Ministry of Finance
Economic Policy Department

Macroeconomic Forecast
of the Czech Republic

November 2017

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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 2018) and for certain indicators an outlook for another 2 years (i.e. until 2020). 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:

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List of Abbreviations

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
MFI	monetary financial institutions
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 **18 October 2017**.

Notes

All data in the Macroeocnomic 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 (July 2017) are indicated by italics. Data relating to the years 2019 and 2020 are an extrapolation scenario that indicates only the direction of possible developments, and as such are not commented upon in the following text.

Summary of the Forecast

After several years of weak economic performance, signs of improvement in the global economy have been emerging since the beginning of the year. The growth rates of global trade and manufacturing are slowly gaining momentum, and confidence indicators in the private sector have strengthened, in many countries even above the pre-crisis level. However, geopolitical risks have also increased considerably. China, where GDP growth in the second quarter of 2017 reached 1.7% QoQ, remains the main driver of economic growth. The economic growth rates in the USA and the Euro Area accelerated to 0.8% and 0.7%, respectively.

Under these conditions, we expect a moderate acceleration in economic growth not only on a global scale, but also of the main trading partners of the Czech Republic. That should be facilitated by further expansion of global trade, higher investment intensity and an improved situation of some commodity exporters. Globally, price pressures in the labour and product markets are still relatively low. If commodity prices do not increase too much, a moderate development of inflation can be expected.

The Czech economy is in an exceptionally good state and benefits from favourable internal as well as external conditions. Economic growth reached record-breaking **2.5%** in the second quarter of 2017 in comparison with the previous quarter. In YoY terms, **gross domestic product increased by 3.4%**, or even 4.7% after seasonal and calendar adjustment (the second quarter of 2017 had 4 more working days YoY). All components of use contributed to this result except for a change in inventories and valuables.

Household consumption was again robust, increasing by 3.8% YoY. The growth in consumption reflected not only high dynamics of employment and wages, but also declining savings rate due to low interest rates and high consumer confidence in further development. An increase in the general government consumption of 1.8% also contributed to the strong economic growth.

At the beginning of 2017 **fixed capital investment** returned to YoY growth, which accelerated to 5.2% in the second quarter. A positive fact is that private investment and investment of the general government sector grew at almost the same rates.

The contribution of **foreign trade** to economic growth reached 1.0 pp. It was supported by increasing external demand for automotive products as well as renewed increase in the export performance of the Czech economy.

Confidence indicators, the Purchasing Managers' Index, industrial and construction production as well as retail sales all suggest a continuation of the favourable development in the remainder of 2017.

The positive economic situation should continue also in **2018**. Growth should still be driven by household consumption, reflecting wage dynamics amid low unemployment rate, high participation rate and record-high number of job vacancies. Household consumption will be further supported by increases in salaries in the general government sector, reduced tax burden on families with children, and growth in social security spending. Investment should be stimulated not only by funds from the European Structural and Investment Funds but also by decreasing relative cost of capital to the cost of labour at still low real interest rates.

The very good condition of the Czech economy and of the external environment leads to **an increase in the forecast for gross domestic product growth** from 3.1% **to 4.1% in 2017** and from 2.9% **to 3.3% in 2018**

At the turn of 2016 and 2017, the YoY **consumer prices** growth accelerated significantly above the inflation target of the Czech National Bank. We expect that inflation will be in the upper half of the inflation target tolerance band also in the next year. Pro-inflationary effects of higher crude oil prices, wage growth and a positive output gap should outweigh anti-inflationary effects stemming from the expected tightening of monetary conditions. These factors lead to a correction of the forecast for the average **inflation rate** from 2.2% to 2.4% in 2017 and a relatively significant increase from 1.6% to 2.4% in 2018.

In the **labour market**, the economic boom increases the demand for labour force. High growth in employment, which has steadily exceeded 1% since the end of 2014, exhausts unutilized resources. In August 2017, seasonally adjusted harmonized unemployment rate was 2.9% and it has been the lowest in the entire European Union since the beginning of 2016. Participation growth, supported by demographic factors and increases in the statutory retirement age, has also its limits. On the one hand, lack of employees is becoming a barrier to extensive growth in production, but on the other GDP growth in the first half of 2017 was mainly driven by rising labour productivity.

Since we believe that the current level of unemployment has only very limited room to decline further, we reduce the forecast for the **unemployment rate** despite a better than estimated development only slightly, from 3.2% to 3.0% in 2017 and from 2.9% to 2.8% in 2018.

The **current account of the balance of payments** reached a surplus of 0.9% of GDP in the second quarter of 2017. Surpluses on the balances of goods and services apparently exceeded the deficit of primary income, which is mostly influenced by an outflow of income from foreign direct investment in the form of dividends and reinvested earnings. However, a higher domestic demand for imports generated by increased consumption and investment leads to a reduction in the forecast for the **surplus** on the **current account** of the balance payments. The forecast for 2017 is reduced from 0.7% of GDP to 0.6% of GDP, and the forecast for 2018 from 0.8% of GDP to 0.5% of GDP.

Change in the forecast for the **general government sector balance**, which is estimated to reach a surplus of 1.1% of GDP in 2017, reflects the strong dynamics of the Czech economy. Year-to-date data on cash performance of the state budget and budgets of local governments show that the surplus is due primarily to tax revenues, including social security contributions. The surplus should increase to 1.3% of GDP in 2018. We estimate that tax revenues will outweigh the strong growth of compensation of employees and social benefits.

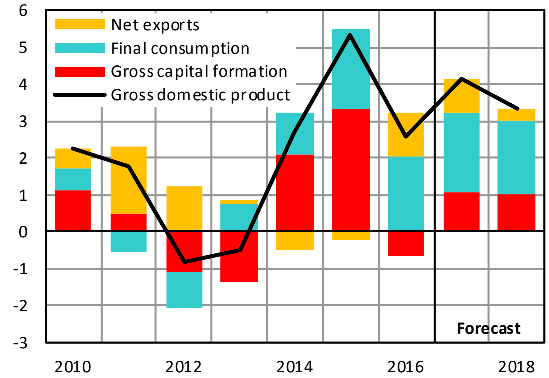
Table: Main Macroeconomic Indicators

		2012	2013	2014	2015	2016	2017	2018	2017	2018
							Current forecast		*Previous forecast*	
Gross domestic product	*bill. CZK*	**4 060**	**4 098**	**4 314**	**4 596**	**4 773**	**5 024**	**5 299**	4 993	5 234
Gross domestic product	*real growth in %*	**-0.8**	**-0.5**	**2.7**	**5.3**	**2.6**	**4.1**	**3.3**	3.1	2.9
Consumption of households	*real growth in %*	**-1.2**	**0.5**	**1.8**	**3.7**	**3.6**	**3.9**	**3.5**	2.9	3.1
Consumption of government	*real growth in %*	**-2.0**	**2.5**	**1.1**	**1.9**	**2.0**	**1.9**	**1.7**	1.9	1.7
Gross fixed capital formation	*real growth in %*	**-3.1**	**-2.5**	**3.9**	**10.2**	**-2.3**	**6.2**	**4.1**	3.8	3.5
Net exports	*contr. to GDP growth, pp*	**1.3**	**0.1**	**-0.5**	**-0.2**	**1.2**	**0.9**	**0.3**	0.6	0.2
Change in inventories	*contr. to GDP growth, pp*	**-0.2**	**-0.7**	**1.1**	**0.8**	**0.0**	**-0.5**	**0.0**	-0.1	0.0
GDP deflator	*growth in %*	**1.5**	**1.4**	**2.5**	**1.2**	**1.2**	**1.1**	**2.1**	1.4	1.8
Average inflation rate	*%*	**3.3**	**1.4**	**0.4**	**0.3**	**0.7**	**2.4**	**2.4**	2.2	1.6
Employment *(LFS)*	*growth in %*	**0.4**	**1.0**	**0.8**	**1.4**	**1.9**	**1.4**	**0.4**	1.4	0.4
Unemployment rate *(LFS)*	*average in %*	**7.0**	**7.0**	**6.1**	**5.1**	**4.0**	**3.0**	**2.8**	3.2	2.9
Wage bill *(domestic concept)*	*growth in %*	**2.6**	**0.5**	**3.6**	**4.8**	**5.8**	**7.4**	**7.6**	6.1	5.6
Current account balance	*% of GDP*	**-1.6**	**-0.5**	**0.2**	**0.2**	**1.1**	**0.6**	**0.5**	0.7	0.8
General government balance	*% of GDP*	**-3.9**	**-1.2**	**-1.9**	**-0.6**	**0.7**	**1.1**	**1.3**	0.4	.
Assumptions:										
Exchange rate CZK/EUR		**25.1**	**26.0**	**27.5**	**27.3**	**27.0**	**26.4**	**25.5**	26.4	25.6
Long-term interest rates	*% p.a.*	**2.8**	**2.1**	**1.6**	**0.6**	**0.4**	**0.9**	**1.5**	0.9	1.5
Crude oil Brent	*USD/barrel*	**112**	**109**	**99**	**52**	**44**	**53**	**55**	49	50
GDP in Eurozone	*real growth in %*	**-0.9**	**-0.2**	**1.3**	**2.1**	**1.8**	**2.1**	**2.0**	1.8	1.8

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

Domestic demand should be the main driver of growth

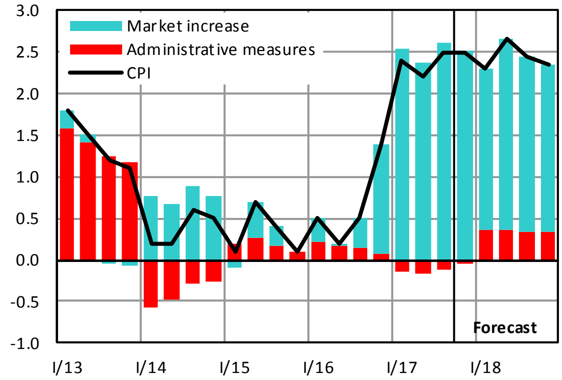
YoY growth rate of real GDP in %, contributions of individual expenditure components in percentage points



Source: CZSO. Calculations of the MoF.

Inflation should stay above the 2% target of the CNB

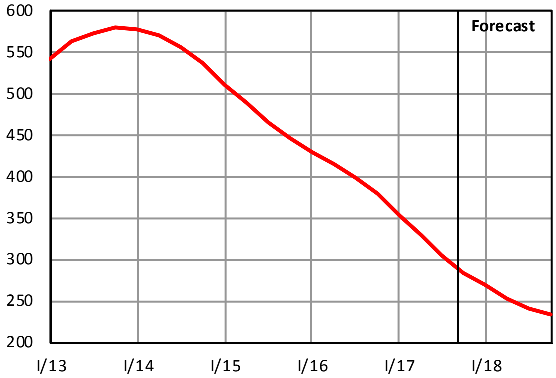
decomposition of YoY growth of CPI, contributions in pp



Source: CZSO. Calculations of the MoF.

Unemployment should continue to decline further

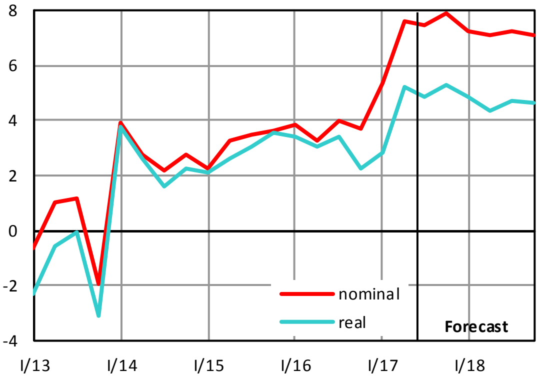
registered unemployment, in thous. of persons, seasonally adjusted



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

Dynamic growth of wages should continue

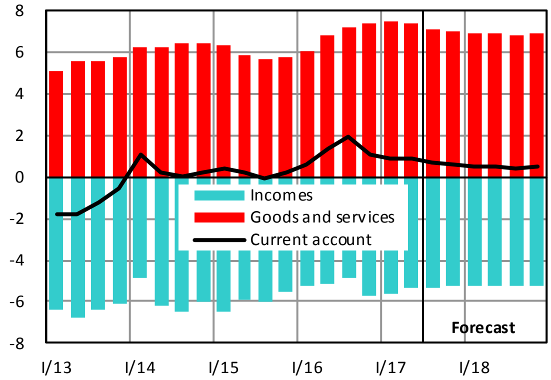
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

Continued positive balance on the current account

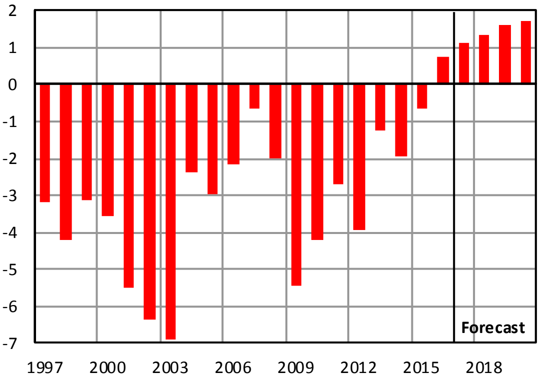
in % of GDP (yearly moving sums)



Source: CNB, CZSO. Calculations of the MoF.

Surplus of the general government sector should grow

in % of GDP



Source: CZSO. Calculations of the MoF.

Forecast Risks and Uncertainty

The macroeconomic forecast is subject to positive and negative risks. Although unfavourable factors dominate in the list below, if we take into account the probability that these risks materialize we consider, in summary, the **forecast risks** to be **balanced**.

Growth prospects of economies of our main trading partners are improving. If, in the upcoming quarters, the economies grew at a similar pace – or even faster – as in the first half of this year, the strongly export-oriented Czech economy would benefit from this situation considerably. In addition to the **growth in foreign demand**, the Czech economy could be affected through the foreign trade also unfavourably if the future **relationships between the UK and the EU** significantly increased barriers to the international trade. On the side of domestic demand, some investment projects might be postponed or cancelled due to a lower increase in foreign demand or increased uncertainty.

A negative risk is also the possibility of a **sharp slowdown in growth of the Chinese economy**. The expected continuation of a moderate slowdown of economic growth in China should, however, not be crucial for the Czech Republic, despite significant links between the Czech and Chinese economies through global supply chains. The Czech economy could be adversely affected by potential escalation of the **problems of the Italian banking sector**, as well as by certain **geopolitical factors** such as the growth of protectionism, separatist tendencies or the migration crisis.

Between the discontinuation of the exchange rate commitment of the CNB in early April and the cut-off date of the Forecast in mid-October, the koruna appreciated against the euro by approx. 5%. In the forecast, we assume only a gradual and modest appreciation of the koruna, but a short-term increase in exchange rate volatility cannot be excluded completely, as well as a possible stronger **appreciation of the koruna** that could constitute a problem for certain export-oriented firms over the medium and long term.

The Czech economy shows clear signs of overheating, which are particularly noticeable in the labour market. The strong economic growth under conditions of a positive output gap manifests itself, among other things, in acceleration of core inflation. In terms of **cyclical development of the economy**, one cannot rule out the economy entering the downward phase of the business cycle in the forecast horizon in the case of fulfilment of some risks listed here.

The lack of adequately skilled employees is increasingly seen by companies as a barrier to growth in their production. A key factor for the continuation of economic growth, especially in the medium and longer horizons, will be the increase in **labour productivity**, considering the current labour market situation and anticipated demographic developments. As a result of lower investment growth, however, productivity growth could fall behind expectations, which would negatively affect the economic growth rate. In the short term, imbalances in the labour market create a **strong pressure on wage growth**. This, in turn, results in an increase in unit labour costs, which may influence the competitiveness of some companies; on the other hand, this factor also strongly supports the growth in disposable income of households. However, the impact on household consumption would also depend on future path of the savings rate.

In the case of **investment**, the recovery of the investment cycle linked to the EU programming period for the years 2014–2020 will be crucial. In the longer term, the gap due to discontinuation of the United Kingdom's payment to the EU budget will be significant, as well as the new allocation associated with higher relative development level of regions of the Czech Republic and possible redirection of funds in the EU budget to other priorities.

The combination of low interest rates environment and economic growth is reflected in the Czech Republic in a high dynamics of mortgage loans. Together with the factors limiting the supply of residential real estate (some of which are Prague-specific), this development contributes to growth in offer 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 an increase in market rates, which would also have an impact on financial stability.

1 Forecast Assumptions

1.1 External Environment

Global economic growth has already recovered and has gradually started to accelerate slightly. In the second quarter, economic growth in the US strengthened significantly and economic performance in Western Europe continued slowly to gain momentum. Although growth of the Chinese economy remained high despite a moderate slowdown, it was largely supported by fiscal stimuli. A number of other large emerging economies (Brazil, Russia, Argentina) succeeded in overcoming the economic recession and has returned to the trajectory of economic growth.

1.1.1 United States of America

The growth rate of the US economy accelerated in the second quarter of 2017, with real GDP growth reaching 0.8% QoQ (*versus 0.6%*). Economic growth was driven mainly by domestic demand. The dominant factor was household consumption expenditure supported especially by a good labour market situation. Gross fixed capital formation grew mainly due to corporate investment in machinery and equipment, reflecting confidence in the domestic economy and a recovery in global demand. Government consumption expenditure and the contribution of change in inventories had a neutral impact on GDP growth. Net exports also contributed to the economic growth slightly, as the growth rate of exports was higher than the growth rate of imports.

In its September meeting, the Fed kept interest rates at 1.00–1.25%. However, it anticipated that it would raise interest rates in its December meeting. In the coming years, rates should be increased in line with economic growth. In line with its plan, the Fed started selling securities worth 10 billion USD per month in October. The inflation rate started to grow slightly again in July, reaching 1.9 % in August. The Fed expects that the price increase due to devastating September hurricanes will be only temporary; the inflation rate should stabilize at around 2% in the medium term.

In the short term, the economic growth will be negatively affected by hurricanes Harvey and Irma. We assume, however, that the impact on employment or the dynamics of household consumption and investment will be rather small and only temporary. In the coming years, growth in economic activity should accelerate slightly. Household consumption, which will be supported especially by the good labour market situation, should remain the main growth factor. The unemployment rate dropped to 4.2% in September, the lowest level since February 2001. However, a more dynamic wage growth is still hampered by a relatively high number of involuntary part-time workers or low employment rate, which has not yet reached the pre-crisis level. In the years to come, household consumption should be supported by a pending tax reform aiming to simplify tax rules, introduce tax benefits in childcare or reduce tax rates. Due to a planned robust reduction in the corporate profit tax rate, the tax reform could also contribute to a growth in corporate investment. The economy should also benefit from infrastructure investments, however, no details on the amount and timing of this fiscal stimulus are known for the time being. Market expectations from the new US administration are relatively high, which is also confirmed by the developments in financial markets and a number of confidence indicators – in October the business and consumer confidence indicators reached the highest levels since 2004. We expect economic growth to increase to 2.1% (*versus 2.2%*) in 2017 and to 2.4% in the following year (*unchanged*).

1.1.2 China

The dynamics of the Chinese economy is slowing down in the long run but it is still high and China thus remains the main driver of global economic growth. Real GDP growth, which was 1.7% QoQ in the second quarter, largely reflects fiscal stimuli, especially investment in transport infrastructure. Efforts continue to balance the structure of economic growth by increasing the share of household consumption and services in the economy. Reflecting the revived foreign demand, the situation in industry is improving moderately, which is also indicated by the Purchasing Managers' Index in manufacturing or a dynamic increase in producer prices. However, some sectors are still struggling with excess capacities (e.g. the coal mining or steel industry sectors). The situation in financial markets is stabilized and foreign exchange reserves are increasing again this year. However, considerable concerns have been caused by still a relatively fast growth of loans despite the tightened regulation and monetary policy, the aim of which is to limit speculative financial activities and reduce macroeconomic imbalances. From the long-term perspective, a major risk is mainly the demographic development.

1.1.3 European Union

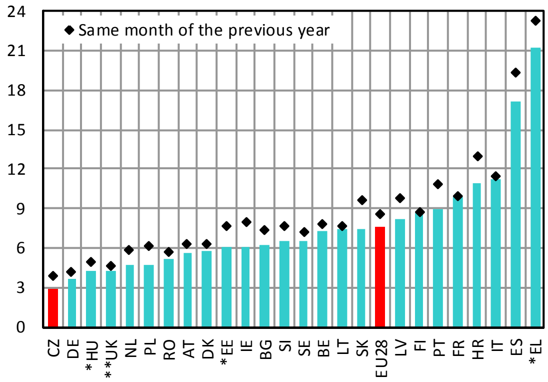
Economic recovery in the European Union is gradually gaining momentum. GDP growth in the second quarter of 2017 reached 0.7% QoQ in the EU28 (*versus 0.6%*) and EA19 (*versus 0.5%*). In a YoY comparison, GDP of the EU28 increased by 2.4% (*versus 2.2%*), while GDP of the EA19 rose by 2.3% (*versus 2.1%*). Economic growth has been recorded by all of the EU28 economies. However, considerable differences still persist among individual countries. In a number of these economies a more significant recovery is still being hampered by structural problems, low competitiveness or high indebtedness of the government and private sectors.

The growth of the harmonized index of consumer prices in EA19 has been slowing down again since the beginning of 2017, reaching only 1.5 % in September. The ECB has kept the main refinancing rate at 0.00% and the deposit rate at −0.40% since March 2016. It also assumes that benchmark interest rates remain at the current or lower levels for a longer period of time, definitely beyond the horizon of net asset purchases. Monthly purchases of assets amounting to EUR 60 billion should take place at least until the end of 2017, in any case until the Governing Council sees a sustainable correction of inflation development in line with the ECB's inflation target. The aim of the eased monetary conditions is to increase credit activity and ensure that inflation, through an increase in investment and consumption, returns to the inflation target (inflation below, but close to, 2%).

Thanks to the economic growth, the labour market situation has also been improving gradually. In many countries, however, shortage of qualified workers is already beginning to manifest itself. The unemployment rate in the EU28 has been decreasing since mid-2013, reaching 7.6% in August 2017 (YoY decrease of 0.9 pp). However, huge differences still persist among individual economies. The worst situation continues to be in Greece, where the unemployment rate stood at 21.2% in June. In the EU28 countries, for which data for August was available as of the cut-off date, the unemployment rate exceeded 10% in Spain (17.1%), Italy (11.2%), Croatia (10.9%) and Cyprus (10.7%). On the contrary, the lowest rates were recorded in the Czech Republic (2.9%) and Germany (3.6%).

Graph 1.1.1: Unemployment rate in the EU in August 2017

in %, seasonally adjusted data, LFS



*Note: *) July 2017. **) June 2017.*
Source: Eurostat.

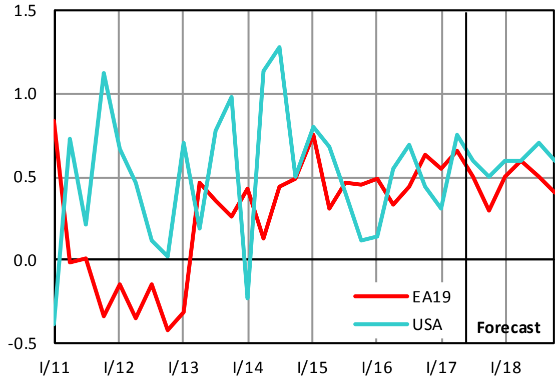
The improving condition of the Euro Area is also confirmed by "soft indicators", the development of which has remained very promising. The Business Climate Indicator for the Euro Area or the Purchasing Managers' Indexes for industry and services in the Euro Area are hovering around their six-year highs. Consumer confidence in the Euro Area is the highest since 2001.

We expect economic growth to be driven mainly by domestic demand in the coming years. Household consumption will continue to be the main driver of the economy's growth and it should be supported by low interest rates in the short term. The improving labour market situation will have more permanent effects. With a faster rise in the price level, however, the dynamics of household final consumption expenditures should moderate slightly. 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 or growing separatist tendencies in some EU countries.

Exports should also gain momentum in connection with the global growth acceleration. The economic growth in the Euro Area will be probably hampered by persisting problems in the banking sector or high indebtedness of some economies. Due to the dynamics of growth in the first half of 2017 and promising developments of soft indicators, we slightly increase the forecast for GDP growth to 2.1% (*versus 1.8%*) in 2017 and 1.9% (*versus 1.8%*) in 2018.

Graph 1.1.2: Growth of GDP in the EA19 and in the USA

QoQ growth rate, in %, seasonally and working day adjusted



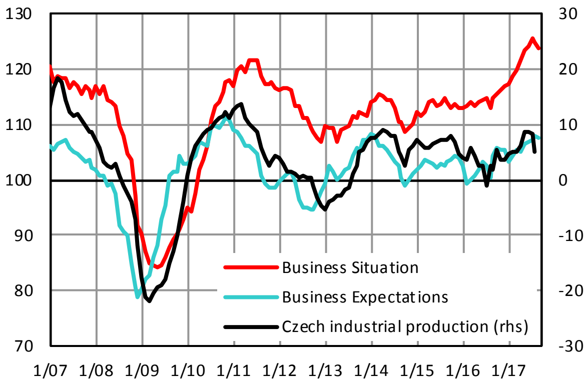
Source: Eurostat. Calculations of the MoF.

The QoQ growth of the **German** economy recorded a negligible slowdown to 0.6 % (*in line with the estimate*) in the second quarter of 2017. All domestic demand components contributed to the economic growth, while net exports had a significantly subduing effect. Households' consumption expenditures supported by low unemployment and increasing employment as well as high level of consumer confidence were the main driver of growth. Growth in investment was mainly due to economic recovery of the Euro Area. By contrast, the negative contribution of net exports was mainly due to a slowdown in growth of exports whereas the growth rate of imports accelerated as a result of strong domestic demand.

The labour market situation can be considered tight because the German economy is close to full employment. In August, the unemployment rate was only 3.6 % and employment reached the highest levels since the German reunification. The number of job vacancies is also record-breaking and the time to fill a vacancy is prolonging, which suggests a shortage of skilled workers. Nevertheless, the wage growth remains moderate. Soft indicators continue to develop favourably. Despite a slight decline in the value of the Ifo indicator in the last two months (see Graph 1.1.3), business confidence has been at the highest levels since 1991 since when it has been monitored. Another significant increase was recorded by the Purchasing Managers' Index in industry, whose value is the highest in the last six years. Last but not least, the development of the Consumer Confidence Index (GfK), which reached its highest value since 2001 in September, has been very promising.

Graph 1.1.3: Ifo (Germany) and Czech manufacturing production

2005=100 (Ifo), seasonally adjusted index of industrial production in the Czech manufacturing, YoY growth in % (from quarterly moving averages)



Source: CESifo, CZSO.

We expect that economic growth will be driven by both domestic and foreign demand. Household consumption expenditures will be supported mainly by the good labour market situation and related real wage growth; however, a slightly accelerating inflation rate will act in the opposite direction. The increase in general government sector consumption expenditures will be supported mainly by expenditures related to immigration, while the general government investment will be promoted by investments in infrastructure and defence. A more dynamic growth in business investment can be expected due to relatively high capacity utilization. Corporate investment and export should be positively influenced by the recovery of global activity; however, the United Kingdom's withdrawal from the EU could be a risk factor, as the country represents a substantial export market for the German economy, the export share of which in the total exports in 2016 was 8.0% (3.7% of German GDP). We expect the economic growth to reach 2.0% in 2017 (*versus 1.8%*) and 1.9% in the following year (*versus 1.7%*).

In the second quarter of 2017, GDP of **France** increased by 0.5% QoQ (*versus 0.4%*) for a third consecutive quarter. Economic growth was driven by foreign demand, as the growth rate of exports was higher than the growth rate of imports due to strong demand for transport equipment. Final consumption expenditures as well as investment in fixed capital increased but they could not compensate the negative contribution of a change in inventories. The main cause of the low growth in household consumption was a slower growth in expenditure on services. Abolition of lower tax burden on investment in April stood behind a slowdown in the gross fixed capital formation growth rate. The labour market situation, unlike in most EU countries, has not improved much. The unemployment rate still reaches almost 10%, the long-term unemployment rate stagnates and growth in wages remains relatively weak. However, a reform to the Labour Code starting from 2018 should increase the flexibility of the labour market and reduce the unemployment rate. In the short term, soft indicators point to some improvement in economic developments as many of them show an upward trend. The business sentiment indicator has been growing since 2013, and the consumer confidence indicator has reached peak values since 2007 despite a slight decrease over the past months. Also, the Purchasing Managers' Indexes in manufacturing and services indicate more dynamic economic growth. A faster recovery, however, will be hampered by long-term problems of the French economy – low competitiveness and the associated declining share in export markets, or high government and private sector debts. Therefore, we expect that the economic growth in France will slightly lag behind the growth in the EA19 and the French economy will grow by 1.7% (*versus 1.4%*) in 2017 and by 1.8% (*versus 1.4%*) in 2018.

In the second quarter, the **Polish** economy grew at the same rate as in the previous quarter, with GDP growing by 1.1% QoQ (*versus 0.8%*). All components of domestic demand contributed to the economic growth, household consumption expenditures and change in inventories being again the main drivers of growth. Household consumption was supported by growing employment and wages, increased childcare allowances and further improvement of consumer sentiment, which reached its historical maximum since 2000. However, investment activity remained rather weak, although the negative effect of termination of projects under the last EU financial perspective has already faded away. The low level of business investment thus probably relates to the private sector's concerns about increasing government interventions in the economy. The only component that weighed on the economic performance was the balance of foreign trade due to the stagnation of exports and negligible growth in imports. In the coming two years, economic growth should continue to be driven mainly by household consumption, which will be supported by improving labour market situation and related growth in disposable income of households, low interest rates and increasing consumer confidence. Investment growth should gradually recover with the start of programmes of the 2014–2020 financial perspective. However, lower predictability of government policies is a risk. In terms of long-term sustainability of the government's finances a substantial risk results also from the abrupt decrease of the statutory retirement age from 67 years to 60 years for women and 65 years for men. For this year we expect economic growth of 4.2% (*versus 3.8%*), for the next year, considering the fadeout of increased social benefit effects, the growth will slow down to 3.4% (*versus 3.2%*).

In the second quarter of 2017 the **Slovak** economy recorded GDP growth of 0.8% QoQ (*versus 0.9%*) for the third time in a row. Economic growth was driven by domestic demand; however, net exports also contributed positively despite lower exports due to production outages in the chemical and automotive industries. The only component that weighed on economic growth was gross fixed capital formation reflecting a decline in both private and government investment. The main source of growth was again household consumption expenditure. This is supported by improving situation in the labour market, where the unemployment rate dropped to 7.5% in August (2.1 pp less YoY), which is the lowest value in the history of measurement since 1998. Labour market tightening creates pressure on increase of wages, whose growth accelerated to 4.8% YoY in the second quarter. Significant regional differences remained in the Slovak labour market, and a problem is also that workers, especially those with higher education, are moving abroad. After almost three years, the price level began to increase in December 2016 and the inflation rate reached 1.8% in September 2017. In the coming years, household consumption should grow at a steady pace, supported by further growth in employment and wages. However, the real wage growth will slow down due to the accelerating inflation rate. A recovery in investment will also be supported by continued investment in the automotive industry or investment by the general government sector in the area of infrastructure. Start of production of the Volkswagen and Jaguar Land Rover car factories should significantly contribute to an acceleration of exports in 2018. Economic growth will also be supported by a decrease in the corporate income tax or by an increase in lump-sum expenses for sole traders from 40% to 60% together with nearly four-fold increase in their ceiling from 2018. For this year we expect a growth of 3.2% (*versus 3.3%*), for 2018 a slight acceleration to 3.6% (*unchanged*).

1.1.4 Commodity Prices

In the third quarter of 2017, the average price of Brent crude oil reached USD 52.1/barrel (*vs. USD 46/barrel*). It increased by 5% QoQ and almost 14% YoY. As of the cut-off date of the Forecast, Brent crude oil traded around USD 58/barrel.

The crude oil market is still influenced by the limitation of production applicable until March 2018 agreed by most of the countries in the Organization of the Petroleum Exporting Countries with some countries outside this organisation (in particular, with Russia). The agreement on the limitation of production has been, in principle, met, which helped, together with growing demand for crude oil in Europe and in the US, eliminate oil surpluses in the global market. Extension of the production restriction beyond the framework of the current agreement is not certain.

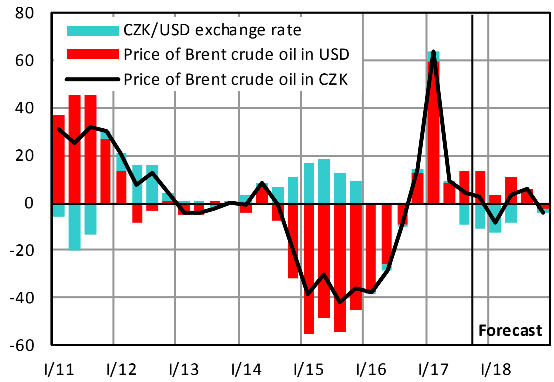
Hurricanes in the Gulf of Mexico caused a rise in the spread between the Brent and WTI oil prices as they put WTI oil processing and oil exports from the US out of service. However, production was disturbed only minimally, and the overall effect of hurricanes on the global oil market can be assessed as insignificant.

Further projected development in Brent crude oil prices reflects the shape of the futures prices curve. The average price should reach USD 53/barrel in 2017 (*versus USD 49/barrel*) and we expect an average price of USD 55/barrel in 2018 (*versus USD 50/barrel*). The increased forecast is mostly due to the current higher price compared to the previous forecast.

The forecast of the koruna Brent crude oil prices (see Graph 1.1.4) was revised less than the dollar price as we now expect a stronger exchange rate of the koruna against the US dollar. We assume that the koruna price should almost stagnate in the next year in a YoY comparison.

Graph 1.1.4: 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.

Table 1.1.1: Gross Domestic Product – yearly

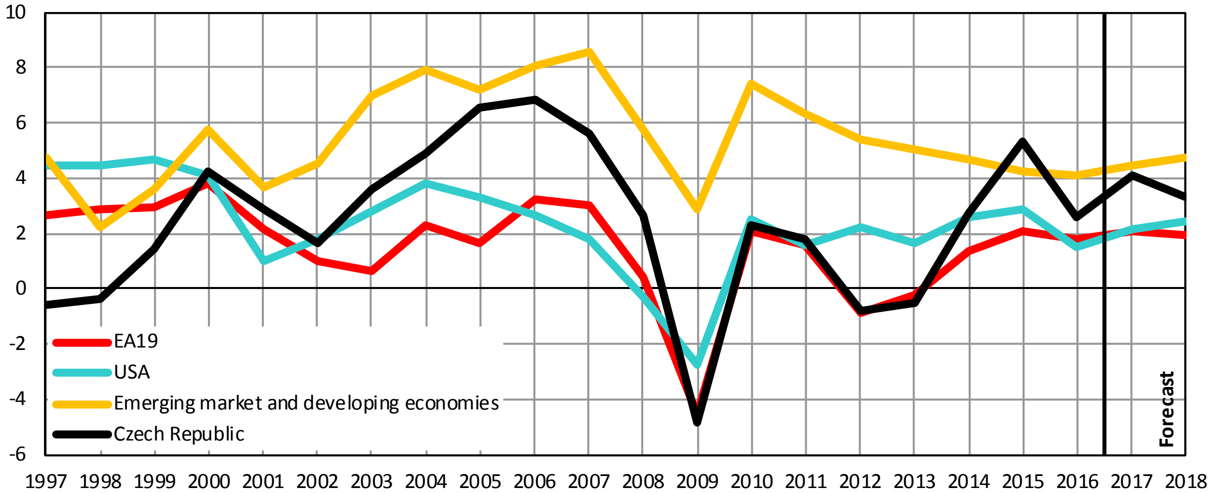
YoY real growth rate, in %

	2009	2010	2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*
World	-0.1	5.4	4.2	3.5	3.4	3.5	3.4	3.1	3.5	3.6
USA	-2.8	2.5	1.6	2.2	1.7	2.6	2.9	1.5	2.1	2.4
China	9.2	10.6	9.5	7.7	7.7	7.3	6.9	6.7	6.5	6.3
EU28	-4.3	2.1	1.7	-0.4	0.3	1.8	2.3	1.9	2.3	2.2
EA19	-4.5	2.1	1.6	-0.9	-0.2	1.3	2.1	1.8	2.1	2.0
Germany	-5.6	4.1	3.7	0.5	0.5	1.9	1.7	1.9	2.0	1.9
France	-2.9	2.0	2.1	0.2	0.6	0.9	1.1	1.2	1.7	1.8
United Kingdom	-4.2	1.7	1.5	1.5	2.1	3.1	2.3	1.8	1.4	1.2
Austria	-3.8	1.8	2.9	0.7	0.0	0.8	1.1	1.5	2.9	2.1
Hungary	-6.6	0.7	1.7	-1.6	2.1	4.0	3.1	2.0	3.6	3.3
Poland	2.6	3.7	5.0	1.6	1.4	3.3	3.9	2.6	4.2	3.4
Slovakia	-5.4	5.0	2.8	1.7	1.5	2.6	3.8	3.3	3.2	3.6
Czech Republic	-4.8	2.3	1.8	-0.8	-0.5	2.7	5.3	2.6	4.1	3.3

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

Graph 1.1.5: Gross Domestic Product

YoY real growth rate, in %

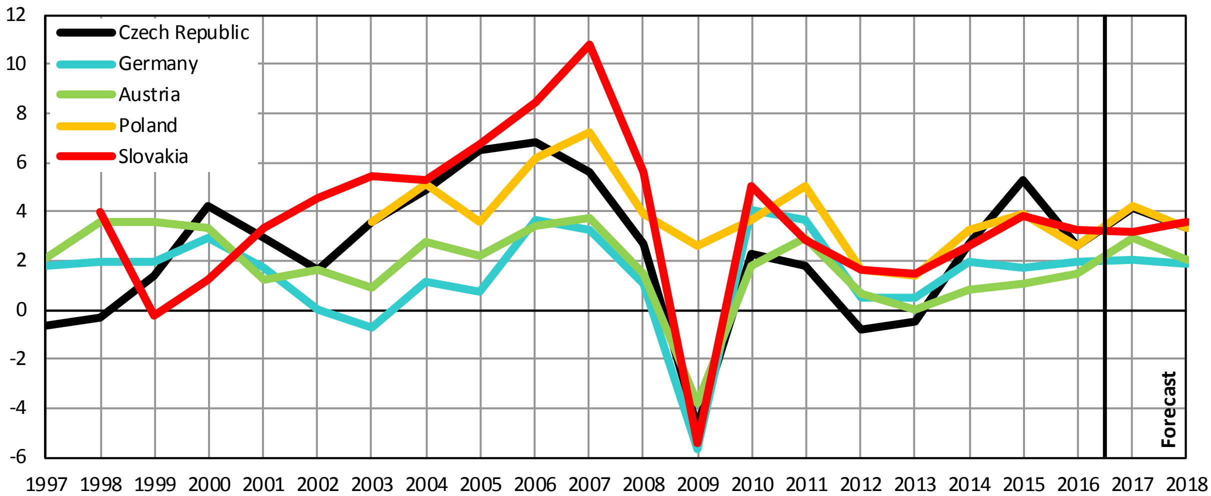


Note: Emerging market and developing economies comprising 154 countries (according to the IMF's classification)

Source: Eurostat, IMF. Calculations of the MoF.

Graph 1.1.6: 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

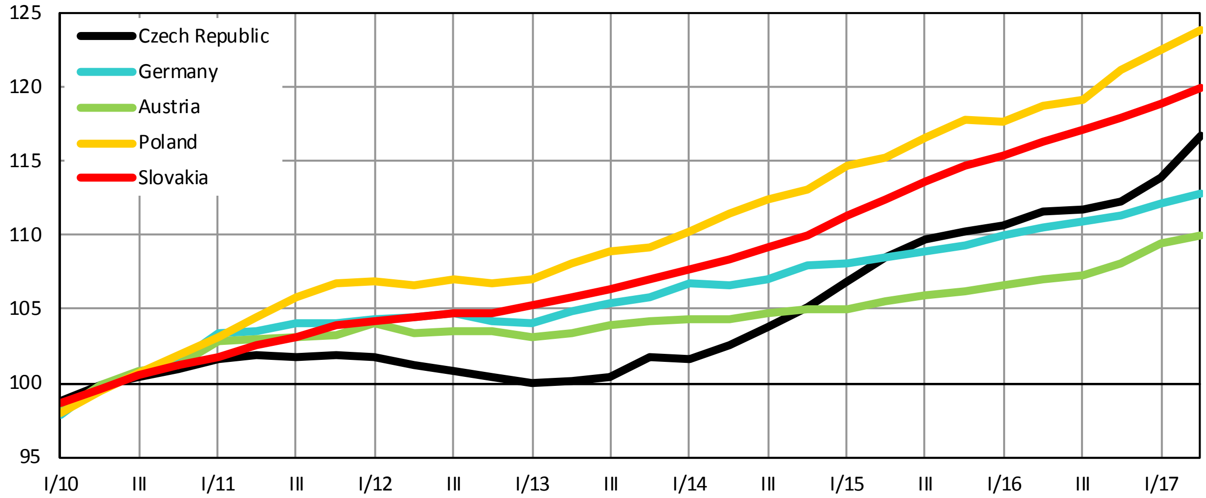
real growth rate, in %, seasonally adjusted data

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	*Forecast*
USA	*QoQ*	**0.1**	**0.6**	**0.7**	**0.4**	**0.3**	**0.8**	**0.6**	**0.5**
	YoY	1.4	1.2	1.5	1.8	2.0	2.2	2.1	2.2
China	*QoQ*	**1.3**	**1.9**	**1.8**	**1.7**	**1.3**	**1.7**	**1.5**	**1.4**
	YoY	6.4	6.7	6.7	6.9	6.9	6.7	6.3	6.0
EU28	*QoQ*	**0.4**	**0.4**	**0.4**	**0.7**	**0.6**	**0.7**	**0.6**	**0.5**
	YoY	1.9	1.9	1.9	2.0	2.1	2.4	2.5	2.3
EA19	*QoQ*	**0.5**	**0.3**	**0.4**	**0.6**	**0.6**	**0.7**	**0.5**	**0.3**
	YoY	1.7	1.8	1.7	1.9	2.0	2.3	2.4	2.0
Germany	*QoQ*	**0.6**	**0.5**	**0.3**	**0.4**	**0.7**	**0.6**	**0.6**	**0.4**
	YoY	1.8	1.9	1.9	1.9	1.9	2.1	2.4	2.3
France	*QoQ*	**0.6**	**-0.1**	**0.2**	**0.5**	**0.5**	**0.5**	**0.5**	**0.4**
	YoY	1.2	1.2	0.9	1.2	1.1	1.8	2.1	2.0
United Kingdom	*QoQ*	**0.2**	**0.5**	**0.4**	**0.6**	**0.3**	**0.3**	**0.3**	**0.2**
	YoY	1.9	1.8	1.8	1.6	1.8	1.5	1.4	1.0
Austria	*QoQ*	**0.3**	**0.4**	**0.3**	**0.7**	**1.2**	**0.6**	**0.6**	**0.4**
	YoY	1.6	1.4	1.3	1.7	2.6	2.8	3.1	2.8
Hungary	*QoQ*	**-0.5**	**1.1**	**0.5**	**0.8**	**1.4**	**0.9**	**1.0**	**0.7**
	YoY	1.2	2.2	2.1	1.9	3.8	3.5	4.0	4.0
Poland	*QoQ*	**-0.1**	**0.9**	**0.4**	**1.7**	**1.1**	**1.1**	**0.9**	**0.7**
	YoY	2.5	3.0	2.2	3.0	4.2	4.4	4.9	3.8
Slovakia	*QoQ*	**0.6**	**0.8**	**0.7**	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**
	YoY	3.7	3.5	3.1	2.9	3.1	3.1	3.3	3.3
Czech Republic	*QoQ*	**0.3**	**0.8**	**0.2**	**0.4**	**1.5**	**2.5**	**0.3**	**0.4**
	YoY	3.5	2.8	1.8	1.8	3.0	4.7	4.8	4.7

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

Graph 1.1.7: Gross Domestic Product – Czech Republic and the neighbouring states

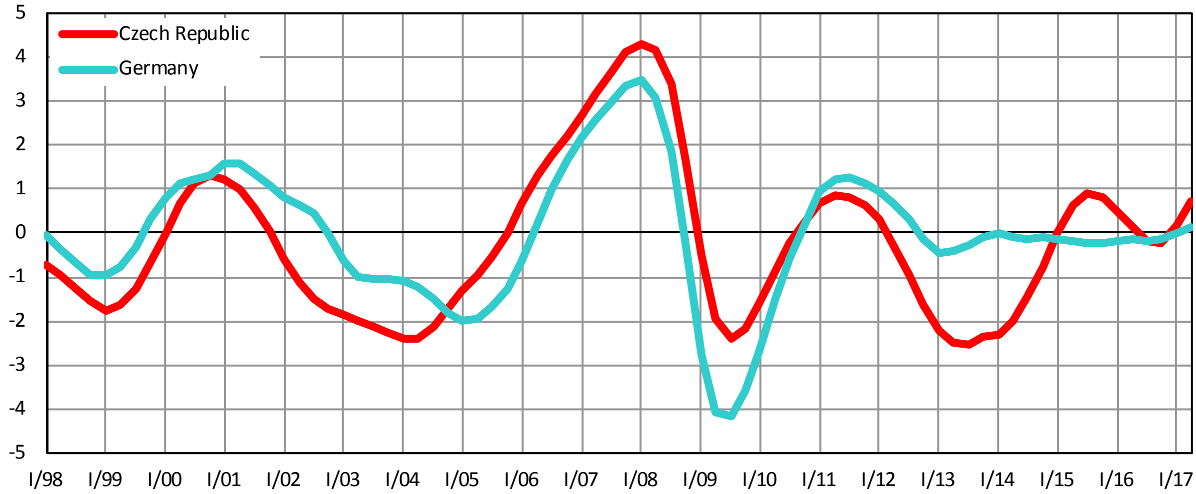
2010=100, seasonally adjusted data, constant prices



Source: Eurostat. Calculations of the MoF.

Graph 1.1.8: Cyclical Component of GDP – Czech Republic and Germany

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



Source: Eurostat. Calculations of the MoF.

Table 1.1.3: Prices of Selected Commodities – yearly

spot prices

		2009	2010	2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*
Crude oil Brent	*USD/barrel*	**61.5**	**79.6**	**111.3**	**111.5**	**108.6**	**99.0**	**52.4**	**43.6**	**53**	**55**
	growth in %	-36.5	29.3	39.8	0.2	-2.6	-8.8	-47.1	-16.9	21.3	4.5
Crude oil Brent index *(in CZK)*	*2010=100*	**76.1**	**100.0**	**129.5**	**143.8**	**139.9**	**134.6**	**85.0**	**70.1**	**82**	**81**
	growth in %	-28.6	31.3	29.5	11.0	-2.7	-3.8	-36.9	-17.4	16.6	-1.3
Natural gas	*USD/MMBtu*	**8.9**	**8.2**	**10.6**	**12.0**	**11.2**	**10.5**	**7.3**	**4.4**	.	.
	growth in %	-32.6	-7.1	28.9	13.1	-6.6	-6.5	-30.2	-40.4	.	.
Natural gas index *(in CZK)*	*2010=100*	**110.2**	**100.0**	**119.7**	**149.4**	**139.4**	**138.2**	**114.4**	**67.8**	.	.
	growth in %	-23.3	-9.3	19.7	24.8	-6.7	-0.9	-17.2	-40.7	.	.

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

Table 1.1.4: Prices of Selected Commodities – quarterly

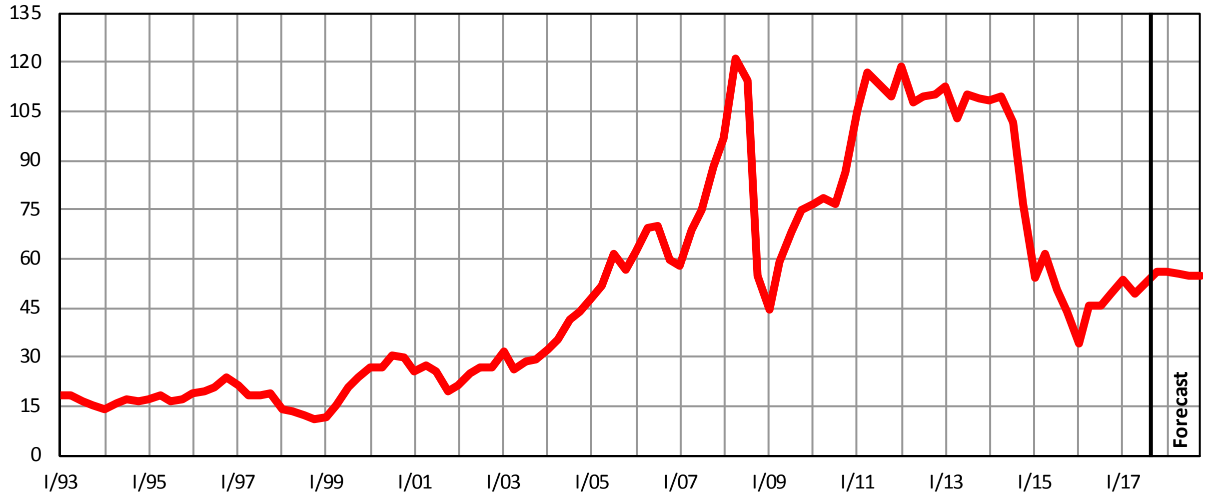
spot prices

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 *Forecast*
Crude oil Brent	*USD/barrel*	**33.8**	**45.6**	**45.8**	**49.1**	**53.6**	**49.6**	**52.1**	**56**
	growth in %	-37.4	-26.1	-9.1	12.6	58.6	8.8	13.8	14.3
Crude oil Brent index *(in CZK)*	*2010=100*	**54.6**	**71.9**	**73.0**	**81.1**	**89.6**	**78.6**	**76.1**	**83**
	growth in %	-37.4	-28.6	-9.7	14.2	64.0	9.4	4.3	2.3
Natural gas	*USD/MMBtu*	**4.7**	**4.0**	**4.2**	**4.6**	**5.8**	**5.0**	.	.
	growth in %	-50.2	-45.4	-36.9	-22.5	24.0	25.2	.	.
Natural gas index *(in CZK)*	*2010=100*	**72.8**	**61.2**	**64.3**	**72.9**	**93.3**	**77.1**	.	.
	growth in %	-50.3	-47.3	-37.3	-21.4	28.2	25.9	.	.

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

Graph 1.1.9: Dollar Prices of Oil

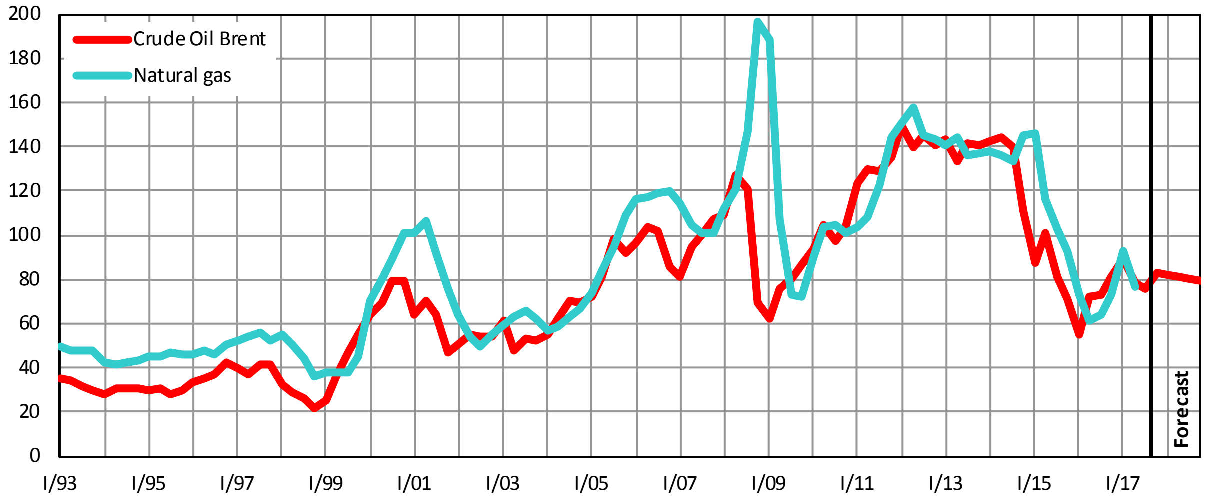
USD/barrel



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

Graph 1.1.10: Koruna Indices of Prices of Selected Commodities

index 2010=100



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

1.2 Fiscal Policy

According to the data of the CZSO, the **general government sector balance** reached a surplus of CZK 35 billion **in 2016**, i.e. 0.7% of GDP. After adjustment for effects of the business cycle and one-off and other temporary measures, the surplus was 0.8% of GDP. The surplus was therefore due primarily to a YoY improvement in the structural balance of 1.3 pp. As a result of the CZSO's revision of the data for 2016 the overall balance improved by CZK 7.4 billion (0.1 pp). The increase in surplus is almost exclusively driven by the revenue side, where income taxes, especially corporate income tax, were revised upwards.

In 2017 the dynamic growth of the Czech economy is reflected also in the general government sector balance. We expect the general government sector to reach a surplus of 1.1% of GDP (*versus 0.4% of GDP*) this year. In structural terms, the surplus should decline fractionally by 0.3 pp to 0.5% of GDP. The main reason for the upward revision to the forecast for overall balance is tax revenues of the general government sector, including social security contributions. Expectations of improved balance are underlined by collection of taxes and cash performance of the state budget. Over the period from January to October 2017 the state budget reached a surplus of almost CZK 17 billion, after adjusting both the revenue and expenditure side for the impact of EU funds and financial mechanisms. This was a YoY improvement of more than CZK 3 billion. Local governments recorded significant surpluses, too. In the first nine months of this year, their surplus exceeded CZK 44 billion in cash terms, according to the monthly budget report. The significant YoY improvement in the general government sector balance is also evident in the national accounts data for the first two quarters of this year.

The positive budget developments largely reflect the dynamics of tax revenues, which is due not only to the stronger growth of the Czech economy, but also active measures of the government aimed at tax collection and preventing tax evasion (electronic VAT reporting, electronic registration of sales, VAT reverse charge mechanism). In the case of value-added tax, the YoY growth of collection (as of the end of October 2017) significantly exceeds the expected growth of macroeconomic bases. We expect total tax revenues and social security contributions to increase by 7.1% this year. Apart from the aforementioned value-added tax, this growth should be mostly driven by direct taxes (especially personal income tax and social security contributions). Within non-tax revenues we forecast stronger growth of capital transfers, the development of which is determined by financial transfers for the projects co-financed from EU funds.

On the expenditure side, final consumption expenditures of the general government sector should increase by 4.5%, compared with the year 2016. Similarly to the previous year we forecast a strong growth in compensation of employees (6.5%) resulting from increases in salary scales across professions in the general government sector. The YoY growth of intermediate consumption should accelerate to 4% due not only to higher real consumption (e.g. purchases of government health care institutions, or a part of expenses for EU co-financed projects) but also higher inflation rate. Interest costs are expected to decline also in this year, this time by more than 10%. This results from a combination of refinancing past issuances in a low interest rate environment, the development of cash performance of the state budget and budgets of local governments, and the debt portfolio management strategy. According to our estimates, investments of the general government sector will increase in 2017 by more than 11% in nominal terms. These investments should be financed from national sources as well as from EU funds.

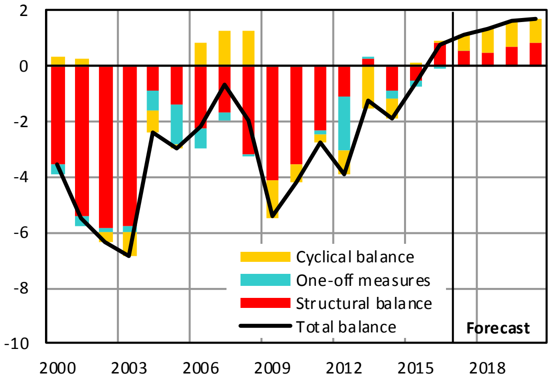
The **year 2018** should be influenced primarily by favourable macroeconomic developments. The surplus will thus reach 1.3% of GDP in 2018, according to the current forecast of the MoF. Compared with this year, the structural balance will decline moderately to 0.4% of GDP.

On the revenue side, additional effects of the measures to fight tax evasion can be expected. We assume that the strong dynamics of personal income tax, including social security contributions, will be sustained. High pace of the wage bill reflecting in particular the growth of average wage (see Chapter 3.3) should play a major role here. Similarly to this year, however, the personal income tax will be affected by a significant increase in the minimum and guaranteed wage, which further accelerates the growth rate of tax revenues, given the design of personal income tax. Apart from an estimated increase in household consumption and in certain components of consumption of the general government sector in total by approximately 6%, we expect additional revenues from VAT of approximately CZK 5 billion due to the effects of measures against tax evasion.

On the expenditure side we forecast a strong growth in compensation of employees and social benefits (both cash and in kind). In September the government approved an increase in salaries in the general government sector, effective from November 2017, of 10%, with the exception of teachers, whose salary scales should increase by 15%. In health care, salary scales will increase by 10% from January 2018. Compensation of employees in the general government sector is forecasted to grow by more than 7% in 2018. Social benefits will reflect newly adopted measures (family-friendly policy, change in the indexation of pensions), as well as autonomous development of social insurance benefits. Gross fixed capital formation of the general government sector should also have a relatively strong dynamics. However, larger contribution is ascribed to investments co-financed from EU funds which have only limited impact on the general government balance.

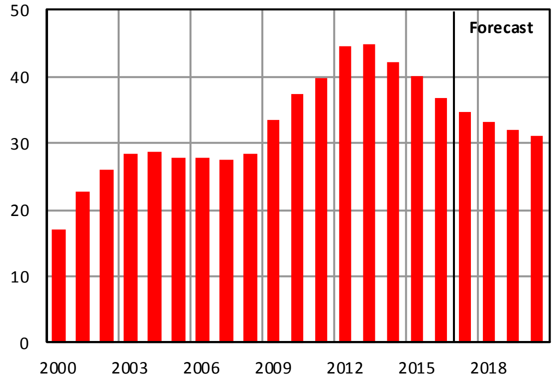
At the end of 2016 the general government sector debt reached CZK 1,754.9 billion, i.e. 36.8% of GDP. The estimated decrease of almost CZK 12 billion in absolute level of debt at the end of 2017 and 5.3% nominal GDP growth should lead to a 2.1 pp decrease in relative indebtedness to 34.7% of GDP. A decrease in absolute level of debt is expected in particular in the case of local governments that have achieved budget surpluses for a few consecutive years. In line with the sustained surplus of the general government sector in 2018, the relative level of debt should decline further this year to 33.1% of GDP. More details about fiscal policy can be found in the Fiscal Outlook of the Czech Republic.

Graph 1.2.1: Decomposition of the Government Balance
in % of GDP



Source: CZSO. Calculations of the MoF.

Graph 1.2.2: General Government Debt
in % of GDP



Source: CZSO. Calculations of the MoF.

Table 1.2.1: Net Lending/Borrowing and Debt

		2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*	2019 *Outlook*	2020 *Outlook*
General government balance	*% GDP*	**-2.7**	**-3.9**	**-1.2**	**-1.9**	**-0.6**	**0.7**	**1.1**	**1.3**	**1.6**	**1.7**
	bill. CZK	-110	-160	-51	-83	-29	35	57	71	89	100
Cyclical balance	*% GDP*	**-0.3**	**-0.9**	**-1.5**	**-0.8**	**0.1**	**0.0**	**0.6**	**0.9**	**0.9**	**0.9**
Cyclically adjusted balance	*% GDP*	**-2.5**	**-3.1**	**0.3**	**-1.1**	**-0.7**	**0.7**	**0.6**	**0.4**	**0.7**	**0.8**
One-off measures [1)]	*% GDP*	**-0.1**	**-2.0**	**0.0**	**-0.3**	**-0.2**	**-0.1**	**0.0**	**0.0**	**0.0**	**0.0**
Structural balance	*% GDP*	**-2.4**	**-1.1**	**0.3**	**-0.9**	**-0.5**	**0.8**	**0.5**	**0.4**	**0.7**	**0.8**
Fiscal effort [2)]	*pp*	1.2	1.3	1.3	-1.2	0.4	1.3	-0.3	-0.1	0.2	0.2
Interest expenditure	*% GDP*	**1.3**	**1.4**	**1.3**	**1.3**	**1.1**	**0.9**	**0.8**	**0.8**	**0.7**	**0.7**
Primary balance	*% GDP*	**-1.4**	**-2.5**	**0.1**	**-0.6**	**0.4**	**1.7**	**1.9**	**2.1**	**2.3**	**2.4**
Cyclically adjusted primary balance	*% GDP*	**-1.1**	**-1.6**	**1.6**	**0.2**	**0.3**	**1.7**	**1.4**	**1.2**	**1.4**	**1.6**
General government debt	*% GDP*	**39.8**	**44.5**	**44.9**	**42.2**	**40.0**	**36.8**	**34.7**	**33.1**	**32.1**	**30.9**
	bill. CZK	1 606	1 805	1 840	1 819	1 836	1 755	1 743	1 754	1 778	1 791
Change in debt-to-GDP ratio	*pp*	2.5	4.6	0.4	-2.7	-2.2	-3.2	-2.1	-1.6	-1.0	-1.1

[1)] *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.*
[2)] *Change in structural balance.*
Source: CZSO. Calculations of the MoF.

1.3 Monetary Policy, Financial Sector and Exchange Rates

1.3.1 Monetary Policy

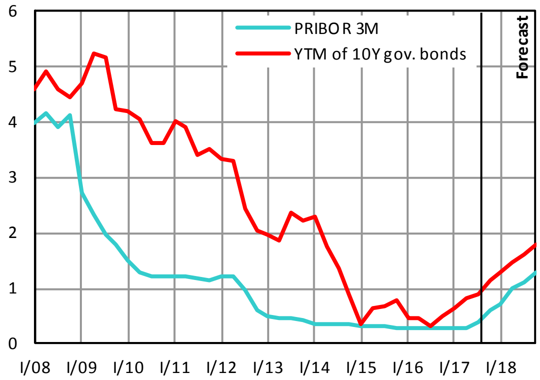
Since November 2013 until the beginning of April 2017, the CNB used the exchange rate as an additional monetary policy instrument. With the discontinuation of the exchange rate commitment, the monetary policy returned to a standard regime, in which interest rates are the main tool. The two-week repo rate, which had been set at 0.05% since November 2012, was increased by 20 bps to 0.25% at the beginning of August 2017. Monetary conditions were thus tightened not only in the exchange rate (see below) but also in the interest rate component. A gradual tightening of monetary conditions in both components should, according to our assumptions, continue also in the future.

1.3.2 Financial Sector and Interest Rates

In the third quarter of 2017, the **3M** (three-month) **PRIBOR** rate increased to 0.4% (*versus 0.3%*). It should also reach the same value on average in 2017 (*unchanged*), and increase to 1.0% in 2018 (*versus 0.7%*).

Graph 1.3.1: Interest Rates

in % p.a.



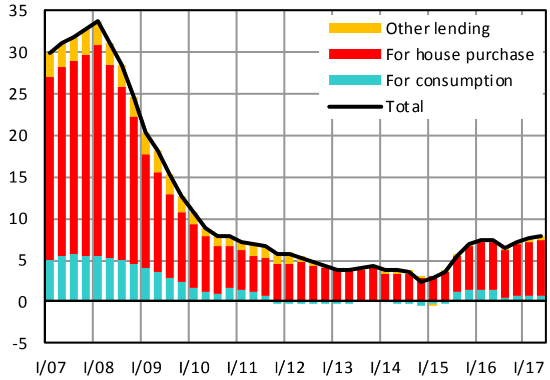
Source: CNB. Calculations of the MoF.

Long-term interest rates have been recently increasing gradually as a result of rising inflationary pressures. The **yield to maturity on 10-year government bonds** for convergence purposes was 0.9% (*versus 1.0%*) in the third quarter of 2017. With regard to the assumed domestic monetary policy stance and the monetary policies of the ECB and of the Fed, we expect that long-term interest rates will average 0.9% in 2017 (*unchanged*) and further increase to 1.5% (*unchanged*) in 2018.

The growth of loans to households slightly accelerated in the second quarter of 2017. It has long been driven by housing loans, which are in volume terms the most significant (they account for nearly 75% of the total). Growth of consumer loans as well as of other loans (loans to sole traders) also accelerated slightly. The dynamics of housing loans can already pose a macroeconomic risk as some households may be unable to pay off their loans in the case of worsened economic situation or increased interest rates.

Graph 1.3.2: Loans to Households

YoY growth rate in %, contributions in pp

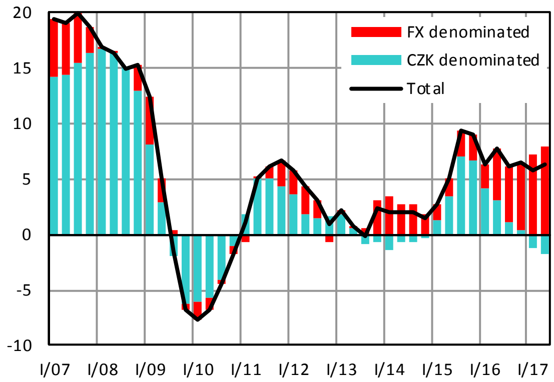


Source: CNB. Calculations of the MoF.

Total loans to non-financial corporations increased by 6.3% YoY in the second quarter of 2017, their growth thus accelerated slightly in comparison with the previous quarter. The dynamics of koruna loans further declined with a decrease of 2.3%, whereas growth of foreign currency loans, which make less than a third of total loans to non-financial corporations, again exceeded 30%. Tendencies from previous quarters thus continued. These may reflect increased uncertainty about the further development of the koruna exchange rate or speculations on its appreciation. However, they may also be the result of behaviour of exporters seeking natural hedging.

Graph 1.3.3: Loans to Non-financial Corporations

YoY growth rate in %, contributions in pp

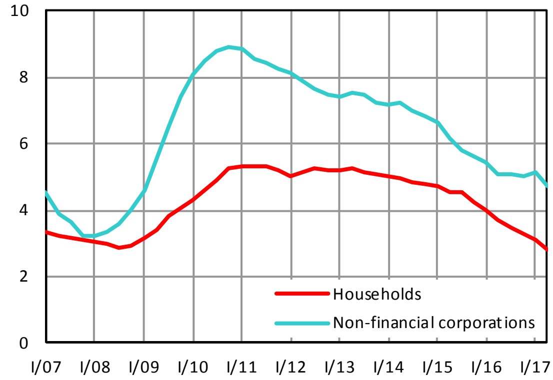


Source: CNB. Calculations of the MoF.

The share of non-performing loans in total loans in the second quarter of 2017 was at 2.8% for households (0.9 pp less YoY) and 4.7% for non-financial corporations (1.4 pp less YoY). The low and long-term declining share of non-performing loans indicates a very good financial condition of households and companies and also suggests that the quality of banks' loan portfolio should not be a factor leading to limitation of availability of bank loans in the near future.

Graph 1.3.4: Non-performing Loans

ratio of non-performing to total loans, in %

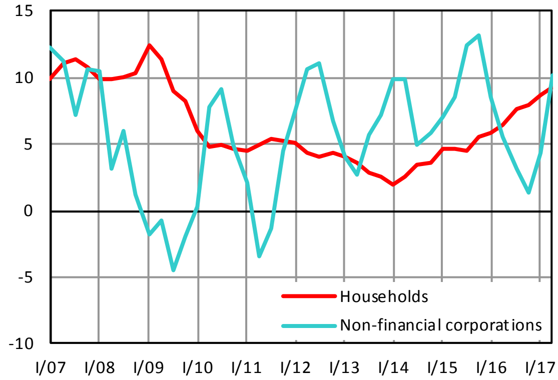


Source: CNB. Calculations of the MoF.

The YoY growth in household deposits increased further to 9.3% in the second quarter of 2017 in connection with their favourable economic situation, and the growth in deposits of non-financial corporations also accelerated to 10.2%. In terms of the capacity of households and non-financial corporations to finance future consumption and investment from own resources, the continued growth of deposits may be assessed positively.

Graph 1.3.5: Deposits

YoY growth rate, in %



Source: CNB. Calculations of the MoF.

1.3.3 Exchange Rates

Although the koruna's exchange rate may now, after the discontinuation of the exchange rate commitment, fluctuate freely in both directions, depending on the demand/supply development in the foreign exchange market, the CNB said it was prepared to respond to potential excessive exchange rate fluctuations. The volatility of the exchange rate could increase, for example, due to closing of large speculative positions entered by investors in particular in the first quarter of 2017. Such developments could be associated with weakening of the koruna.

The exchange rate of the koruna against the euro continued to appreciate in the third quarter and averaged 26.1 CZK/EUR (*versus 26.0 CZK/EUR*). Between the discontinuation of the exchange rate commitment in early April and the cut-off date of the Forecast, the koruna appreciated against the euro by approx. 5%. We assume the exchange rate to average 25.8 CZK/EUR in the fourth quarter of this year (*versus 25.9 CZK/EUR*), so the koruna should appreciate by 2.6% for the entire 2017 in comparison with 2016. After that, we expect the koruna to appreciate slightly against the euro by approx. 0.5% QoQ, in connection with economic convergence and a positive interest rate differential vis-à-vis the EA. Potential faster appreciation of the koruna would be associated with additional anti-inflationary and counter-cyclical effects and would also act as a factor against interest rate hikes.

The estimated development of the CZK/USD exchange rate is implied by the USD/EUR exchange rate for which we have adopted a technical assumption of stability at the level of 1.15 USD/EUR (*versus 1.10 USD/EUR*). The change in the assumption reflects weakening of the dollar, which took place in the past months.

Table 1.3.1: Interest Rates – yearly

average of period, unless stated otherwise

		2009	2010	2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	1.00	0.75	0.75	0.05	0.05	0.05	0.05	0.05	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	1.00	1.00	1.00	0.75	0.25	0.05	0.05	0.05	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	.	.
PRIBOR 3M	*in % p.a.*	2.19	1.31	1.19	1.00	0.46	0.36	0.31	0.29	0.4	1.0
YTM of 10Y government bonds	*in % p.a.*	4.84	3.88	3.71	2.78	2.11	1.58	0.61	0.43	0.9	1.5
Client interest rates											
Loans to households	*in % p.a.*	7.00	7.01	6.83	6.46	6.03	5.57	5.14	4.63	.	.
Loans to non-financial corporations	*in % p.a.*	4.58	4.10	3.93	3.69	3.19	3.00	2.77	2.58	.	.
Deposits of households	*in % p.a.*	1.38	1.25	1.20	1.18	1.01	0.84	0.65	0.47	.	.
Deposits of non-financial corporations	*in % p.a.*	0.87	0.56	0.52	0.56	0.41	0.29	0.19	0.10	.	.

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

Table 1.3.2: Interest Rates – quarterly

average of period, unless stated otherwise

		2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4 *Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.25**	**.**
Main refinancing rate ECB (*end of period*)	*in % p.a.*	**0.05**	**0.05**	**0.05**	**0.05**	**0.00**	**0.00**	**0.00**	**.**
Federal funds rate (*end of period*)	*in % p.a.*	**0.50**	**0.50**	**0.50**	**0.75**	**1.00**	**1.25**	**1.25**	**.**
PRIBOR 3M	*in % p.a.*	**0.29**	**0.29**	**0.29**	**0.29**	**0.28**	**0.30**	**0.40**	**0.6**
YTM of 10Y government bonds	*in % p.a.*	**0.48**	**0.45**	**0.30**	**0.48**	**0.66**	**0.82**	**0.90**	**1.2**
Client interest rates									
Loans to households	*in % p.a.*	**4.85**	**4.70**	**4.54**	**4.42**	**4.29**	**4.15**	**.**	**.**
Loans to non-financial corporations	*in % p.a.*	**2.63**	**2.60**	**2.58**	**2.52**	**2.57**	**2.55**	**.**	**.**
Deposits of households	*in % p.a.*	**0.55**	**0.48**	**0.43**	**0.40**	**0.38**	**0.36**	**.**	**.**
Deposits of non-financial corporations	*in % p.a.*	**0.13**	**0.11**	**0.09**	**0.07**	**0.06**	**0.05**	**.**	**.**

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

Table 1.3.3: Loans and Deposits – yearly averages

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Households – MFI											
Loans	*growth in %*	**31.6**	**29.3**	**16.5**	**8.8**	**6.6**	**4.9**	**4.0**	**3.4**	**4.7**	**7.2**
For consumption	*growth in %*	26.2	25.7	16.4	7.3	4.2	-1.0	-0.1	-0.9	3.4	6.0
For house purchase	*growth in %*	33.8	30.8	15.5	8.9	6.5	6.4	5.5	4.5	5.6	8.1
Other lending	*growth in %*	27.5	24.9	23.9	11.6	11.1	6.0	1.2	2.9	1.0	3.0
CZK denominated	*growth in %*	31.6	29.3	16.5	8.8	6.6	4.9	4.0	3.4	4.7	7.2
FX denominated	*growth in %*	3.3	-8.9	0.1	31.0	2.4	30.8	-1.3	0.0	12.7	8.5
Deposits	*growth in %*	**10.8**	**10.0**	**10.2**	**5.1**	**5.0**	**4.5**	**3.3**	**2.9**	**4.8**	**7.0**
CZK denominated	*growth in %*	11.7	10.7	10.1	5.6	5.4	4.7	3.3	2.7	4.1	6.9
FX denominated	*growth in %*	-4.3	-3.4	13.1	-6.8	-4.0	-2.1	2.3	8.5	22.5	7.3
Non-performing loans (*banking statistics*)	*share, in %*	**3.2**	**3.0**	**3.6**	**4.8**	**5.3**	**5.2**	**5.2**	**4.9**	**4.5**	**3.6**
Loans to deposits ratio	*in %*	**48**	**56**	**59**	**61**	**62**	**63**	**63**	**63**	**63**	**63**
Non-financial corporations – MFI											
Loans	*growth in %*	**19.3**	**15.9**	**1.9**	**-5.2**	**4.7**	**3.5**	**1.3**	**1.9**	**6.5**	**6.6**
CZK denominated	*growth in %*	18.5	18.7	0.5	-5.2	4.9	2.6	0.3	-1.0	5.9	2.8
FX denominated	*growth in %*	22.8	3.4	9.1	-5.4	3.7	7.8	5.7	13.7	9.0	20.5
Deposits	*growth in %*	**10.3**	**5.1**	**-2.2**	**5.5**	**0.4**	**8.9**	**4.9**	**7.6**	**10.3**	**4.6**
CZK denominated	*growth in %*	9.6	6.4	-3.2	6.9	2.0	8.2	4.2	5.6	6.7	4.5
FX denominated	*growth in %*	12.8	0.5	1.6	0.2	-6.1	11.8	8.0	15.2	23.2	4.8
Non-performing loans (*banking statistics*)	*share, in %*	**3.8**	**3.5**	**6.0**	**8.6**	**8.5**	**7.8**	**7.4**	**7.0**	**6.0**	**5.2**
Loans to deposits ratio	*in %*	**117**	**129**	**135**	**121**	**126**	**120**	**116**	**110**	**106**	**108**

Source: CNB, ECB. Calculations of the MoF.

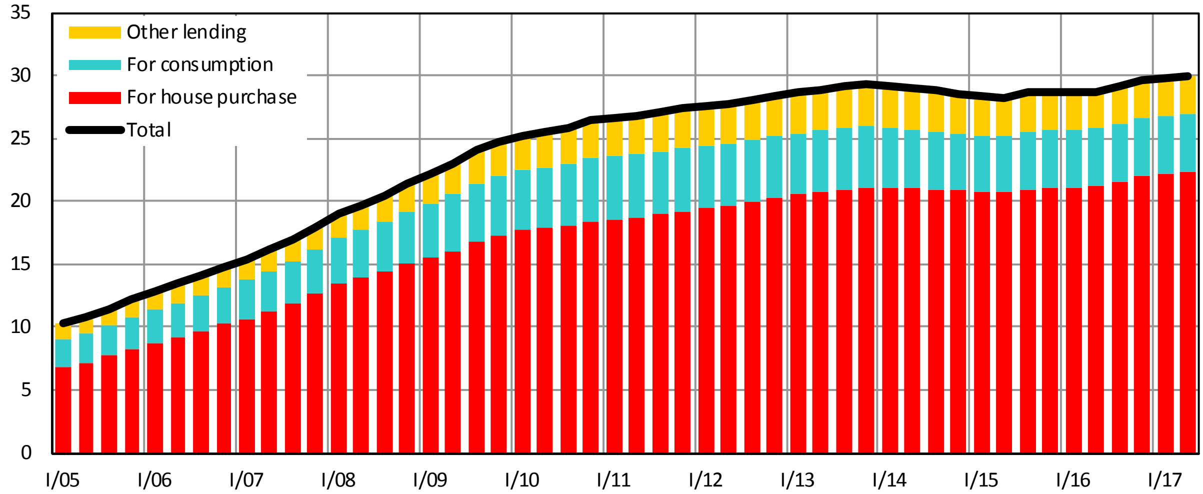
Table 1.3.4: Loans and Deposits – quarterly averages

		2015		2016				2017	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Households – MFI									
Loans	*growth in %*	**5.6**	**7.0**	**7.5**	**7.5**	**6.6**	**7.2**	**7.6**	**8.0**
For consumption	*growth in %*	7.6	8.7	9.7	8.7	2.3	3.7	4.2	4.6
For house purchase	*growth in %*	5.8	7.3	7.7	8.0	8.0	8.5	8.9	9.2
Other lending	*growth in %*	1.2	2.7	2.7	2.6	3.0	3.5	3.6	4.7
CZK denominated	*growth in %*	5.5	7.0	7.5	7.5	6.6	7.2	7.6	7.9
FX denominated	*growth in %*	19.0	9.3	13.1	18.3	6.1	-2.0	12.0	48.5
Deposits	*growth in %*	**4.5**	**5.5**	**5.9**	**6.4**	**7.6**	**7.9**	**8.7**	**9.3**
CZK denominated	*growth in %*	3.7	4.9	5.7	6.3	7.6	8.1	9.4	10.6
FX denominated	*growth in %*	26.8	19.5	11.5	8.6	6.6	3.0	-5.6	-18.7
Non-performing loans *(banking statistics)*	*share, in %*	**4.5**	**4.3**	**4.0**	**3.7**	**3.5**	**3.3**	**3.1**	**2.8**
Loans to deposits ratio	*in %*	**64**	**64**	**63**	**63**	**63**	**64**	**62**	**62**
Non-financial corporations – MFI									
Loans	*growth in %*	**9.3**	**9.1**	**6.3**	**7.8**	**6.1**	**6.4**	**5.8**	**6.3**
CZK denominated	*growth in %*	9.0	8.5	5.4	3.8	1.5	0.5	-1.7	-2.3
FX denominated	*growth in %*	10.5	11.2	9.7	22.0	22.7	27.1	31.1	32.7
Deposits	*growth in %*	**12.3**	**13.2**	**8.6**	**5.6**	**3.2**	**1.4**	**4.4**	**10.2**
CZK denominated	*growth in %*	8.1	10.0	8.0	4.5	3.2	2.5	8.6	19.8
FX denominated	*growth in %*	28.0	24.3	10.3	8.9	3.0	-2.2	-8.8	-18.0
Non-performing loans *(banking statistics)*	*share, in %*	**5.8**	**5.6**	**5.4**	**5.1**	**5.1**	**5.0**	**5.1**	**4.7**
Loans to deposits ratio	*in %*	**107**	**104**	**104**	**108**	**110**	**109**	**105**	**104**

Source: CNB, ECB. Calculations of the MoF.

Graph 1.3.6: Loans to Households

in % of GDP (from yearly moving sums)



Source: CNB, CZSO. Calculations of the MoF.

Table 1.3.5: Exchange Rates – yearly

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
Nominal exchange rates											
CZK / EUR	*average*	**24.59**	**25.14**	**25.97**	**27.53**	**27.28**	**27.03**	**26.4**	**25.5**	**25.1**	**24.7**
	appreciation in %	2.9	-2.2	-3.2	-5.7	0.9	0.9	2.6	3.3	1.7	1.7
CZK / USD	*average*	**17.69**	**19.58**	**19.56**	**20.75**	**24.60**	**24.43**	**23.5**	**22.2**	**21.8**	**21.4**
	appreciation in %	8.0	-9.7	0.1	-5.7	-15.7	0.7	3.9	6.0	1.7	1.7
NEER	*average of 2015=100*	**112.8**	**108.9**	**106.4**	**100.8**	**100.0**	**102.4**	**105**	**109**	**110**	**112**
	appreciation in %	3.1	-3.5	-2.3	-5.2	-0.8	2.4	2.5	3.5	1.7	1.7
Real exchange rate to EA19[1)]	*average of 2010=100*	**101.8**	**99.8**	**96.8**	**92.8**	**93.4**	**94.7**	**97**	**101**	**104**	**106**
	appreciation in %	1.8	-2.0	-3.0	-4.2	0.7	1.3	2.6	4.2	2.5	2.5
REER	*average of 2010=100*	**102.1**	**99.2**	**96.9**	**91.8**	**91.2**	**93.4**	**.**	**.**	**.**	**.**
(Eurostat, CPI deflated, 42 countries)	*appreciation in %*	2.1	-2.8	-2.3	-5.2	-0.7	2.5	.	.	.	.

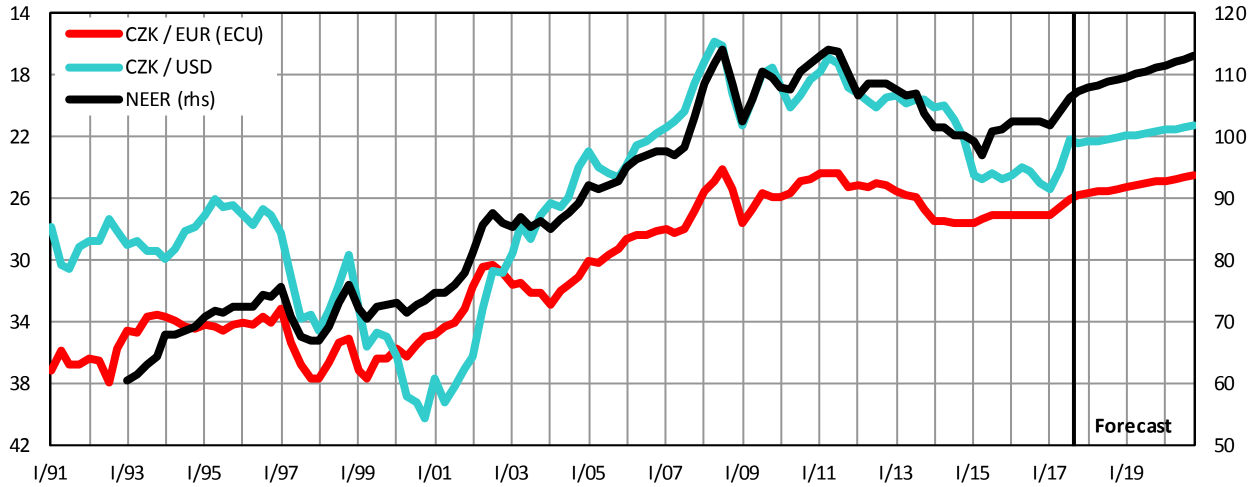
[1)] Deflated by GDP deflators.
Source: CNB, Eurostat. Calculations of the MoF.

Table 1.3.6: Exchange Rates – quarterly

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	*Forecast*
Nominal exchange rates									
CZK / EUR	*average*	**27.04**	**27.04**	**27.03**	**27.03**	**27.02**	**26.53**	**26.08**	**25.8**
	appreciation in %	2.2	1.3	0.2	0.1	0.1	1.9	3.6	4.8
CZK / USD	*average*	**24.54**	**23.94**	**24.20**	**25.07**	**25.38**	**24.07**	**22.19**	**22.4**
	appreciation in %	0.0	3.6	0.6	-1.4	-3.3	-0.5	9.1	11.7
NEER	*average of 2015=100*	**102.4**	**102.4**	**102.5**	**102.4**	**101.9**	**104.0**	**106**	**107**
	appreciation in %	3.3	5.5	1.5	1.2	-0.5	1.6	3.9	4.9
Real exchange rate to EA19 [1)]	*average of 2010=100*	**94.4**	**94.5**	**94.7**	**95.1**	**94.3**	**96.4**	**98**	**100**
	appreciation in %	2.6	1.5	0.8	0.5	-0.1	2.0	3.5	5.2
REER	*average of 2010=100*	**94.0**	**93.4**	**93.4**	**92.9**	**93.3**	**95.0**	**.**	**.**
(Eurostat, CPI deflated, 42 countries)	*appreciation in %*	3.7	4.0	1.1	1.1	-0.8	1.7	.	.

[1)] Deflated by GDP deflators.
Source: CNB, Eurostat. Calculations of the MoF.

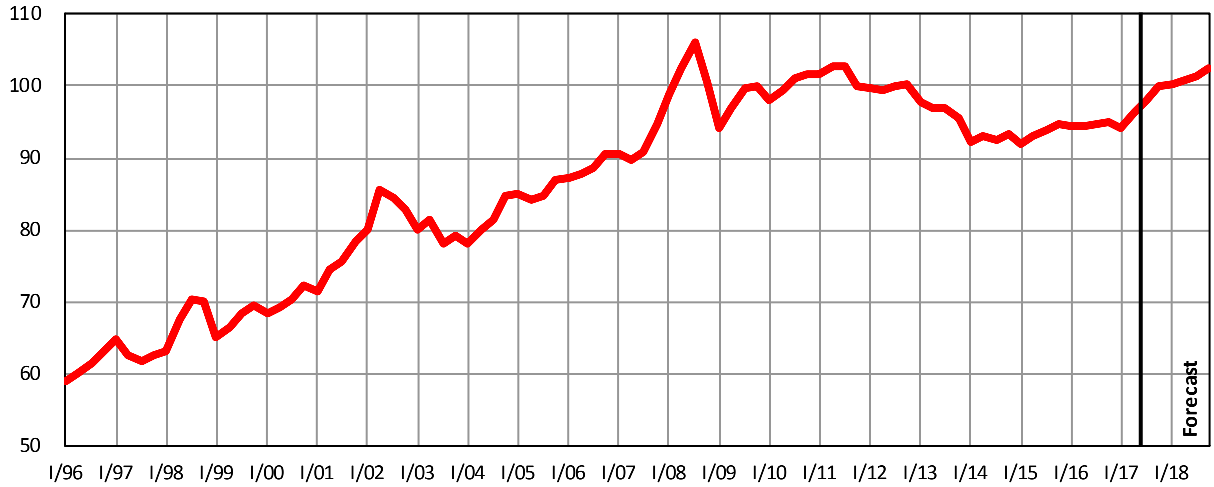
Graph 1.3.7: Nominal Exchange Rates
quarterly averages, average 2015=100 (rhs)



Source: CNB. Calculations of the MoF.

Graph 1.3.8: Real Exchange Rate to EA19

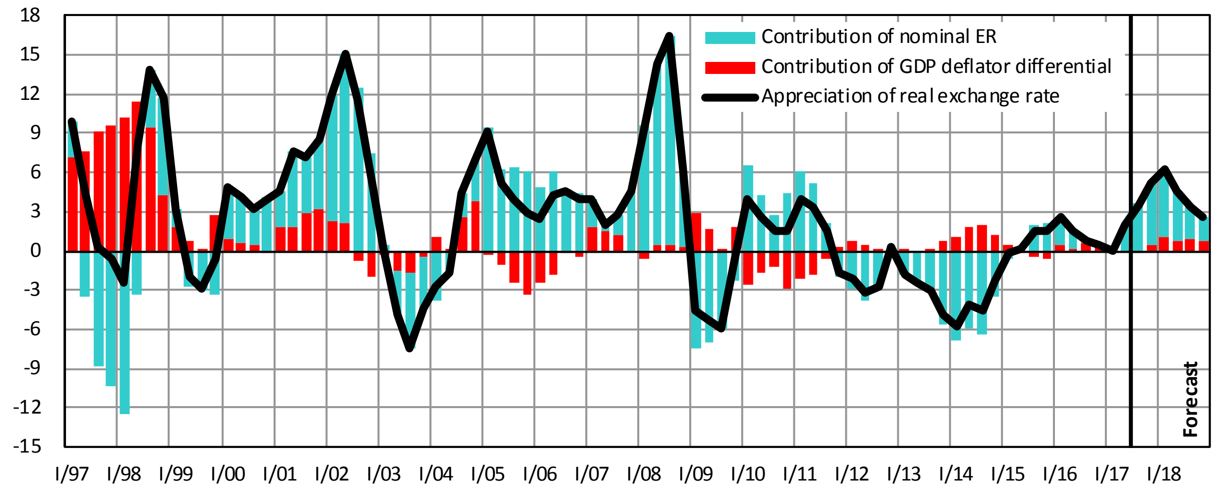
quarterly averages, deflated by GDP deflators, average 2010=100



Source: CNB, Eurostat. Calculations of the MoF.

Graph 1.3.9: Real Exchange Rate to EA19

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



Source: CNB, Eurostat. Calculations of the MoF.

1.4 Structural Policies

Elections to the Chamber of Deputies of the Parliament of the Czech Republic were held on 20 and 21 October 2017. Future changes in the area of structural policies will depend on the Programme Statement of the Government formed on the basis of election results.

1.4.1 Business Environment

The Government Regulation laying down the details related to the issuance of a long-term residence permit for investment purposes of 10 January 2017 allows issuance and extension of a long-term residence permit for the purposes of investing. However, the investment must amount to at least CZK 75 million and lead to the creation of at least 20 new jobs. The Regulation came into effect on 15 August 2017.

1.4.2 Taxes

On 19 September 2017, an **amendment to the Act on International Cooperation in Tax Administration** came into effect, which transposes a revised EU directive on cooperation in the area of taxes to the Czech legal system. In order to assess the correct allocation of the tax base, multinational companies with annual consolidated revenues exceeding EUR 750 million will be obliged to publish information about their financial situation in each country in which they operate.

1.4.3 Social and Health Care Systems

The **amendment to the Act on Social Security Contributions**, which will come into effect on 1 February 2018, introduces electronic sick leave certificates and increases sickness benefits for long-term patients by 6 pp to 66% of the reduced daily assessment base from the 31st day of the sickness leave and by 12 pp to 72% of the reduced daily assessment base from the 61st day of the sickness leave.

On 1 June 2018, an **amendment to the Sickness Insurance Act** will enter into effect, which will enable payers of sickness insurance contributions to take up to three months of paid nursing leave to care for seriously ill relatives. However, employers may refuse provision of such leave for serious operational reasons.

1.4.4 Labour Market

With effect from 1 January 2018, the **Government Regulation on Minimum Wage** of 21 August 2017 will increase the minimum wage to CZK 12,200 per month (a YoY increase of 10.9 %) and raise the lowest levels of guaranteed wage.

An **amendment to the Employment Act** entered into effect on 29 July 2017, which abolishes the possibility of job seekers to perform a non-colliding employment based on agreements to complete a job. The amendment also obliges recruitment agencies to make a deposit of CZK 500 thousand to ensure financial capacity of recruitment agencies and their contributory obligations to the state. The amendment also extends the maximum period for a subsidy on a socially purposeful job from one to two years; the aim is to extend the time job seekers remain in the labour market.

1.5 Demographic Trends

From a long-term perspective, the population of the Czech Republic has been increasing moderately. During the first half of 2017, the population grew by 9.2 thousand persons to 10.558 million; the entire increase was due to foreign migration.

The **positive migration balance** was 11.5 thous. persons, 1.2 thousand more than in the first half of 2016. While 22.6 thousand persons moved from abroad, 11.1 thousand left the Czech Republic. The highest net migration balance was recorded with citizens of Ukraine (2.6 thousand) and Slovakia (2.1 thousand).

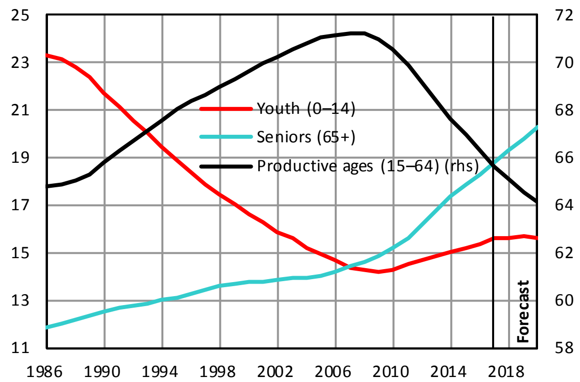
The Czech population's **natural decrease** was 2.3 thousand persons. There were 55.5 thousand children born alive, almost the same as in the first half of the previous year, when the number of new-borns was the highest in six years.

On the other hand, 57.8 thousand people died, i.e. by 3.5 thousand more than a year ago. The number of deaths in this period was the highest since 1996. Record high (in statistics available since 1992) was the number of deaths in January, 12.3 thousand, which was largely caused by influenza epidemic and low temperatures.

As far as the age structure of the population is concerned, the fastest growing age category is that of seniors over the age of 64; their number in the second quarter of 2017 increased by 50 thousand YoY. The number of children under the age of 14 increased by 23 thousand.

Graph 1.5.1: Age Groups

shares on total population, in %



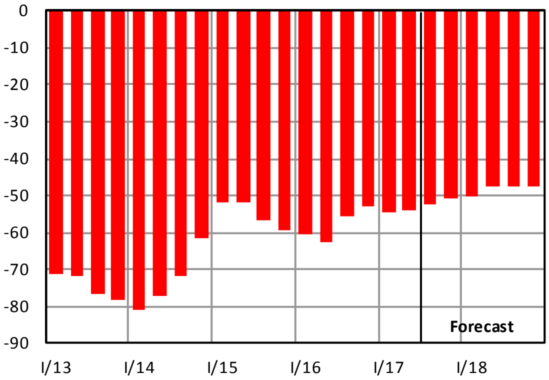
Source: CZSO. Calculations of the MoF.

A long-term trend is a gradual **decrease in the working-age population** (15–64 years). In the second quarter of 2017, the YoY decrease in this category was 54 thousand persons, which corresponds to 0.8% (see Graph 1.5.2). However, the development of its structure is not homogeneous. There has been a considerable increase in the number of citizens in the age group 40–54 years, by 57 thousand. People of this age group show the highest employment and participation rates, which fully eliminates, thus far, the impact on the size of the labour force of population ageing.

The growth in the number of **pensioners** is roughly in line with demographic development and the increasing statutory retirement age. As of 30 June 2017, a total of 2.396 million old-age pensioners were clients of the pension system, i.e. 22.6% of the Czech population. The YoY increase was 15 thousand persons, i.e. 0.6%. Virtually the entire increase takes place in the category of reduced old-age pensions (after early retirement), whereas the number of full pensions stagnates (see Graph 1.5.5).

Graph 1.5.2: Population Aged 15–64

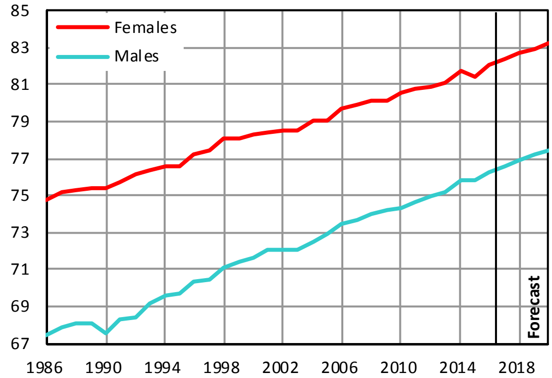
based on LFS, YoY increases of quarterly averages, in thousands



Source: CZSO. Calculations of the MoF.

Graph 1.5.3: Life Expectancy at Birth

in years



Source: CZSO.

Table 1.5.1: Demographics

in thousands of persons (unless stated otherwise)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
							Forecast	*Forecast*	*Outlook*	*Outlook*
Population (as of 1 January)	**10 487**	**10 505**	**10 516**	**10 512**	**10 538**	**10 554**	**10 579**	**10 593**	**10 606**	**10 618**
growth in %	-0.2	0.2	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.1
0–14 years	**1 522**	**1 541**	**1 560**	**1 577**	**1 601**	**1 624**	**1 647**	**1 654**	**1 660**	**1 659**
growth in %	1.8	1.3	1.2	1.1	1.5	1.4	1.5	0.4	0.3	0.0
15–64 years	**7 328**	**7 263**	**7 188**	**7 109**	**7 057**	**6 998**	**6 943**	**6 895**	**6 848**	**6 807**
growth in %	-1.2	-0.9	-1.0	-1.1	-0.7	-0.8	-0.8	-0.7	-0.7	-0.6
65 and more years	**1 637**	**1 701**	**1 768**	**1 826**	**1 880**	**1 932**	**1 989**	**2 043**	**2 098**	**2 152**
growth in %	2.4	3.9	3.9	3.3	3.0	2.8	2.9	2.7	2.7	2.5
Old-age pensioners (as of 1 January) [1]	**2 260**	**2 340**	**2 341**	**2 340**	**2 355**	**2 377**	**2 395**	**2 410**	**2 425**	**2 439**
growth in %	.	3.5	0.0	0.0	0.6	0.9	0.8	0.6	0.6	0.6
Old-age dependency ratios (as of 1 January, in %)										
Demographic [2]	**22.3**	**23.4**	**24.6**	**25.7**	**26.6**	**27.6**	**28.6**	**29.6**	**30.6**	**31.6**
Under current legislation [3]	**37.4**	**37.8**	**38.3**	**38.8**	**39.3**	**39.8**	**40.1**	**40.4**	**40.7**	**41.0**
Effective [4]	**45.9**	**47.9**	**47.6**	**47.2**	**46.9**	**46.8**	**46.2**	**46.0**	**46.3**	**46.3**
Fertility rate	**1.427**	**1.452**	**1.456**	**1.528**	**1.570**	**1.630**	**1.46**	**1.47**	**1.47**	**1.48**
Population increase	**19**	**11**	**-4**	**26**	**16**	**25**	**14**	**13**	**12**	**10**
Natural increase	**2**	**0**	**-2**	**4**	**0**	**5**	**-5**	**-6**	**-8**	**-9**
Live births	109	109	107	110	111	113	99	98	96	95
Deaths	107	108	109	106	111	108	105	104	104	104
Net migration	**17**	**10**	**-1**	**22**	**16**	**20**	**19**	**19**	**20**	**20**
Immigration	23	30	30	42	35	38	.	.	.	.
Emigration	6	20	31	20	19	17	.	.	.	.

[1] *In 2010 disability pensions of pensioners over 64 were transferred into old-age pensions.*

[2] *Demographic dependency: ratio of people in senior ages (65 and more) to people in productive age (15–64).*

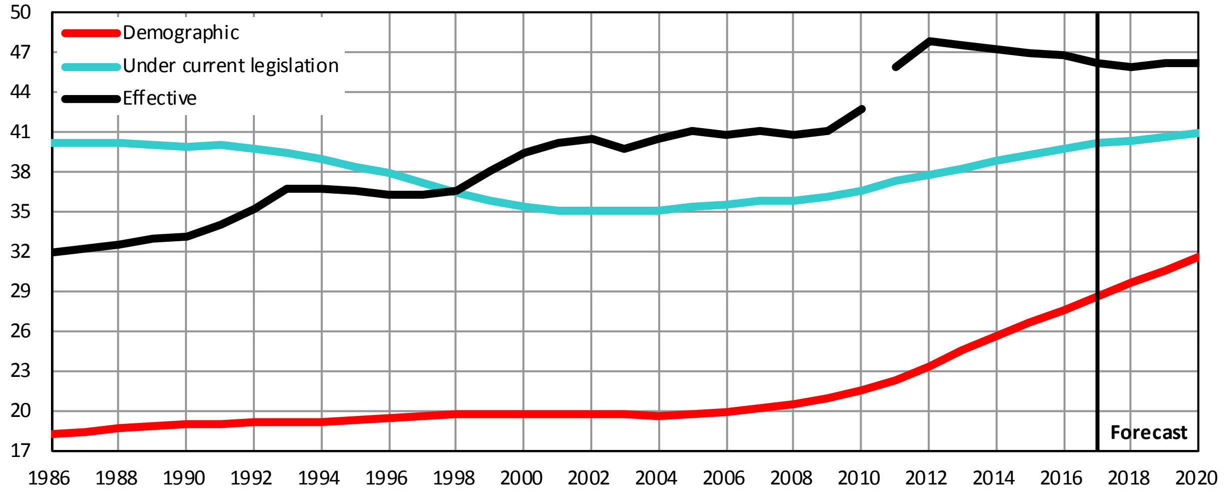
[3] *Dependency under current legislation: ratio of people above the official retirement age to the people over 19 below the official retirement age.*

[4] *Effective dependency: ratio of old-age pensioners to working people (LFS methodology).*

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

Graph 1.5.4: Dependency Ratios

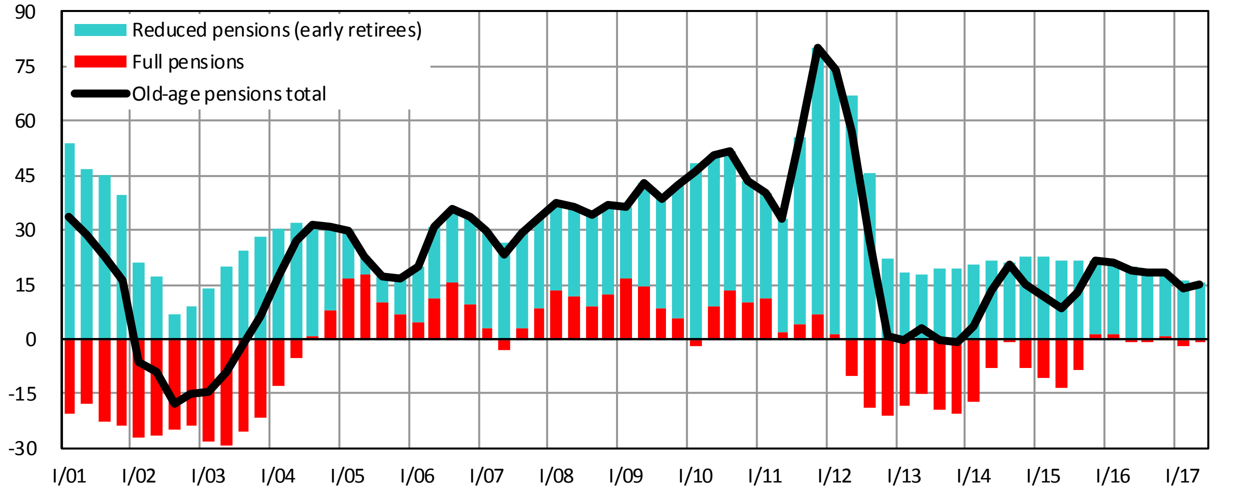
As of January 1, in %, inconsistent between 2010 and 2011 due to transfer of disability pensions to old-age pensions for people over 64 years



Source: CZSO. Calculations of the MoF.

Graph 1.5.5: 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

Record-breaking economic growth in the second quarter of 2017 led to a significant widening of the **positive output gap** to 2.3% of potential product (see Graph 2.1.1), the highest value since the third quarter of 2008. Given the forecast for economic growth and assumed developments of potential product, the output gap should be above 2% also in the period to come.

The **situation in the labour market**, which shows certain signs of overheating (see Chapter 3.3), confirms the existence of a positive output gap. The unemployment rate (LFS) reached a record low in the history of the Czech Republic and continues to decline. The number of job vacancies (according to the data of the Ministry of Labour and Social Affairs) still grows dynamically, exceeding by more than 50 thousand the highs from the peak of the previous cycle in 2008. In some professions and regions it is very difficult to find employees, whose lack may become an obstacle to higher economic growth. An **acceleration of inflation**, driven by both demand and supply factors, also corresponds to the positive output gap.

The YoY growth in **potential product** has been accelerating since 2014 and reached 2.7% in the second quarter of 2017. That is a better result compared to the long-run average growth of gross value added (and also of potential product) of 2.5%.

The main driver of potential growth and its acceleration is **total factor productivity**. The contribution of its trend component, derived from the Hodrick-Prescott filter, was 2.1 pp in the second quarter of 2017.

Labour supply is being affected by a long-lasting decrease in the working-age population (15–64 years), resulting from the population ageing process (see Chapter 1.5). Since the end of 2014, **demographic development** has slowed potential product growth by 0.4 pp annually.

However, the negative impact of population ageing on the labour supply is completely eliminated by **increasing participation rate** (the ratio of labour force and the population aged 15–64). Structural factors – in particular, an increase in the number of inhabitants in age groups with naturally high participation (for more information see Chapter 1.5) and an increase in the statutory and effective retirement age as well as a wider offer of jobs are predominating here. In the second quarter of 2017, the contribution of the participation rate to potential product growth reached 0.7 pp.

The 2015 investment wave, supported by efforts for maximum possible utilization of allocation of EU funds, has led to an increase in the contribution of **capital stock** from 0.3 pp at the turn of 2013 and 2014 to 0.6 pp in the fourth quarter of 2015. In 2016 and in the first half of 2017 there was a correction of the contribution of capital stock to 0.5 pp.

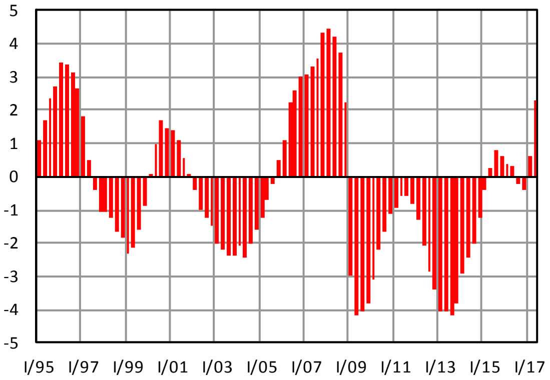
From a long-run perspective, the regular **average working time** is shortening in the Czech Republic, bringing the CR closer to developed economies. However, the intensity of this factor's effect is decreasing with the high demand for labour. In the second quarter of 2017, the contribution of the number of hours usually worked was only −0.2 pp versus −0.4 pp at the end of the recession in the first quarter of 2013.

Table 2.1.1: Output Gap and Potential Product

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 H1
Output gap	*%*	3.7	-3.7	-2.0	-0.7	-2.4	-4.0	-2.1	0.3	0.0	1.5
Potential product [1]	*growth in %*	3.3	2.0	0.8	0.7	1.0	1.2	1.4	2.2	2.7	2.7
Contributions											
Trend TFP	*pp*	1.9	1.1	0.6	0.4	0.4	0.7	1.2	1.7	2.0	2.1
Fixed assets	*pp*	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.5	0.6	0.5
Demography [2]	*pp*	0.3	0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4
Participation rate	*pp*	0.0	0.3	0.1	0.3	0.8	1.0	0.5	0.5	0.7	0.7
Usually worked hours	*pp*	-0.1	-0.3	-0.3	-0.2	-0.3	-0.3	-0.2	-0.1	-0.1	-0.2

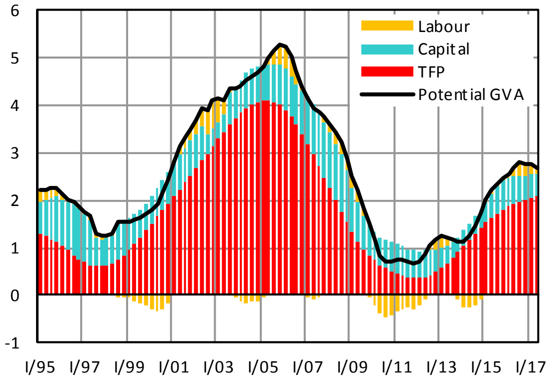
1) Based on gross value added.
2) Contribution of growth of working-age population (15–64 years).
Source: CZSO. Calculations of the MoF.

Graph 2.1.1: Output Gap
in % of potential product



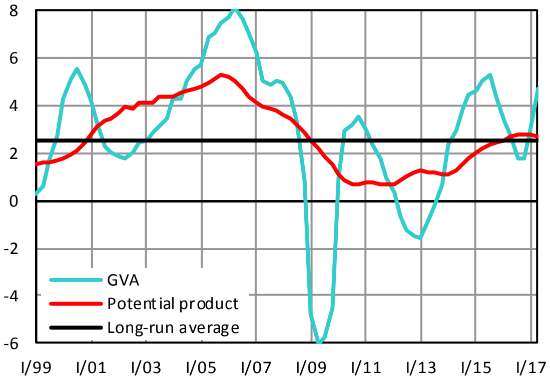
Source: CZSO. Calculations of the MoF.

Graph 2.1.2: Potential Product
YoY growth rate in %, contributions in percentage points



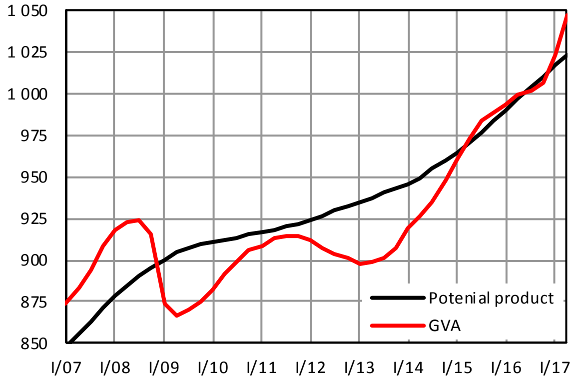
Source: CZSO. Calculations of the MoF.

Graph 2.1.3: Potential Product and GVA
YoY growth rate, in %



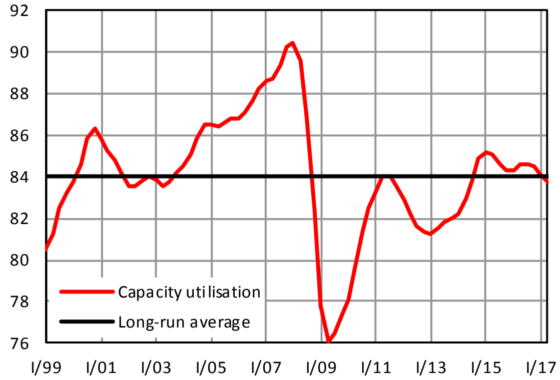
Note: Long-run average growth of potential GVA.
Source: CZSO. Calculations of the MoF.

Graph 2.1.4: Levels of Potential Product and GVA
in bill. CZK of 2010



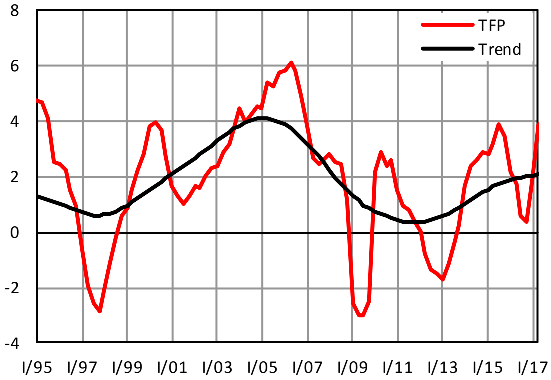
Source: CZSO. Calculations of the MoF.

Graph 2.1.5: Capacity Utilisation in Industry
smoothed by Hodrick-Prescott filter, in %



Source: CZSO.

Graph 2.1.6: Total Factor Productivity
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

2.2 Business Cycle Indicators

The industrial confidence indicator increased in the third quarter of 2017, which suggests that high YoY dynamics of GVA in industry is likely to be sustained.

In construction, the confidence indicator rose again in the third quarter of 2017. This indicates a continued recovery of GVA in this sector, which was strongly influenced by a lower volume of investment from EU funds in 2016. However, we cannot omit here the fact that the correlation between the development of confidence and GVA in construction is very low, as is apparent from Graph 2.2.2.

Confidence in trade and services continued to grow in the third quarter of 2017, pointing to an ongoing acceleration of YoY growth in GVA in this sector.

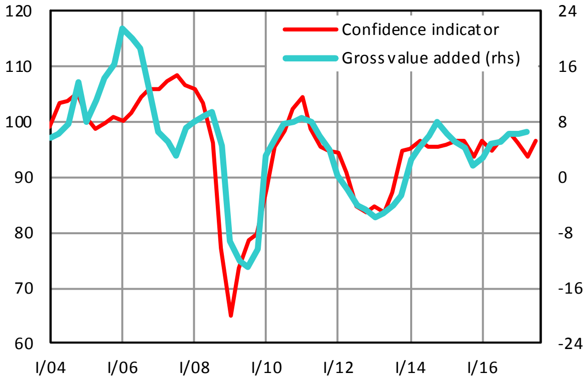
The consumer confidence indicators remained virtually unchanged in the third quarter of 2017 in comparison with the previous period, thus maintaining a high level, which signals a strong growth dynamics of household consumption in the second half of 2017. This conclusion results from the fact that the development of the consumer confidence indicator leads household consumption by 1–2 quarters.

Thanks to the strengthening of most of its components, the composite confidence indicator signals acceleration in YoY growth of gross value added in the third quarter of 2017.

The composite leading indicator captured the growth in the positive output gap in the first half of 2017, which should peak in the second quarter of 2017. On the contrary, there is an indication of a clear closing of the output gap in the third quarter 2017 and its stabilization at the end of this year.

Graph 2.2.1: Confidence and GVA in Industry

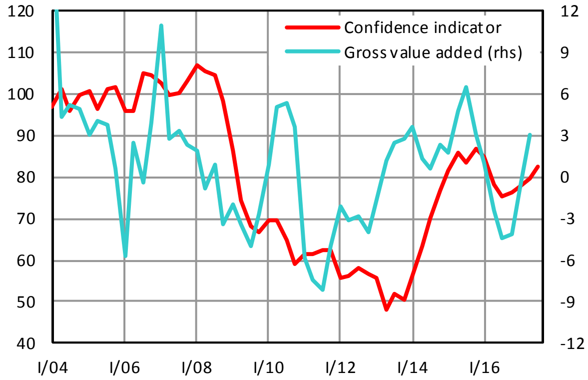
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

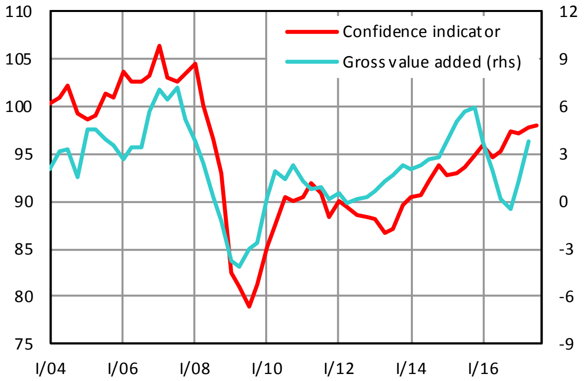
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

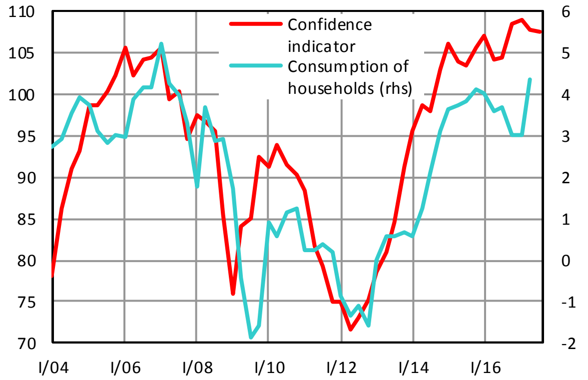
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Consumer Confidence and Consumption

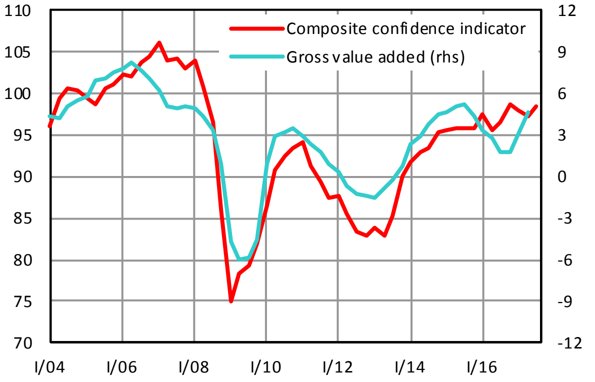
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.5: Composite Confidence Indicator and GVA

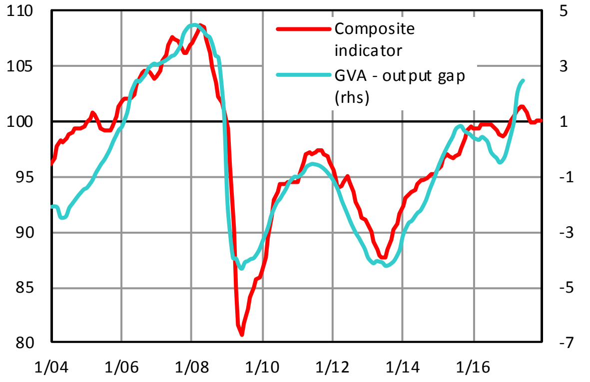
2005=100 (lhs), YoY growth in % (rhs)



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 the Development of Macroeconomic Indicators

3.1 Economic Output

3.1.1 GDP in the Second Quarter of 2017

Economic performance, measured by real GDP, grew by 3.4% YoY (*versus 1.8%*) in the second quarter of 2017. Seasonally adjusted GDP increased by record 2.5% QoQ (*versus 0.9%*). The QoQ growth was driven by the majority of sectors, mostly by manufacturing and trade, transportation, accommodation and food service. In comparison with the second quarter of 2016, the second quarter of 2017 had 4 working days fewer, which influenced mostly foreign trade.

The YoY increase in GDP in the second quarter of 2017 reflected the growing foreign and, most importantly, domestic demand. The main growth driver was final consumption expenditure of households. A positive contribution of the gross fixed capital formation to the GDP growth was mitigated by the drop in inventories. The growth rate of exports and imports has decreased considerably as a result of calendar effects; however, the balance of foreign trade in goods and services significantly supported the growth dynamics of GDP.

The increase in household consumption was due to rising disposable income and high consumer confidence. Households' final consumption expenditures were also supported by a YoY decrease in the savings rate. Expenditures on semi-durable and durable goods were the most dynamically growing component of household consumption, which suggests optimism of households regarding the future developments of the economy. Expenditures on services and non-durables, which are less sensitive to economic fluctuations, also contributed to the growth of total household consumption. Household consumption increased by 3.8% (*versus 2.3%*) in real terms. Consumption of the general government sector rose by 1.8% (*versus 2.0%*).

After the decline in the last year, the gross fixed capital formation increased by 5.2% (*versus 0.4 %*). All categories that are significant in volume terms contributed to the growth, but mostly investment in information and communication technologies and other machinery and equipment. There was also a pick-up in non-residential construction, which had been affected in the previous periods by a slump in the general government sector investment co-financed from EU funds in connection with the transition to the 2014–2020 financial perspective. From the sectoral point of view, the gross fixed capital formation growth was due to restored growth in investment activity of the general government sector and, in particular, continued growth in private investment (see Graph 3.1.8). Considering the significantly negative contribution of change in inventories, the gross capital formation increased less than investment in fixed capital, only by 1.0% (*versus 0.7%*).

Amid a slowdown of exports of both components, the YoY growth of exports of goods and services decreased by 3.5 pp to 3.9% (*versus 3.3%*) compared to the previous quarter. Imports of goods and services increased by 2.9% (*versus 3.3 %*), as its dynamics reflected mainly a significant export slowdown. After adjustment for the effect of the different numbers of working days (see above), however, the YoY growth in both exports and imports accelerated. Exports accelerated significantly due to export market growth and increased export performance, which together with the recovery of import-intensive investment demand supported import growth.

A higher decrease in import prices compared to export prices resulted in a deterioration of the terms of trade by 1.7% (*versus 0.3%*). The trading loss resulting from foreign trade brought about a situation where real gross domestic income, which unlike GDP includes this factor, increased by 2.0% YoY (*versus 1.6%*).

The gross operating surplus decreased by 0.3% (*versus an increase of 2.0%*) due to high YoY growth in compensation of employees of 8.6% (*versus 6.3%*) and the balance of taxes and subsidies of 12.5% (*versus a decrease of 0.3%*). As a result, nominal GDP recorded growth of 4.4% (*versus 3.5%*).

3.1.2 Estimate for the Third Quarter of 2017

We estimate that real GDP increased by 4.5% YoY (*versus 3.1%*) and by 0.3% QoQ (*versus 0.5%*) in the third quarter of 2017. The sustained high YoY GDP dynamics reflects the strong growth of economic activity in the first half of 2017 and data on the development of the economy in the third quarter available as of the cut-off date of the Forecast (industrial and construction production, sales in retail and services, confidence indicators). However, QoQ GDP growth should be significantly slower compared to the previous quarters.

We believe that GDP growth was solely due to the growth in domestic demand. Due to rising disposable income, high consumer confidence and declining savings rate the final consumption expenditures of households could have increased by 3.8% (*versus 2.8%*), while consumption of the general government sector could have risen by 1.6% (*versus 1.4%*). Gross capital formation increased, according to our estimates, by 8.6% (*versus 3.8%*) due to growth in investment in fixed capital and a positive contribution of change in inventories.

Foreign trade was probably neutral with respect to GDP dynamics, mainly due to acceleration of import-intensive investment demand. We estimate that exports of goods and services increased, mainly due to continued export market growth and export performance, by 5.9% (*versus 6.2%*) and imports rose by 6.5% (*versus 6.0%*) based on the developments of domestic demand and exports.

3.1.3 Forecast for the Years 2017 and 2018

In 2017, economic growth should be driven mainly by domestic demand led by final consumption expenditures of households, investment activity of firms and restored investment of the general government sector. The GDP growth should also be strengthened by consumption of the general government sector and foreign trade. We expect real GDP to grow by 4.1% (*versus 3.1%*) in 2017 and by 3.3% (*versus 2.9%*) in 2018.

Household consumption will be supported by growing real disposable income and declining savings rate. This year the development of household consumption should positively reflect also the dynamics of consumer loans and consumers' optimistic expectations (see Chapter 2.2). Household consumption could thus increase by 3.9% (*versus 2.9%*) in 2017. Taking into account the expected wage and salary dynamics and legislative changes that will increase households' disposable income, we forecast household consumption to grow by 3.5% (*versus 3.1%*) in 2018.

We expect consumption of the general government sector to increase by 1.9% (*unchanged*) in 2017 and by 1.7% in 2018 (*unchanged*). The main driver of the general government sector consumption growth in 2017 will be an increase in compensation of employees, partially related to the planned creation of up to 7.5 thousand new jobs (in particular in the regional school system and the military). The growth will be supported also by increased purchases of goods and services.

Growth in gross fixed capital formation in 2017 will be driven not only by private investment activity but also by investments of the general government sector. Private investments are stimulated by the growth of gross operating surplus, relaxed monetary conditions reflected in the growth of loans to non-financial corporations (see Chapter 1.3), and slightly above-average capacity utilization in manufacturing. Also, the increasing lack of employees could motivate businesses to invest in order to increase labour productivity. Conversely, negative risks in the external environment could hamper private investments. In the case of the general government sector investment, we expect growth in investment expenditures financed from national resources to be stable in both these years. Investment activity in 2017 and 2018 should be supported by a gradual start of projects co-funded by EU funds from the 2014–2020 financial perspective. The gross fixed capital formation could thus increase by 6.2% in 2017 (*versus 3.8%*) and by 4.1% in 2018 (*versus 3.5%*) with a positive contribution of government and especially private investment.

The contribution of change in inventories to GDP growth should be negative in 2017 and zero in 2018. In 2017 we thus expect an increase in the total gross capital formation of 4.1% (*versus 3.1%*); in 2018 the growth should reach 3.8% (*versus 3.3%*).

We expect that exports of goods and services will grow by 5.8% (*versus 5.5%*) in 2017 and by 5.7% (*versus 5.2%*) in 2018. Higher growth dynamics compared to 2016 mainly reflect the expected acceleration of the growth of export markets (see Chapter 3.4). On the side of imports of goods and services, we expect an influence of faster growth of exports and gross domestic expenditure, and in that context mainly the import-intensive investment demand. Hence, imports will probably grow by 5.2% (*versus 5.3%*) in 2017 and by 5.7% (*versus 5.4%*) in 2018.

Table 3.1.1: Real GDP by Type of Expenditure – yearly

chained volumes, reference year 2010

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK 2010*	4 033	4 001	3 981	4 089	4 307	4 418	4 601	4 754	4 880	4 995
	growth in %	**1.8**	**-0.8**	**-0.5**	**2.7**	**5.3**	**2.6**	**4.1**	**3.3**	**2.6**	**2.4**
Private consumption expenditure [1)]	*bill. CZK 2010*	1 945	1 921	1 931	1 966	2 038	2 112	2 193	2 270	2 329	2 380
	growth in %	**0.3**	**-1.2**	**0.5**	**1.8**	**3.7**	**3.6**	**3.9**	**3.5**	**2.6**	**2.2**
Government consumption exp.	*bill. CZK 2010*	799	783	803	812	827	844	860	874	887	899
	growth in %	**-3.2**	**-2.0**	**2.5**	**1.1**	**1.9**	**2.0**	**1.9**	**1.7**	**1.4**	**1.4**
Gross capital formation	*bill. CZK 2010*	1 094	1 051	997	1 083	1 223	1 195	1 244	1 291	1 332	1 371
	growth in %	**1.8**	**-3.9**	**-5.1**	**8.6**	**13.0**	**-2.3**	**4.1**	**3.8**	**3.2**	**2.9**
Gross fixed capital formation	*bill. CZK 2010*	1 075	1 042	1 016	1 056	1 164	1 137	1 207	1 256	1 299	1 339
	growth in %	**0.9**	**-3.1**	**-2.5**	**3.9**	**10.2**	**-2.3**	**6.2**	**4.1**	**3.4**	**3.0**
Change in stocks and valuables	*bill. CZK 2010*	18	9	-19	26	59	58	36	35	33	33
Exports of goods and services	*bill. CZK 2010*	2 856	2 978	2 984	3 242	3 437	3 593	3 802	4 017	4 215	4 413
	growth in %	**9.2**	**4.3**	**0.2**	**8.7**	**6.0**	**4.5**	**5.8**	**5.7**	**4.9**	**4.7**
Imports of goods and services	*bill. CZK 2010*	2 661	2 732	2 734	3 008	3 212	3 320	3 493	3 693	3 878	4 062
	growth in %	**6.7**	**2.7**	**0.1**	**10.1**	**6.8**	**3.4**	**5.2**	**5.7**	**5.0**	**4.7**
Gross domestic expenditure	*bill. CZK 2010*	3 838	3 756	3 733	3 860	4 087	4 150	4 296	4 434	4 546	4 647
	growth in %	**-0.1**	**-2.1**	**-0.6**	**3.4**	**5.9**	**1.5**	**3.5**	**3.2**	**2.5**	**2.2**
Methodological discrepancy [2)]	*bill. CZK 2010*	0	-1	-1	-4	-7	-5	-6	-6	-6	-6
Real gross domestic income	*bill. CZK 2010*	3 990	3 942	3 956	4 112	4 344	4 493	4 638	4 790	4 926	5 052
	growth in %	**0.7**	**-1.2**	**0.4**	**3.9**	**5.6**	**3.4**	**3.2**	**3.3**	**2.8**	**2.6**
Contributions to GDP growth [3)]											
Gross domestic expenditure	*pp*	**-0.1**	**-2.1**	**-0.6**	**3.2**	**5.5**	**1.4**	**3.3**	**3.0**	**2.3**	**2.1**
Consumption	*pp*	**-0.5**	**-1.0**	**0.8**	**1.1**	**2.2**	**2.1**	**2.2**	**2.0**	**1.5**	**1.3**
Household expenditure	*pp*	**0.1**	**-0.6**	**0.3**	**0.9**	**1.8**	**1.7**	**1.8**	**1.7**	**1.2**	**1.0**
Government expenditure	*pp*	**-0.7**	**-0.4**	**0.5**	**0.2**	**0.4**	**0.4**	**0.4**	**0.3**	**0.3**	**0.3**
Gross capital formation	*pp*	**0.5**	**-1.1**	**-1.3**	**2.1**	**3.4**	**-0.6**	**1.1**	**1.0**	**0.8**	**0.8**
Gross fixed capital formation	*pp*	**0.2**	**-0.8**	**-0.6**	**1.0**	**2.6**	**-0.6**	**1.5**	**1.0**	**0.9**	**0.8**
Change in stocks	*pp*	**0.3**	**-0.2**	**-0.7**	**1.1**	**0.8**	**0.0**	**-0.5**	**0.0**	**0.0**	**0.0**
Foreign balance	*pp*	**1.8**	**1.3**	**0.1**	**-0.5**	**-0.2**	**1.2**	**0.9**	**0.3**	**0.3**	**0.3**
External balance of goods	*pp*	**2.0**	**1.4**	**0.1**	**-0.1**	**-1.1**	**0.8**	**0.8**	**0.2**	**0.2**	**0.2**
External balance of services	*pp*	**-0.2**	**-0.1**	**0.0**	**-0.4**	**0.9**	**0.4**	**0.1**	**0.1**	**0.1**	**0.1**
Gross value added	*bill. CZK 2010*	3 655	3 624	3 606	3 729	3 905	4 004	.	.	.	.
	growth in %	**2.0**	**-0.8**	**-0.5**	**3.4**	**4.7**	**2.5**	**.**	**.**	**.**	**.**
Net taxes and subsidies on products	*bill. CZK 2010*	378	376	375	363	402	415	.	.	.	.

[1)] The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.
[2)] Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.
[3)] 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

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Prelim.	*Prelim.*	*Estimate*	*Forecast*
Gross domestic product	*bill. CZK 2010*	1 032	1 127	1 119	1 140	1 073	1 165	1 169	1 193
	growth in %	**3.2**	**4.0**	**1.6**	**1.7**	**4.0**	**3.4**	**4.5**	**4.7**
	growth in % [1]	**3.5**	**2.8**	**1.8**	**1.8**	**3.0**	**4.7**	**4.8**	**4.7**
	QoQ in % [1]	**0.3**	**0.8**	**0.2**	**0.4**	**1.5**	**2.5**	**0.3**	**0.4**
Private consumption expenditure [2]	*bill. CZK 2010*	501	527	534	549	520	548	555	572
	growth in %	**3.8**	**4.1**	**3.5**	**3.0**	**3.7**	**3.8**	**3.8**	**4.1**
Government consumption exp.	*bill. CZK 2010*	195	207	206	236	201	210	209	240
	growth in %	**2.2**	**2.8**	**1.9**	**1.2**	**2.8**	**1.8**	**1.6**	**1.5**
Gross capital formation	*bill. CZK 2010*	253	311	328	303	247	314	356	326
	growth in %	**2.5**	**-3.1**	**-4.1**	**-3.2**	**-2.2**	**1.0**	**8.6**	**7.6**
Gross fixed capital formation	*bill. CZK 2010*	255	274	291	318	261	288	314	345
	growth in %	**0.4**	**-2.5**	**-3.5**	**-3.1**	**2.4**	**5.2**	**8.0**	**8.4**
Change in stocks and valuables	*bill. CZK 2010*	-2	38	37	-15	-13	27	42	-19
Exports of goods and services	*bill. CZK 2010*	889	933	854	917	955	969	905	973
	growth in %	**6.0**	**8.3**	**1.8**	**2.2**	**7.4**	**3.9**	**5.9**	**6.1**
Imports of goods and services	*bill. CZK 2010*	806	850	800	863	849	875	853	916
	growth in %	**6.0**	**5.7**	**0.8**	**1.1**	**5.3**	**2.9**	**6.5**	**6.1**
Gross domestic expenditure	*bill. CZK 2010*	949	1 045	1 068	1 088	968	1 072	1 119	1 137
	growth in %	**3.1**	**1.7**	**0.8**	**0.8**	**2.0**	**2.6**	**4.8**	**4.5**
Methodological discrepancy [3]	*bill. CZK 2010*	0	-1	-2	-2	0	-2	-3	-1
Real gross domestic income	*bill. CZK 2010*	1 055	1 149	1 139	1 150	1 079	1 172	1 184	1 202
	growth in %	**4.4**	**5.3**	**2.5**	**1.6**	**2.3**	**2.0**	**4.0**	**4.6**
Gross value added	*bill. CZK 2010*	941	1 023	1 012	1 029	980	1 056	.	.
	growth in %	**3.1**	**4.1**	**1.4**	**1.7**	**4.1**	**3.3**	**.**	**.**
	growth in % [1]	**3.4**	**2.8**	**1.8**	**1.8**	**3.0**	**4.7**	**.**	**.**
	QoQ in % [1]	**0.4**	**0.7**	**0.2**	**0.5**	**1.6**	**2.3**	**.**	**.**
Net taxes and subsidies on products	*bill. CZK 2010*	92	104	108	111	94	109	.	.

[1] *From seasonally and working day adjusted data*

[2] *The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.*

[3] *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

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK*	**4 034**	**4 060**	**4 098**	**4 314**	**4 596**	**4 773**	**5 024**	**5 299**	**5 547**	**5 790**
	growth in %	1.8	0.6	0.9	5.3	6.5	3.9	5.3	5.5	4.7	4.4
Private consumption expenditure [1)]	*bill. CZK*	**1 979**	**1 998**	**2 025**	**2 074**	**2 152**	**2 242**	**2 383**	**2 527**	**2 644**	**2 751**
	growth in %	2.0	1.0	1.4	2.4	3.8	4.2	6.3	6.0	4.6	4.0
Government consumption exp.	*bill. CZK*	**813**	**804**	**826**	**849**	**883**	**917**	**958**	**1 006**	**1 036**	**1 068**
	growth in %	-1.5	-1.1	2.7	2.8	4.0	3.9	4.5	4.9	3.0	3.0
Gross capital formation	*bill. CZK*	**1 087**	**1 063**	**1 011**	**1 116**	**1 285**	**1 257**	**1 325**	**1 398**	**1 470**	**1 542**
	growth in %	1.2	-2.2	-4.9	10.4	15.1	-2.1	5.4	5.5	5.2	4.9
Gross fixed capital formation	*bill. CZK*	**1 067**	**1 052**	**1 027**	**1 084**	**1 216**	**1 192**	**1 283**	**1 359**	**1 433**	**1 507**
	growth in %	0.1	-1.4	-2.4	5.5	12.2	-2.0	7.7	5.9	5.5	5.1
Change in stocks and valuables	*bill. CZK*	**20**	**11**	**-16**	**32**	**68**	**66**	**42**	**39**	**37**	**35**
External balance	*bill. CZK*	**154**	**195**	**236**	**275**	**276**	**357**	**357**	**369**	**397**	**430**
Exports of goods and services	*bill. CZK*	**2 876**	**3 092**	**3 150**	**3 561**	**3 725**	**3 797**	**4 001**	**4 179**	**4 417**	**4 689**
	growth in %	9.9	7.5	1.9	13.0	4.6	1.9	5.4	4.5	5.7	6.2
Imports of goods and services	*bill. CZK*	**2 722**	**2 897**	**2 914**	**3 286**	**3 449**	**3 439**	**3 643**	**3 810**	**4 020**	**4 260**
	growth in %	9.1	6.5	0.6	12.8	5.0	-0.3	5.9	4.6	5.5	6.0
Gross national income	*bill. CZK*	**3 728**	**3 808**	**3 854**	**4 022**	**4 285**	**4 468**	**4 699**	**4 961**	**5 197**	**5 431**
	growth in %	1.6	2.1	1.2	4.4	6.5	4.3	5.2	5.6	4.8	4.5
Primary income balance	*bill. CZK*	**-305**	**-252**	**-245**	**-292**	**-310**	**-305**	**-325**	**-338**	**-350**	**-360**

[1)] *The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.*
Source: CZSO. Calculations of the MoF.

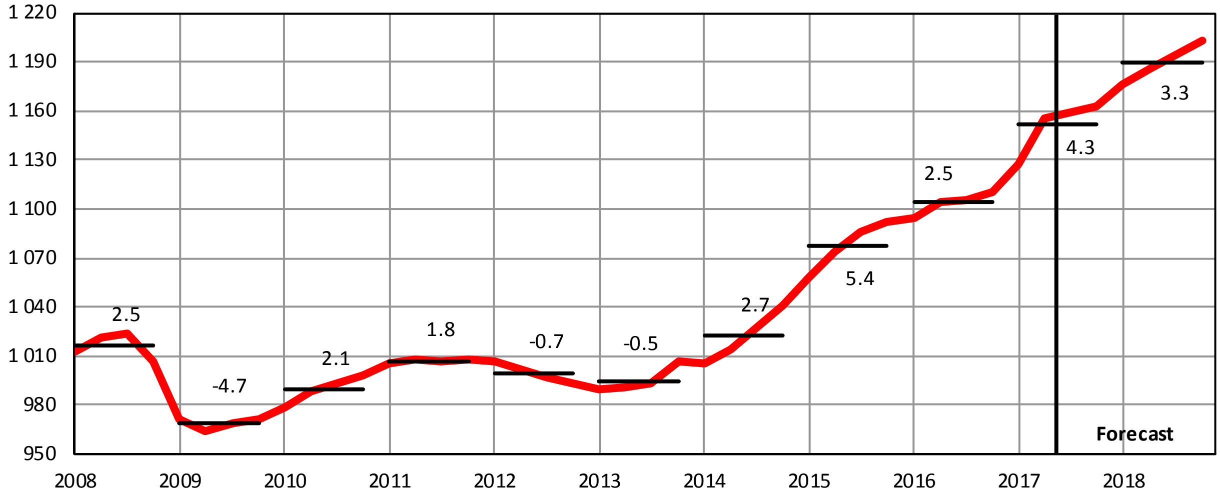
Table 3.1.4: Nominal GDP by Type of Expenditure – quarterly

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Prelim.	*Prelim.*	*Estimate*	*Forecast*
Gross domestic product	*bill. CZK*	**1 109**	**1 214**	**1 210**	**1 241**	**1 160**	**1 267**	**1 277**	**1 320**
	growth in %	4.8	5.1	2.9	2.8	4.6	4.4	5.6	6.4
Private consumption expenditure [1]	*bill. CZK*	**528**	**558**	**569**	**587**	**560**	**592**	**605**	**626**
	growth in %	3.9	4.1	4.3	4.4	6.2	6.1	6.4	6.6
Government consumption exp.	*bill. CZK*	**205**	**222**	**222**	**268**	**217**	**234**	**229**	**279**
	growth in %	4.4	4.3	3.2	3.7	5.4	5.3	3.3	4.1
Gross capital formation	*bill. CZK*	**267**	**326**	**344**	**320**	**264**	**336**	**376**	**348**
	growth in %	3.3	-3.6	-4.1	-2.7	-0.9	3.1	9.3	8.8
Gross fixed capital formation	*bill. CZK*	**267**	**286**	**305**	**334**	**278**	**306**	**333**	**366**
	growth in %	0.9	-2.7	-3.2	-2.6	4.2	6.9	9.2	9.8
Change in stocks and valuables	*bill. CZK*	**0**	**40**	**39**	**-13**	**-14**	**30**	**44**	**-18**
External balance	*bill. CZK*	**109**	**108**	**74**	**66**	**118**	**105**	**66**	**67**
Exports of goods and services	*bill. CZK*	**938**	**983**	**902**	**973**	**1 022**	**1 024**	**941**	**1 014**
	growth in %	2.1	4.4	-0.2	1.4	8.9	4.2	4.3	4.1
Imports of goods and services	*bill. CZK*	**829**	**875**	**828**	**908**	**904**	**919**	**874**	**946**
	growth in %	0.7	0.2	-2.5	0.5	9.0	5.0	5.6	4.3

[1)] *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)

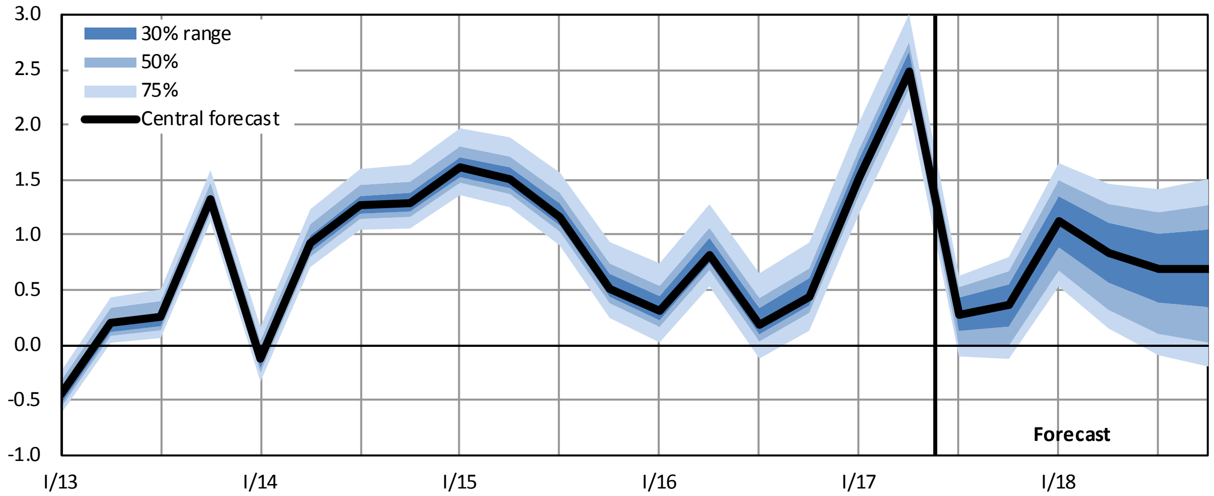
bill. CZK in const. prices of 2010, seasonally adjusted, black lines with labels show the average level and growth rate in the given year



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: Gross Domestic Product (real)

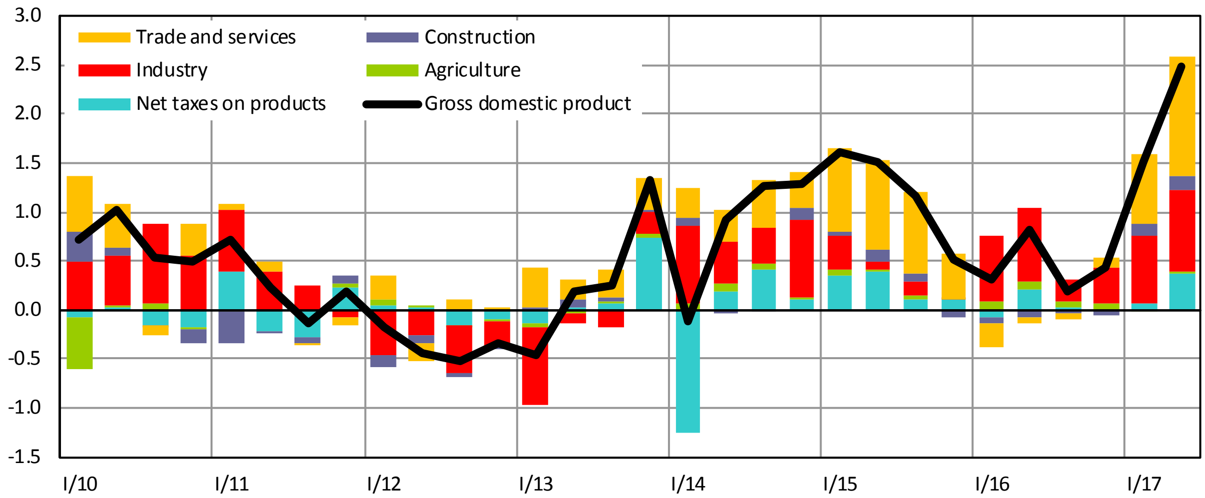
QoQ growth rate, in %, seasonally adjusted, past probability distribution reflects the actual distribution of data revisions, future probability distribution is based upon the MoF's forecasting performance



Source: CZSO. Calculations of the MoF.

Graph 3.1.3: Resources of Gross Domestic Product

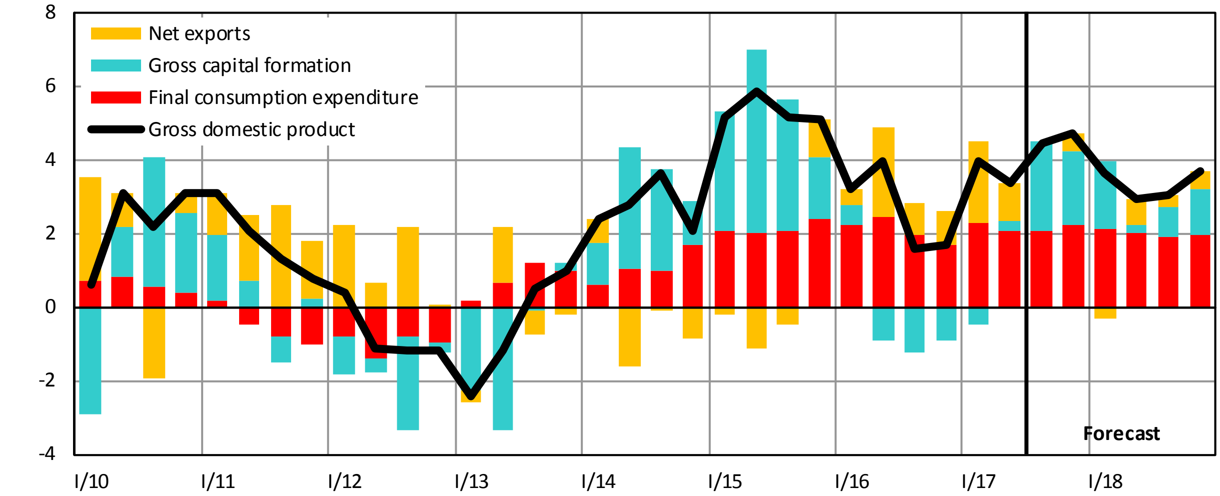
QoQ real growth rate of GDP in %, contributions of individual components in percentage points, seasonally adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.4: Gross Domestic Product by Type of Expenditure

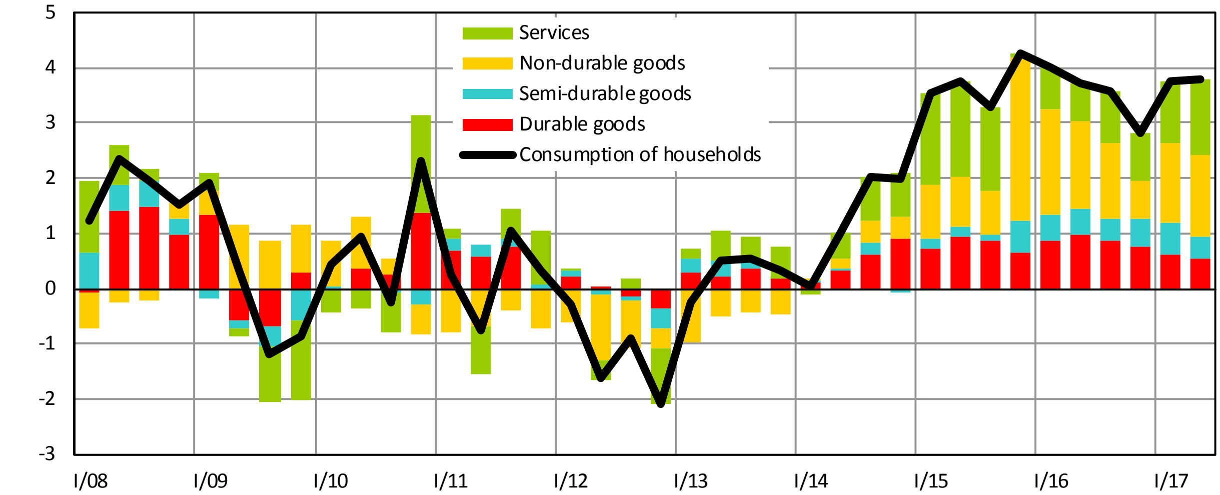
YoY real growth rate of GDP in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Consumption of Households

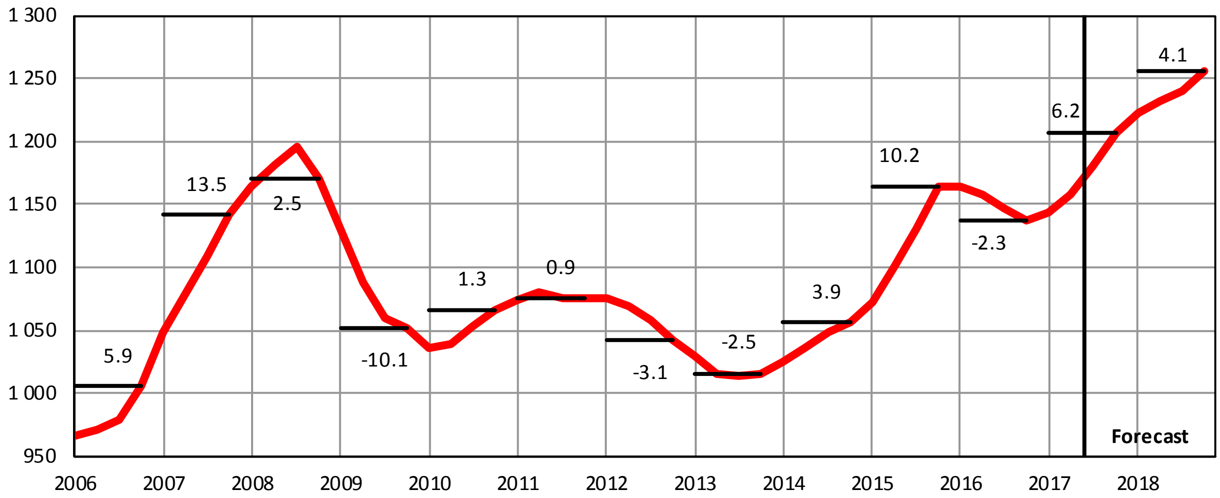
consumption of households in domestic concept, YoY real growth rate in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.6: Gross Fixed Capital Formation

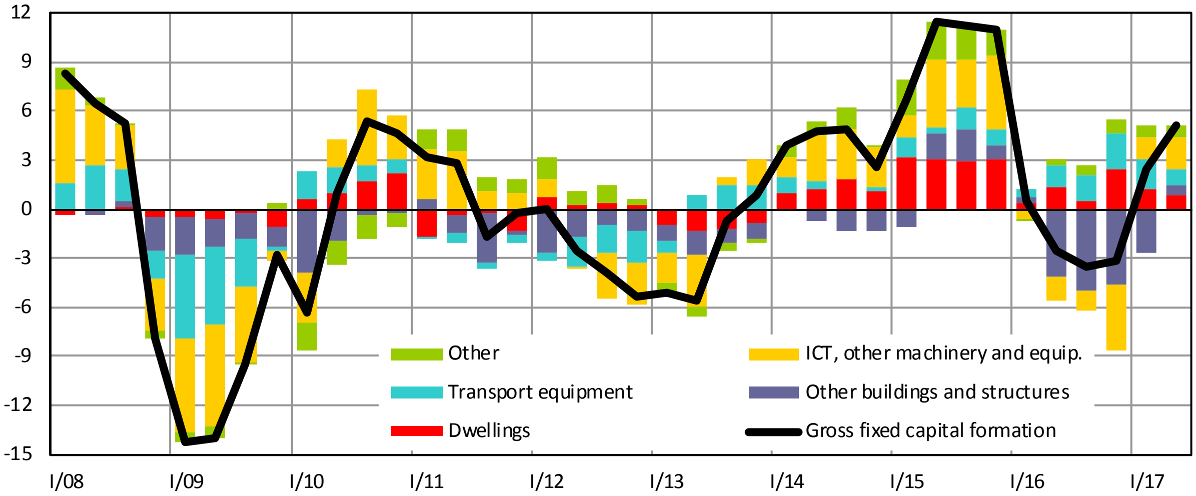
yearly moving sums, bill. CZK in const. prices of 2010, black lines with labels show the average level and growth rate in the given year



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Gross Fixed Capital Formation by Type of Expenditure

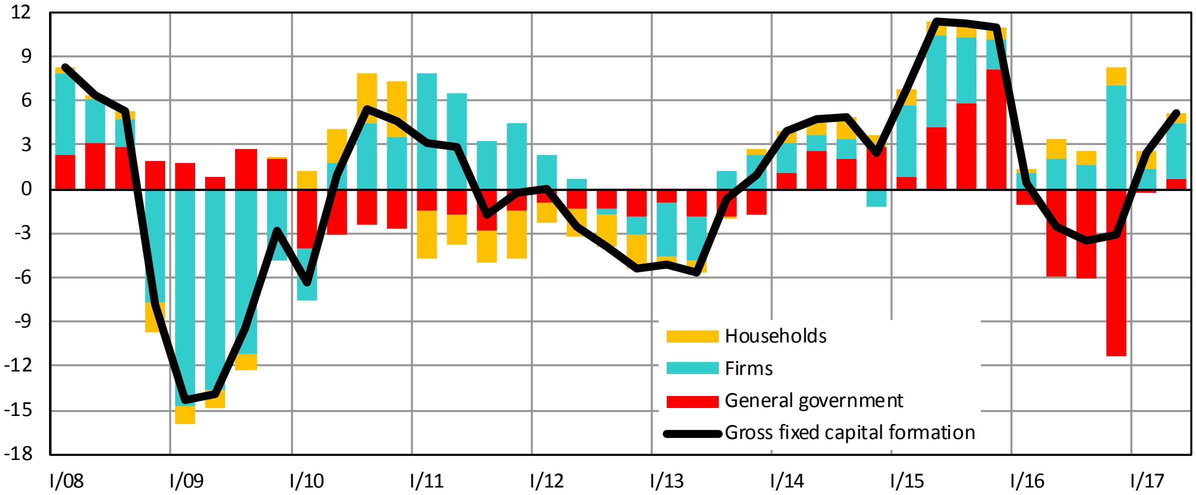
YoY real growth rate in %, contributions of individual components in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Gross Fixed Capital Formation by Sector

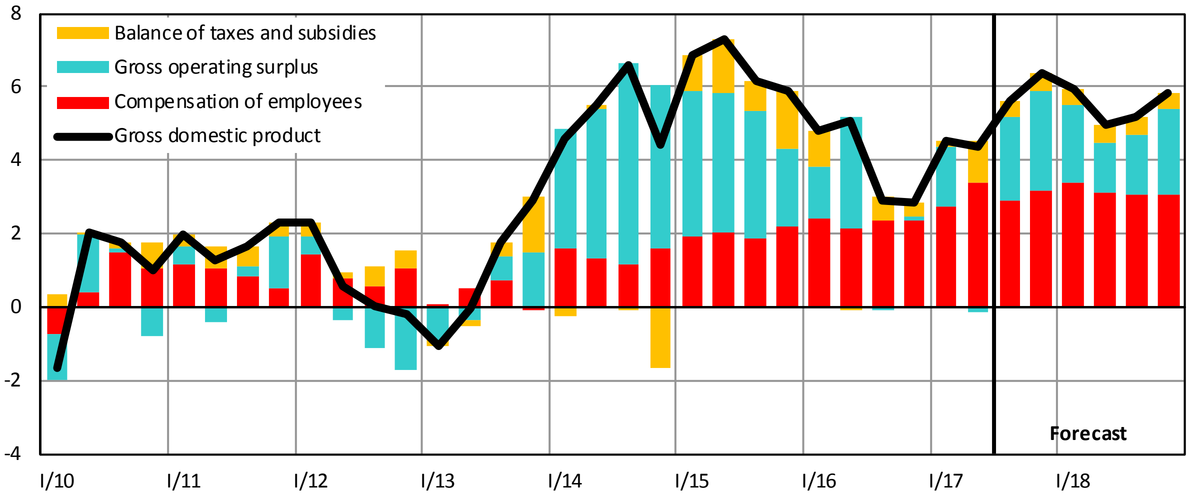
YoY real growth rate in %, contributions of individual sectors in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.9: 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

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
GDP	*bill. CZK*	**4 034**	**4 060**	**4 098**	**4 314**	**4 596**	**4 773**	**5 024**	**5 299**	**5 547**	**5 790**
	growth in %	1.8	0.6	0.9	5.3	6.5	3.9	5.3	5.5	4.7	4.4
Balance of taxes and subsidies	*bill. CZK*	**369**	**385**	**402**	**381**	**434**	**455**	**482**	**505**	**523**	**538**
	% of GDP	9.1	9.5	9.8	8.8	9.4	9.5	9.6	9.5	9.4	9.3
	growth in %	5.3	4.4	4.2	-5.1	13.8	4.7	6.1	4.8	3.6	2.8
Taxes on production and imports	*bill. CZK*	**488**	**508**	**528**	**518**	**571**	**601**	**.**	**.**	**.**	**.**
	growth in %	9.0	4.1	3.9	-1.8	10.1	5.4	.	.	.	.
Subsidies on production	*bill. CZK*	**119**	**123**	**126**	**137**	**137**	**147**	**.**	**.**	**.**	**.**
	growth in %	22.2	3.0	2.7	8.5	-0.1	7.5	.	.	.	.
Compensation of employees	*bill. CZK*	**1 626**	**1 665**	**1 676**	**1 735**	**1 821**	**1 929**	**2 074**	**2 233**	**2 342**	**2 448**
(domestic concept)	*% of GDP*	40.3	41.0	40.9	40.2	39.6	40.4	41.3	42.1	42.2	42.3
	growth in %	2.2	2.4	0.7	3.5	5.0	5.9	7.6	7.6	4.9	4.5
Wages and salaries	*bill. CZK*	**1 237**	**1 269**	**1 275**	**1 321**	**1 384**	**1 464**	**1 573**	**1 694**	**1 777**	**1 857**
	growth in %	2.1	2.6	0.5	3.6	4.8	5.8	7.4	7.6	4.9	4.5
Social security contributions	*bill. CZK*	**390**	**396**	**402**	**414**	**437**	**464**	**501**	**539**	**566**	**591**
	growth in %	2.5	1.6	1.4	3.1	5.5	6.3	7.9	7.6	4.9	4.5
Gross operating surplus	*bill. CZK*	**2 038**	**2 010**	**2 020**	**2 198**	**2 341**	**2 390**	**2 468**	**2 561**	**2 681**	**2 805**
	% of GDP	50.5	49.5	49.3	50.9	50.9	50.1	49.1	48.3	48.3	48.4
	growth in %	0.9	-1.4	0.5	8.8	6.5	2.1	3.3	3.8	4.7	4.6
Consumption of capital	*bill. CZK*	**864**	**880**	**906**	**939**	**969**	**995**	**1 040**	**1 096**	**1 157**	**1 213**
	growth in %	1.7	1.8	3.0	3.6	3.2	2.7	4.4	5.5	5.5	4.9
Net operating surplus	*bill. CZK*	**1 174**	**1 130**	**1 114**	**1 259**	**1 372**	**1 395**	**1 428**	**1 465**	**1 524**	**1 592**
	growth in %	0.3	-3.8	-1.4	13.0	9.0	1.7	2.4	2.6	4.1	4.4

Source: CZSO. Calculations of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Prelim.	*Prelim.*	*Estimate*	*Forecast*
GDP	*bill. CZK*	**1 109**	**1 214**	**1 210**	**1 241**	**1 160**	**1 267**	**1 277**	**1 320**
	growth in %	4.8	5.1	2.9	2.8	4.6	4.4	5.6	6.4
Balance of taxes and subsidies	*bill. CZK*	**101**	**113**	**126**	**115**	**103**	**127**	**131**	**122**
	growth in %	11.1	-1.1	6.1	4.1	2.0	12.5	3.8	5.7
Compensation of employees	*bill. CZK*	**462**	**476**	**477**	**514**	**492**	**517**	**512**	**553**
(domestic concept)	*growth in %*	5.9	5.5	6.2	5.9	6.6	8.6	7.3	7.6
Wages and salaries	*bill. CZK*	**349**	**361**	**363**	**392**	**373**	**391**	**389**	**421**
	growth in %	6.0	5.6	5.8	5.7	6.8	8.2	7.2	7.5
Social security contributions	*bill. CZK*	**113**	**115**	**114**	**122**	**119**	**127**	**123**	**132**
	growth in %	5.6	5.5	7.7	6.6	5.8	9.7	7.8	8.1
Gross operating surplus	*bill. CZK*	**547**	**625**	**606**	**612**	**565**	**623**	**634**	**645**
	growth in %	2.8	5.9	-0.2	0.2	3.3	-0.3	4.6	5.5

Source: CZSO. Calculations of the MoF.

3.2 Prices

3.2.1 Consumer Prices

The Czech economy was among EU countries with higher inflation in the third quarter of 2017. The YoY consumer prices growth hovered in the upper half of the tolerance band of the CNB's 2% target, reaching 2.7% in September 2017 (*versus 2.2%*), the highest value year-to-date.

The contribution of administrative measures, resulting from the change in indirect taxes, was only −0.1 pp. The YoY inflation was, in roughly two fifths, driven by prices in the food and non-alcoholic beverages section, whose contribution was 1.1 pp. There was a rapid growth mainly in the prices of dairy. The second largest contribution was recorded by the housing section (0.6 pp) were non-regulated prices, in particular imputed rentals, increased quite rapidly. The contribution of prices in the restaurants and hotels section (0.4 pp) was also significant.

The deviation of the July forecast from the outturn is one of the reasons for an increase in the forecast for this and the next year. At least equally significant reason for its increase is also a surprisingly rapid GDP growth, which is reflected in the estimate of an already significantly positive output gap and in an increase in the economic growth forecast. Another factor is the current development and increase in the forecast for wage growth, leading, in comparison with the previous forecast, to a faster growth in unit labour costs. The domestic economy, in comparison with the July Macroeconomic Forecast, creates greater demand and supply inflation pressures.

In the remaining part of 2017, we do not expect any impacts of changes in indirect taxes on consumer prices or major changes in regulated prices. We expect the contribution of administrative measures to the YoY increase in consumer prices to reach 0.1 pp in December 2017 (*unchanged*).

YoY inflation should be above the 2% target also in the fourth quarter of 2017. The main factors of price development in 2017 have pro-inflationary effect because crude oil prices are higher than in the previous year, and unit labour costs as well as domestic demand continue to grow in a positive output gap environment. A significant strengthening of the koruna after discontinuation of use of the exchange rate as an additional monetary policy instrument is an anti-inflationary factor.

In 2017, the **average inflation rate** should reach 2.4% (*versus 2.2%*), with a YoY increase in consumer prices of 2.3% (*versus 1.7%*) in December.

In 2018, one can expect similar inflation as in this year. The almost stagnating price of crude oil should be neutral with respect to consumer prices. Administrative measures are likely to have only a slightly pro-inflationary effect, as growth in regulated prices is expected to pick up while the impact of changes in indirect taxes should be very small (up to 0.1 pp). Similarly to this year, inflation should reflect supply pressures stemming from the growth in unit labour costs (see Chapter 3.3) and demand pressures driven by growing domestic demand and a positive output gap. Growth in consumer prices should be restrained by the strengthening koruna.

In 2018, the average inflation rate should be 2.4% (*versus 1.6%*), with a YoY increase in consumer prices of 2.3% (*versus 1.8%*) in December.

The forecast of inflation in 2017 and 2018 is subject to a pro-inflationary risk stemming from food prices.

3.2.2 Deflators

In the second quarter of 2017, GDP deflator increased by 1.0% (*versus 1.6%*), with gross domestic expenditure deflator rising by 2.4% (*versus 2.1%*) and terms of trade deteriorating by 1.7% (*versus 0.3%*). Growth of household consumption deflator was estimated accurately, and the dynamics of gross fixed capital formation and general government sector consumption deflators did not deviate significantly from the estimate. By contrast, foreign trade price developments significantly exceeded the forecast, with a larger deviation on the side of import prices, and terms of trade thus worsened more than it was estimated in the last forecast.

We expect GDP deflator to increase by 1.1% (*versus 1.4%*) in 2017, and its growth to accelerate to 2.1% (*versus 1.8%*) in 2018. With a slight increase in gross domestic expenditure deflator growth in 2018, such acceleration will mainly result from developments in foreign trade prices. The terms of trade could decrease by 1.1% (*versus 0.4%*) in 2017 amid a decrease in export prices and an increase in import prices resulting from strengthening of the exchange rate and developments in commodity markets. In 2018, however, the terms of trade should stagnate (*versus an increase of 0.3%*) due to an equivalent decrease in the prices of exports and imports. The situation is clearly shown in Graph 3.2.6.

Growth in gross domestic expenditure deflator could accelerate from 0.7% in 2016 to 2.1% (*versus 1.9%*) in 2017. This change in dynamics will be mainly due to developments of the household consumption and, to a lesser extent, gross capital formation deflators (see Graph 3.2.4). Due to salary increases in the general government sector and an acceleration of growth of the gross fixed capital formation deflator, growth in the gross domestic expenditure deflator could accelerate to 2.4% (*versus 1.8%*) in 2018.

Table 3.2.1: Prices – yearly

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
Consumer Price Index											
Average of a year	*average 2005=100*	117.1	121.0	122.7	123.2	123.6	124.4	127.4	130.5	133.1	135.2
	growth in %	**1.9**	**3.3**	**1.4**	**0.4**	**0.3**	**0.7**	**2.4**	**2.4**	**2.0**	**1.8**
December	*average 2005=100*	118.3	121.1	122.8	122.9	123.0	125.4	128.3	131.3	133.7	136.1
	growth in %	**2.4**	**2.4**	**1.4**	**0.1**	**0.1**	**2.0**	**2.3**	**2.3**	**1.8**	**1.8**
Of which the contribution of:											
Administrative measures [1)]	*percentage points*	**1.2**	**2.2**	**1.0**	**-0.2**	**0.1**	**0.0**	**0.1**	**0.4**	**0.2**	**0.2**
Market increase	*percentage points*	**1.2**	**0.1**	**0.4**	**0.3**	**0.0**	**2.0**	**2.3**	**2.0**	**1.6**	**1.6**
Harmonized index of consumer	*average 2005=100*	116.2	120.3	121.9	122.4	122.8	123.6	126.5	129.5	132.0	134.2
prices	*growth in %*	**2.1**	**3.5**	**1.4**	**0.4**	**0.3**	**0.6**	**2.4**	**2.3**	**1.9**	**1.7**
Offering prices of flats											
Czech Republic	*average 2010=100*	95.1	96.1	97.2	100.7	106.9	117.6	.	.	.	.
	growth in %	**-4.9**	**1.1**	**1.1**	**3.6**	**6.2**	**10.0**	**.**	**.**	**.**	**.**
Czech Republic excluding Prague	*average 2010=100*	96.6	92.5	91.3	93.0	97.7	107.1	.	.	.	.
	growth in %	**-3.4**	**-4.2**	**-1.3**	**1.9**	**5.1**	**9.6**	**.**	**.**	**.**	**.**
Prague	*average 2010=100*	93.6	99.6	103.1	108.5	116.1	128.2	.	.	.	.
	growth in %	**-6.4**	**6.4**	**3.5**	**5.2**	**7.0**	**10.4**	**.**	**.**	**.**	**.**
Deflators											
GDP	*average 2010=100*	100.0	101.5	102.9	105.5	106.7	108.0	109.2	111.5	113.7	115.9
	growth in %	**0.0**	**1.5**	**1.4**	**2.5**	**1.2**	**1.2**	**1.1**	**2.1**	**2.0**	**2.0**
Domestic final use	*average 2010=100*	101.1	102.9	103.5	104.6	105.7	106.4	108.6	111.2	113.3	115.4
	growth in %	**1.1**	**1.8**	**0.5**	**1.1**	**1.0**	**0.7**	**2.1**	**2.4**	**1.9**	**1.8**
Consumption of households	*average 2010=100*	101.7	104.0	104.9	105.5	105.6	106.1	108.7	111.3	113.5	115.6
	growth in %	**1.7**	**2.2**	**0.8**	**0.6**	**0.1**	**0.5**	**2.4**	**2.4**	**2.0**	**1.8**
Consumption of government	*average 2010=100*	101.8	102.7	102.8	104.6	106.7	108.7	111.5	115.0	116.9	118.7
	growth in %	**1.8**	**0.9**	**0.2**	**1.7**	**2.0**	**1.8**	**2.6**	**3.2**	**1.6**	**1.6**
Fixed capital formation	*average 2010=100*	99.2	100.9	101.1	102.7	104.5	104.8	106.3	108.2	110.3	112.6
	growth in %	**-0.8**	**1.7**	**0.1**	**1.6**	**1.8**	**0.3**	**1.4**	**1.8**	**2.0**	**2.1**
Exports of goods and services	*average 2010=100*	100.7	103.8	105.6	109.8	108.4	105.7	105.2	104.0	104.8	106.3
	growth in %	**0.7**	**3.1**	**1.7**	**4.0**	**-1.3**	**-2.5**	**-0.4**	**-1.1**	**0.7**	**1.4**
Imports of goods and services	*average 2010=100*	102.3	106.1	106.6	109.2	107.4	103.6	104.3	103.2	103.7	104.9
	growth in %	**2.3**	**3.7**	**0.5**	**2.5**	**-1.7**	**-3.5**	**0.7**	**-1.1**	**0.5**	**1.2**
Terms of trade	*average 2010=100*	98.5	97.9	99.0	100.5	100.9	102.0	100.9	100.8	101.1	101.3
	growth in %	**-1.5**	**-0.6**	**1.2**	**1.5**	**0.4**	**1.1**	**-1.1**	**0.0**	**0.2**	**0.3**

[1)] *The contribution of increase in regulated prices and in indirect taxes to increase of December YoY consumer price inflation.*

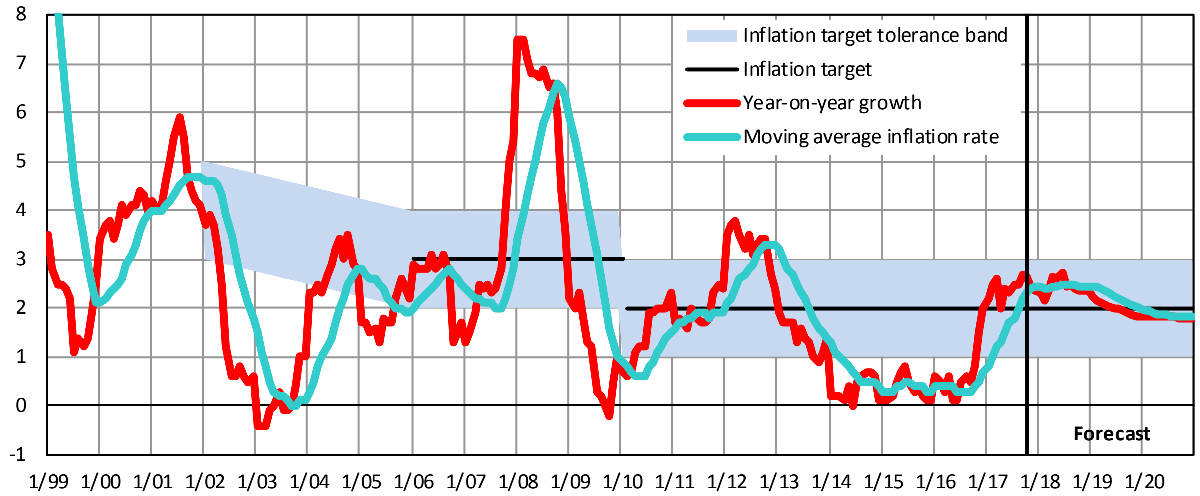
Source: CZSO, Eurostat. Calculations of the MoF.

Table 3.2.2: Prices – quarterly

		2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3 Estimate	2017 Q4 Forecast
Consumer Price Index	*average 2005=100*	123.7	124.3	124.5	125.0	126.7	127.1	127.6	128.1
	growth in %	**0.5**	**0.2**	**0.5**	**1.4**	**2.4**	**2.2**	**2.5**	**2.5**
Of which the contribution of:									
Administrative measures [1)]	*percentage points*	**0.2**	**0.2**	**0.1**	**0.1**	**-0.2**	**-0.2**	**-0.1**	**0.0**
Market increase	*percentage points*	**0.3**	**0.0**	**0.4**	**1.3**	**2.6**	**2.4**	**2.6**	**2.5**
Harmonized index of consumer	*average 2005=100*	122.9	123.5	123.7	124.2	125.9	126.3	126.7	127.1
prices	*growth in %*	**0.5**	**0.2**	**0.6**	**1.5**	**2.5**	**2.3**	**2.4**	**2.3**
Offering prices of flats									
Czech Republic	*average 2010=100*	113.4	116.5	118.8	121.9	124.2	127.6	133.7	.
	growth in %	**10.2**	**10.3**	**9.9**	**9.9**	**9.5**	**9.5**	**12.5**	**.**
Czech Republic excluding Prague	*average 2010=100*	103.5	106.1	108.4	110.2	108.3	109.9	114.6	.
	growth in %	**10.1**	**9.9**	**10.1**	**8.5**	**4.6**	**3.6**	**5.7**	**.**
Prague	*average 2010=100*	123.2	126.8	129.2	133.7	140.0	145.3	152.8	.
	growth in %	**10.2**	**10.5**	**9.8**	**11.3**	**13.6**	**14.6**	**18.3**	**.**
Deflators									
GDP	*average 2010=100*	107.4	107.7	108.1	108.8	108.0	108.8	109.2	110.6
	growth in %	**1.5**	**1.0**	**1.3**	**1.1**	**0.5**	**1.0**	**1.1**	**1.6**
Domestic final use	*average 2010=100*	105.4	105.8	106.3	108.0	107.6	108.4	108.2	110.2
	growth in %	**0.7**	**0.1**	**0.6**	**1.3**	**2.1**	**2.4**	**1.8**	**2.1**
Consumption of households	*average 2010=100*	105.3	105.8	106.5	106.9	107.8	108.1	109.1	109.5
	growth in %	**0.1**	**0.0**	**0.7**	**1.3**	**2.4**	**2.2**	**2.5**	**2.5**
Consumption of government	*average 2010=100*	105.2	107.3	107.9	113.4	107.9	110.9	109.8	116.4
	growth in %	**2.1**	**1.4**	**1.3**	**2.5**	**2.6**	**3.4**	**1.7**	**2.6**
Fixed capital formation	*average 2010=100*	104.8	104.6	104.8	105.0	106.6	106.4	105.9	106.4
	growth in %	**0.4**	**-0.2**	**0.3**	**0.5**	**1.7**	**1.7**	**1.1**	**1.3**
Exports of goods and services	*average 2010=100*	105.5	105.4	105.7	106.1	107.0	105.7	104.0	104.1
	growth in %	**-3.6**	**-3.6**	**-2.0**	**-0.7**	**1.4**	**0.3**	**-1.6**	**-1.9**
Imports of goods and services	*average 2010=100*	102.9	102.9	103.4	105.1	106.5	105.0	102.5	103.3
	growth in %	**-5.1**	**-5.2**	**-3.2**	**-0.7**	**3.5**	**2.0**	**-0.9**	**-1.7**
Terms of trade	*average 2010=100*	102.6	102.4	102.1	101.0	100.5	100.7	101.4	100.8
	growth in %	**1.5**	**1.7**	**1.3**	**-0.1**	**-2.0**	**-1.7**	**-0.7**	**-0.2**

[1)] *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.

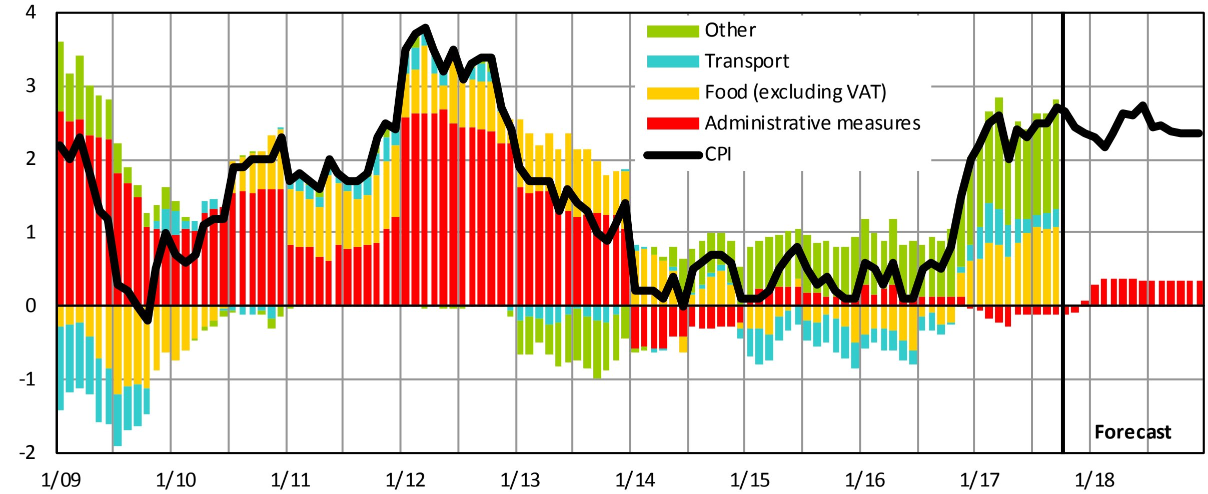
Graph 3.2.1: Consumer Prices
YoY growth rate, in %



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

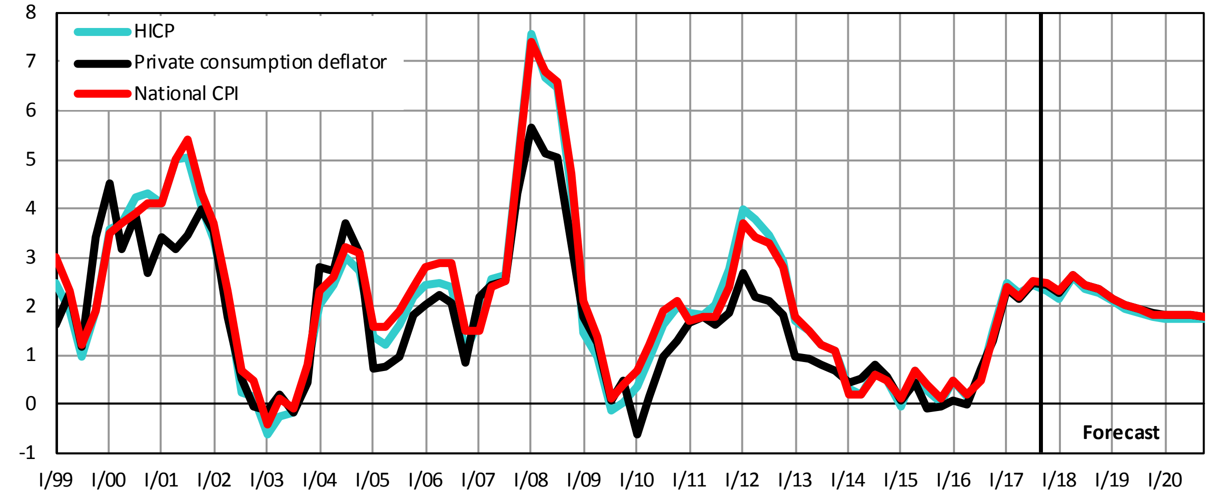
YoY growth of consumer price index, contributions in percentage points, Transport excluding administrative measures and excises



Source: CZSO. Calculations of the MoF.

Graph 3.2.3: Indicators of Consumer Prices

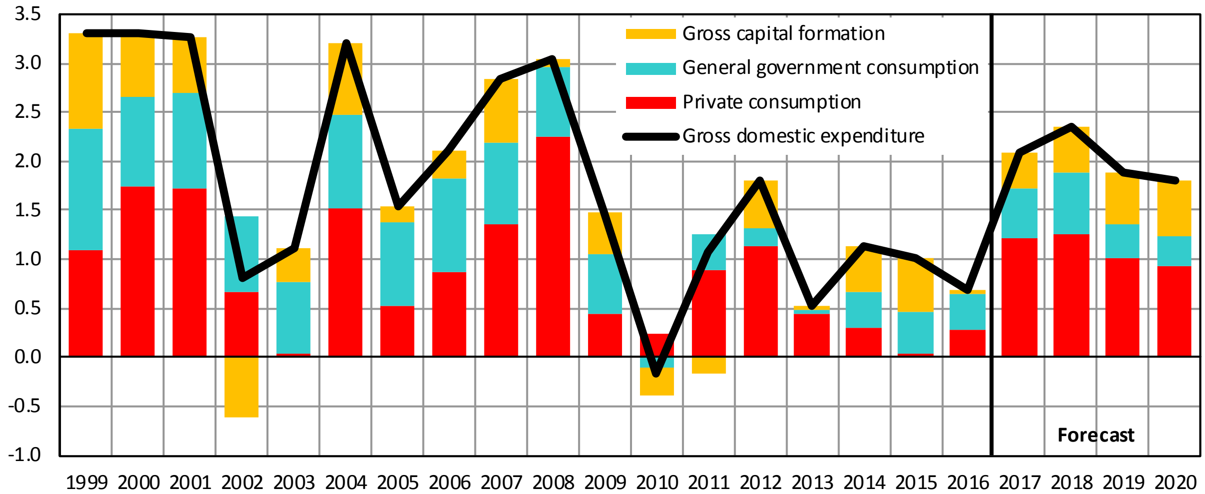
YoY growth rate, in %



Source: CZSO, Eurostat. Calculations of the MoF.

Graph 3.2.4: Gross Domestic Expenditure Deflator

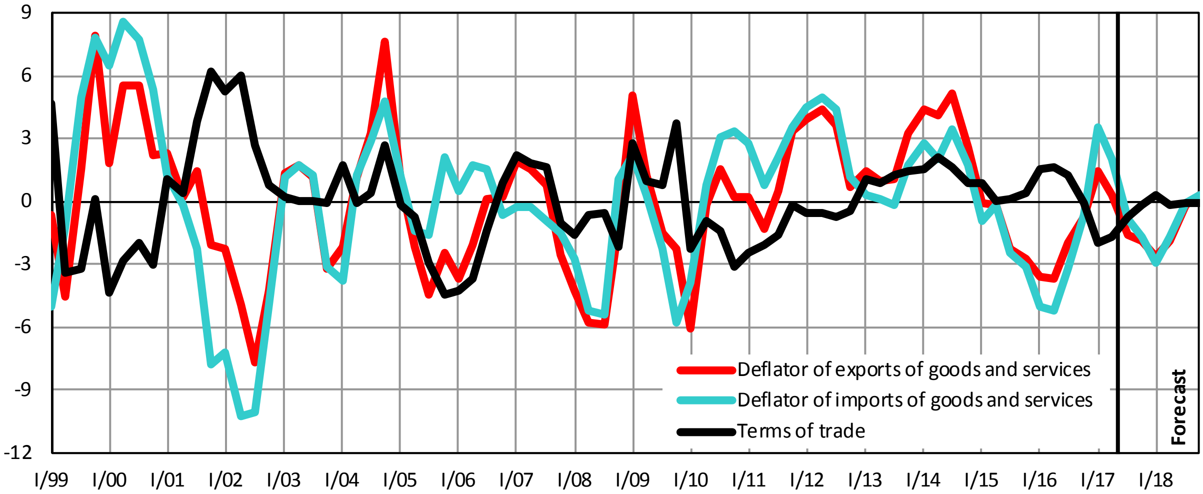
YoY growth rate in %, contributions of growth of deflators of individual components of gross domestic expenditure in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.2.5: Terms of Trade

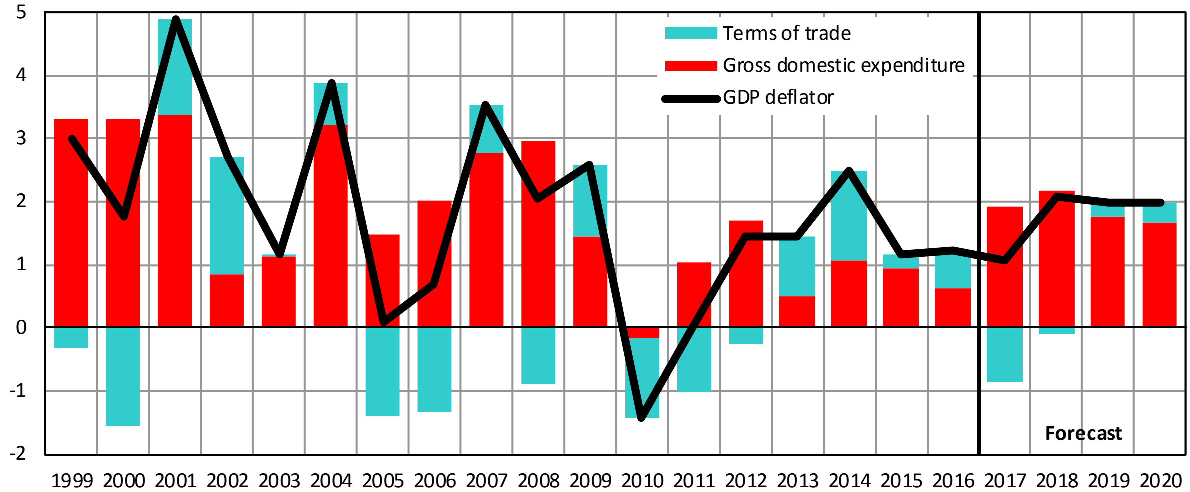
YoY growth rate, in %



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

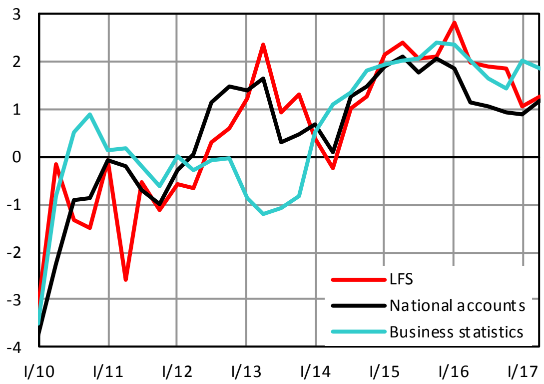
The labour market, as well as the real economy, has been developing robustly in the course of 2017. A YoY growth in employment continued in the second quarter of 2017, with increasing numbers of employees and of entrepreneurs. The unemployment rate (LFS) dropped to new record lows (3.0%), the YoY decrease in registered unemployment accelerated further. The number of job vacancies is more than 200 thousand, thus exceeding previous highs of 2008 by more than 50 thousand. This development is fully in line with accelerating dynamics of wages and salaries.

3.3.1 Employment

Employment (LFS) grew by 1.3% YoY (*versus 1.6%*) in the second quarter of 2017. The number of employees rose by 1.3% (*versus 1.7%*), the number of entrepreneurs increased by 1.6% (*versus 1.1%*). The growth in the number of entrepreneurs without employees slowed down to 1.6% and the number of entrepreneurs with employees increased by 2.2%.

Graph 3.3.1: Employees in Different Statistics

YoY growth rate, in%



Source: CZSO.

From a sectoral perspective, employment growth (in business statistics) was, similarly to the previous period, mostly due to manufacturing, but there has also been strong growth in the number of employees in the sectors of energy, information and communication, and professional, scientific and technical activities. In the mining and quarrying sector, a deep decline (by 10.2%) continued, and employment further decreased in construction (by 0.8%) and, probably due to legislative changes, also in accommodation and food service (by 0.5%).

The unprecedented shortage of workers is evident in virtually all sectors and is a barrier to extensive economic growth (in manufacturing, this factor is now just as important a barrier to the growth of production as insufficient demand). In some sectors, the scope of this problem can be reduced by hiring foreign workforce. The lack of workers can also have a positive effect on gross fixed capital formation.

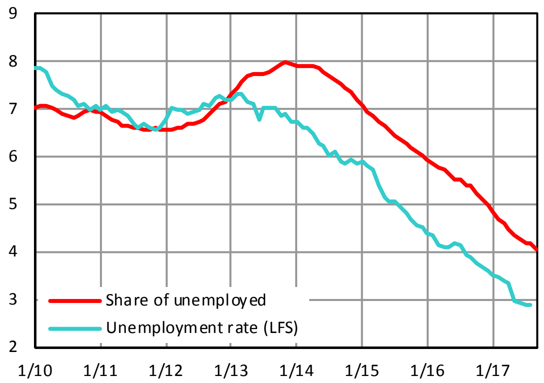
Despite a slightly lower growth in the second quarter, we keep the forecast for growth of employment in this year unchanged at 1.4%, while for 2018 we expect only a weak growth in employment of 0.4% (*unchanged*). Besides increasing the retirement age, other domestic sources of labour force growth are significantly limited due to demographic factors. At such a low rate of unemployment, the room for further employment growth is very limited.

3.3.2 Unemployment

The continued economic growth and a general shortage of employees has led to a further reduction in the number of registered unemployed persons (by more than 90 thousand YoY in the last months) as well as the unemployed according to the LFS statistics (by 51 thousand YoY in the second quarter of 2017).

Graph 3.3.2: Indicators of Unemployment

seasonally adjusted data, in%



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

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.

As regards registered unemployment, we expect, due to lower than predicted values, a decrease to 4.3% in 2017 (*versus 4.4%*) and further to 3.5% in 2018 (*versus 3.7%*). The situation should also be influenced by a legislative change abolishing, from the beginning of November, the possibility for the registered unemployed to be registered with the Labour Office and at the same time have earnings based on agreements to complete a job.

In the second quarter of 2017 the **unemployment rate** (LFS) decreased to 3.0% (*versus 3.1%*). Having considered this development, we reduce the forecast for unemployment rate in 2017 to 3.0% (*versus 3.2%*) and we expect it to decrease further to 2.8% (*versus 2.9%*) in 2018. These are exceptionally low values not only in the European but also in the domestic context, whose further significant reductions cannot be expected.

3.3.3 Economic Activity Rate

The **economic activity rate** (15–64 year-olds) grew by 0.9 pp YoY to 75.5% in the second quarter of 2017 (*ver-*

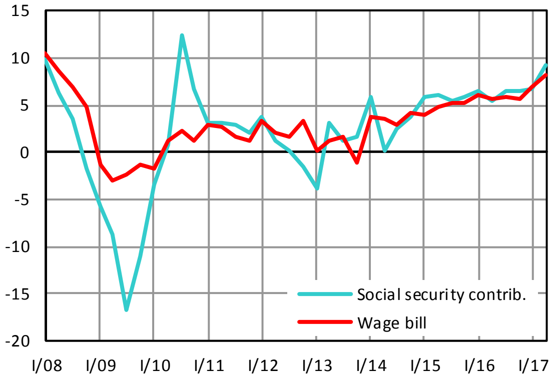
sus 75.8%). We suppose there is still some room for further growth in the participation rate (see Graph 3.3.6), with demographic aspects in the form of an increasing weight of cohorts with a naturally high economic activity rate (especially of those aged 40–49 years) and gradually increasing the statutory as well as actual retirement age playing a crucial role.

3.3.4 Wages

The growth rate of the **wage bill** (national accounts, domestic concept) accelerated sharply to 8.2% (*versus 6.3%*) in the second quarter of 2017. A two-digit growth was recorded in the information and communication sector (by 10.3%); however, the overall growth was driven especially by a strong increase in the wage bill in manufacturing (by 9.5%). The lowest growth was recorded in the financial and insurance sector (by 4.2%), where average earnings have long been the highest.

Graph 3.3.3: Collection of Social Security Contributions and Total 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.

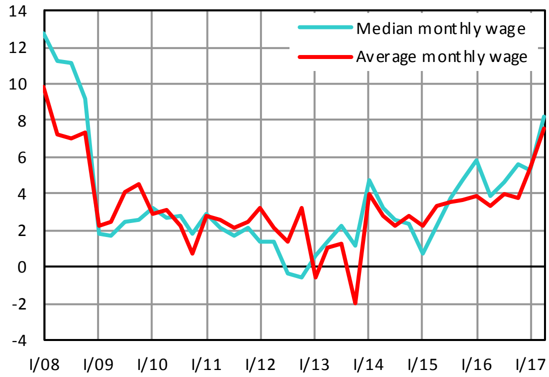
In the third quarter of 2017 the positive impact of wage dynamics in market sectors was moderated slightly by the development of salaries in the general government sector due to the base effect of the September 2016 increase in the salaries of teachers. Therefore, the wage bill could have increased by 7.2% (*versus 5.4%*). The developments in the fourth quarter of 2017 will also reflect a 10% increase in salary scales of most employees in the general government sector and a 15% increase for teachers in regional schools, effective from November. The wage bill could grow by 7.4% in 2017 (*versus 6.1%*).

In 2018, there will be another increase in the minimum wage (by 10.9%) and in the lowest levels of guaranteed wage. Starting from January 2018, salary scales of health care employees (and belonging to the general government sector) will be increased again by 10%. That development should be accompanied by an extremely low unemployment rate with growing frictions in the labour market. A high participation rate and low share of part--time jobs create limited room for increasing the number of hours worked and put pressure on wage growth in the short term. Wages and salaries should thus increase by 7.6% (*versus 5.6%*) in 2018.

The **average wage** (business statistics, full-time equivalent) increased by 7.6% (*versus 4.9%*) in the second quarter of 2017. Due to a higher increase in earnings in medium-earning professions, the wage median grew faster than the average wage (by 0.6 pp). The average nominal wage could have increased by 7.5% (*versus 4.6%*) in the third quarter of 2017, and the growth for the entire 2017 could be 7.1% (*versus 4.9%*). Due to the aforementioned factors, the average nominal wage could grow by 7.2% (*versus 5.2%*) and the average real wage by 4.6% (*versus 3.6%*) in 2018.

Graph 3.3.4: Nominal Monthly Wage

YoY growth rate, in%



Source: CZSO.

Box 3.1: Comparison of Wages in the Czech and German Economies

Wage convergence is considered one of the problematic places of convergence of the Czech economy to developed countries of the EU. This box focuses on an analysis of factors of differences between the average wage in the Czech and German economies.

For international comparison, statistics of the wage bill per employee in the national accounting methodology (average macroeconomic wage) were used. Average wage statistics from business statistics, usually used in the Czech Republic, is not fully comparable internationally.

Table 1: Average Macroeconomic Wage

in % of the average German wage, exchange rate converted

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Czech Republic	33	35	40	38	40	41	39	37	35	35	36
Hungary	32	35	36	33	34	33	32	31	29	29	29
Austria	111	113	114	116	114	113	113	113	112	111	110
Poland	29	31	36	30	34	34	33	33	33	33	32
Slovakia	32	35	36	37	38	37	37	37	37	37	37

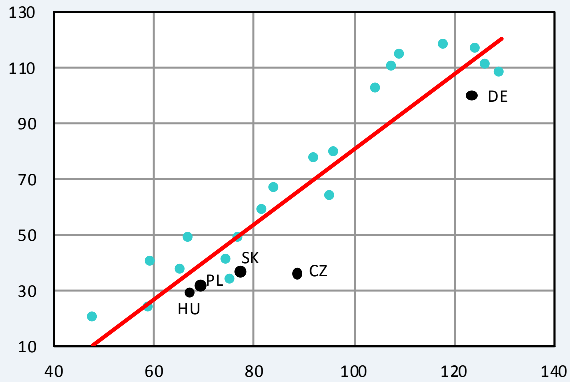
Source: Eurostat. Calculations of the MoF.

In 2006–2016 the average wage in the Czech Republic was around 37% of the average wage in Germany (see Table 1) after the exchange rate conversion. This is considerably less than it would correspond to the differences in the economic level (see Graph 1). This relationship has been broadly stable or even declining in all listed countries roughly since 2010, which can be interpreted as an end to the wage convergence process or a temporary divergence. Conversion using exchange rates, however, leads to a neglect of differences in price levels as a recipient of the Czech wage usually realizes his consumption in the domestic market at lower average prices compared to, for example, Germany. Another disadvantage in countries outside the Euro Area is the impact of exchange rate volatility of national currencies against the euro when comparing at a single time point.

A more appropriate analytical indicator is thus the average macroeconomic wage in current purchasing power parity. In this comparison, the average wage in the CR is slightly below 60% of the average German wage after 2009 (see Graph 2).

Graph 1: Average Macroeconomic Wage in 2016

GDP per capita in PPS (EU28=100) on the horizontal axis, wage in % of the average German wage (exchange rate converted) on the vertical axis

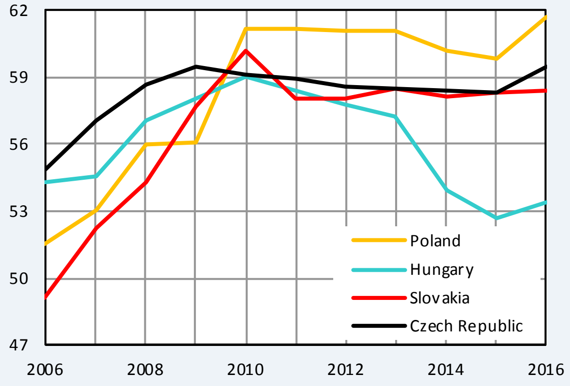


Note: Values for Denmark, Ireland and Luxembourg left out as outliers. Data fitted by a linear function.
Source: Eurostat. Calculations of the MoF.

Hungary lags behind in this indicator as it is experiencing a decline in relative earnings as a result of reforms in the labour market, offset by strong growth in the number of employees since 2014 (an average of 3.6% per year).

Graph 2: Average Macroeconomic Wage

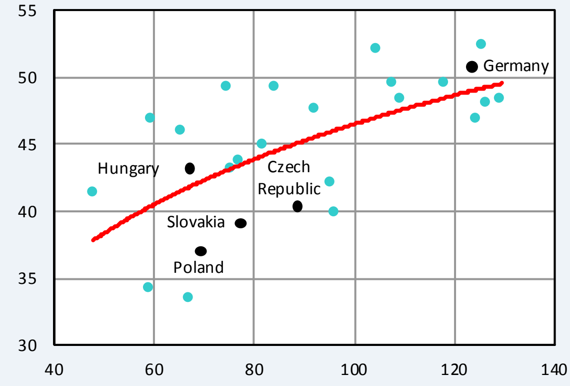
wage in % of the average German wage (in purchasing power parity)



Source: Eurostat. Calculations of the MoF.

Graph 3: Compensation of Employees in the EU in 2016

GDP per capita in PPS (EU28=100) on the horizontal axis, share of compensation of employees in GDP (in %) on the vertical axis



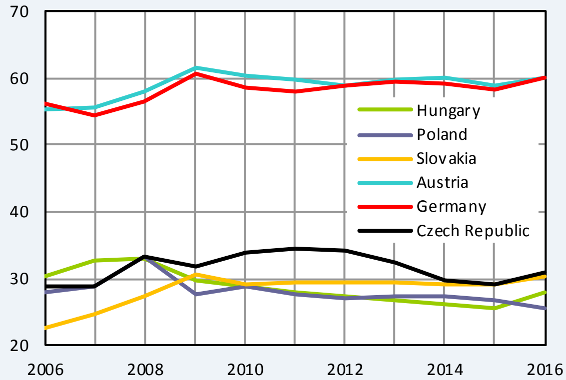
Note: Values for Ireland and Luxembourg left out as outliers. Data fitted by a logarithmic function.
Source: Eurostat. Calculations of the MoF.

From the point of view of division of output between labour and capital, another aspect of international labour cost comparisons is the share of compensation of employees in GDP. Graph 3 shows that this share in the EU countries is in a positive, though not at all tight, relationship to the output of their economies. Compared to Slovakia and Poland, the share of compensation in GDP in the Czech Republic does not stand out and corresponds to the differences in the degree of economic convergence.

The relationship between wages and labour productivity measured by the indicator of nominal unit labour costs determines the price competitiveness of the production of the economy in foreign markets. In view of the considerable openness of the Czech economy, this competitiveness can be expressed as the level of compensation per employee in euros relative to average labour productivity of an employed person in purchasing power parity (implicitly assuming equal labour productivity and cost of employees and self-employed persons). Price competitiveness in terms of labour costs is significantly higher in the Visegrad Four countries than in Germany and Austria. Also, its development has been different since 2006 (see Graph 4). The economic recession from the turn of 2008 and 2009 in the Visegrad Four countries was manifested by rising unemployment, but this impact was relatively milder and shorter in the Czech Republic. The lower redundancy rate, which mainly concerned less productive employees, led to a rise in euro labour costs in the Czech economy and then to several years of stagnation accompanied by slowing growth in earnings and productivity. On the other hand, the fastest rate of productivity growth in the countries under comparison was reached by the Czech Republic in 2014 and 2015. At the same time, due to the intervention weakening of the koruna, the unit labour costs decreased to the level of Slovakia. There was almost no economic recession in the labour market in Germany and Austria.

Graph 4: Exchange Rate Adjusted Unit Labour Costs

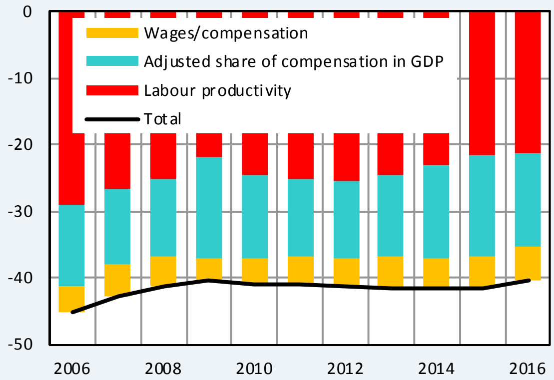
compensation of employees in EUR/labour productivity in PPS, in %



Source: Eurostat. Calculations of the MoF.

Graph 5: Drivers of Wage Gap between CR and Germany

contributions to the gap between Czech and German average wage, in percentage points



Source: Eurostat. Calculations of the MoF.

The subject of the analysis is also the effect on wage differentials of different structures of the economy, and the related differences in labour productivity. The method of growth accounting is used to decompose the relative average wage in the Czech economy. In our concept, we express the contributions of the rate of burdening labour with employers' social security contributions, wage intensity of production adjusted by the ratio of workers and employees and labour productivity to different levels of the average wage[1]. Graph 5 shows contributions to average wage differences in purchasing power parity for the CR against Germany. Contributions of individual factors are relatively stable over time. The dominant factor is labour productivity, which accounts for more than half of the difference in wage levels (21 out of 41 pp) and which is a consequence of a high share of production with low value added in the Czech economy, accompanied by lower labour capital equipment. Another reason for weaker productivity is lack of necessary qualification (for example, according to a survey by the World Bank, almost 20% of employers in the Czech Republic perceive inadequate qualification of their employees as a serious problem). An important element is also the adjusted share of compensation of employees in GDP. In addition to link between this share and productivity (see also Graph 3), the Czech Republic is characterized by a lower coverage of job positions by collective agreements (48% in 2013 in the Czech Republic compared to 58% in Germany). Employees in collective bargaining positions receive on average higher wages (by 10.8% in the Czech Republic in 2016 according to data from the Structure of Earnings Survey).

The difference in the level of wages is also influenced by the high rate of employers' social security contributions in the Czech economy, with a relatively stable impact of −5 pp. Employers' social security contributions form only a part of the total tax burden on labour, the average rate of which is higher in Germany than in the Czech Republic due to a higher effective rate of personal income tax.

The high degree of cyclical and structural alignment of both economies and the place of operation of Czech businesses in lower parts of global value chains play a large role in the relation between the average wages in the Czech Republic and Germany. Transfer of productive activity into industries and products with higher value added and labour productivity would bring faster convergence of Czech wages. Developments in the first two quarters of 2017 indicate that the share of compensation in GDP could exceed 41% this year, which would represent the highest value in the history of the independent Czech Republic and a confirmation of the recovery of the wage convergence, the first signs of which were evident in 2016. However, this year's expected average nominal wage growth of 7.1% is not sustainable in the long term.

[1] We express the average wage here as

$$\frac{W}{E}=\frac{W}{Com}*\left(\frac{Com}{GDP}*\frac{Wor}{E}\right)*\frac{GDP}{Wor}$$

where *W* is the wage bill, *E* the number of employees, *Wor* the number of workers and *Com* compensation of employees. Individual contributions are then the ratios of respective indicators for the Czech Republic and Germany. As regards the sum breakdown of contributions, there is a residual synergy effect, which was distributed evenly among other contributions.

Table 3.3.1: Labour Market – yearly

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
								Forecast	*Forecast*	*Outlook*	*Outlook*
Labour Force Survey											
Employment	*av. in thous.persons*	**4 872**	**4 890**	**4 937**	**4 974**	**5 042**	**5 139**	**5 210**	**5 231**	**5 248**	**5 265**
	growth in %	0.4	0.4	1.0	0.8	1.4	1.9	1.4	0.4	0.3	0.3
Employees	*av. in thous.persons*	**4 000**	**3 997**	**4 055**	**4 079**	**4 168**	**4 257**	**4 298**	**4 317**	**4 332**	**4 347**
	growth in %	0.0	-0.1	1.5	0.6	2.2	2.1	1.0	0.4	0.3	0.3
Entrepreneurs and	*av. in thous.persons*	**873**	**893**	**882**	**895**	**874**	**882**	**911**	**914**	**916**	**918**
self-employed	*growth in %*	2.0	2.4	-1.3	1.5	-2.3	0.9	3.3	0.3	0.2	0.2
Unemployment	*av. in thous.persons*	**351**	**367**	**369**	**324**	**268**	**211**	**163**	**151**	**147**	**145**
Unemployment rate	*average in %*	**6.7**	**7.0**	**7.0**	**6.1**	**5.1**	**4.0**	**3.0**	**2.8**	**2.7**	**2.7**
Long-term unemployment [1)	*av. in thous.persons*	**144**	**161**	**163**	**141**	**127**	**89**	**.**	**.**	**.**	**.**
Labour force	*av. in thous.persons*	**5 223**	**5 257**	**5 306**	**5 298**	**5 310**	**5 350**	**5 373**	**5 382**	**5 395**	**5 409**
	growth in %	-0.2	0.7	0.9	-0.2	0.2	0.8	0.4	0.2	0.2	0.3
Population aged 15–64	*av. in thous.persons*	**7 295**	**7 229**	**7 154**	**7 081**	**7 026**	**6 968**	**6 916**	**6 867**	**6 824**	**6 765**
	growth in %	-0.8	-0.9	-1.0	-1.0	-0.8	-0.8	-0.8	-0.7	-0.6	-0.9
Employment/Pop. 15–64	*average in %*	**66.8**	**67.6**	**69.0**	**70.2**	**71.8**	**73.7**	**75.3**	**76.2**	**76.9**	**77.8**
Employment rate 15–64 [2)	*average in %*	**65.7**	**66.5**	**67.7**	**69.0**	**70.2**	**72.0**	**73.5**	**74.3**	**75.0**	**75.9**
Labour force/Pop. 15–64	*average in %*	**71.6**	**72.7**	**74.2**	**74.8**	**75.6**	**76.8**	**77.7**	**78.4**	**79.1**	**80.0**
Participation rate 15–64 [3)	*average in %*	**70.5**	**71.6**	**72.9**	**73.5**	**74.0**	**75.0**	**75.9**	**76.5**	**77.1**	**78.0**
Registered unemployment											
Unemployment	*av. in thous.persons*	**508**	**504**	**564**	**561**	**479**	**406**	**319**	**250**	**212**	**196**
Share of unemployed [4)	*average in %*	**6.7**	**6.8**	**7.7**	**7.7**	**6.6**	**5.6**	**4.3**	**3.5**	**3.0**	**2.8**
Wages and salaries											
Average monthly wage [5)											
Nominal	*CZK*	24 455	25 067	25 035	25 768	26 591	27 575	29 500	31 600	33 100	34 500
	growth in %	**2.5**	**2.5**	**-0.1**	**2.9**	**3.2**	**3.7**	**7.1**	**7.2**	**4.5**	**4.1**
Real	*CZK 2005*	20 884	20 717	20 403	20 916	21 514	22 166	23 200	24 300	24 900	25 500
	growth in %	**0.6**	**-0.8**	**-1.5**	**2.5**	**2.9**	**3.0**	**4.6**	**4.6**	**2.5**	**2.5**
Median monthly wage	*CZK*	20 743	20 828	21 110	21 786	22 414	23 528	.	.	.	.
	growth in %	**2.2**	**0.4**	**1.4**	**3.2**	**2.9**	**5.0**	**.**	**.**	**.**	**.**
Wage bill	*growth in %*	**2.1**	**2.6**	**0.5**	**3.6**	**4.8**	**5.8**	**7.4**	**7.6**	**4.9**	**4.5**
Labour productivity	*growth in %*	**2.1**	**-1.2**	**-0.8**	**2.2**	**3.8**	**1.3**	**2.8**	**2.9**	**2.3**	**2.0**
Unit labour costs [6)	*growth in %*	**0.7**	**3.0**	**0.5**	**0.4**	**-0.8**	**3.3**	**3.7**	**4.1**	**2.2**	**2.1**
Compens. of employees / GDP	*%*	**40.3**	**41.0**	**40.9**	**40.2**	**39.6**	**40.4**	**41.3**	**42.1**	**42.2**	**42.3**

1) *Persons in unemployment for longer than 12 months.*
2) *The indicator does not include employment over 64 years.*
3) *The indicator does not include labour force over 64 years.*
4) *Share of available job seekers aged 15 to 64 years in the population of the same age.*
5) *Derived from full-time-equivalent employers in the entire economy.*
6) *Ratio of nominal compensation per employee to real productivity of labour.*
Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

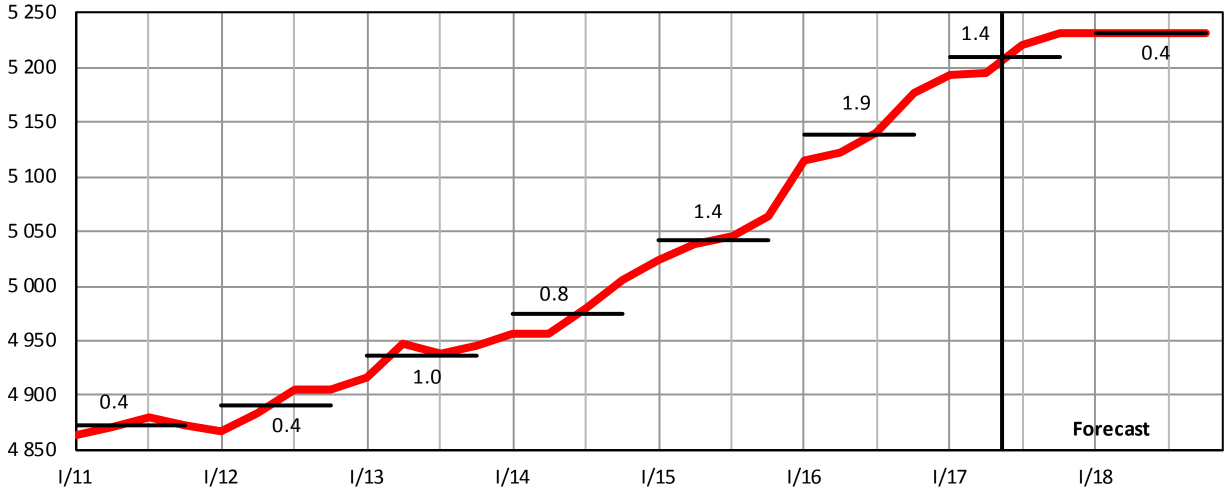
Table 3.3.2: Labour Market – quarterly

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	*Forecast*
Labour Force Survey									
Employment	*av. in thous. persons*	**5 087**	**5 128**	**5 152**	**5 187**	**5 169**	**5 197**	**5 231**	**5 241**
	YoY growth in %	2.0	1.7	1.8	2.2	1.6	1.3	1.5	1.0
	QoQ growth in %	1.0	0.1	0.4	0.7	0.3	0.0	0.5	0.2
Employees	*av. in thous. persons*	**4 231**	**4 244**	**4 268**	**4 283**	**4 276**	**4 298**	**4 313**	**4 305**
	growth in %	2.8	2.0	1.9	1.8	1.1	1.3	1.0	0.5
Entrepreneurs and	*av. in thous. persons*	**855**	**884**	**883**	**905**	**893**	**899**	**918**	**936**
self-employed	*growth in %*	-1.8	0.2	1.4	3.9	4.4	1.6	4.0	3.4
Unemployment	*av. in thous.persons*	**231**	**210**	**213**	**192**	**185**	**159**	**157**	**153**
Unemployment rate	*average in %*	**4.3**	**3.9**	**4.0**	**3.6**	**3.4**	**3.0**	**2.9**	**2.8**
Long-term unemployment [1]	*av. in thous.persons*	**106**	**91**	**84**	**75**	**68**	**59**	**.**	**.**
Labour force	*av. in thous. persons*	**5 318**	**5 338**	**5 365**	**5 379**	**5 354**	**5 356**	**5 388**	**5 394**
	growth in %	0.3	0.6	0.9	1.2	0.7	0.3	0.4	0.3
Population aged 15–64	*av. in thous. persons*	**6 990**	**6 975**	**6 961**	**6 948**	**6 936**	**6 921**	**6 909**	**6 897**
	growth in %	-0.9	-0.9	-0.8	-0.8	-0.8	-0.8	-0.8	-0.7
Employment/Pop. 15–64	*average in %*	**72.8**	**73.5**	**74.0**	**74.7**	**74.5**	**75.1**	**75.7**	**76.0**
	increase over a year	2.0	1.9	1.9	2.2	1.8	1.6	1.7	1.3
Employment rate 15–64 [2]	*average in %*	**71.0**	**71.7**	**72.2**	**72.9**	**72.8**	**73.3**	**73.9**	**74.1**
	increase over a year	1.6	1.6	1.7	2.1	1.8	1.6	1.6	1.2
Labour force/Pop. 15–64	*average in %*	**76.1**	**76.5**	**77.1**	**77.4**	**77.2**	**77.4**	**78.0**	**78.2**
	increase over a year	0.8	1.1	1.3	1.5	1.1	0.9	0.9	0.8
Participation rate 15–64 [3]	*average in %*	**74.3**	**74.7**	**75.3**	**75.7**	**75.5**	**75.6**	**76.1**	**76.3**
	increase over a year	0.5	0.9	1.1	1.5	1.1	0.9	0.8	0.6
Registered unemployment									
Unemployment	*av. in thous. persons*	**458.9**	**407.8**	**387.5**	**369.6**	**379.5**	**320.8**	**297.0**	**278**
Share of unemployed [4]	*average in %*	**6.3**	**5.6**	**5.3**	**5.0**	**5.1**	**4.3**	**4.0**	**3.8**
Wages and salaries									
Average monthly wage [5]									
Nominal	*CZK*	26 475	27 272	27 210	29 309	27 892	29 346	29 200	31 600
	growth in %	**3.8**	**3.3**	**4.0**	**3.7**	**5.4**	**7.6**	**7.5**	**7.9**
Real	*CZK 2005*	21 403	21 940	21 855	23 447	22 014	23 089	22 900	24 700
	growth in %	**3.4**	**3.0**	**3.4**	**2.2**	**2.9**	**5.2**	**4.9**	**5.3**
Median monthly wage	*CZK*	22 528	23 013	23 518	25 052	23 707	24 896	.	.
	growth in %	**5.8**	**3.8**	**4.6**	**5.6**	**5.2**	**8.2**	**.**	**.**
Wage bill	*growth in %*	**6.0**	**5.6**	**5.8**	**5.7**	**6.8**	**8.2**	**7.2**	**7.5**

[1] *Persons in unemployment for longer than 12 months.*
[2] *The indicator does not include employment over 64 years.*
[3] *The indicator does not include labour force over 64 years.*
[4] *Share of available job seekers aged 15 to 64 years in the population of the same age.*
[5] *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)

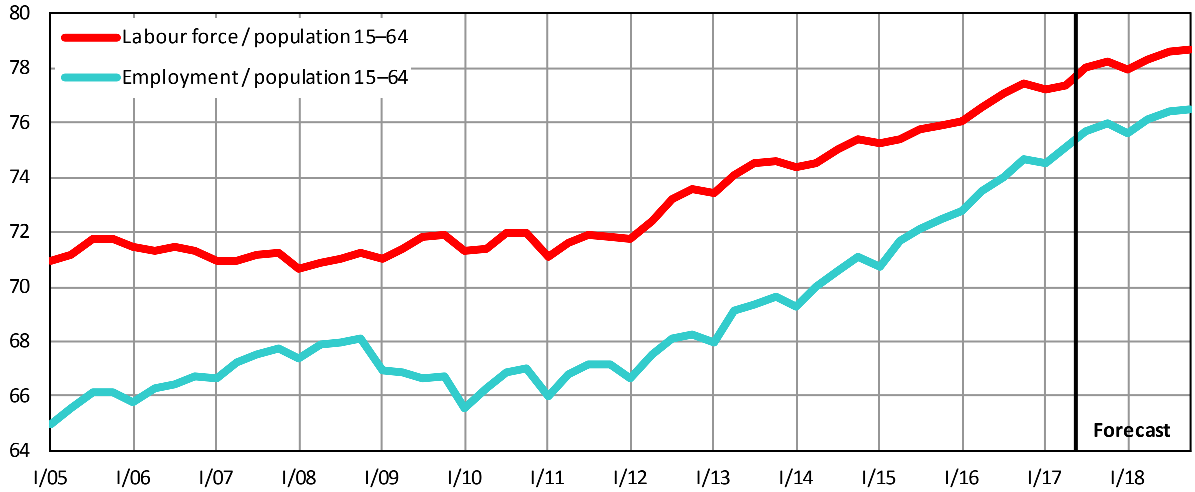
seasonally adjusted data, in thousands of persons, black lines with labels show the average level and growth rate in the given year



Source: CZSO. Calculations of the MoF.

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

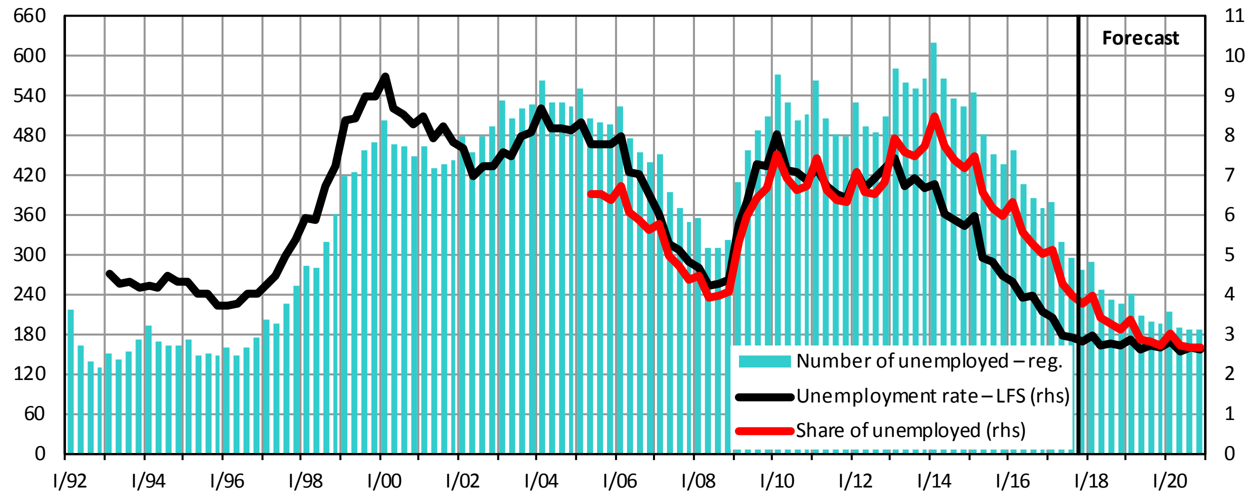
in %



Source: CZSO. Calculations of the MoF.

Graph 3.3.7: Unemployment

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

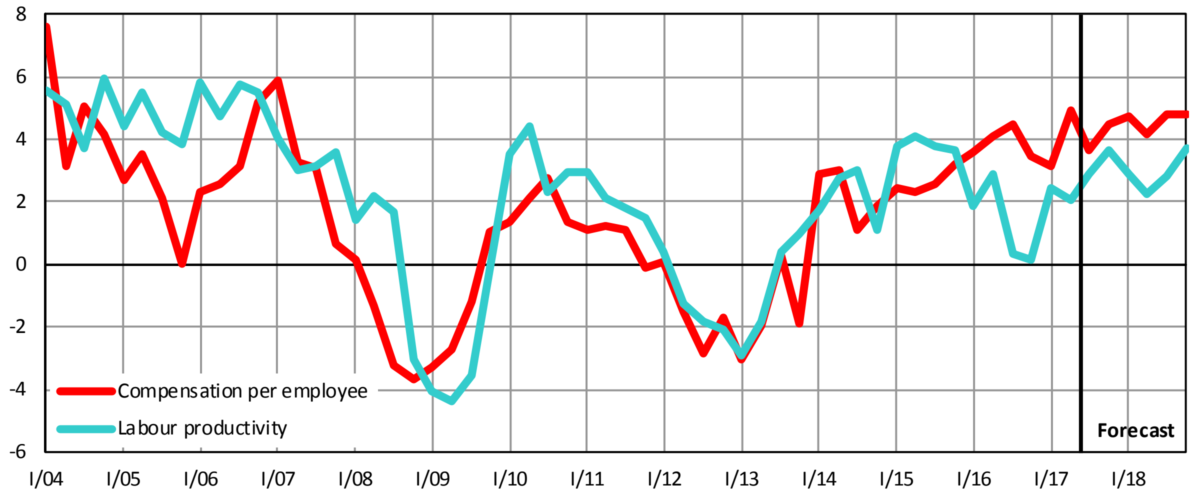


Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

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

Graph 3.3.8: Compensation per Employee and Real Productivity of Labour

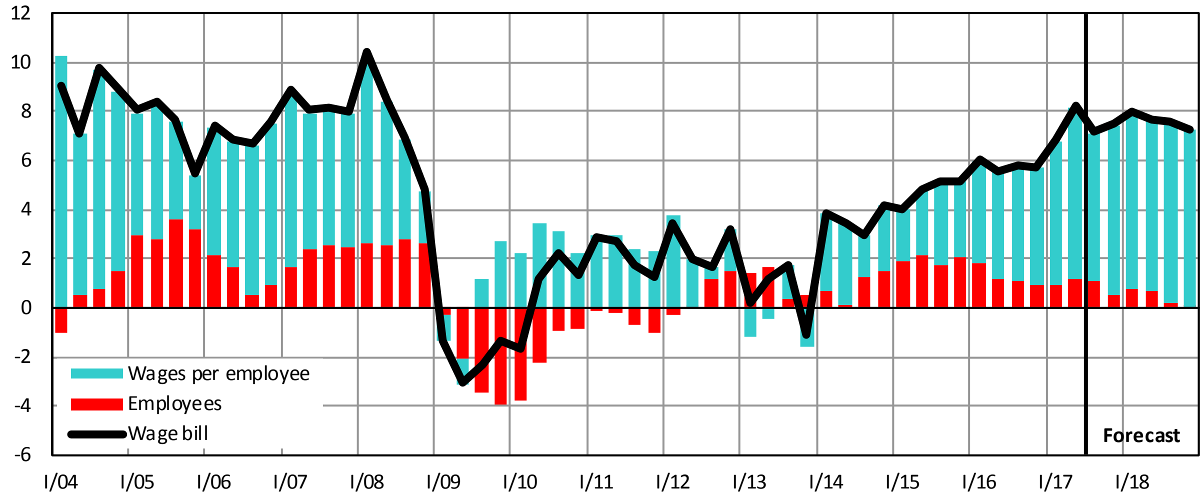
YoY growth rate, in %



Source: CZSO. Calculations of the MoF.

Graph 3.3.9: Wage Bill – nominal, domestic concept

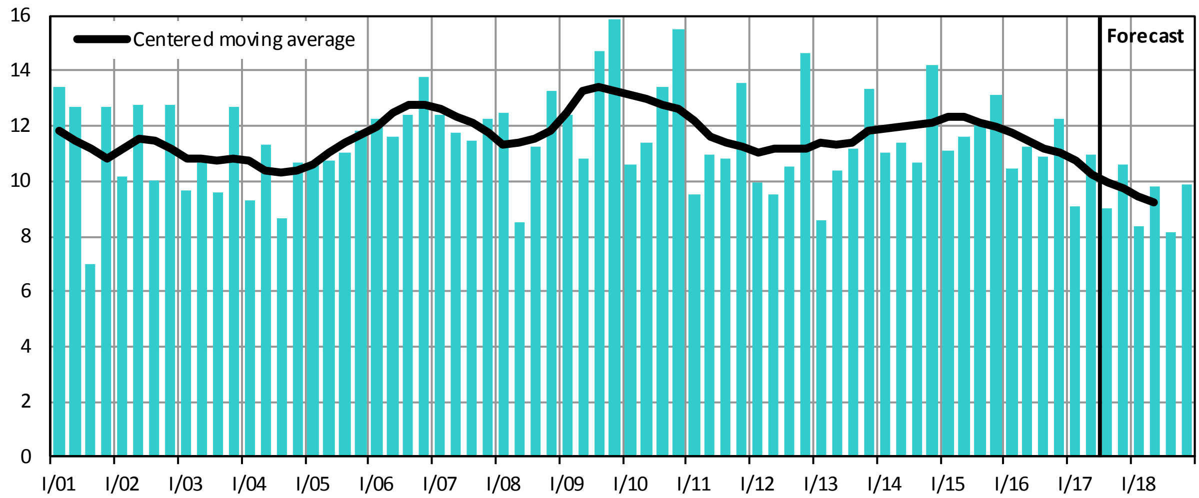
YoY growth rate, in %



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

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
										Forecast	*Forecast*
Current income											
Compensation of employees	*bill.CZK*	**1 553**	**1 587**	**1 627**	**1 669**	**1 692**	**1 760**	**1 852**	**1 966**	**2 114**	**2 273**
	growth in %	-2.5	2.2	2.5	2.6	1.3	4.0	5.3	6.1	7.6	7.5
Gross operating surplus	*bill.CZK*	**686**	**685**	**674**	**654**	**645**	**662**	**691**	**712**	**730**	**752**
and mixed income	*growth in %*	4.5	-0.2	-1.7	-2.9	-1.3	2.6	4.3	3.0	2.6	3.0
Property income received	*bill.CZK*	**158**	**154**	**153**	**147**	**158**	**166**	**166**	**158**	**171**	**179**
	growth in %	-10.8	-2.5	-0.6	-4.0	7.8	5.1	-0.4	-4.6	8.5	4.7
Social benefits not-in-kind	*bill.CZK*	**535**	**541**	**553**	**566**	**563**	**576**	**591**	**606**	**627**	**661**
	growth in %	8.6	1.1	2.1	2.4	-0.6	2.2	2.6	2.7	3.5	5.4
Other current transfers received	*bill.CZK*	**141**	**140**	**139**	**151**	**146**	**160**	**181**	**187**	**225**	**241**
	growth in %	-1.4	-1.0	-0.5	8.6	-3.1	9.2	13.3	3.3	20.3	6.8
Current expenditure											
Property income paid	*bill.CZK*	**19**	**23**	**21**	**15**	**21**	**16**	**14**	**16**	**15**	**15**
	growth in %	-36.7	17.7	-8.5	-27.2	40.5	-24.3	-10.7	8.0	-5.0	0.7
Curr. taxes on income and property	*bill.CZK*	**148**	**144**	**156**	**158**	**166**	**177**	**183**	**200**	**222**	**251**
	growth in %	-2.8	-2.5	8.1	1.6	4.9	6.9	3.2	9.2	11.0	13.1
Social contributions	*bill.CZK*	**603**	**621**	**640**	**654**	**670**	**696**	**732**	**775**	**837**	**902**
	growth in %	-5.3	2.9	3.1	2.3	2.4	3.8	5.3	5.8	8.0	7.8
Other current transfers paid	*bill.CZK*	**143**	**141**	**145**	**154**	**140**	**150**	**168**	**175**	**213**	**226**
	growth in %	-1.6	-1.6	3.2	6.2	-9.3	6.9	11.9	4.6	21.6	6.1
Gross disposable income	*bill.CZK*	**2 161**	**2 179**	**2 184**	**2 206**	**2 208**	**2 285**	**2 383**	**2 463**	**2 582**	**2 713**
	growth in %	3.0	0.8	0.2	1.0	0.1	3.5	4.3	3.4	4.8	5.1
Final consumption	*bill.CZK*	**1 884**	**1 913**	**1 952**	**1 970**	**1 997**	**2 044**	**2 125**	**2 214**	**2 353**	**2 496**
	growth in %	0.2	1.5	2.0	0.9	1.3	2.4	3.9	4.2	6.3	6.0
Change in share in pension funds	*bill.CZK*	**17**	**15**	**16**	**15**	**35**	**35**	**33**	**31**	**31**	**32**
Gross savings	*bill.CZK*	**294**	**282**	**248**	**250**	**246**	**276**	**291**	**280**	**260**	**249**
Capital transfers											
(income (-) / expenditure (+))	*bill.CZK*	**-25**	**-29**	**-25**	**-21**	**-13**	**-32**	**-12**	**-13**	**-19**	**-23**
Gross capital formation	*bill.CZK*	**212**	**230**	**198**	**183**	**181**	**195**	**208**	**225**	**235**	**245**
	growth in %	-3.1	8.8	-13.9	-7.8	-1.3	8.3	6.6	7.7	4.5	4.2
Change in financial assets and liab.	*bill.CZK*	**105**	**79**	**73**	**87**	**77**	**110**	**93**	**67**	**43**	**27**
Real disposable income	*growth in %*	**2.1**	**0.4**	**-1.5**	**-1.2**	**-0.8**	**2.9**	**4.2**	**2.8**	**2.4**	**2.6**
Gross savings rate	*%*	**13.5**	**12.8**	**11.3**	**11.3**	**11.0**	**11.9**	**12.1**	**11.2**	**9.9**	**9.1**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The balance on the **current account of the balance of payments** reached 0.9% of GDP[2] in the second quarter of 2017 (*versus 0.7%*). It improved by 0.1% of GDP on the previous quarter and remained in a moderate surplus.

The **export market growth**[3], which reached 5.9% (*versus 5.2%*) in the second quarter of 2017, was slightly faster than expected. The dynamics of imports of the Czech Republic's main trading partners have been accelerating since the third quarter of 2016, which is indicative of rising foreign demand. In view of the change in the forecast for GDP growth of our main trading partners and the development of their import intensity, we expect the export market growth to accelerate to 6.0% (*versus 5.2%*) this year and to slow down to 5.2% (*versus 4.8%*) in 2018.

Export performance increased by 2.0% (*versus 1.0%*) in the second quarter of 2017 after three quarters of decline. We expect a slight acceleration in export performance growth to 0.8% (*versus 0.4%*) in 2017 from 0.6% in 2016, followed by a slowdown to 0.5% (*versus 0.4%*) in 2018. The continued growth of private investment increases the efficiency of production and thus also the competitiveness of Czech products. However, rising unit labour costs, appreciation of the koruna and the lack of workforce will act against a further increase in export performance.

As regards foreign trade (the balance of payments methodology), **goods balance** deteriorated slightly to 5.1% of GDP (*in line with the estimate*) in the second quarter of 2017, after a record surplus of 5.3% of GDP in the first quarter of 2017. The decreasing balance was due to factors on the import side. Stronger demand for investment goods led to a higher growth in imports of machinery, while an increase in domestic private consumption resulted in higher imports of manufactured articles. The dynamic economic growth was also reflected in the increase in imports of manufactured goods classified by material.

Similarly, growth was seen in significant commodity classes on the export side. Growth was driven by the machinery and transport (esp. automobiles) class, which accounts for more than half of Czech exports according to the standard classification of foreign trade and played a major part in the overall balance of goods.

Prices of mineral fuels remained the dominant factor affecting the terms of trade in foreign trade in goods. The positive impact of the terms of trade on the overall balance was replaced by their expected deterioration since the fourth quarter of 2016. The deficit of the fuel part of the balance reached 2.5% of GDP in the second quarter of 2017 and this value will probably be attained also for the entire year 2017 (*versus 2.3%*). In 2018, the fuel balance could show a deficit of 2.4% GDP in koruna terms, due to an expected slight decrease in crude oil prices (*versus 2.0%*).

We expect the surplus on the balance of goods to decrease slightly to 4.9% of GDP (*versus 5.0%*) in 2017 and further to 4.7% of GDP (*versus 5.0%)* in 2018. The decline in the forecast for the surplus on the balance of goods is driven by rising domestic demand (growth in investment activity), higher crude oil prices and worsening terms of trade.

Since the first quarter of 2015, the surplus on the **balance of services** has been increasing continuously. The total surplus on this balance reached 2.2% of GDP in the second quarter of 2017 (*in line with the estimate*), improving by 0.3% of GDP YoY. In particular, the balance of transportation, tourism, telecommunication services and IT services has improved. With regard to the continuing economic growth we expect improved sales of services abroad in the coming period and the surplus to be maintained at similar levels. For the current and the next years we expect a surplus of 2.2% GDP (*versus 2.3% in both years*).

A YoY decrease in the surplus on the current account of 0.5% of GDP in the second quarter of 2017 was due to the deterioration of the **balance of primary and secondary incomes** by 0.3% of GDP and 0.8% of GDP, respectively, despite the aforementioned increase in the goods and services balance surplus of 0.6% of GDP. The deficit of primary income reached 5.4% of GDP (*versus 5.5%*) in the second quarter of 2017. The deterioration was due to higher outflow of income from foreign direct investments (mainly dividends), based on the increased profitability of foreign-owned companies. The primary income shows a high volatility over time related to the cyclical development of the economy. With an increasing pressure on the growth of wages, and hence the breakdown of GDP on net profit of firms and compensation of employees, we may expect a slight reduction in the primary income deficit to 5.3% of GDP this year, and to 5.2% of GDP next year (*versus 5.4% in both years*).

In this context, we expect that the **current account of the balance of payments** will continue to show a slight surplus, which could reach 0.6% of GDP (*versus 0.7% of GDP*) in 2017 and 0.5% of GDP (*versus 0.8%*) in 2018.

[2] All the *quarterly* figures relative to GFP are listed in annual moving totals.

[3] The most important trading partners include Germany with a 32.2 % share in Czech exports, Slovakia with 9.7 %, Poland with 6.2 %, the United Kingdom and France with 5.0 % each and Austria with 4.2 %.

Table 3.4.1: Balance of Payments – yearly

		2009	2010	2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*
Goods and services	*bill.CZK*	147	119	157	201	237	276	266	352	353	364
	% GDP	**3.7**	**3.0**	**3.9**	**5.0**	**5.8**	**6.4**	**5.8**	**7.4**	**7.0**	**6.9**
Goods	*bill.CZK*	65	40	75	124	167	220	188	251	245	249
	% GDP	**1.7**	**1.0**	**1.9**	**3.0**	**4.1**	**5.1**	**4.1**	**5.3**	**4.9**	**4.7**
Services	*bill.CZK*	82	78	81	78	70	56	78	101	108	115
	% GDP	**2.1**	**2.0**	**2.0**	**1.9**	**1.7**	**1.3**	**1.7**	**2.1**	**2.2**	**2.2**
Primary income	*bill.CZK*	-217	-250	-223	-238	-249	-261	-255	-272	-264	-277
	% GDP	**-5.5**	**-6.3**	**-5.5**	**-5.9**	**-6.1**	**-6.0**	**-5.5**	**-5.7**	**-5.3**	**-5.2**
Secondary income	*bill.CZK*	-19	-11	-18	-27	-10	-7	0	-27	-59	-63
	% GDP	**-0.5**	**-0.3**	**-0.5**	**-0.7**	**-0.2**	**-0.2**	**0.0**	**-0.6**	**-1.2**	**-1.2**
Current account	*bill.CZK*	-89	-142	-85	-63	-22	8	11	53	30	24
	% GDP	**-2.3**	**-3.6**	**-2.1**	**-1.6**	**-0.5**	**0.2**	**0.2**	**1.1**	**0.6**	**0.5**
Capital account	*bill.CZK*	51	38	13	53	82	32	102	54	26	34
	% GDP	**1.3**	**0.9**	**0.3**	**1.3**	**2.0**	**0.7**	**2.2**	**1.1**	**0.5**	**0.6**
Net lending/borrowing	*bill.CZK*	-38	-104	-72	-10	61	40	113	106	56	58
	% GDP	**-1.0**	**-2.6**	**-1.8**	**-0.3**	**1.5**	**0.9**	**2.5**	**2.2**	**1.1**	**1.1**
Financial account	*bill.CZK*	-72	-122	-75	12	68	59	176	118	.	.
Direct investments	*bill.CZK*	-38	-95	-47	-121	7	-80	50	-141	.	.
Portfolio investments	*bill.CZK*	-159	-150	-6	-55	-93	90	-164	-170	.	.
Financial derivatives	*bill.CZK*	1	5	4	-9	-5	-6	-5	11	.	.
Other investments	*bill.CZK*	62	77	-9	116	-30	-18	-56	-147	.	.
Reserve assets	*bill.CZK*	61	41	-17	80	188	73	351	564	.	.
International investment position	*bill.CZK*	-1 726	-1 823	-1 823	-1 864	-1 695	-1 577	-1 512	-1 176	.	.
	% GDP	**-43.9**	**-46.0**	**-45.2**	**-45.9**	**-41.4**	**-36.6**	**-32.9**	**-24.6**	.	.
Gross external debt	*bill.CZK*	1 956	2 164	2 312	2 434	2 733	3 024	3 196	3 528	.	.
	% GDP	**49.8**	**54.6**	**57.3**	**60.0**	**66.7**	**70.1**	**69.5**	**73.9**	.	.

Source: CNB, CZSO. Calculations of the MoF.

Table 3.4.2: Balance of Payments – quarterly

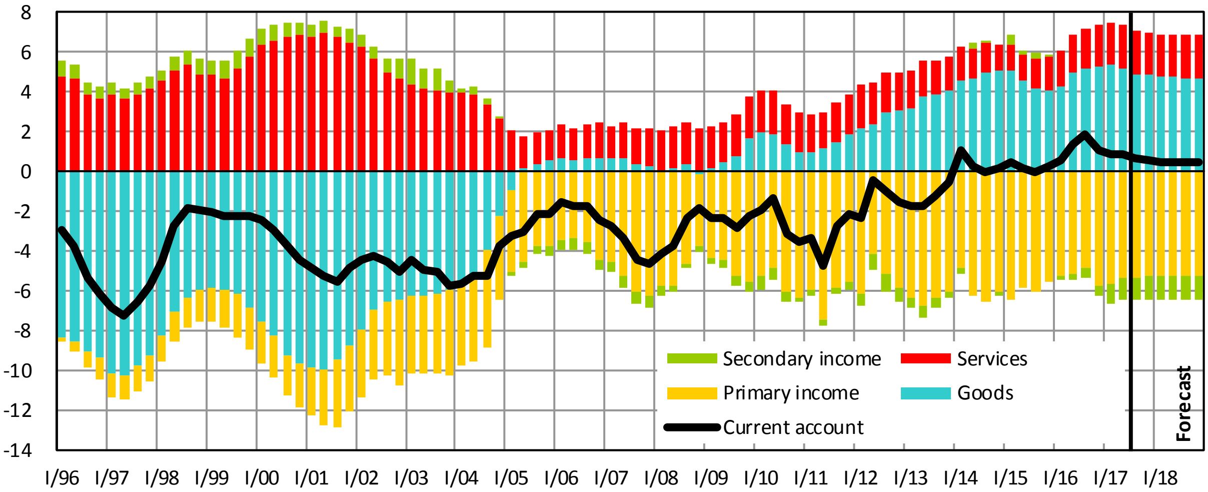
moving sums of the latest 4 quarters

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	*Forecast*
Goods and services	*bill.CZK*	281	322	341	352	361	360	352	353
	% GDP	**6.0**	**6.8**	**7.2**	**7.4**	**7.5**	**7.4**	**7.1**	**7.0**
Goods	*bill.CZK*	197	233	245	251	258	251	243	245
	% GDP	**4.2**	**5.0**	**5.2**	**5.3**	**5.3**	**5.1**	**4.9**	**4.9**
Services	*bill.CZK*	83	89	96	101	103	109	108	108
	% GDP	**1.8**	**1.9**	**2.0**	**2.1**	**2.1**	**2.2**	**2.2**	**2.2**
Primary income	*bill.CZK*	-245	-241	-228	-272	-272	-262	-263	-264
	% GDP	**-5.3**	**-5.1**	**-4.8**	**-5.7**	**-5.6**	**-5.4**	**-5.3**	**-5.3**
Secondary income	*bill.CZK*	-8	-16	-23	-27	-49	-53	-56	-59
	% GDP	**-0.2**	**-0.3**	**-0.5**	**-0.6**	**-1.0**	**-1.1**	**-1.1**	**-1.2**
Current account	*bill.CZK*	28	65	90	53	40	44	32	30
	% GDP	**0.6**	**1.4**	**1.9**	**1.1**	**0.8**	**0.9**	**0.7**	**0.6**
Capital account	*bill.CZK*	90	59	63	54	36	22	24	26
	% GDP	**1.9**	**1.2**	**1.3**	**1.1**	**0.7**	**0.5**	**0.5**	**0.5**
Net lending/borrowing	*bill.CZK*	118	123	153	106	76	66	56	56
	% GDP	**2.5**	**2.6**	**3.2**	**2.2**	**1.6**	**1.4**	**1.1**	**1.1**
Financial account	*bill.CZK*	189	134	147	118	83	133	.	.
Direct investments	*bill.CZK*	56	-27	-99	-141	-213	-158	.	.
Portfolio investments	*bill.CZK*	-223	-317	-186	-170	-479	-464	.	.
Financial derivatives	*bill.CZK*	-3	-7	-1	11	11	6	.	.
Other investments	*bill.CZK*	-106	31	-16	-147	-768	-836	.	.
Reserve assets	*bill.CZK*	464	453	448	564	1532	1586	.	.
International investment position	*stock in bill.CZK*	-1 365	-1 329	-1 252	-1 176	-997	-1 171	.	.
	% GDP	**-29.4**	**-28.3**	**-26.4**	**-24.6**	**-20.7**	**-24.0**	.	.
Gross external debt	*stock in bill.CZK*	3 231	3 320	3 386	3 528	4 434	4 481	.	.
	% GDP	**69.5**	**70.6**	**71.5**	**73.9**	**91.9**	**91.9**	.	.

Source: CNB, CZSO. Calculations of the MoF.

Graph 3.4.1: Current Account

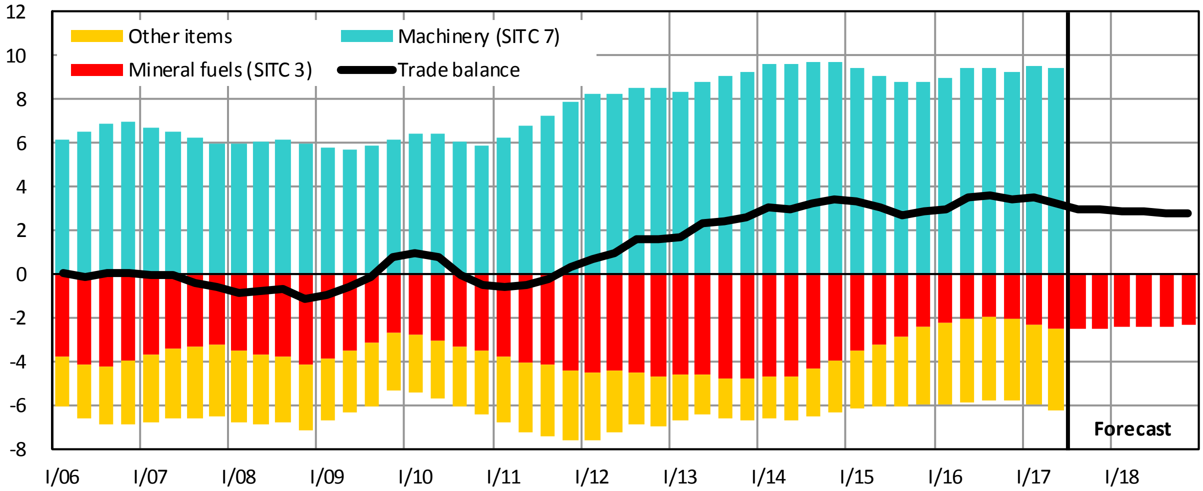
moving sums of the latest 4 quarters, in % of GDP, trade and service balances in BoP definitions



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

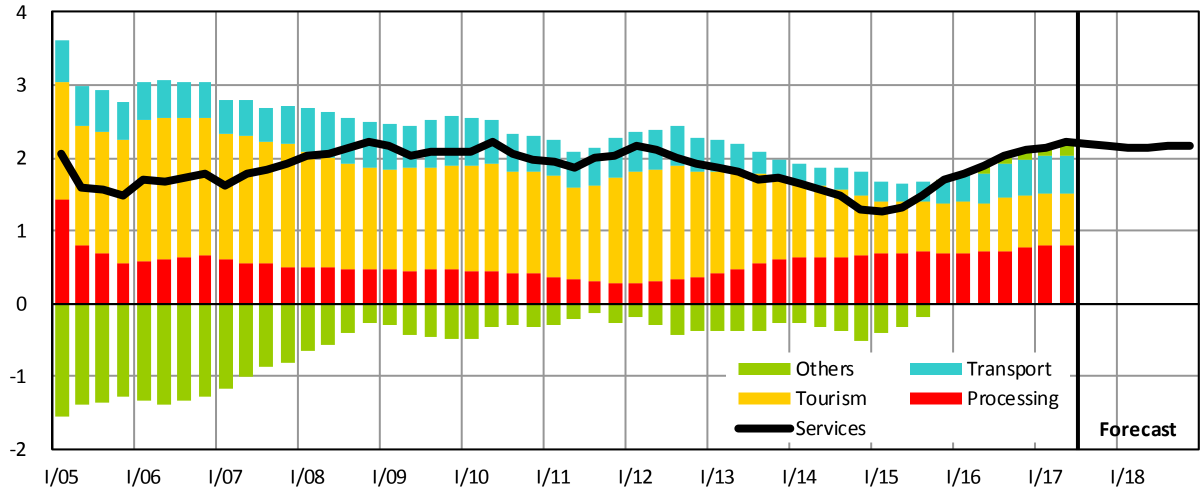


Note: The data in the graph show imports in cif methodology. For this reason, the graph is not comparable with Tables 3.4.1 and 3.4.2, where imports are in fob methodology. Trade balance in the national concept (unlike in the BoP methodology in Tables 3.4.1 and 3.4.2) does not include the import of JAS-39 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

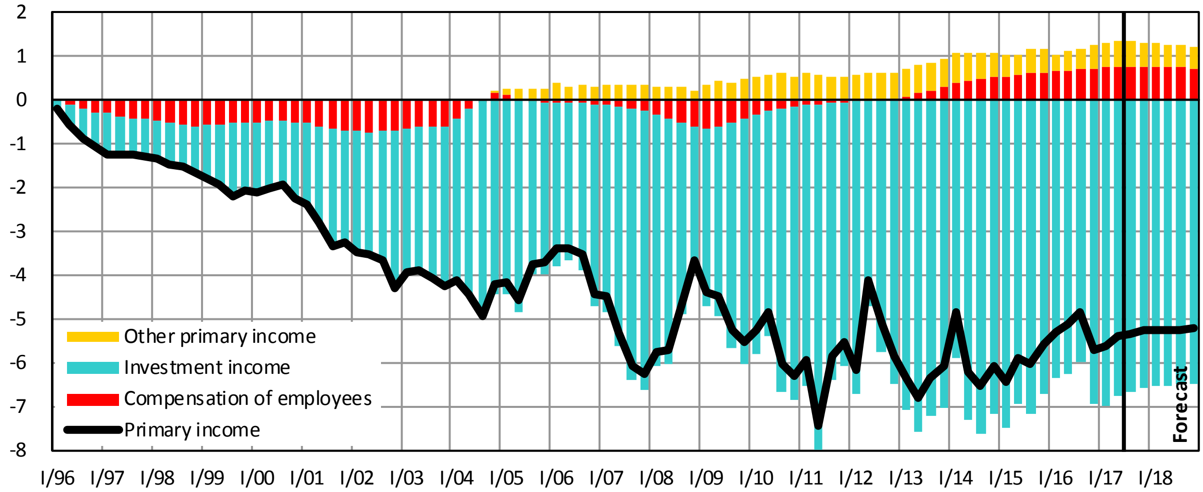
moving sums of the latest 4 quarters, in % of GDP



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

		2009	2010	2011	2012	2013	2014	2015	2016	2017 Forecast	2018 Forecast
GDP [1]	*average of 2005=100*	96.5	100.0	103.4	104.4	105.3	107.5	109.7	112.0	115	117
	growth in %	**-4.2**	**3.6**	**3.4**	**0.9**	**0.9**	**2.1**	**2.1**	**2.1**	**2.5**	**2.2**
Import intensity [2]	*average of 2005=100*	92.0	100.0	104.0	103.1	104.5	107.3	110.4	112.2	116	119
	growth in %	**-6.8**	**8.7**	**4.0**	**-0.9**	**1.4**	**2.6**	**2.9**	**1.6**	**3.4**	**2.9**
Export markets [3]	*average of 2005=100*	88.8	100.0	107.5	107.6	110.0	115.3	121.2	125.7	133	140
	growth in %	**-10.7**	**12.6**	**7.5**	**0.1**	**2.3**	**4.8**	**5.1**	**3.8**	**6.0**	**5.2**
Export performance	*average of 2005=100*	97.6	100.0	102.5	106.9	105.2	109.6	110.0	110.6	111	112
	growth in %	**0.6**	**2.5**	**2.5**	**4.3**	**-1.6**	**4.3**	**0.3**	**0.6**	**0.8**	**0.5**
Real exports	*average of 2005=100*	86.6	100.0	110.2	115.0	115.7	126.4	133.3	139.1	149	157
	growth in %	**-10.1**	**15.4**	**10.2**	**4.4**	**0.6**	**9.2**	**5.4**	**4.3**	**6.8**	**5.8**
1 / NEER	*average of 2005=100*	102.2	100.0	97.0	101.3	103.0	108.6	109.9	106.9	104	101
	growth in %	**3.4**	**-2.2**	**-3.0**	**4.4**	**1.7**	**5.5**	**1.2**	**-2.8**	**-2.4**	**-3.4**
Prices on foreign markets	*average of 2005=100*	99.0	100.0	103.9	102.8	102.6	101.0	98.4	98.2	100	102
	growth in %	**-3.1**	**1.0**	**3.9**	**-1.1**	**-0.1**	**-1.6**	**-2.6**	**-0.1**	**1.8**	**2.0**
Exports deflator	*average of 2005=100*	101.2	100.0	100.8	104.0	105.7	109.7	108.2	105.0	104	103
	growth in %	**0.2**	**-1.2**	**0.8**	**3.2**	**1.5**	**3.8**	**-1.4**	**-2.9**	**-0.6**	**-1.5**
Nominal exports	*average of 2005=100*	87.6	100.0	111.0	119.6	122.3	138.6	144.1	146.0	155	161
	growth in %	**-10.1**	**14.2**	**11.0**	**7.8**	**2.2**	**13.4**	**4.0**	**1.3**	**6.1**	**4.2**

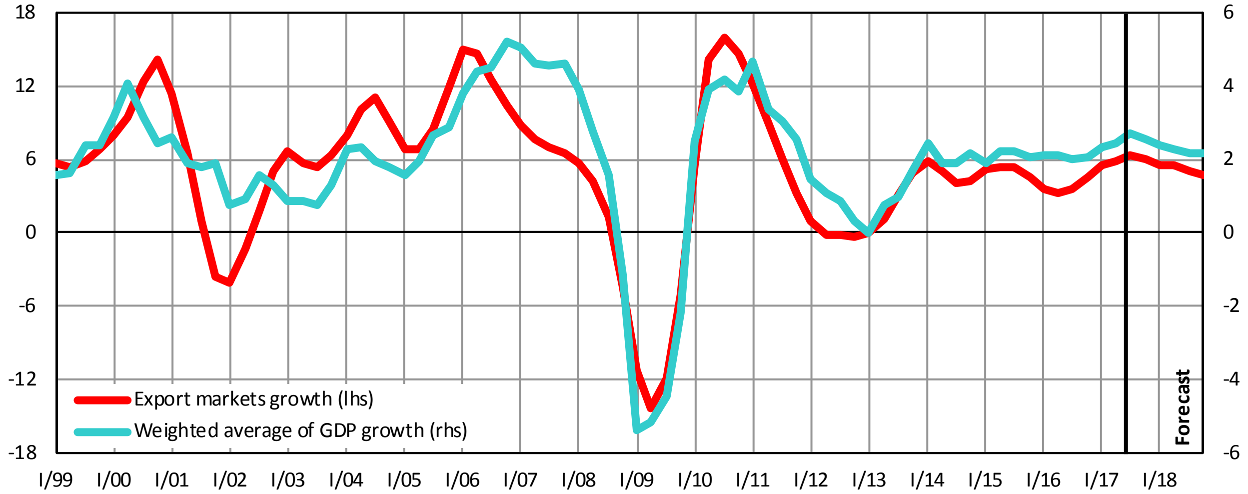
[1] Weighted average of GDP of the seven most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland, France and Italy.
[2] Index of ratio of real imports of goods to real GDP.
[3] Weighted average of imports of goods of the main partners.
Source: CNB, CZSO, Eurostat. Calculations of the MoF.

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

		2016				2017			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 Estimate	Q4 Forecast
GDP [1]	*average of 2010=100*	111.2	111.8	112.2	112.9	113.8	114.5	115	116
	growth in %	**2.1**	**2.1**	**2.0**	**2.1**	**2.3**	**2.5**	**2.7**	**2.5**
Import intensity [2]	*average of 2010=100*	111.3	111.6	112.4	113.6	114.8	115.4	116	117
	growth in %	**1.4**	**1.2**	**1.6**	**2.4**	**3.1**	**3.3**	**3.6**	**3.4**
Export markets [3]	*average of 2010=100*	123.8	124.8	126.1	128.3	130.6	132.1	134	136
	growth in %	**3.5**	**3.3**	**3.6**	**4.5**	**5.5**	**5.9**	**6.4**	**6.1**
Export performance	*average of 2010=100*	112.7	111.6	109.3	109.0	111.0	113.9	111	110
	growth in %	**3.2**	**2.5**	**-0.7**	**-2.6**	**-1.4**	**2.0**	**1.4**	**1.1**
Real exports	*average of 2010=100*	139.4	139.2	137.8	139.8	145.0	150.4	149	150
	growth in %	**6.9**	**5.9**	**2.9**	**1.8**	**4.0**	**8.0**	**7.9**	**7.2**
1 / NEER	*average of 2010=100*	106.9	106.9	106.8	106.9	107.4	105.3	103	102
	growth in %	**-3.2**	**-5.2**	**-1.5**	**-1.2**	**0.5**	**-1.5**	**-3.7**	**-4.7**
Prices on foreign markets	*average of 2010=100*	98.4	97.8	98.2	98.5	99.4	99.5	100	101
	growth in %	**-0.8**	**1.1**	**-1.1**	**0.2**	**1.1**	**1.8**	**1.9**	**2.5**
Exports deflator	*average of 2010=100*	105.2	104.6	104.9	105.4	106.8	104.8	103	103
	growth in %	**-3.9**	**-4.2**	**-2.6**	**-0.9**	**1.6**	**0.2**	**-1.9**	**-2.3**
Nominal exports	*average of 2010=100*	146.6	145.6	144.5	147.3	154.9	157.6	153	154
	growth in %	**2.7**	**1.4**	**0.3**	**0.9**	**5.6**	**8.3**	**5.8**	**4.7**

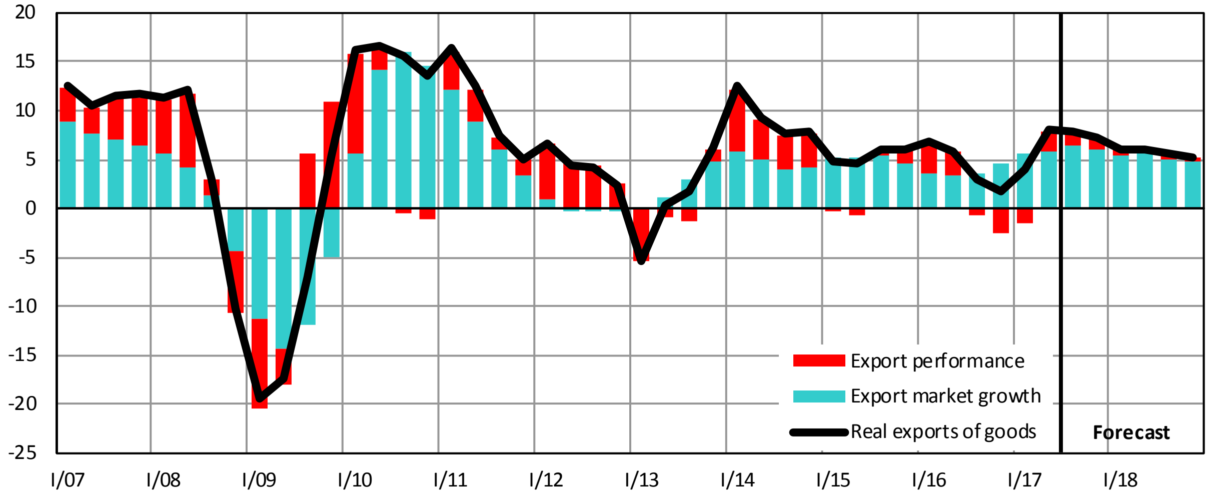
See notes to Table 3.4.3.
Source: CNB, CZSO, Eurostat. Calculations of the MoF.

Graph 3.4.5: GDP and Imports of Goods in Main Partner Countries
YoY growth rate, in %, seasonally adjusted



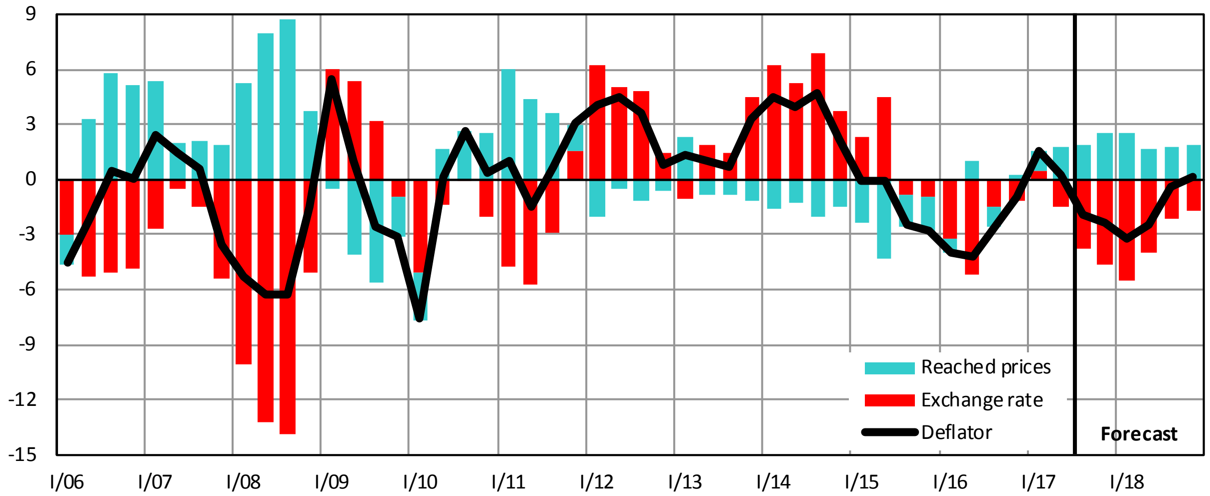
Source: Eurostat. Calculations of the MoF.

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 2016 are based on Eurostat statistics. Since 2017, our own calculations on the basis of real exchange rates have been used.

In 2016, the GDP per capita in **current purchasing power parity** increased in most of the monitored countries, though a slight decrease in both absolute and relative terms compared to EA19 was recorded also in Greece, Hungary and Estonia in the mentioned year. The main reason for the decline in GDP per capita in Hungary and Estonia was a 4% increase in PPS. In the Czech Republic, the purchasing power parity was 17.58 CZK/PPS compared to the EU28 and 17.14 CZK/EUR compared to the EA19. The economic level reached circa 25,700 PPS, corresponding to 83% of the economic level in the EA19. The relative economic level of the Czech Republic should increase gradually up to 86% of the EA19 average in 2018, thanks to a steady economic growth.

GDP per capita adjusted for the current **exchange rate** takes into account the market valuation of the currency and the ensuing differences in price levels. In the case of the Czech Republic, this indicator was approximately EUR 16,700 in 2016, i.e. 53% of the EA19 level. Higher economic growth and the exchange rate appreciation will result in a gradual increase in the relative level up to 58% of the EA19 average in 2018.

When comparing price levels, the **comparative price level of GDP** in the Czech Republic stagnated in 2016, reaching 63% of the EA19 average, similarly as in the preceding year. The comparative price level of GDP should gradually increase to 68% of the EA19 average in 2018. However, this increase should not jeopardize the competitiveness of the Czech economy.

Through the decomposition[4] 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 as a ratio of GDP to the number of hours worked has been increasing in the long run 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 any of the monitored countries in 2008–2016, the only exception being Greece. In the given period, however, a decrease in the relative level of labour productivity compared to the EA19 countries was also seen, in addition to Greece, in Slovenia and Portugal, whereas increases in the relative level in Poland and Latvia exceeded 8 pp. Given the higher growth rate of hours worked compared to the growth rate of GDP in current purchasing power parity, the labour productivity in the Czech Republic decreased by 1.3% in 2016 and reached 67% of the EA19 average.

In the case of the **labour market component**, which gives the number of hours worked per working-age person, there is the opposite situation. In 2016, the relative level of the labour market component exceeded the average of the EA19 countries in all states except Slovakia. In Estonia, Lithuania, Latvia, the Czech Republic and Poland the difference was more than 20 pp. In 2008–2016, the absolute level of the labour market component dropped in Greece, Portugal, Latvia, Estonia, Slovenia and Hungary, with Greece falling by 14% in the mentioned years as a result of a 19% drop in 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 2008–2016, the sharpest decrease of 5.1 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, while in Slovakia it exceeded the EA19 average by 9 pp in 2016.

[4] GDP per capita can be written as follows:

$$GDP\ per\ capita = \frac{GDP}{number\ of\ inhabit.} =$$

$$= \frac{GDP}{no.\ of\ hours\ worked} * \frac{no.\ of\ hours\ worked}{population\ aged\ 15-64} * \frac{population\ aged\ 15-64}{no.\ of\ inhabit.} =$$

$$= labour\ productivity * labour\ market\ component * demographic\ component$$

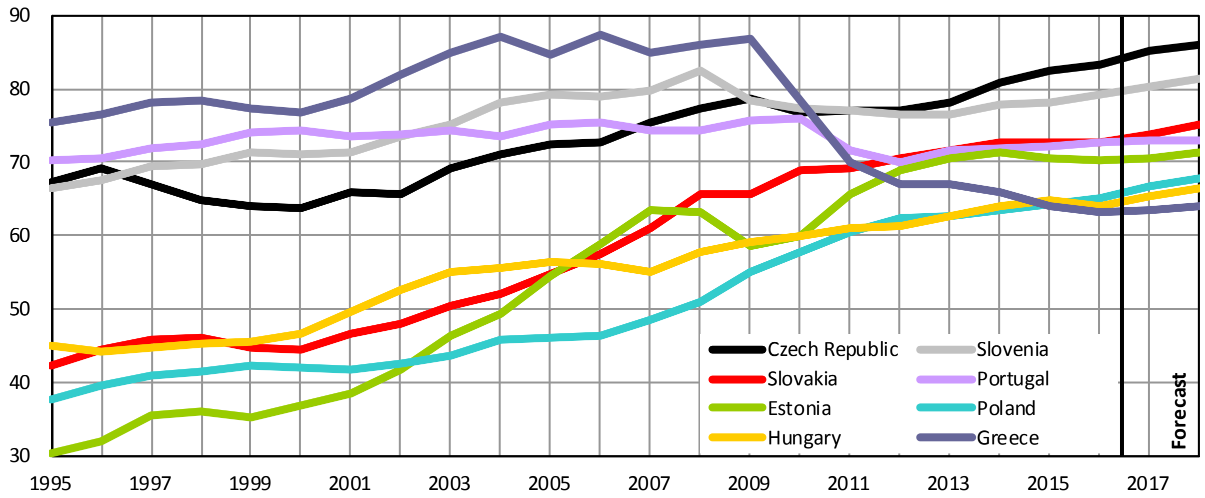
Table 3.5.1: GDP per Capita – Using Current Purchasing Power Parities

		2009	2010	2011	2012	2013	2014	2015	2016	2017 *Forecast*	2018 *Forecast*
Spain	*PPS*	**24 600**	**24 400**	**24 200**	**24 200**	**24 000**	**24 700**	**26 000**	**26 700**	**27 700**	**28 700**
	EA19=100	93	89	86	85	84	84	84	86	87	88
Czech Republic	*PPS*	**20 900**	**21 100**	**21 700**	**21 900**	**22 400**	**23 800**	**25 400**	**25 700**	**27 000**	**28 100**
	EA19=100	79	77	77	77	78	81	83	83	85	86
Slovenia	*PPS*	**20 900**	**21 200**	**21 700**	**21 800**	**21 900**	**22 900**	**24 000**	**24 400**	**25 500**	**26 600**
	EA19=100	78	77	77	77	76	78	78	79	80	81
Slovakia	*PPS*	**17 400**	**19 000**	**19 500**	**20 100**	**20 500**	**21 300**	**22 400**	**22 500**	**23 400**	**24 600**
	EA19=100	66	69	69	71	72	73	73	73	74	75
Portugal	*PPS*	**20 100**	**20 900**	**20 200**	**20 000**	**20 500**	**21 200**	**22 200**	**22 400**	**23 100**	**23 900**
	EA19=100	76	76	72	70	72	72	72	73	73	73
Lithuania	*PPS*	**13 800**	**15 400**	**17 200**	**18 600**	**19 600**	**20 700**	**21 600**	**21 900**	**23 100**	**24 500**
	EA19=100	52	56	61	65	68	70	70	71	73	75
Estonia	*PPS*	**15 600**	**16 500**	**18 500**	**19 600**	**20 200**	**20 900**	**21 700**	**21 700**	**22 400**	**23 400**
	EA19=100	59	60	66	69	70	71	71	70	71	71
Poland	*PPS*	**14 600**	**15 900**	**17 000**	**17 800**	**17 900**	**18 600**	**19 800**	**20 100**	**21 200**	**22 200**
	EA19=100	55	58	60	62	63	63	64	65	67	68
Hungary	*PPS*	**15 700**	**16 500**	**17 200**	**17 400**	**18 000**	**18 800**	**19 900**	**19 800**	**20 700**	**21 700**
	EA19=100	59	60	61	61	63	64	65	64	65	66
Greece	*PPS*	**23 100**	**21 500**	**19 700**	**19 100**	**19 200**	**19 400**	**19 700**	**19 500**	**20 200**	**20 900**
	EA19=100	87	78	70	67	67	66	64	63	63	64
Latvia	*PPS*	**12 800**	**13 400**	**14 900**	**16 100**	**16 700**	**17 500**	**18 500**	**18 900**	**19 800**	**20 900**
	EA19=100	48	49	53	56	58	60	60	61	62	64
Croatia	*PPS*	**15 200**	**15 100**	**15 600**	**16 000**	**15 900**	**16 100**	**16 900**	**17 300**	**18 100**	**19 000**
	EA19=100	57	55	55	56	56	55	55	56	57	58

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.

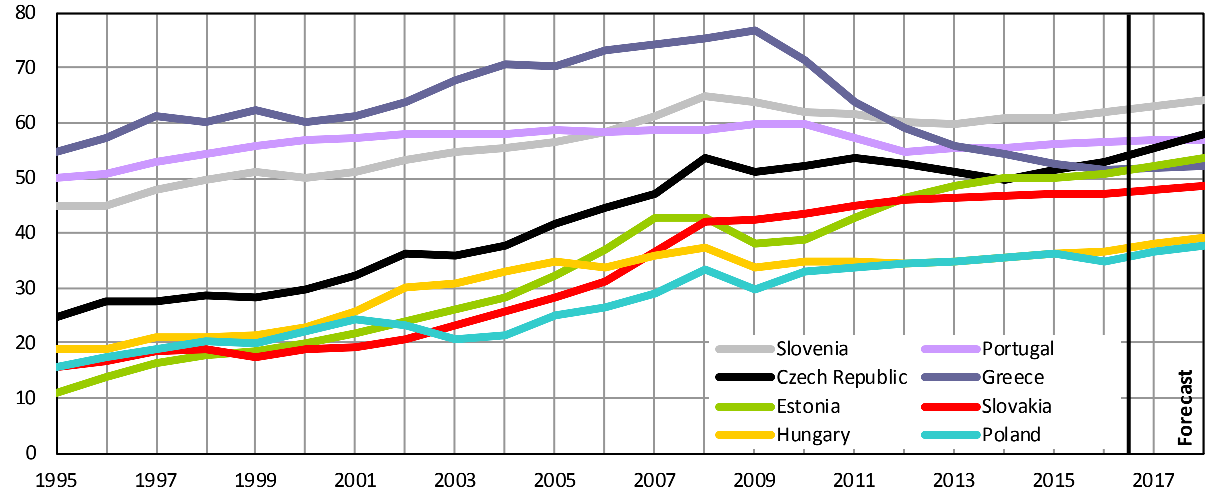
Table 3.5.2: GDP per Capita – Using Current Exchange Rates

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
											Forecast	*Forecast*
Spain		*EUR*	**23 300**	**23 200**	**22 900**	**22 200**	**22 000**	**22 300**	**23 300**	**24 100**	**25 000**	**25 900**
		EA19=100	84	81	78	76	75	74	75	76	77	77
	Comparative price level	*EA19=100*	**90**	**92**	**92**	**90**	**89**	**88**	**89**	**88**	**88**	**88**
Slovenia		*EUR*	**17 700**	**17 700**	**18 000**	**17 500**	**17 600**	**18 200**	**18 800**	**19 600**	**20 500**	**21 500**
		EA19=100	64	62	62	60	60	61	61	62	63	64
	Comparative price level	*EA19=100*	**81**	**80**	**80**	**78**	**78**	**78**	**78**	**78**	**78**	**79**
Portugal		*EUR*	**16 600**	**17 000**	**16 700**	**16 000**	**16 300**	**16 600**	**17 400**	**17 900**	**18 500**	**19 100**
		EA19=100	60	60	57	55	55	55	56	57	57	57
	Comparative price level	*EA19=100*	**79**	**79**	**80**	**78**	**77**	**77**	**78**	**78**	**78**	**78**
Czech Republic		*EUR*	**14 200**	**14 900**	**15 600**	**15 400**	**15 000**	**14 900**	**16 000**	**16 700**	**18 000**	**19 500**
		EA19=100	51	52	54	53	51	50	52	53	55	58
	Comparative price level	*EA19=100*	**65**	**68**	**70**	**68**	**65**	**61**	**63**	**63**	**65**	**68**
Greece		*EUR*	**21 400**	**20 300**	**18 600**	**17 300**	**16 500**	**16 300**	**16 200**	**16 300**	**16 800**	**17 500**
		EA19=100	77	71	64	59	56	54	52	52	52	52
	Comparative price level	*EA19=100*	**89**	**91**	**91**	**88**	**84**	**82**	**82**	**81**	**81**	**81**
Estonia		*EUR*	**10 600**	**11 000**	**12 500**	**13 500**	**14 300**	**15 000**	**15 500**	**16 000**	**17 000**	**18 000**
		EA19=100	38	39	43	46	49	50	50	51	52	54
	Comparative price level	*EA19=100*	**65**	**65**	**66**	**67**	**69**	**70**	**71**	**72**	**74**	**75**
Slovakia		*EUR*	**11 800**	**12 400**	**13 100**	**13 400**	**13 700**	**14 000**	**14 600**	**14 900**	**15 500**	**16 300**
		EA19=100	43	44	45	46	47	47	47	47	48	49
	Comparative price level	*EA19=100*	**65**	**63**	**65**	**65**	**65**	**64**	**65**	**65**	**65**	**65**
Lithuania		*EUR*	**8 500**	**9 000**	**10 300**	**11 200**	**11 800**	**12 500**	**12 900**	**13 500**	**14 500**	**15 600**
		EA19=100	31	32	35	38	40	42	41	43	44	46
	Comparative price level	*EA19=100*	**59**	**57**	**58**	**58**	**59**	**59**	**59**	**60**	**61**	**62**
Latvia		*EUR*	**8 800**	**8 500**	**9 800**	**10 800**	**11 300**	**11 800**	**12 300**	**12 700**	**13 600**	**14 500**
		EA19=100	31	30	34	37	39	39	40	40	42	43
	Comparative price level	*EA19=100*	**65**	**61**	**64**	**66**	**66**	**66**	**66**	**66**	**67**	**68**
Hungary		*EUR*	**9 400**	**9 900**	**10 200**	**10 000**	**10 300**	**10 700**	**11 300**	**11 600**	**12 400**	**13 200**
		EA19=100	34	35	35	34	35	36	36	37	38	39
	Comparative price level	*EA19=100*	**57**	**58**	**57**	**56**	**56**	**56**	**56**	**57**	**58**	**59**
Poland		*EUR*	**8 300**	**9 400**	**9 900**	**10 100**	**10 300**	**10 700**	**11 200**	**11 000**	**11 900**	**12 700**
		EA19=100	30	33	34	35	35	36	36	35	37	38
	Comparative price level	*EA19=100*	**54**	**57**	**56**	**55**	**56**	**56**	**56**	**54**	**55**	**56**
Croatia		*EUR*	**10 500**	**10 500**	**10 400**	**10 300**	**10 200**	**10 100**	**10 500**	**11 000**	**11 700**	**12 300**
		EA19=100	38	37	36	35	35	34	34	35	36	37
	Comparative price level	*EA19=100*	**66**	**67**	**65**	**63**	**62**	**62**	**62**	**62**	**63**	**63**

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

Graph 3.5.2: GDP per Capita – Using Current Exchange Rates

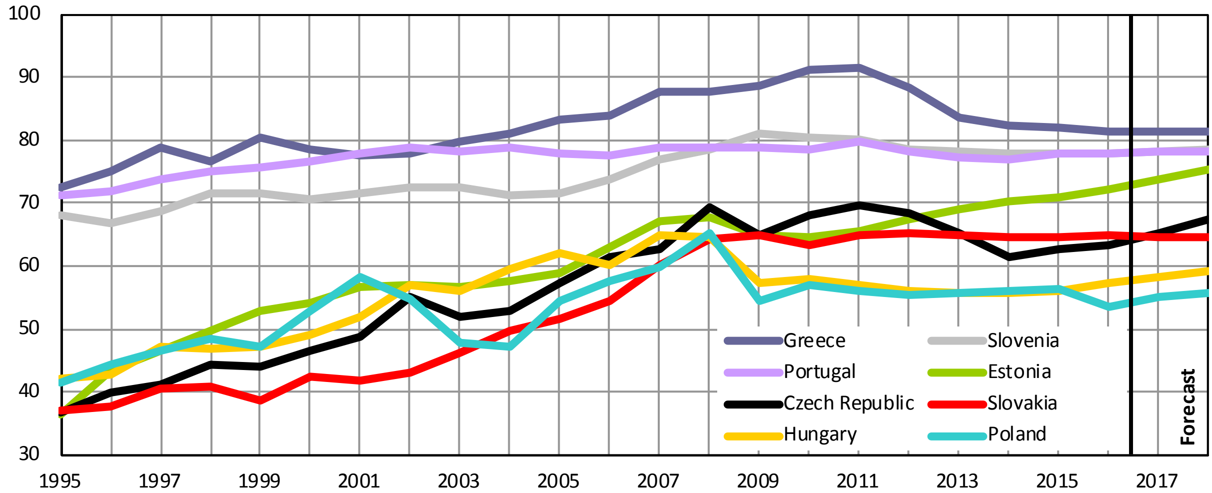
EA19=100



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

Graph 3.5.3: Comparative Price Level of GDP per Capita

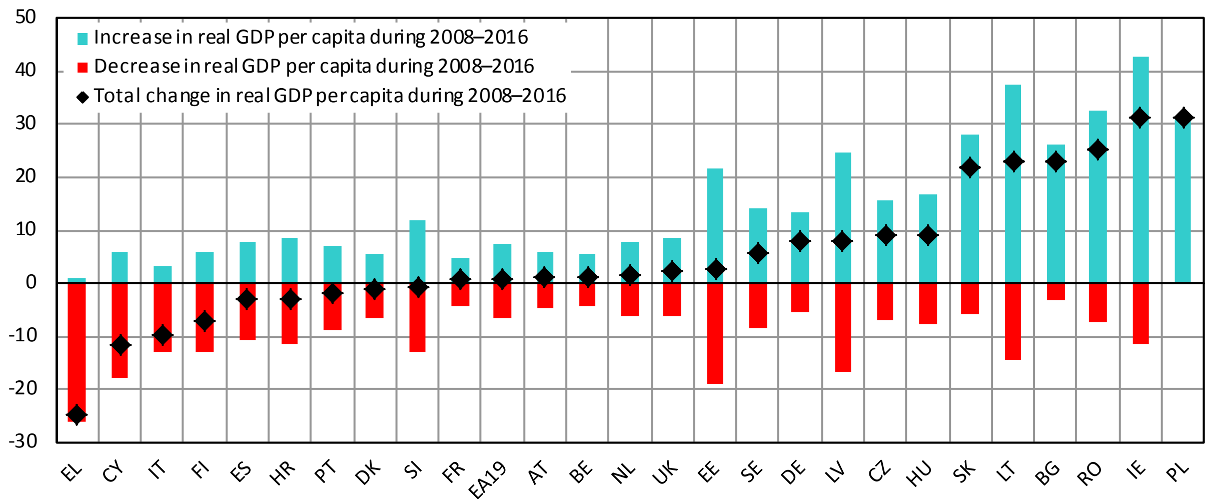
EA19=100



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

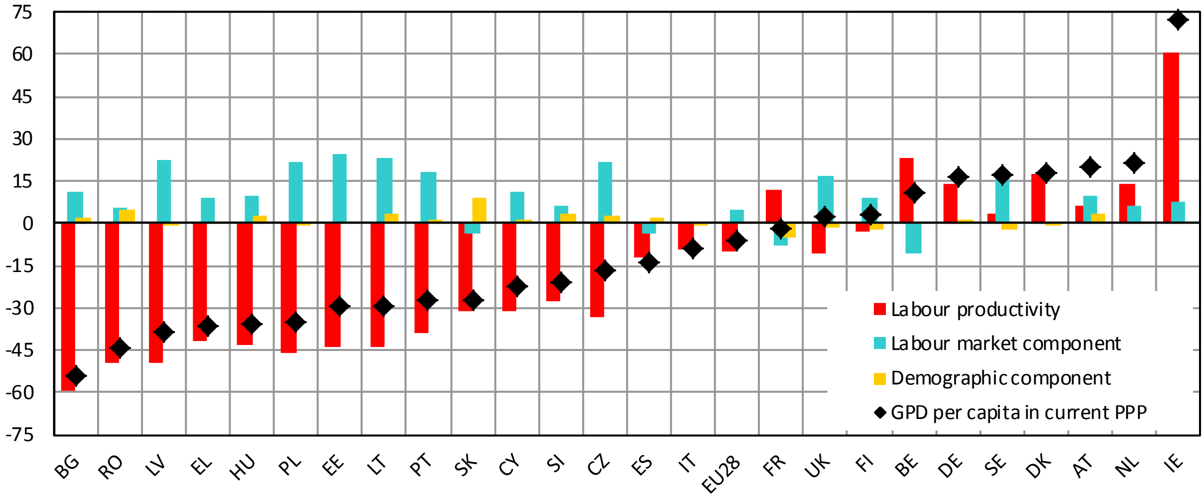
Graph 3.5.4: Change in Real GDP per Capita during 2008–2016

growth in %



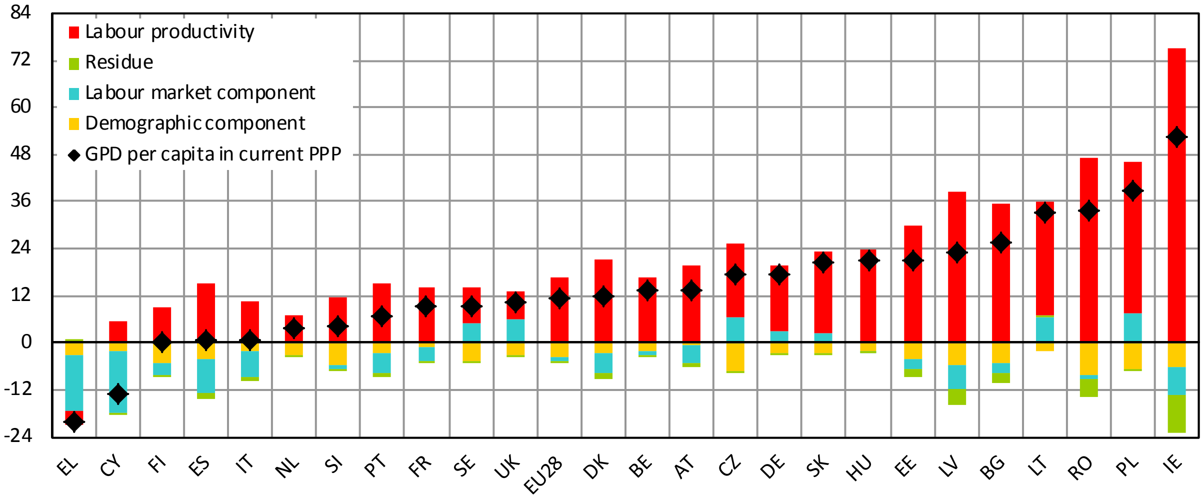
Source: Eurostat. Calculations of the MoF.

Graph 3.5.5: Current PPP Adjusted GDP per Capita Level Relative to the EA19 Average in 2016
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 2008–2016
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

		October 2017			November 2017
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2017)	*growth in %, const.pr.*	2.6	4.5	3.5	4.1
Gross domestic product (2018)	*growth in %, const.pr.*	2.6	3.4	2.9	3.3
Average inflation rate (2017)	*%*	2.2	2.5	2.4	2.4
Average inflation rate (2018)	*%*	1.8	2.5	2.1	2.4
Average monthly wage (2017)	*growth in %*	5.5	7.3	6.2	7.1
Average monthly wage (2018)	*growth in %*	5.5	7.0	6.1	7.2
Current account / GDP (2017)	*%*	0.4	1.3	0.9	0.6
Current account / GDP (2018)	*%*	0.1	1.4	0.9	0.5

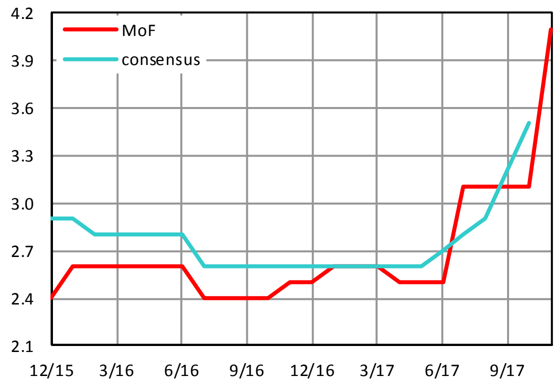
Source: Forecasts of individual institutions. Calculations of the MoF.

According to the average of estimates of monitored institutions, real GDP should increase by 3.5% in 2017, then slow down to 2.9% in 2018. The average inflation rate should reach 2.4% in 2017, slowing down to 2.1% afterwards. Growth in average nominal wages should gain momentum and slightly exceed 6% in both years. The surplus on the current account of the balance payments should be slightly below 1.0% of GDP in 2017 and 2018.

In the case of estimation of the real GDP development, the MoF's forecast already takes into account the exceptional performance of the economy in the second quarter and predicts GDP growth to be higher by approximately 0.5 pp in both mentioned years. By contrast, the price level growth rate should achieve the same dynamics in 2018 as in the previous year. Due to increasing frictions in the labour market, the Ministry of Finance expects a more dynamic wage growth in both years. The current account of the balance payments surplus should be slightly lower and reach around 0.5% of GDP in both years.

Graph 4.1: Forecasts for Real GDP Growth in 2017

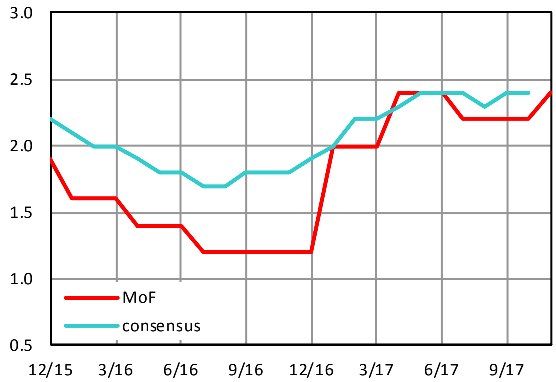
in %; the month, in which the monitoring was conducted on the horizontal axis



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

Graph 4.2: Forecasts for Average Inflation Rate in 2017

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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