b>-11</b>	
<b>Real disposable income</b>	<i>growth in %</i>	<b>0.4</b>	<b>-1.5</b>	<b>-1.2</b>	<b>-0.8</b>	<b>2.9</b>	<b>4.2</b>	<b>3.3</b>	<b>1.7</b>	<b>3.1</b>	<b>3.4</b>	
<b>Gross savings rate</b>	<i>%</i>	<b>12.8</b>	<b>11.3</b>	<b>11.3</b>	<b>11.0</b>	<b>11.9</b>	<b>12.1</b>	<b>11.6</b>	<b>9.4</b>	<b>8.3</b>	<b>7.9</b>	

*Source: CZSO. Calculations of the MoF.*

### 3.4 External Relations

**The current account balance to GDP ratio**<sup>10</sup> was 0.3% in Q1 2018 (*vs 0.8%*), thus deteriorating by 0.8% GDP in both quarter-on-quarter and year-on-year terms.

**Growth of export markets**<sup>11</sup>, which reached 4.2% (*vs 5.4%*) in Q1 2018, was significantly slower than estimated, mainly due to the surprising quarter-on-quarter decline in German imports. The overall dynamics of imports from the Czech Republic's main trading partners reached the slowest pace since Q2 2016. While GDP growth of the main trading partners remained only slightly below the forecast (estimate missed by 0.1 pp), the growth of import intensity was more than 1 pp weaker. This may be due to the fall in demand for cars in Western Europe, slower growth in foreign industrial production in Q1 2018 (partly due to a series of strikes in Germany) and quarter-on-quarter decrease in exports of our major partners (Germany and France in particular), where the Czech Republic is a significant subcontractor. Considering the development of the import intensity of our major trading partners and worse confidence indicators, we expect the growth of export markets to slow to 3.7% (*vs 5.1%*) this year, while for 2019 we expect a slight acceleration to 4.0% (*vs 4.4%*).

**Export performance** increased by 0.3% (*vs 1.0%*) in Q1 2018. The slower growth dynamics was also due to the year-on-year appreciation of the koruna against the euro after the CNB terminated its exchange rate commitment. We expect growth in export performance to slow down from last year's 1.2% to 0.6% (*unchanged*) in 2018 and further to 0.5% (*unchanged*) in 2019. The continued growth of private investment should be favourably reflected in productivity and hence in the competitiveness of Czech products. The increasing unit labour costs, the expected appreciation of the koruna and the shortage of labour force will act against a further increase in export performance.

Within external trade (balance of payments methodology), there was a continued expected reduction in the surplus on **the balance of goods**, which reached 4.6% of GDP (*vs 4.5% of GDP*) in Q1 2018. Among other factors the result on the balance of goods was due to the year-on-year appreciation of the koruna against the euro, which significantly affected the nominal export and import volumes, and the extraordinary increase in domestic investment given by the economy's position in the business cycle.

With the exception of mineral fuels, the falling surplus on the balance of goods was driven by all commodity

classes, most notably by machinery, transport equipment and food.

Prices of mineral fuels remain an important factor affecting the **terms of trade** of the foreign trade in goods. In Q1 2018, the deficit on the fuel balance reached 2.5% of GDP; this year, we expect the deficit to expand to 3.0% of GDP (*vs 2.7% of GDP*) following the marked rise in oil prices. In 2019, we expect a slight reduction in the deficit on the fuel balance to 2.9% of GDP (*vs 2.5% of GDP*).

We expect that **the balance of goods** surplus will continue to decline and reach 3.6% of GDP this year (*vs 4.2% of GDP*). For 2019, we expect a further decrease in the surplus to 3.5% of GDP (*vs 3.8% of GDP*). The decline in the forecast for the surplus on the balance of goods is due in particular to the rising domestic demand (growth in investment activity), higher oil price worsening terms of trade and concerns about the deepening trade dispute between the United States and the EU.

Since Q1 2015, the surplus on the **balance of services** has been increasing continuously, reaching 2.5% of GDP (*vs 2.4%*) in Q1 2018. In year-on-year comparison, the balance of construction, tourism, telecommunication services and computing services improved. With regard to the continuing economic growth we expect improved sales of services abroad in the coming period and the surplus maintained at similar levels. We estimate that the surplus will reach 2.5% of GDP in 2018, then we expect a slight decrease to 2.4% of GDP in 2019 (*vs 2.3% of GDP in both years*).

Apart from the aforementioned and expected decrease in the surplus on the balance of goods and services of 0.2% of GDP, the year-on-year drop in the current account surplus in Q1 2018 was also due to deterioration in **the primary income balance** of 0.5% of GDP. Its deficit reached 5.7% of GDP (*vs 5.2% of GDP*) in Q1 2018. The worsening was due to higher outflow of income from direct investments (dividends) driven by higher growth in profitability of foreign-owned companies. The primary income shows a high volatility over time related to the cyclical development of the economy. In view of the tight labour market situation and the ongoing wage pressures and thus the shift in GDP distribution from corporate net profits to compensation of employees, a decrease in profitability can also be expected for foreign-controlled companies. Therefore, for the next two years, we expect a modest reduction in the primary income deficit. It could reach 5.4% of GDP this year (*vs 5.2% of GDP*), then 5.3% of GDP in 2019 (*vs 5.1% of GDP*).

In this context, we estimate that the **current account of the balance of payments** will show a slight deficit of 0.3% GDP in 2018 (*vs a surplus of 0.4% of GDP*). For 2019, we expect the deficit to narrow to 0.2% of GDP (*vs a surplus of 0.2% of GDP*).

<sup>10</sup> All *quarterly* figures relative to GDP are quoted in annual moving totals.

<sup>11</sup> Among the most important trading partners (statistics on foreign trade in goods, national concept) are Germany with a share in Czech exports of 32.2%, Slovakia with 9.0%, Poland with 6.4%, France with 5.1%, United Kingdom with 4.8%, and Austria with 4.4%.

**Table 3.4.1: Balance of Payments – yearly**

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
										Forecast	Forecast
<b>Goods and services</b>	<i>bill.CZK</i>	119	157	201	237	276	266	353	363	321	331
	<i>% GDP</i>	<b>3.0</b>	<b>3.9</b>	<b>5.0</b>	<b>5.8</b>	<b>6.4</b>	<b>5.8</b>	<b>7.4</b>	<b>7.2</b>	<b>6.0</b>	<b>5.9</b>
Goods	<i>bill.CZK</i>	40	75	124	167	220	188	246	241	190	196
	<i>% GDP</i>	<b>1.0</b>	<b>1.9</b>	<b>3.0</b>	<b>4.1</b>	<b>5.1</b>	<b>4.1</b>	<b>5.2</b>	<b>4.8</b>	<b>3.6</b>	<b>3.5</b>
Services	<i>bill.CZK</i>	78	81	78	70	56	78	108	122	130	135
	<i>% GDP</i>	<b>2.0</b>	<b>2.0</b>	<b>1.9</b>	<b>1.7</b>	<b>1.3</b>	<b>1.7</b>	<b>2.3</b>	<b>2.4</b>	<b>2.5</b>	<b>2.4</b>
<b>Primary income</b>	<i>bill.CZK</i>	-250	-223	-238	-249	-261	-255	-252	-261	-288	-294
	<i>% GDP</i>	<b>-6.3</b>	<b>-5.5</b>	<b>-5.9</b>	<b>-6.1</b>	<b>-6.0</b>	<b>-5.5</b>	<b>-5.3</b>	<b>-5.2</b>	<b>-5.4</b>	<b>-5.3</b>
<b>Secondary income</b>	<i>bill.CZK</i>	-11	-18	-27	-10	-7	0	-27	-48	-51	-48
	<i>% GDP</i>	<b>-0.3</b>	<b>-0.5</b>	<b>-0.7</b>	<b>-0.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>-0.6</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-0.9</b>
<b>Current account</b>	<i>bill.CZK</i>	-142	-85	-63	-22	8	11	74	54	-18	-11
	<i>% GDP</i>	<b>-3.6</b>	<b>-2.1</b>	<b>-1.6</b>	<b>-0.5</b>	<b>0.2</b>	<b>0.2</b>	<b>1.6</b>	<b>1.1</b>	<b>-0.3</b>	<b>-0.2</b>
<b>Capital account</b>	<i>bill.CZK</i>	38	13	53	82	32	102	54	46	65	84
	<i>% GDP</i>	<b>0.9</b>	<b>0.3</b>	<b>1.3</b>	<b>2.0</b>	<b>0.7</b>	<b>2.2</b>	<b>1.1</b>	<b>0.9</b>	<b>1.2</b>	<b>1.5</b>
<b>Net lending/borrowing</b>	<i>bill.CZK</i>	-104	-72	-10	61	40	113	128	101	47	73
	<i>% GDP</i>	<b>-2.6</b>	<b>-1.8</b>	<b>-0.3</b>	<b>1.5</b>	<b>0.9</b>	<b>2.5</b>	<b>2.7</b>	<b>2.0</b>	<b>0.9</b>	<b>1.3</b>
<b>Financial account</b>	<i>bill.CZK</i>	-122	-75	12	68	64	175	117	117	.	.
Direct investments	<i>bill.CZK</i>	-95	-47	-121	7	-80	50	-187	-135	.	.
Portfolio investments	<i>bill.CZK</i>	-150	-6	-55	-93	90	-164	-170	-268	.	.
Financial derivatives	<i>bill.CZK</i>	5	4	-9	-5	-6	-5	11	-14	.	.
Other investments	<i>bill.CZK</i>	77	-9	116	-30	-13	-57	-102	-712	.	.
Reserve assets	<i>bill.CZK</i>	41	-17	80	188	73	351	564	1 246	.	.
<b>International investment position</b>	<i>bill.CZK</i>	-1 823	-1 823	-1 864	-1 695	-1 577	-1 513	-1 283	-1 337	.	.
	<i>% GDP</i>	<b>-46.0</b>	<b>-45.2</b>	<b>-45.9</b>	<b>-41.4</b>	<b>-36.6</b>	<b>-32.9</b>	<b>-26.9</b>	<b>-26.5</b>	.	.
<b>Gross external debt</b>	<i>bill.CZK</i>	2 164	2 312	2 434	2 733	2 947	3 119	3 498	4 372	.	.
	<i>% GDP</i>	<b>54.6</b>	<b>57.3</b>	<b>60.0</b>	<b>66.7</b>	<b>68.3</b>	<b>67.9</b>	<b>73.4</b>	<b>86.7</b>	.	.

Source: CNB, CZSO. Calculations of the MoF.



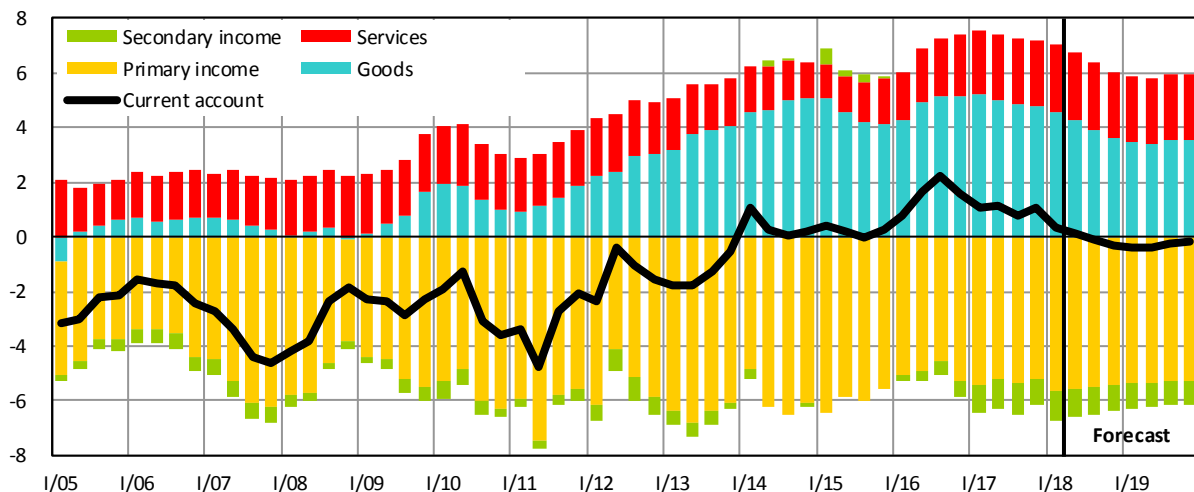
**Table 3.4.2: Balance of Payments – quarterly**  
moving sums of the latest 4 quarters

		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	
<b>Goods and services</b>	bill.CZK	362	360	361	363	359	348	334	321
	% GDP	7.5	7.4	7.3	7.2	7.0	6.7	6.4	6.0
Goods	bill.CZK	251	243	241	241	233	220	205	190
	% GDP	5.2	5.0	4.9	4.8	4.6	4.3	3.9	3.6
Services	bill.CZK	111	118	120	122	126	127	129	130
	% GDP	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5
<b>Primary income</b>	bill.CZK	-261	-253	-263	-261	-290	-290	-289	-288
	% GDP	-5.4	-5.2	-5.3	-5.2	-5.7	-5.6	-5.5	-5.4
<b>Secondary income</b>	bill.CZK	-49	-53	-59	-48	-53	-52	-52	-51
	% GDP	-1.0	-1.1	-1.2	-1.0	-1.0	-1.0	-1.0	-1.0
<b>Current account</b>	bill.CZK	52	54	39	54	15	5	-7	-18
	% GDP	1.1	1.1	0.8	1.1	0.3	0.1	-0.1	-0.3
<b>Capital account</b>	bill.CZK	36	22	18	46	51	56	61	65
	% GDP	0.7	0.5	0.4	0.9	1.0	1.1	1.2	1.2
<b>Net lending/borrowing</b>	bill.CZK	88	76	57	101	67	61	54	47
	% GDP	1.8	1.6	1.1	2.0	1.3	1.2	1.0	0.9
<b>Financial account</b>	bill.CZK	89	134	135	117	64	.	.	.
Direct investments	bill.CZK	-247	-178	-127	-135	-81	.	.	.
Portfolio investments	bill.CZK	-479	-464	-363	-268	36	.	.	.
Financial derivatives	bill.CZK	11	6	-2	-14	-15	.	.	.
Other investments	bill.CZK	-728	-815	-804	-712	2	.	.	.
Reserve assets	bill.CZK	1 532	1 586	1 430	1 246	123	.	.	.
<b>International investment position</b>	stock in bill.CZK	-1 023	-1 193	-1 250	-1 337	-1 322	.	.	.
	% GDP	-21.2	-24.5	-25.2	-26.5	-25.8	.	.	.
<b>Gross external debt</b>	stock in bill.CZK	4 347	4 397	4 438	4 372	4 322	.	.	.
	% GDP	90.3	90.2	89.6	86.7	84.5	.	.	.

Source: CNB, CZSO. Calculations of the MoF.

**Graph 3.4.1: Current Account**

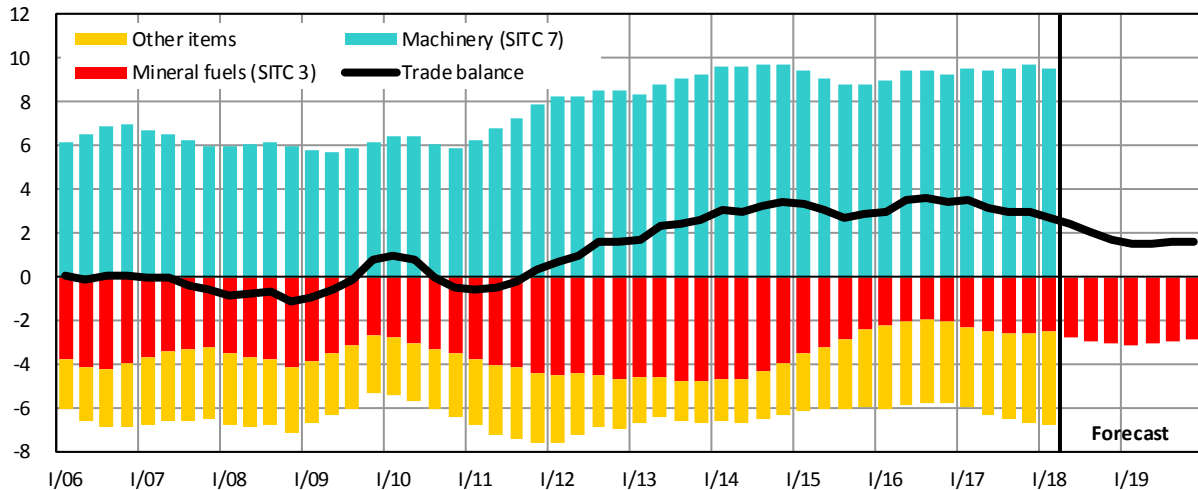
moving sums of the latest 4 quarters, in % of GDP, trade and service balances in BoP definitions



Source: CNB, CZSO. Calculations of the MoF.

### Graph 3.4.2: Balance of Trade (national concept)

moving sums of the latest 4 quarters, in % of GDP, in cross-border definitions

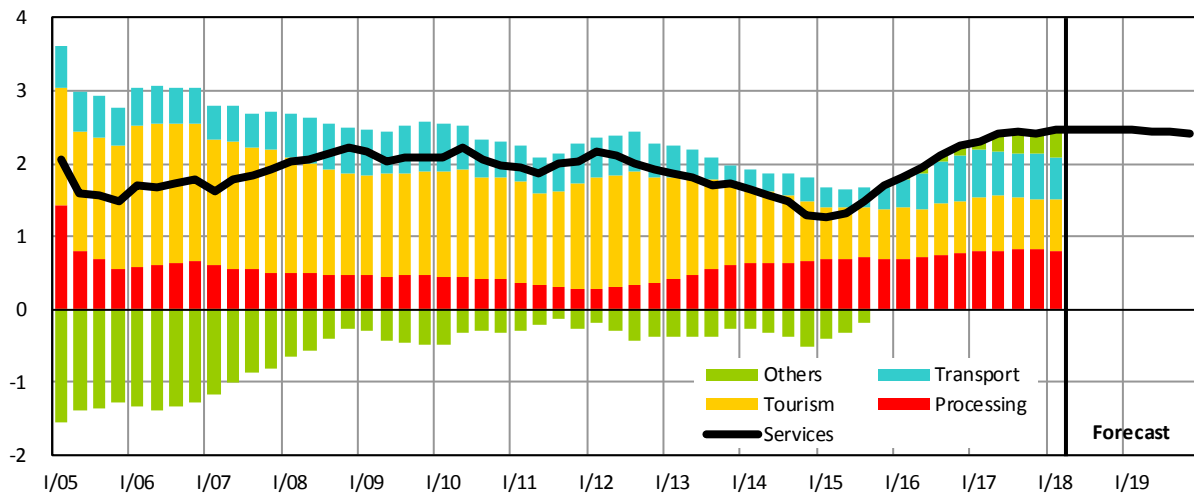


Note: The data in the graph show imports in cif methodology. For this reason, the graph is not comparable with Tables 3.4.1 and 3.4.2, where imports are in fob methodology. Trade balance in the national concept (unlike in the BoP methodology in Tables 3.4.1 and 3.4.2) does not include the import of JAS-39 Gripen fighter jets in the fourth quarter of 2015 amounting to CZK 9.9 bill., i.e. 0.2% of GDP.

Source: CZSO. Calculations of the MoF.

### Graph 3.4.3: Balance of Services

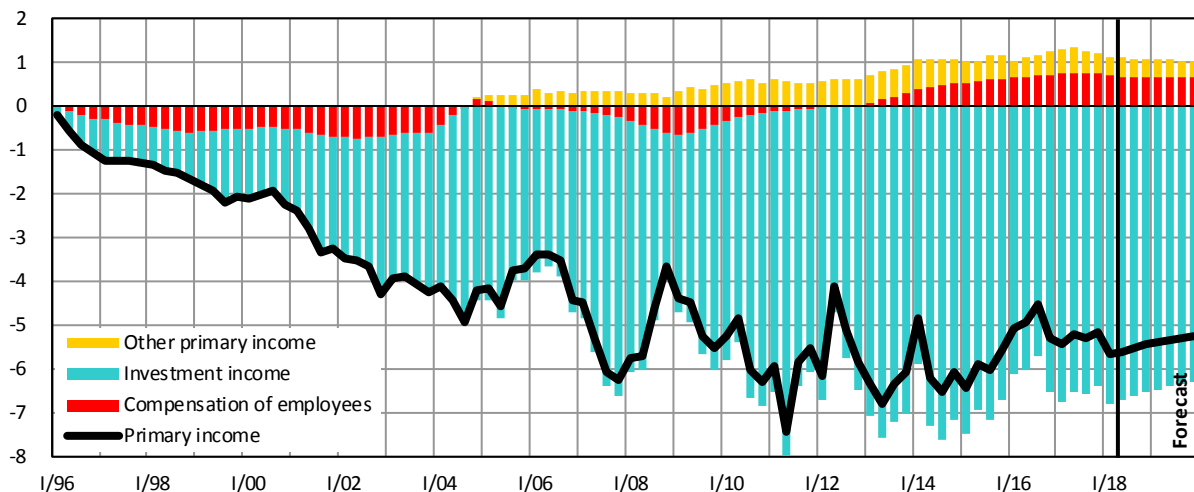
moving sums of the latest 4 quarters, in % of GDP



Source: CNB, CZSO. Calculations of the MoF.

### Graph 3.4.4: Balance of Primary Income

moving sums of the latest 4 quarters, in % of GDP



Source: CNB, CZSO. Calculations of the MoF.

**Table 3.4.3: Decomposition of Exports of Goods – yearly***seasonally adjusted*

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
											Forecast	Forecast
<b>GDP</b> <sup>1)</sup>	<i>average of 2005=100</i>	100.0	103.4	104.4	105.3	107.6	109.8	112.2	115.3	118	121	
	<i>growth in %</i>	<b>3.6</b>	<b>3.4</b>	<b>1.0</b>	<b>0.9</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.8</b>	<b>2.5</b>	<b>2.4</b>	
<b>Import intensity</b> <sup>2)</sup>	<i>average of 2005=100</i>	100.0	104.0	103.1	104.6	107.3	110.9	113.2	116.6	118	120	
	<i>growth in %</i>	<b>8.8</b>	<b>4.0</b>	<b>-0.8</b>	<b>1.4</b>	<b>2.6</b>	<b>3.3</b>	<b>2.1</b>	<b>2.9</b>	<b>1.2</b>	<b>1.6</b>	
<b>Export markets</b> <sup>3)</sup>	<i>average of 2005=100</i>	100.0	107.5	107.7	110.2	115.5	121.8	127.0	134.4	139	145	
	<i>growth in %</i>	<b>12.6</b>	<b>7.5</b>	<b>0.1</b>	<b>2.3</b>	<b>4.8</b>	<b>5.5</b>	<b>4.3</b>	<b>5.9</b>	<b>3.7</b>	<b>4.0</b>	
<b>Export performance</b>	<i>average of 2005=100</i>	100.0	102.4	106.8	105.0	109.5	109.4	109.3	110.6	111	112	
	<i>growth in %</i>	<b>2.5</b>	<b>2.4</b>	<b>4.2</b>	<b>-1.6</b>	<b>4.2</b>	<b>-0.1</b>	<b>-0.1</b>	<b>1.2</b>	<b>0.6</b>	<b>0.5</b>	
<b>Real exports</b>	<i>average of 2005=100</i>	100.0	110.2	115.0	115.7	126.4	133.3	138.8	148.7	155	162	
	<i>growth in %</i>	<b>15.4</b>	<b>10.2</b>	<b>4.4</b>	<b>0.6</b>	<b>9.2</b>	<b>5.4</b>	<b>4.1</b>	<b>7.2</b>	<b>4.3</b>	<b>4.5</b>	
<b>1 / NEER</b>	<i>average of 2005=100</i>	100.0	97.0	101.2	103.0	108.6	109.9	106.9	103.9	100	99	
	<i>growth in %</i>	<b>-2.2</b>	<b>-3.0</b>	<b>4.4</b>	<b>1.7</b>	<b>5.5</b>	<b>1.2</b>	<b>-2.8</b>	<b>-2.8</b>	<b>-3.4</b>	<b>-1.3</b>	
<b>Prices on foreign markets</b>	<i>average of 2005=100</i>	100.0	103.9	102.7	102.6	101.0	98.3	98.3	100.5	103	105	
	<i>growth in %</i>	<b>1.0</b>	<b>3.9</b>	<b>-1.1</b>	<b>-0.1</b>	<b>-1.6</b>	<b>-2.6</b>	<b>0.0</b>	<b>2.2</b>	<b>2.2</b>	<b>2.0</b>	
<b>Exports deflator</b>	<i>average of 2005=100</i>	100.0	100.8	104.0	105.6	109.6	108.1	105.1	104.3	103	104	
	<i>growth in %</i>	<b>-1.2</b>	<b>0.8</b>	<b>3.2</b>	<b>1.5</b>	<b>3.8</b>	<b>-1.4</b>	<b>-2.8</b>	<b>-0.7</b>	<b>-1.3</b>	<b>0.6</b>	
<b>Nominal exports</b>	<i>average of 2005=100</i>	100.0	111.0	119.6	122.2	138.6	144.0	145.8	155.1	160	168	
	<i>growth in %</i>	<b>14.3</b>	<b>11.0</b>	<b>7.7</b>	<b>2.2</b>	<b>13.4</b>	<b>3.9</b>	<b>1.2</b>	<b>6.4</b>	<b>3.0</b>	<b>5.2</b>	

<sup>1)</sup> Weighted average of GDP of the seven most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland, France and Italy.<sup>2)</sup> Index of ratio of real imports of goods to real GDP.<sup>3)</sup> Weighted average of imports of goods of the main partners.

Source: CNB, CZSO, Eurostat. Calculations of the MoF.

**Table 3.4.4: Decomposition of Exports of Goods – quarterly***seasonally adjusted*

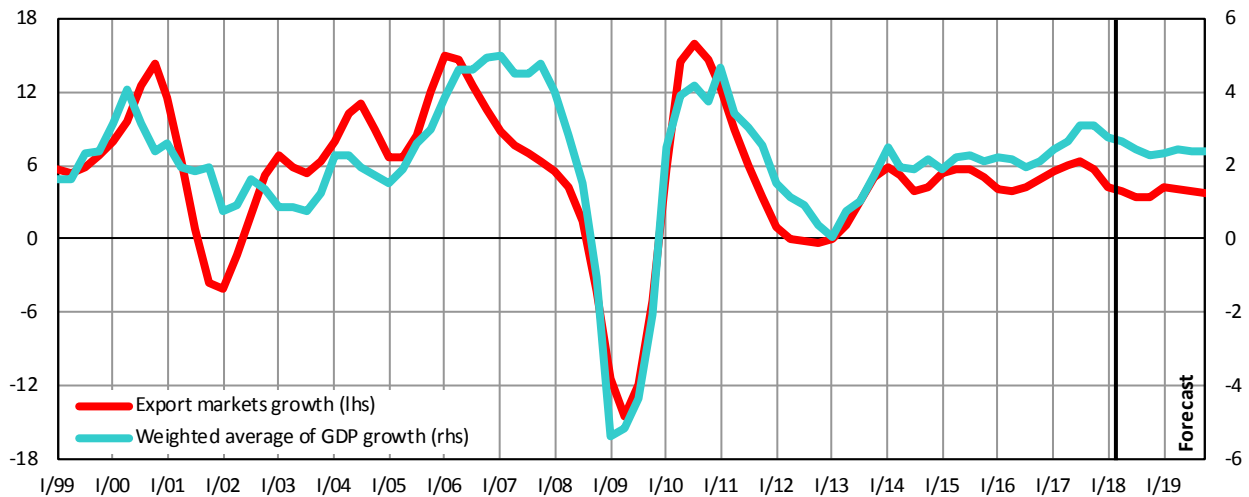
		2017				2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	
<b>GDP</b> <sup>1)</sup>	<i>average of 2010=100</i>	114.1	114.9	115.8	116.6	117.2	118	119	119
	<i>growth in %</i>	<b>2.5</b>	<b>2.7</b>	<b>3.1</b>	<b>3.1</b>	<b>2.7</b>	<b>2.6</b>	<b>2.4</b>	<b>2.3</b>
<b>Import intensity</b> <sup>2)</sup>	<i>average of 2010=100</i>	115.4	116.3	117.0	117.5	117.0	118	118	119
	<i>growth in %</i>	<b>2.9</b>	<b>3.2</b>	<b>3.1</b>	<b>2.6</b>	<b>1.4</b>	<b>1.2</b>	<b>1.0</b>	<b>1.1</b>
<b>Export markets</b> <sup>3)</sup>	<i>average of 2010=100</i>	131.7	133.6	135.5	137.0	137.2	139	140	142
	<i>growth in %</i>	<b>5.5</b>	<b>6.0</b>	<b>6.3</b>	<b>5.7</b>	<b>4.2</b>	<b>3.8</b>	<b>3.4</b>	<b>3.4</b>
<b>Export performance</b>	<i>average of 2010=100</i>	110.3	112.1	109.5	110.5	110.7	112	110	111
	<i>growth in %</i>	<b>-0.9</b>	<b>2.1</b>	<b>1.3</b>	<b>2.5</b>	<b>0.3</b>	<b>0.3</b>	<b>0.8</b>	<b>0.8</b>
<b>Real exports</b>	<i>average of 2010=100</i>	145.3	149.8	148.4	151.4	151.9	156	155	158
	<i>growth in %</i>	<b>4.5</b>	<b>8.1</b>	<b>7.7</b>	<b>8.3</b>	<b>4.5</b>	<b>4.2</b>	<b>4.3</b>	<b>4.2</b>
<b>1 / NEER</b>	<i>average of 2010=100</i>	107.4	105.3	102.2	100.6	99.5	100	101	101
	<i>growth in %</i>	<b>0.5</b>	<b>-1.5</b>	<b>-4.3</b>	<b>-6.0</b>	<b>-7.4</b>	<b>-4.8</b>	<b>-1.0</b>	<b>0.0</b>
<b>Prices on foreign markets</b>	<i>average of 2010=100</i>	99.7	99.9	100.8	101.4	102.3	102	103	103
	<i>growth in %</i>	<b>1.7</b>	<b>1.9</b>	<b>2.5</b>	<b>2.8</b>	<b>2.7</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>
<b>Exports deflator</b>	<i>average of 2010=100</i>	107.1	105.2	103.1	102.0	101.8	102	104	104
	<i>growth in %</i>	<b>2.2</b>	<b>0.4</b>	<b>-1.9</b>	<b>-3.3</b>	<b>-4.9</b>	<b>-3.0</b>	<b>1.0</b>	<b>2.0</b>
<b>Nominal exports</b>	<i>average of 2010=100</i>	155.6	157.5	152.9	154.4	154.6	159	161	164
	<i>growth in %</i>	<b>6.7</b>	<b>8.5</b>	<b>5.7</b>	<b>4.7</b>	<b>-0.6</b>	<b>1.1</b>	<b>5.3</b>	<b>6.3</b>

See notes to Table 3.4.3.

Source: CNB, CZSO, Eurostat. Calculations of the MoF.

### Graph 3.4.5: GDP and Imports of Goods in Main Partner Countries

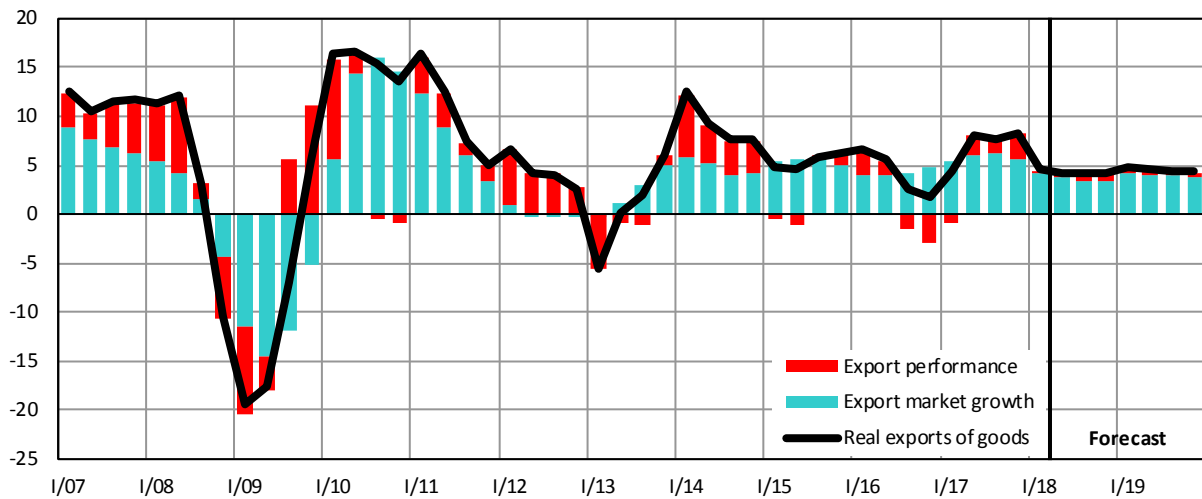
YoY growth rate, in %, seasonally adjusted



Source: Eurostat. Calculations of the MoF.

### Graph 3.4.6: Real Exports of Goods

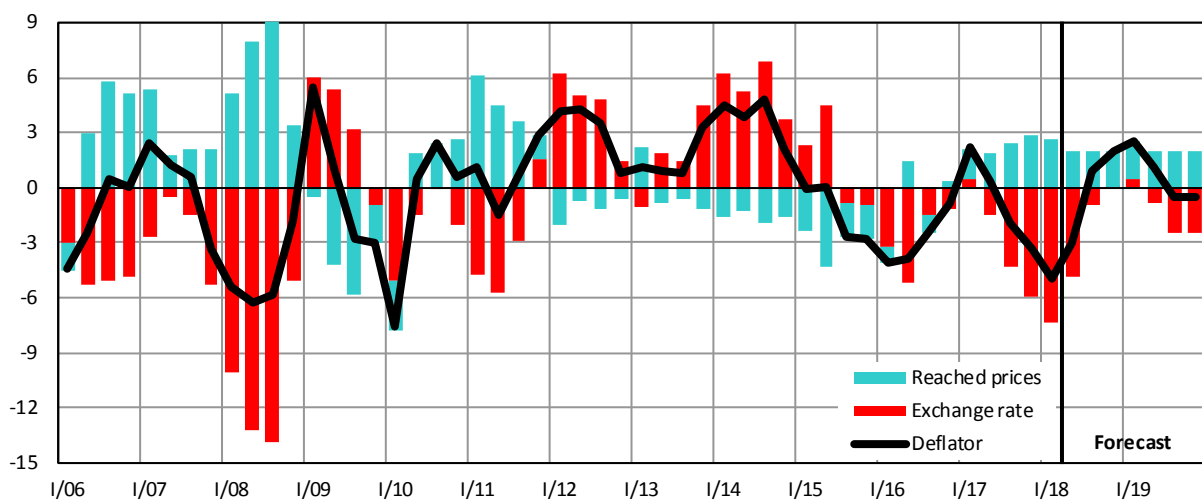
decomposition of YoY growth, in %, seasonally adjusted



Source: CZSO, Eurostat. Calculations of the MoF.

### Graph 3.4.7: Deflator of Exports of Goods

decomposition of YoY growth, in %



Source: CNB, CZSO. Calculations of the MoF.

### 3.5 International Comparisons

Comparisons for the period up to and including 2017 are based on Eurostat statistics. Since 2018, our own calculations on the basis of real exchange rates have been used.

In 2017 GDP per capita **in current purchasing power parity** increased in all of the monitored countries<sup>12</sup>, although a slight decrease in the relative level vis-à-vis the EA19 was recorded in Italy, Portugal and Greece. In the Czech Republic, the purchasing power parity was 18.02 CZK/PPS compared to the EU28 and 17.48 CZK/EUR compared to the EA19. The economic level was circa 26,400 PPS, corresponding to 83% of the economic level of the EA19. The relative economic level of the Czech Republic should gradually reach up to 85% of the EA19 average in 2019, thanks to the stable economic growth.

GDP per capita recalculated using the current **exchange rate** was approx. 18,100 EUR in the CR in 2017, i.e. 55% of the EA19 level. Higher economic growth and the exchange rate appreciation will result in a gradual increase in the relative level up to 60% of the EA19 average in 2019.

When comparing price levels, the **comparative price level of GDP** in the Czech Republic again slightly increased in 2017, thus reaching 66% of the EA19 average. In the coming years, the comparative price level of GDP should increase gradually up to 70% in 2019. However, this increase should not jeopardize the competitiveness of the Czech economy.

Through the decomposition<sup>13</sup> of GDP per capita into individual components (labour productivity, labour market component and demographic component) it is possible to determine in detail the sources of economic growth. The results of the analysis are summarised in Graphs 3.5.5 and 3.5.6.

**Labour productivity** measured by the GDP/hours worked ratio has long been rising in the monitored countries;

however, its level is still relatively low compared to the EA19 average. Although the economic crisis slowed down labour productivity growth, its absolute level did not decrease, in 2008–2017, in any of the monitored countries except Greece. In the given period, however, a decrease in the relative level of labour productivity to the EA19 countries was also seen, in addition to Greece, in Slovenia, whereas increases in the relative level in Latvia, Poland and Lithuania exceeded 9 pp. In the Czech Republic, the relative level of labour productivity to the average of EA19 countries has remained at 66% for the third consecutive year.

In the case of the **labour market component**, which gives the number of hours worked per working-age person, there is an opposite situation. In 2017, the relative level of the labour market component exceeded the average of the EA19 countries in all states except Slovakia, with the difference in the case of Estonia, Lithuania, Latvia, the Czech Republic, Poland and being more than 20 pp. In 2008–2017, the absolute level of the labour force component dropped in Greece, Portugal and Latvia; in Greece it fell by 12% in the mentioned years as a result of an 18% drop in the number of hours worked.

The share of the working-age population, captured by the **demographic component**, reached its peak in most monitored countries during the first decade of the 21st century and is now decreasing due to population ageing. In 2008–2017, the sharpest decrease of 5.7 pp was recorded in the Czech Republic. Compared to the EA19 average, however, the demographic component is still higher in all monitored countries except Latvia and Poland; in Slovakia it exceeded the EA19 average by 8 pp in 2017.

<sup>12</sup> The monitored countries include the Czech Republic, Estonia, Croatia, Italy, Lithuania, Latvia, Hungary, Poland, Portugal, Greece, Slovakia, Slovenia and Spain.

<sup>13</sup> GDP per capita can be written as follows:

$$\begin{aligned} \text{GDP per capita} &= \frac{\text{GDP}}{\text{number of inhabit.}} = \\ &= \frac{\text{GDP}}{\text{no. of hours worked}} * \frac{\text{no. of hours worked}}{\text{population aged 15–64}} * \frac{\text{population aged 15–64}}{\text{no. of inhabit.}} = \\ &= \text{labour productivity} * \text{labour market component} * \text{demographic component} \end{aligned}$$

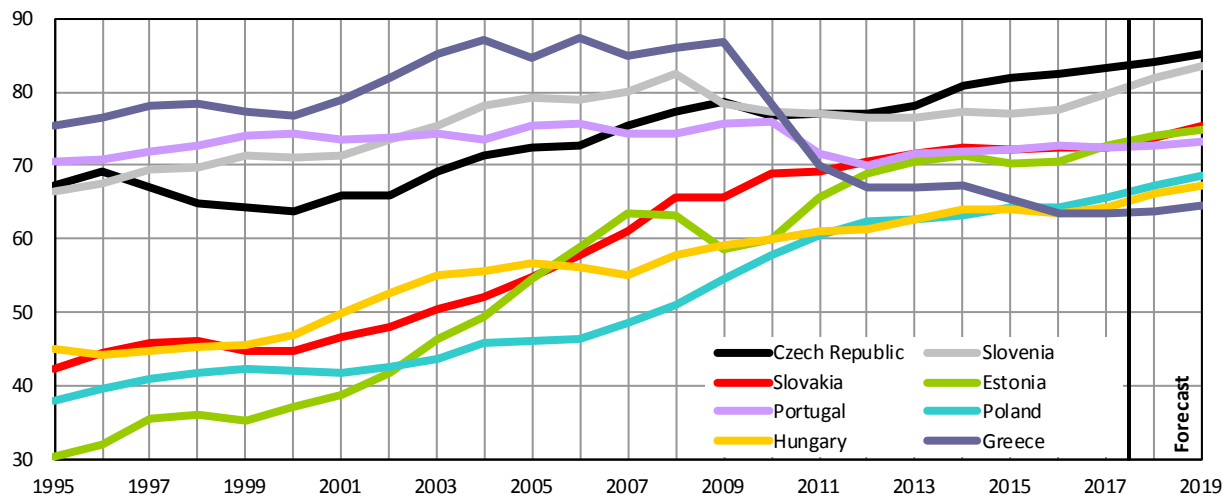
**Table 3.5.1: GDP per Capita – Using Current Purchasing Power Parities**

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
										Forecast	Forecast
<b>Italy</b>	PPS	26 500	27 100	27 000	26 400	26 600	27 700	28 200	28 700	29 500	30 400
	EA19=100	97	96	95	92	90	90	91	90	90	90
<b>Spain</b>	PPS	24 400	24 200	24 200	24 000	24 900	26 300	26 700	27 700	28 800	29 800
	EA19=100	89	86	85	84	84	85	86	87	88	88
<b>Czech Republic</b>	PPS	21 100	21 700	22 000	22 400	23 800	25 300	25 500	26 400	27 600	28 900
	EA19=100	77	77	77	78	81	82	82	83	84	85
<b>Slovenia</b>	PPS	21 200	21 700	21 800	21 900	22 700	23 800	24 100	25 400	26 900	28 300
	EA19=100	77	77	77	76	77	77	78	80	82	84
<b>Lithuania</b>	PPS	15 400	17 200	18 600	19 600	20 800	21 700	22 000	23 400	24 800	26 100
	EA19=100	56	61	65	68	70	70	71	74	75	77
<b>Estonia</b>	PPS	16 500	18 500	19 600	20 200	21 000	21 700	21 900	23 100	24 300	25 400
	EA19=100	60	66	69	70	71	70	71	73	74	75
<b>Slovakia</b>	PPS	19 000	19 500	20 100	20 500	21 300	22 300	22 400	23 000	24 200	25 500
	EA19=100	69	69	71	72	72	72	72	72	74	75
<b>Portugal</b>	PPS	20 900	20 200	20 000	20 500	21 200	22 300	22 600	23 000	23 900	24 800
	EA19=100	76	72	70	72	72	72	73	72	73	73
<b>Poland</b>	PPS	15 900	17 000	17 800	17 900	18 600	19 800	19 900	20 900	22 100	23 200
	EA19=100	58	60	62	63	63	64	64	66	67	69
<b>Hungary</b>	PPS	16 500	17 200	17 500	18 000	18 800	19 700	19 700	20 400	21 700	22 800
	EA19=100	60	61	61	63	64	64	63	64	66	67
<b>Latvia</b>	PPS	13 400	14 900	16 100	16 700	17 500	18 500	18 800	20 100	21 300	22 500
	EA19=100	49	53	56	58	60	60	61	63	65	66
<b>Greece</b>	PPS	21 500	19 700	19 100	19 200	19 800	20 200	19 700	20 100	20 900	21 900
	EA19=100	78	70	67	67	67	65	64	63	64	65
<b>Croatia</b>	PPS	15 100	15 600	16 000	16 000	16 300	17 200	17 600	18 400	19 300	20 300
	EA19=100	55	55	56	56	55	56	57	58	59	60

Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

**Graph 3.5.1: GDP per Capita – Using Current Purchasing Power Parities**

EA19=100



Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

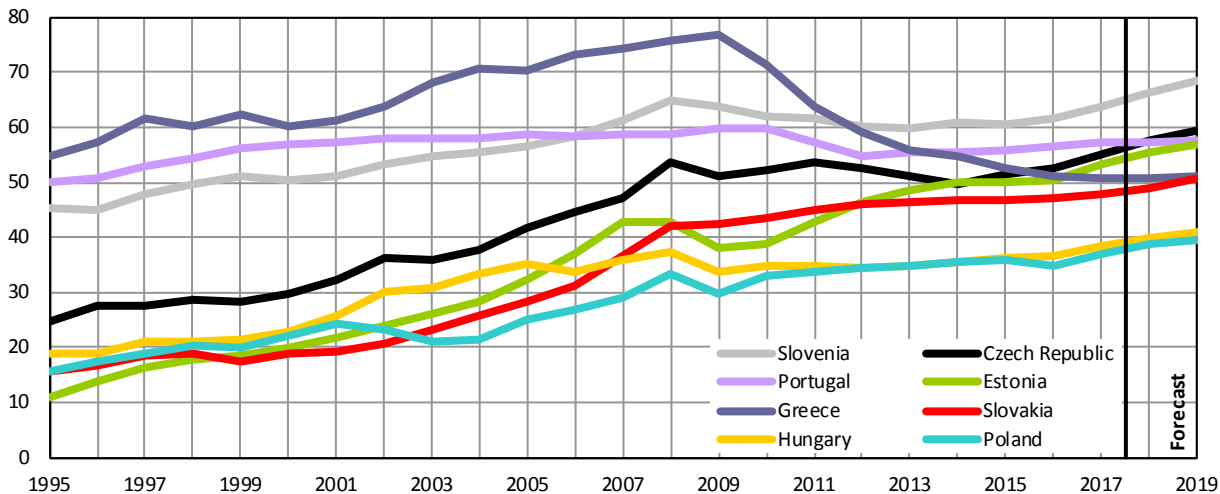
**Table 3.5.2: GDP per Capita – Using Current Exchange Rates**

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
											Forecast	Forecast
<b>Italy</b>	EUR	26 800	27 300	26 700	26 500	26 700	27 200	27 700	28 400	29 200	29 900	
	EA19=100	94	93	91	90	89	88	87	87	86	86	
	Comparative price level EA19=100	98	97	97	98	98	98	96	96	96	96	
<b>Spain</b>	EUR	23 200	22 900	22 200	22 000	22 300	23 300	24 100	25 000	26 000	26 900	
	EA19=100	81	78	76	75	74	75	76	76	77	77	
	Comparative price level EA19=100	92	92	90	89	88	88	88	88	88	88	
<b>Slovenia</b>	EUR	17 700	18 000	17 500	17 600	18 200	18 800	19 600	21 000	22 500	23 900	
	EA19=100	62	62	60	60	61	61	62	64	66	68	
	Comparative price level EA19=100	80	80	78	78	79	79	79	80	81	82	
<b>Czech Republic</b>	EUR	14 900	15 600	15 400	15 000	14 900	16 000	16 700	18 100	19 500	20 800	
	EA19=100	52	54	53	51	50	51	53	55	58	60	
	Comparative price level EA19=100	68	70	68	65	61	63	64	66	68	70	
<b>Portugal</b>	EUR	17 000	16 700	16 000	16 300	16 600	17 400	18 000	18 700	19 400	20 100	
	EA19=100	60	57	55	55	55	56	57	57	57	58	
	Comparative price level EA19=100	79	80	78	77	77	78	78	79	79	79	
<b>Estonia</b>	EUR	11 000	12 500	13 500	14 300	15 000	15 500	16 000	17 500	18 800	19 900	
	EA19=100	39	43	46	49	50	50	51	53	55	57	
	Comparative price level EA19=100	65	66	67	69	70	71	72	73	75	76	
<b>Greece</b>	EUR	20 300	18 600	17 300	16 500	16 400	16 300	16 200	16 600	17 100	17 900	
	EA19=100	71	64	59	56	55	53	51	51	51	51	
	Comparative price level EA19=100	91	91	88	84	81	80	80	80	79	79	
<b>Slovakia</b>	EUR	12 400	13 100	13 400	13 700	14 000	14 600	14 900	15 600	16 600	17 700	
	EA19=100	44	45	46	47	47	47	47	48	49	51	
	Comparative price level EA19=100	63	65	65	65	65	65	65	66	67	67	
<b>Lithuania</b>	EUR	9 000	10 300	11 200	11 800	12 500	12 900	13 500	14 800	15 900	16 900	
	EA19=100	32	35	38	40	41	42	43	45	47	48	
	Comparative price level EA19=100	57	58	58	59	59	59	60	62	62	63	
<b>Latvia</b>	EUR	8 500	9 800	10 800	11 300	11 800	12 300	12 700	13 900	14 800	15 900	
	EA19=100	30	34	37	39	39	40	40	42	44	45	
	Comparative price level EA19=100	61	64	66	66	66	66	66	67	68	68	
<b>Hungary</b>	EUR	9 900	10 200	10 000	10 300	10 700	11 200	11 600	12 600	13 500	14 300	
	EA19=100	35	35	34	35	36	36	37	39	40	41	
	Comparative price level EA19=100	58	57	56	56	56	57	58	60	60	61	
<b>Poland</b>	EUR	9 400	9 900	10 100	10 300	10 700	11 200	11 100	12 100	13 100	13 900	
	EA19=100	33	34	35	35	36	36	35	37	39	40	
	Comparative price level EA19=100	57	56	55	56	56	56	54	56	57	58	
<b>Croatia</b>	EUR	10 500	10 500	10 300	10 300	10 200	10 600	11 200	11 800	12 500	13 200	
	EA19=100	37	36	35	35	34	34	35	36	37	38	
	Comparative price level EA19=100	67	65	63	62	62	61	62	62	63	63	

Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

**Graph 3.5.2: GDP per Capita – Using Current Exchange Rates**

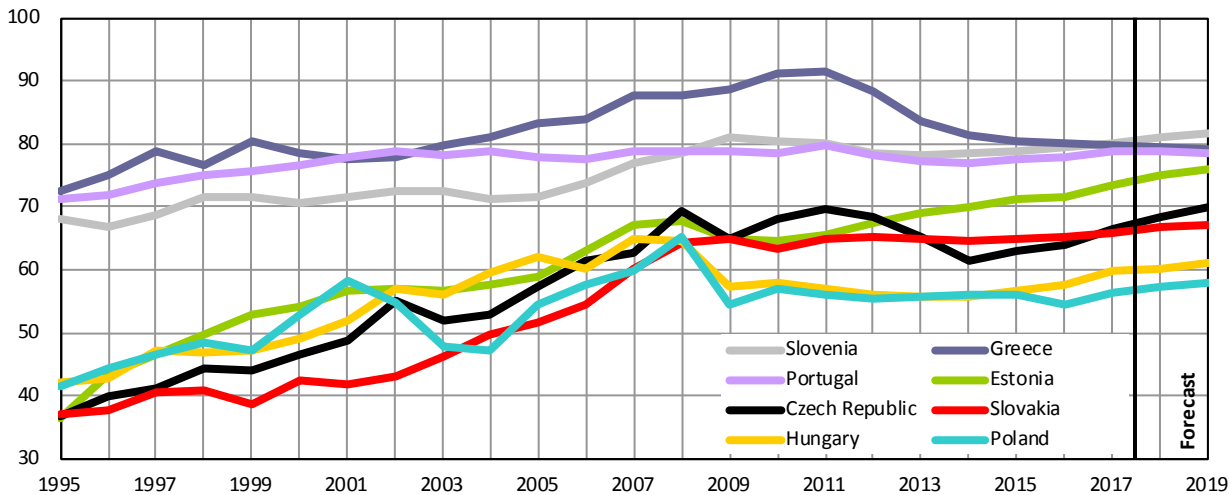
EA19=100



Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

**Graph 3.5.3: Comparative Price Level of GDP per Capita**

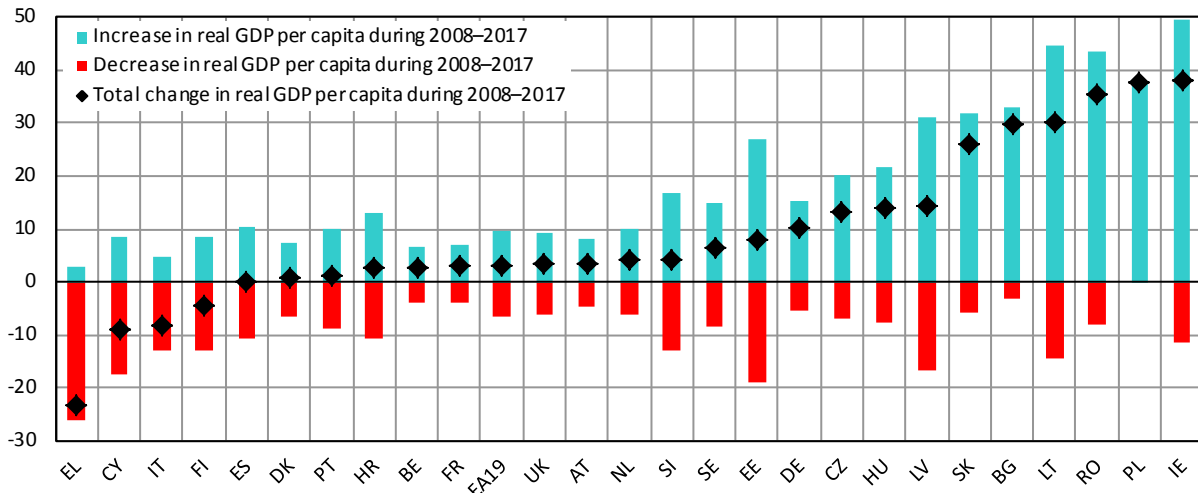
EA19=100



Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

**Graph 3.5.4: Change in Real GDP per Capita during 2008–2017**

growth in %

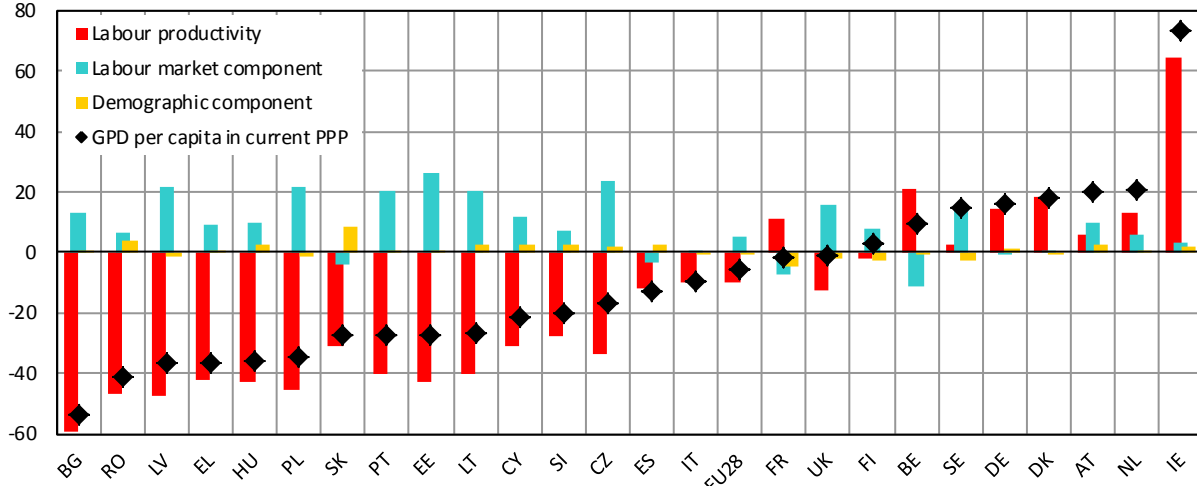


Source: Eurostat. Calculations of the MoF.



**Graph 3.5.5: Current PPP Adjusted GDP per Capita Level Relative to the EA19 Average in 2017**

in percentage points

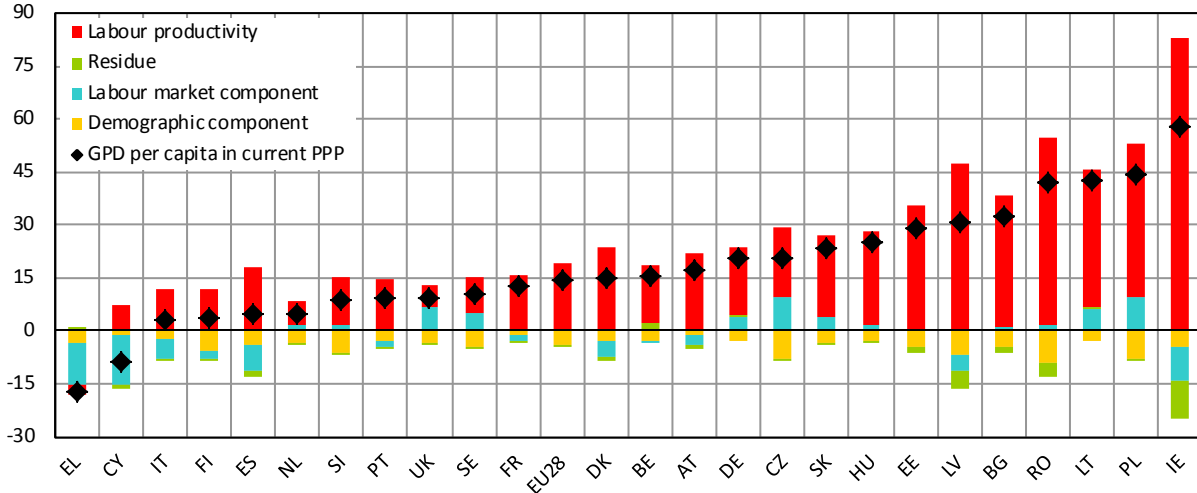


Note: The labour market component is defined as the ratio of total hours worked to working-age (15–64) population, the demographic component is the ratio of the working-age to total population.

Source: Eurostat. Calculations of the MoF.

**Graph 3.5.6: Change in Current PPP Adjusted GDP per Capita during 2008–2017**

growth in %



Source: Eurostat. Calculations of the MoF.

## 4 Monitoring of Other Institutions' Forecasts

The Ministry of Finance of the Czech Republic monitors macroeconomic forecasts of other institutions engaged in forecasting the Czech economy. Publicly available forecasts of 12 institutions are monitored. Out of these, 7 institutions are domestic (CNB, Ministry of Labour and Social Affairs, domestic banks and investment companies) and the others are foreign (European Commission, Organisation for Economic Co-operation and Development, IMF, etc.) The forecasts are summarised in Table 4.1.

**Table 4.1: Summary of the Monitored Forecasts**

		July 2018			July 2018
		min.	max.	average	MoF forecast
Gross domestic product (2018)	growth in %, const.pr.	3.0	3.9	3.6	3.2
Gross domestic product (2019)	growth in %, const.pr.	2.7	3.4	3.0	3.1
Average inflation rate (2018)	%	1.7	2.3	2.0	2.2
Average inflation rate (2019)	%	1.8	2.3	2.1	2.3
Average monthly wage (2018)	growth in %	7.5	8.4	7.9	8.0
Average monthly wage (2019)	growth in %	5.6	6.8	6.0	8.0
Current account / GDP (2018)	%	0.3	1.0	0.6	-0.3
Current account / GDP (2019)	%	0.3	1.2	0.7	-0.2

Source: Forecasts of individual institutions. Calculations of the MoF.

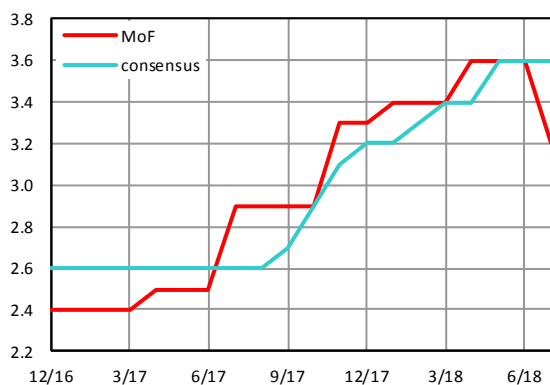
According to estimates of the institutions surveyed, real GDP should increase by 3.6% in 2018 and 3.0% in the following year. The average inflation rate should be around the CNB's inflation target of 2.0% in both years. The dynamic growth of the average wage by 7.9% in 2018 should then slightly slow down, and the average wage should increase by 6.0% in 2019. The surplus on the current account of the balance payments should hover around 0.6% of GDP in 2018 and 2019.

Compared to the average of the forecasts of the monitored institutions, the Ministry of Finance expects slower growth in real GDP in 2018. This is because the new forecast of the Ministry of Finance already takes full account of the slower-than-expected growth of the economy in Q1 2018. According to the Ministry of Finance, the aver-

age inflation rate should be slightly above the CNB's inflation target in both years; the deviation from the average of monitored forecasts is negligible, though. Regarding the development of the average wage, the Ministry of Finance expects it to increase by 8.0% both in 2018 and in 2019. Maintaining such high dynamics is to a large extent due to the expected increase in the minimum wage by CZK 1,000 from January 2019. According to the Ministry of Finance, the current account of the balance of payments should be slightly negative in relation to the expected high dynamics of the import-intensive investments, the slightly worse growth prospects of the economies of our main trading partners and the high outflow of primary incomes.

**Graph 4.1: Forecasts for Real GDP Growth in 2018**

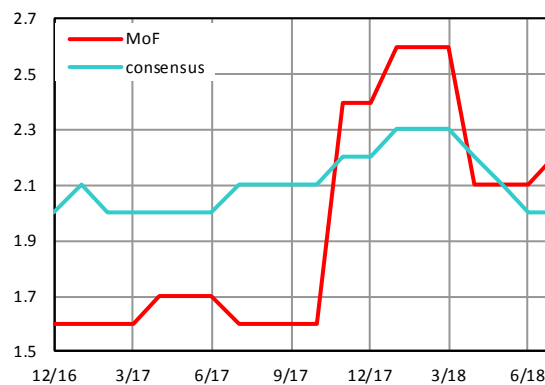
in %; the month, in which the monitoring was conducted on the horizontal axis



Source: Forecasts of individual institutions. Calculations of the MoF.

**Graph 4.2: Forecasts for Average Inflation Rate in 2018**

in %; the month, in which the monitoring was conducted on the horizontal axis



Source: Forecasts of individual institutions. Calculations of the MoF.

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