Macroeconomic Forecast

of the Czech Republic

November 2016

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List of Abbreviations

const.pr. .... constant prices
CNB .... Czech National Bank
CPI .... consumer price index
curr.pr. .... current prices
CZSO.. Czech Statistical Office
EA12 .... euro zone consisting of the 12 original countries
EC .... European Commission
ECB.. European Central Bank
ESI .... Economic Sentiment Indicator
EU28.. EU consisting of 28 countries
Fed .... Federal Reserve System
GDP .... gross domestic product
GVA... gross value added
HICP .... harmonised index of consumer prices
IMF.. International Monetary Fund
LFS... Labour Force Survey
MFI.. monetary financial institutions
MoF... Ministry of Finance
pp... percentage points
rev. .... revisions
SITC .... Standard International Trade Classification
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	estimate of past numbers which for various reasons were not available at the time of preparing the publication, e.g. previous quarter's GDP
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 **13 October 2016**.

Notes

Published aggregate data may not match sums of individual items to the last decimal place due to rounding.

Data from the previous forecast (July 2016) are indicated by italics. Data relating to the years 2018 and 2019 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

The Czech economy continues to grow dynamically. Economic performance as measured by seasonally adjusted **real GDP rose by 0.9%** QoQ in the second quarter. The growth thus almost matched the most successful quarters of the year 2015, which were, however, supported by several one-off factors, e.g. increased drawing from EU funds or the decline in crude oil price. In comparison with the same period of the previous year, real GDP **rose by 3.6%**. This figure, however, was largely influenced by the fact that the second quarter of 2016 had 3 more working days.

There has been a fundamental change in the structure of economic growth, which began to be to a dominant extent driven by **foreign trade**. Two factors have been reflected here – an unexpected increase in export performance and **a slowdown of the growth of domestic demand**.

This was due to a **decline in gross fixed capital formation** by 4.1%. Investment by the general government sector decreased by almost one fourth in comparison with a very high comparison base of the extraordinary year 2015. In addition to this predictable factor, private investment in fixed capital stagnated. The fall of investment in the general government sector as well as the stagnation of investment in the private sector are due to an enormous increase of investment in 2015 co-financed from EU funds from the previous financial perspective 2007–2013.

The fastest growing component of **domestic demand** remained private consumption (growth of 2.6%), which reflects a good income situation of households under the conditions of nearly negligible inflation. Growth of government consumption reached 2.5%.

Real gross value added increased by 3.7% YoY in the second quarter of 2016. As usual, the contribution of manufacturing was the most important one; however, all sectors except construction contributed positively to the growth.

Yet, economic growth is accompanied by low inflation. In the third quarter of 2016, **consumer prices** increased only by 0.5% YoY. Inflation is mainly caused by a deep decline in prices of imported goods and generally low inflation on the global scale, which predominates over little apparent demand pressures. This situation helps the growth of the real disposable income of households and subsequently also their consumption.

On the **labour market**, the economic boom is reflected in the dynamic development of all important indicators. Employment grew by high 1.7% YoY in the second quarter. The seasonally adjusted unemployment rate (LFS) decreased further to 3.9% in August 2016 and it has been the lowest in the EU since the beginning of 2016. Low unemployment and certain mismatches between the supply of and demand for labour are already starting to be reflected in the acceleration of growth of wages and unit labour costs.

The current account of the balance of payments has been in surplus since 2014, which has been steadily increasing. In the second quarter of 2016, it reached 1.9% of GDP (in annual terms), and was again the highest in the history of the independent Czech Republic. The surpluses on the balance of goods and services are thus already clearly exceeding 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.

Despite the current very favourable development, the forecast for the remaining part of 2016 and 2017 has to be **approached with caution**.

From the perspective of the use structure of GDP, the most problematic factor seems to be the **dynamics of investment**. The YoY slump in gross fixed capital formation in the general government sector will probably continue until the end of 2016. In the case of private investment, however, the situation is unclear. The need to deal with frictions in the labour market is probably not a sufficient motivation to invest even in an environment of extraordinarily loose monetary conditions. Negative factors such as the high 2015 comparison base (enhanced by increased drawing from EU funds) or an increase in external risks probably dominate.

Another dampening factor will probably be the prices of **crude oil and mineral fuels**. They continue to remain at considerably lower levels than the levels usual in previous years. However, in the following period the tendency for their gradual slight growth should probably prevail, and thus it is possible to expect that this positive supply shock will be exhausted in the near future.

A very good condition of the economy in the second quarter of 2016, and in particular excellent results of foreign trade, lead to a **slight increase in the forecast for real GDP growth** from 2.2% **to 2.4% in 2016** and from 2.4% **to 2.5% in 2017**.

The forecast for the average **inflation rate** remains unchanged at 0.5% in 2016 and 1.2% in 2017.

The favourable situation on the labour market results in a further decrease in the forecast for the **unemployment rate** (LFS) in 2016 (from 4.1% to 4.0%) as well as in 2017 (from 4.0% to 3.9%). However, we believe that at this level any further decline in unemployment hits structural limits described in Box 3.1.

There has also been a substantial improvement in the forecast for the surplus on the **current account of the balance of payments**, which should reach 2.3% of GDP in 2016 instead of the previously expected 1.5% of GDP.

For 2017, the forecast of the current account balance was increased from 1.2% of GDP to 1.8% of GDP. Compared with the previous forecast we expect higher surpluses on the balance of goods and services. The Czech economy is thus probably becoming one of the countries with a structural surplus on the current account of the balance of payments.

From the perspective of expected tax revenues it is possible to state that the sum of changes in the **forecast for the development of the most important tax bases is neutral**.

Table: Main Macroeconomic Indicators

		2011	2012	2013	2014	2015	2016	2017	2016	2017
							Current forecast		*Previous forecast*	
Gross domestic product	*bill. CZK*	4 034	4 060	4 098	4 314	4 555	4 703	4 864	4 629	4 812
Gross domestic product	*growth in %, const.pr.*	2.0	-0.8	-0.5	2.7	4.5	2.4	2.5	2.2	2.4
Consumption of households	*growth in %, const.pr.*	0.3	-1.2	0.5	1.8	3.0	2.5	2.8	3.1	2.7
Consumption of government	*growth in %, const.pr.*	-2.2	-2.0	2.5	1.1	2.0	2.3	1.6	2.2	1.6
Gross fixed capital formation	*growth in %, const.pr.*	0.9	-3.1	-2.5	3.9	9.0	-3.6	2.8	-0.6	2.8
Net exports	*contr. to real GDP growth, pp*	1.8	1.3	0.1	-0.5	0.1	1.3	0.2	0.7	0.2
Change in inventories	*contr. to real GDP growth, pp*	0.3	-0.2	-0.7	1.1	0.3	0.4	0.0	-0.2	0.0
GDP deflator	*growth in %*	0.0	1.5	1.4	2.5	1.0	0.8	0.9	0.6	1.1
Average inflation rate	*%*	1.9	3.3	1.4	0.4	0.3	0.5	1.2	0.5	1.2
Employment *(LFS)*	*growth in %*	0.4	0.4	1.0	0.8	1.4	1.6	0.3	1.6	0.1
Unemployment rate *(LFS)*	*average in %*	6.7	7.0	7.0	6.1	5.1	4.0	3.9	4.1	4.0
Wage bill *(domestic concept)*	*growth in %, curr.pr.*	2.3	2.6	0.5	3.6	4.4	5.4	5.0	5.3	4.9
Current account balance	*% of GDP*	-2.1	-1.6	-0.5	0.2	0.9	2.3	1.8	1.5	1.2
General government balance	*% of GDP*	-2.7	-3.9	-1.2	-1.9	-0.6	-0.2	-0.2	-0.3	.
Assumptions:										
Exchange rate CZK/EUR		24.6	25.1	26.0	27.5	27.3	27.0	26.9	27.0	26.9
Long-term interest rates	*% p.a.*	3.7	2.8	2.1	1.6	0.6	0.4	0.6	0.6	0.8
Crude oil Brent	*USD/barrel*	111	112	109	99	52	44	51	44	50
GDP in Eurozone (EA-12)	*growth in %, const.pr.*	1.5	-0.9	-0.3	1.0	2.0	1.4	1.1	1.5	1.2

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

All components should contribute to GDP growth in 2017

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

Legend:
- Net exports
- Final consumption
- Gross capital formation
- Gross domestic product

X-axis: 2010, 2012, 2014, 2016 — Forecast
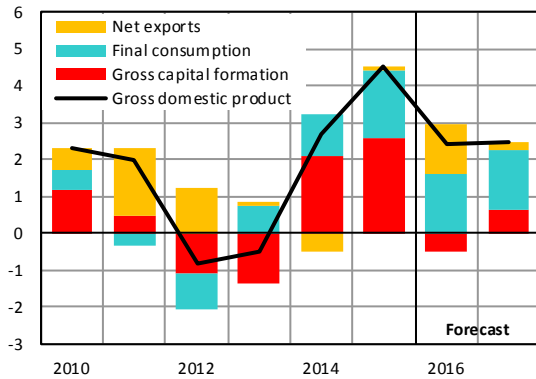
Source: CZSO. Calculations of the MoF.

GDP growth should continue

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

Legend:
- Net taxes on products
- GVA
- GDP

X-axis: I/12, I/13, I/14, I/15, I/16, I/17 — Forecast
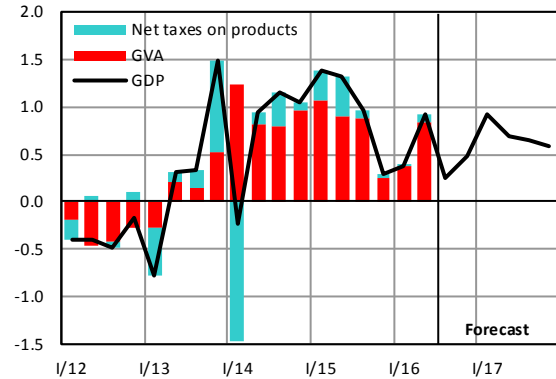
Source: CZSO. Calculations of the MoF.

Inflation should exceed 1% only in the next year

decomposition of YoY growth of CPI, contributions in pp

Legend:
- Market increase
- Administrative measures
- CPI

X-axis: I/12, I/13, I/14, I/15, I/16, I/17 — Forecast
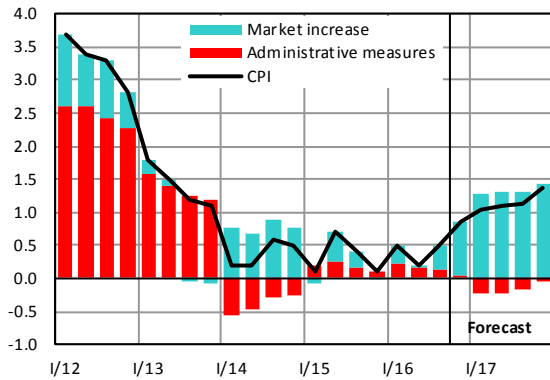
Source: CZSO. Calculations of the MoF.

Decline in unemployment should slow down in 2017

registered unemployment, in thous. of persons, seasonally adjusted

X-axis: I/12, I/13, I/14, I/15, 1/16, I/17 — Forecast
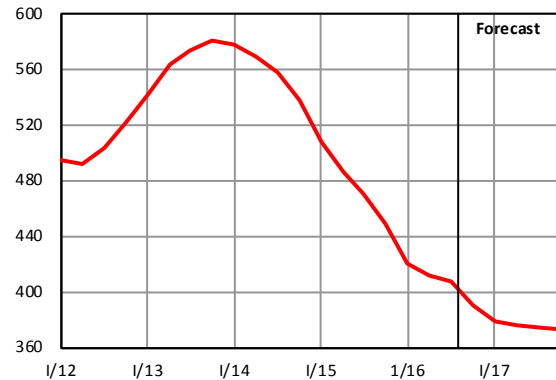
Source: Ministry of Labour and Social Affairs. Calculations of the MoF.

Average real wage should grow by more than 3%

average gross monthly wage, YoY growth rate, in %

Legend:
- nominal
- real

X-axis: I/12, I/13, I/14, I/15, I/16, I/17 — Forecast
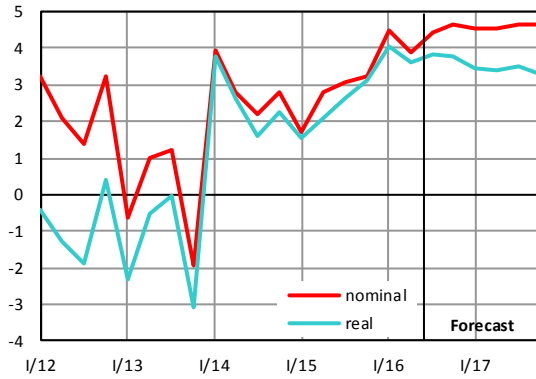
Source: CZSO. Calculations of the MoF.

Current account should remain in surplus

in % of GDP (yearly moving sums)

Legend:
- Incomes
- Goods and services
- Current account

X-axis: I/12, I/13, I/14, I/15, I/16, I/17 — Forecast
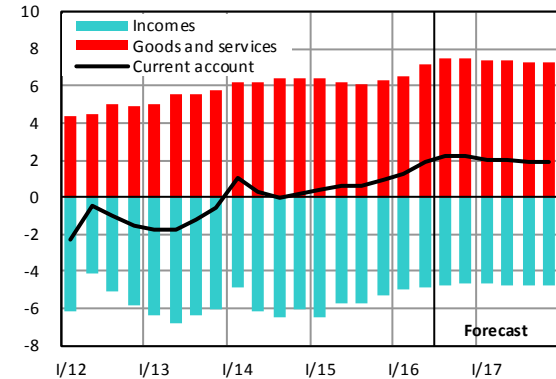
Source: CNB, CZSO. Calculations of the MoF.

Risks to the Forecast

Risks to the forecast are **tilted to the downside**, in particular due to risks in the external environment.

In our view, the greatest risk is the uncertainty associated with the process and impacts **of the United Kingdom's withdrawal from the EU**. The Czech economy could be influenced by the so-called Brexit especially through foreign trade (due to the slowdown of foreign demand growth), and, on the side of domestic demand, some investment projects could be postponed due to increased uncertainty.

Another negative risk is the possibility of a **more considerable slowdown of the growth of the Chinese economy**. This risk has been recently mitigated by taking a number of pro-growth measures; however, these measures only postpone necessary changes in the structure of the economy and increase the risk of financial instability in the future as they contribute to the further growth of debts. The expected continuation of a gradual slowdown of economic growth in China should not be crucial for the Czech Republic, despite the fact that the interconnectedness of the Czech and Chinese economies is higher than suggested by data on their mutual foreign trade, due to their involvement in the global supply chains.

Another unfavourable factor is **geopolitical risks**. Conflicts in the Middle East and Northern Africa caused a **migration crisis**, the medium-term to long-term economic impact of which on individual EU states cannot yet be estimated. Provided, however, that the number of applicants for asylum in the Czech Republic does not increase considerably, direct impacts on the Czech economy should be negligible. Another risk is a possible escalation of tensions in **Ukraine**, which could lead to a further extension or expansion of sanctions against the Russian Federation. On the other hand, neither Russia nor Ukraine is an important export market for the Czech Republic.

Economic growth in some countries of the EU, and indirectly (through foreign trade) also in the Czech Republic, could be affected negatively by possible materialization of **risks in the financial sector**, related to not only a high proportion of non-performing loans in the balance sheets of some European banks but also to concerns about future development of profitability and capital adequacy of some systemically important institutions.

Last, but not least, a risk for the Czech economy could be **the continuation of more significant pressures on the appreciation of the CZK exchange rate** below 27 CZK/EUR. Against these tendencies, however, the CNB can intervene on the foreign exchange market basically without limitation, yet the possibility that it would use other, less conventional, instruments of monetary policy to weaken the appreciation pressures in the case of continued accumulation of foreign exchange reserves cannot be excluded.

The combination of the environment of low (not only monetary policy) interest rates and economic growth is reflected in the Czech Republic by an acceleration of mortgage loan growth, which, together with the factors limiting the supply of residential real estate, results, among other things, in a more significant growth of offer price of flats. Should the strong growth of lending for house purchase and real estate prices continue, it could result in a **bubble in the real estate market**.

1 Forecast Assumptions

1.1 External Environment

The growth rate of the global economy further slowed down and hovers at a level not exceeding 3%. Economic growth in the USA and EA12 slightly slowed down in the second quarter, and thus remains relatively modest. The economic situation in emerging economies stays worsened. There are concerns in particular about a decrease in investment in a number of developed and emerging economies and the dynamics of world trade. Some large emerging economies (Russia, Brazil) remain a problematic segment of the global economy, even if the rate of their decrease is already slowing down.

The economic situation in China remains unclear and opaque, to which a lack of convincingness of official statistics also contributes. The growth of the Chinese economy has long been slowing down, though it is still relatively high and China thus remains the main driver of global economic growth. QoQ growth of real GDP, which reached 1.8% in the second quarter, largely reflects fiscal and monetary stimuli through which the government is trying to achieve the planned economic growth rate and increase household consumption as well as the share of services in the economy. The situation in industry is beginning to gradually consolidate, which is also indicated by the Purchasing Managers Index in manufacturing and a sharp slowdown in the decline in producer prices. However, some sectors are still struggling with excess capacities (e.g. the coal mining or steel industry). After the turbulence at the beginning of the year, the situation in financial markets has already stabilized and a decrease in foreign exchange reserves has stopped. However, considerable fear was caused by the quick growth of loans despite tightening regulations, the aim of which is to limit speculative financial activities. The pressure on the banking sector is further increased by growth of the volume of non-performing loans. From the long-term perspective, the unfavourable demographic development represents a major risk.

1.1.1 United States of America

In the second quarter of 2016, real GDP of the **USA** increased by 0.3% QoQ (*versus 0.5%*), the economic growth thus remained slow. The dominant and also the only driver of economic growth was household consumption expenditure, which was supported by a good situation on the labour market and real wage growth. Government consumption, import and export have shown stagnation. On the contrary, a negative contribution of the change in inventories and a decline in investment, which reflected the situation in the energy sector associated with low prices of crude oil, stagnation of corporate profits and uncertainty associated with the presidential election, weighed on economic growth.

The Fed left interest rates at 0.25–0.50% at its September meeting. However, if the positive economic development continues and no new risks emerge, the Fed could increase interest rates before the end of 2016. The growth rate of the price level has stagnated in the last few months; the average inflation rate reached 1.1% in August 2016. However, the Fed expects that the inflation rate will approach its 2% target as late as in the medium-term horizon as the effects of low prices of energies and imports fade and the situation on the labour market improves further.

We expect that economic growth will gradually accelerate in the second half of 2016. The main driver of the economy should remain household consumption. In the short term, it will still be supported by low energy prices, and by a good labour market situation in the long-term horizon (the unemployment rate reached 4.9% in August 2016). Economic growth will be hampered mainly by export; however, declining industrial production is largely influenced by the worsened situation in the energy sector. In the short-term horizon, investment will be adversely affected mainly by the uncertainty associated with the presidential election. With regard to the weak performance of the economy in the first half of the year, we revise the forecast for 2016 down to 1.4% (*versus 2.0%*). For 2017, we expect the rate of economic growth to be 2.2% (*versus 2.4%*).

1.1.2 European Union

Economic recovery in the European Union still remains relatively fragile. QoQ GDP growth in the second quarter of 2016 reached 0.4% in the EU28 (*versus 0.5%*) and 0.3% in the EA12 (*versus 0.4%*). In a YoY comparison, GDP of the EU28 increased by 1.8% (*versus 1.9%*), while GDP of the EA12 increased by 1.6% (*versus 1.7%*). Developments in individual countries remain considerably differentiated. In many countries, structural problems of their economies, loss of competitiveness, low growth of investment or high debts of the public and private sectors are still weighing on the recovery.

The ECB aims to increase inflation and support recovery in the Euro area. It has kept the main refinancing rate at 0.00% and the deposit rate at –0.40% since March 2016. Moreover, the ECB estimates that the benchmark interest rates will remain at the same or lower levels for a longer time, and definitely beyond the horizon of net asset purchases (monthly purchases of assets worth EUR 80 billion should take place until the end of March 2017 or for a longer time if necessary). 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 (infla-

tion below, but close to, 2%). Despite the ECB's efforts, however, YoY growth of HICP in the EA12 reached only 0.2% in August 2016, in particular due to a decrease in crude oil and energy prices.

Graph 1.1.1: Unemployment rate in the EU in August 2016
in %, seasonally adjusted data
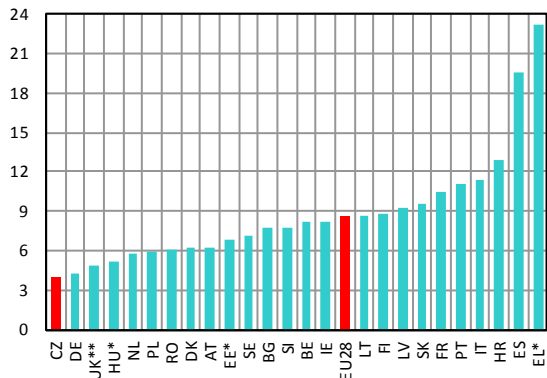
Note: *) July 2016. **) June 2016.
Source: Eurostat.

Thanks to economic recovery, the situation on the labour market is also gradually improving. The unemployment rate in the EU has been decreasing since mid-2013, reaching 8.6% in August 2016 (YoY decrease of 0.6 pp). However, enormous differences still persist among individual economies. The worst situation is still in Greece, where the unemployment rate stood at 23.4% in June 2016. Of the EU countries, for which data for August 2016 was available as of the cut-off date, the unemployment rate was the highest in Spain (19.5%), Croatia (12.9%) and Cyprus (12.1%); on the contrary, the lowest rates were recorded in the Czech Republic (3.9%) and Germany (4.2%).

Graph 1.1.2: Growth of GDP in EA12 and in the USA
QoQ growth rate, in %, seasonally and working day adjusted
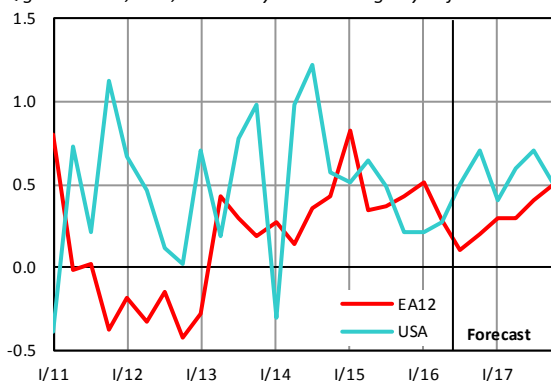
Source: Eurostat. Calculations of the MoF.

In the second half of 2016, we expect a slight slowdown of economic growth, in particular due to the increased uncertainty related to the United Kingdom's decision to leave the EU. However, economic impacts may currently not be quantified due to lack of relevant information (the Prime Minister has announced that the United King-

dom would formally commence the withdrawal process by the end of March 2017, but nothing is yet known about the future arrangement of relations between the UK and the EU). We expect, however, that these impacts will overall be relatively low. The main driver of economic growth will be household consumption, which will be supported by an improving situation on the labour market and low energy prices. On the other hand, the worsened global outlook, growing problems in the banking sector in the Euro area or high debts of some economies are factors weighing on economic growth. The economy of the EA12 could increase by 1.4% (*versus 1.5%*) in 2016 and by 1.1% (*versus 1.2%*) in 2017.

After the dissipation of one-off factors, the growth rate of the **German** economy slowed down in the second quarter of 2016. The QoQ GDP growth reached 0.4% (*versus 0.5%*), and this time the main growth driver were net exports. While export growth was supported by demand in other Euro area countries, the slight decrease in import reflected lower domestic demand for goods from non-EU countries. Domestic demand hampered economic growth because low rates of growth of household and government consumption expenditure were not able to compensate for a slump in investment reflecting a decrease in investment in machinery and equipment and in construction.

Graph 1.1.3: Ifo (Germany) and Czech manufacturing production
2005=100 (Ifo), YoY growth of the seasonally adjusted industrial production index in the Czech manufacturing sector, in %
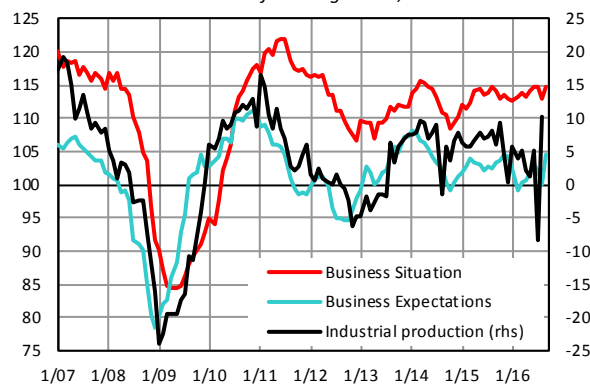
Source: CESifo, CZSO.

The labour market situation is developing favourably. The YoY growth of real wages exceeds 2% and the unemployment rate is continuously slightly decreasing. The impact of the arrival of migrants has not yet manifested itself on the labour market; however, with regard to the increasing number of positively processed applications for asylum, it is possible to expect a slight increase in the unemployment rate in the following years. The value of the Ifo indicator has returned to its original level after a slight decline, which reflected the United Kingdom's decision to leave the EU. Whereas the development of the Purchasing Managers Index is favourable in the area of industry, it has significantly deteriorated in the area of

services. The development of the consumer confidence index (GfK) remains encouraging.

Economic growth should be driven mainly by domestic demand. In the short-term horizon, the consumption expenditure of households will mainly be supported by an expansionary fiscal policy and low interest rates, while a good labour market situation and the related growth of real wages will have a more permanent effect. The increase in government consumption expenditure will be supported mainly by expenditure related to the migration crisis, while investment in particular in infrastructure and housing will drive an increase in government investment. Export growth will be influenced unfavourably by weak dynamics of foreign demand in developed and emerging economies and, in particular, by the United Kingdom's withdrawal from the EU, as it is the third biggest export market for the German economy (the share of exports into the UK in the total exports in 2015 was 7.5%, which corresponded to 3.9% of German GDP). A negative risk is also represented by problems of the largest German bank, Deutsche Bank, which faces a number of financial scandals and a threat of a high fine from the U.S. Department of Justice. We expect GDP to grow by 1.7% (*versus 1.6%*) in 2016; for 2017 we forecast a slight slowdown of growth to 1.5% (*unchanged*).

After an unexpectedly strong growth in the first quarter of 2016, the **French** economy recorded a QoQ decline of 0.1% in the following quarter (*versus growth of 0.4%*). The only, although completely dominant, component which negatively influenced economic performance was a change in inventories. On the contrary, the greatest contributor to growth was the balance of foreign trade; a slight increase in export was accompanied by a sharp decline in import, reflecting weak domestic demand. Household consumption and investment, whose contributions to economic growth were zero, were adversely affected by floods and massive protests against an approved reform of the Labour Code. However, these factors were only temporary and we thus expect that household consumption expenditure will again become the main component of economic growth in the following period. The situation on the labour market has worsened as the unemployment rate began to rise slightly in June and reached 10.5% in August. While household consumption will be supported mainly by a very low inflation rate, the business environment will continue to benefit from the accommodative monetary policy. Economic growth will be negatively impacted by foreign trade because French companies have long been struggling with low competitiveness and now also with the uncertainty associated with the United Kingdom's decision to leave the EU. Economic growth will thus remain relatively modest; for 2016, we expect real GDP growth of 1.3% (*versus 1.6%*), for 2017 we forecast a slight slowdown of growth to 1.2% (*versus 1.3%*).

In the second quarter of 2016, growth of the **Polish** economy regained momentum and after a slight decline in the previous quarter, GDP increased by 0.9% QoQ (*in line with the estimate*). Both domestic and foreign demand contributed to the economic growth. On the side of domestic demand, the main driver was household consumption supported by deflation, a good situation on the labour market and a sharp increase in child benefits in April 2016. Decline in investment, however, deepened in comparison with the previous quarter, reaching 4.9% YoY. The main cause can be identified as a slump in public investment due to the termination of projects from the previous financial perspective of the EU; however, fears of the private sector related to increasing government interventions in the economy could also have contributed. We expect that economic growth will continue to be driven mainly by household consumption, which will be supported by an increase in social benefits, a good situation on the labour market and low interest rates. However, the low predictability of government policy is a risk for investment. We estimate real GDP growth of 2.7% (*unchanged*) for 2016. In 2017, the negative impact of termination of projects from the previous financial perspective on gross fixed capital formation should have dissipated, and economic growth could thus accelerate to 3.3% (*unchanged*).

Growth of the **Slovak** economy slightly increased in the second quarter of 2016, when GDP increased by 0.9% QoQ (*versus 0.7%*). The main contributor to economic growth was foreign demand as the growth rate of exports outpaced the growth rate of imports. On the side of domestic demand, the fastest growing component was household consumption. That was supported by a decrease in the price level, a YoY real wage growth of 3.4% and a decreasing unemployment rate, which reached 9.5% in August (a YoY decrease by 1.9 pp). After a slump in the first quarter of 2016 due to termination of projects from the previous financial perspective of the EU, gross fixed capital formation showed stagnation. However, investment in the government sector decreased by more than 15% in a YoY comparison. We expect a similar development for the second half of 2016; however, domestic and foreign demand will contribute positively to economic growth. In the short-term horizon, a decrease in government investment will be partially offset by private investment that will be supported by low interest rates. In the coming years, investment in the automotive industry and in infrastructure will manifest itself positively. For 2016, we expect an economic growth of 3.6% (*versus 3.3%*), for 2017 we forecast a slight slowdown of growth to 3.4% (*versus 3.3%*).

1.1.3 Commodity Prices
In the third quarter of 2016, the price of Brent crude oil averaged USD 45.8/barrel (*versus USD 47/barrel*), and thus essentially stagnated QoQ. As of the cut-off date of the forecast, Brent crude oil traded above USD 50/barrel.

Two major opposing factors influence the crude oil market. On the one hand, according to estimates the growth

in global oil reserves, which was supported by an increase in the number of active drilling rigs in the USA, continued also in the third quarter. However, this imbalance should be eliminated during 2017. On the other hand, there are apparent efforts of major oil producers to limit production and thereby increase prices. These efforts included, first, an agreement between Russia and Saudi Arabia from the beginning of September, which, however, only had a short-term impact on the market and did not produce concrete results. Subsequently, unofficial talks of the OPEC cartel took place in Algeria in late September, and agreement was reached to limit crude oil output. However, specific quotas for individual member states were not set. They should be only set at the official November meeting. An immediate response to the agreement was an increase in crude oil prices but there are doubts as to the actual fulfilment of the plan.

In accordance with a slightly positive slope of the curve of futures contracts prices we expect a slow increase in the Brent crude oil price. The average price should reach USD 44/barrel in 2016 (*unchanged*); for 2017 we assume average price of USD 51/barrel (*versus USD 50/barrel*).

An extremely deep YoY decline in the CZK crude oil price (see Graph 1.1.4) provided an extraordinary growth stimulus to the Czech economy in 2015. However, this situation has already largely subsided. In the fourth quarter of 2016, CZK crude oil prices should return to YoY growth, which should peak, according to our estimates, in the first quarter of 2017.

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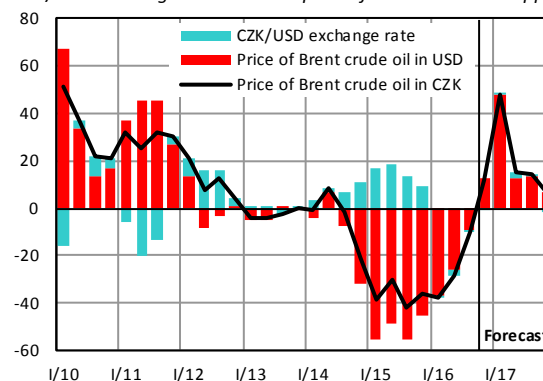
Source: CNB, U. S. Energy Information Admin.. Calculations of the MoF.

Table 1.1.1: Gross Domestic Product – yearly
YoY real growth rate, in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
									Forecast	*Forecast*
World	3.1	0.0	5.4	4.2	3.4	3.3	3.4	3.1	3.0	3.2
USA	-0.3	-2.8	2.5	1.6	2.2	1.7	2.4	2.6	1.4	2.2
China	9.6	9.2	10.6	9.5	7.7	7.7	7.3	6.9	6.2	6.1
EU28	0.4	-4.4	2.1	1.7	-0.5	0.2	1.5	2.2	1.7	1.5
EA12	0.4	-4.4	2.1	1.5	-0.9	-0.3	1.0	2.0	1.4	1.1
Germany	1.1	-5.6	4.1	3.7	0.5	0.5	1.6	1.7	1.7	1.5
France	0.2	-2.9	2.0	2.1	0.2	0.6	0.6	1.3	1.3	1.2
United Kingdom	-0.6	-4.3	1.9	1.5	1.3	1.9	3.1	2.2	1.8	0.7
Austria	1.5	-3.8	1.9	2.8	0.7	0.1	0.6	1.0	1.4	1.3
Hungary	0.8	-6.6	0.7	1.8	-1.7	1.9	3.7	2.9	2.3	2.4
Poland	3.9	2.6	3.7	5.0	1.6	1.3	3.3	3.6	2.7	3.3
Slovakia	5.7	-5.5	5.1	2.8	1.5	1.4	2.5	3.6	3.6	3.4
Czech Republic	2.7	-4.8	2.3	2.0	-0.8	-0.5	2.7	4.5	2.4	2.5

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

Graph 1.1.5: Gross Domestic Product

YoY real growth rate, in %
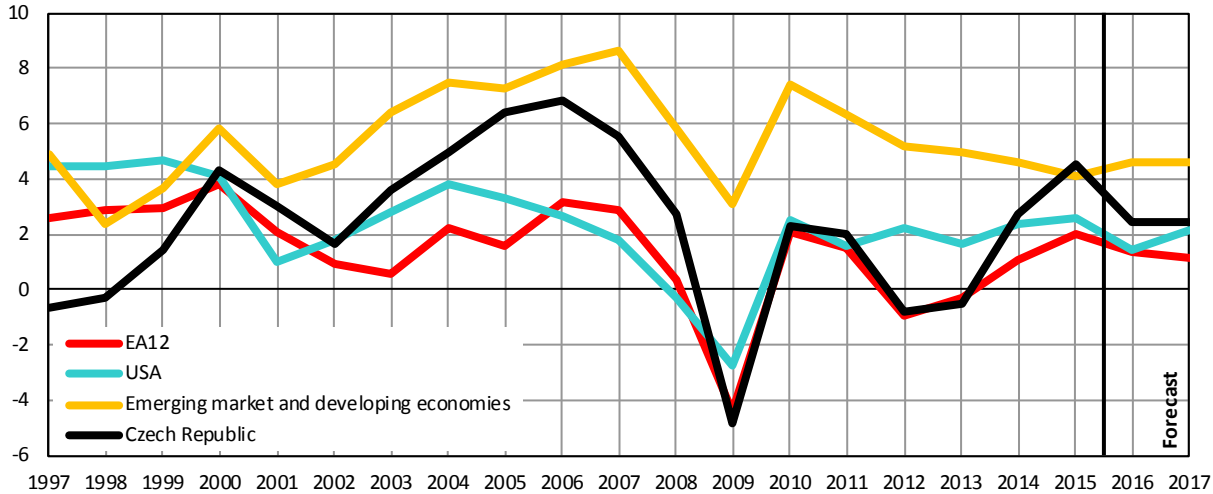
Note: Emerging market and developing economies comprising 154 countries (according to the IMF's classification)
Source: Eurostat, IMF. Calculations of the MoF.

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

YoY real growth rate, in %
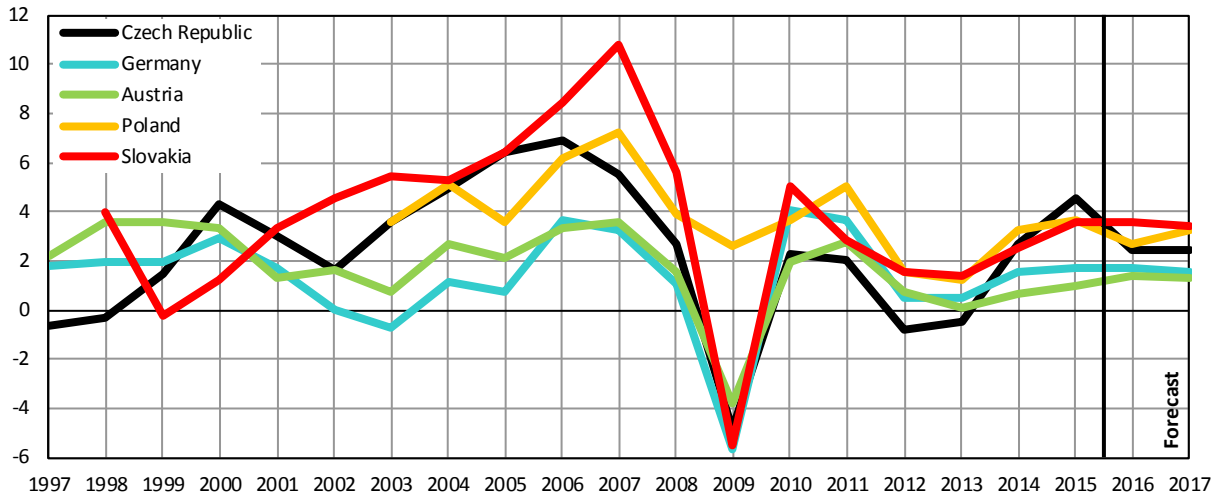
Source: Eurostat. Calculations of the MoF.

Table 1.1.2: Gross Domestic Product – quarterly

real growth rate, in %, seasonally adjusted data

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Estimate*	Q4 *Forecast*
USA	QoQ	**0.5**	**0.6**	**0.5**	**0.2**	**0.2**	**0.3**	**0.5**	**0.7**
	YoY	3.3	3.0	2.2	1.9	1.6	1.2	1.2	1.7
China	QoQ	**1.6**	**1.8**	**1.8**	**1.5**	**1.2**	**1.8**	**1.4**	**1.5**
	YoY	7.2	7.2	7.1	6.9	6.4	6.4	6.0	6.0
EU28	QoQ	**0.8**	**0.4**	**0.4**	**0.5**	**0.5**	**0.4**	**0.3**	**0.3**
	YoY	2.1	2.2	2.1	2.1	1.9	1.8	1.7	1.5
EA12	QoQ	**0.8**	**0.3**	**0.4**	**0.4**	**0.5**	**0.3**	**0.1**	**0.2**
	YoY	1.8	2.0	2.0	2.0	1.7	1.6	1.3	1.1
Germany	QoQ	**0.2**	**0.5**	**0.2**	**0.4**	**0.7**	**0.4**	**0.3**	**0.3**
	YoY	1.1	1.8	1.7	1.3	1.8	1.7	1.8	1.7
France	QoQ	**0.6**	**0.0**	**0.4**	**0.4**	**0.7**	**-0.1**	**0.3**	**0.2**
	YoY	1.3	1.1	1.1	1.3	1.4	1.3	1.2	1.1
United Kingdom	QoQ	**0.3**	**0.4**	**0.4**	**0.7**	**0.4**	**0.6**	**0.0**	**0.1**
	YoY	2.9	2.3	2.0	1.8	2.0	2.2	1.7	1.1
Austria	QoQ	**0.4**	**0.2**	**0.3**	**0.4**	**0.6**	**0.1**	**0.3**	**0.4**
	YoY	0.5	0.5	1.0	1.3	1.5	1.4	1.3	1.4
Hungary	QoQ	**1.4**	**0.1**	**0.4**	**0.9**	**-0.5**	**1.0**	**0.7**	**0.7**
	YoY	3.7	2.6	2.4	2.8	0.9	1.8	2.1	1.9
Poland	QoQ	**1.4**	**0.4**	**0.8**	**1.3**	**-0.1**	**0.9**	**0.9**	**0.8**
	YoY	3.8	3.2	3.4	4.0	2.6	3.1	3.1	2.6
Slovakia	QoQ	**1.0**	**0.9**	**1.0**	**1.0**	**0.8**	**0.9**	**0.8**	**0.8**
	YoY	3.1	3.5	3.8	4.0	3.7	3.7	3.5	3.4
Czech Republic	QoQ	**1.4**	**1.3**	**1.0**	**0.3**	**0.4**	**0.9**	**0.3**	**0.5**
	YoY	4.6	5.0	4.8	4.0	3.0	2.6	1.9	2.0

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

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

Q3 2008=100, seasonally adjusted data, constant prices
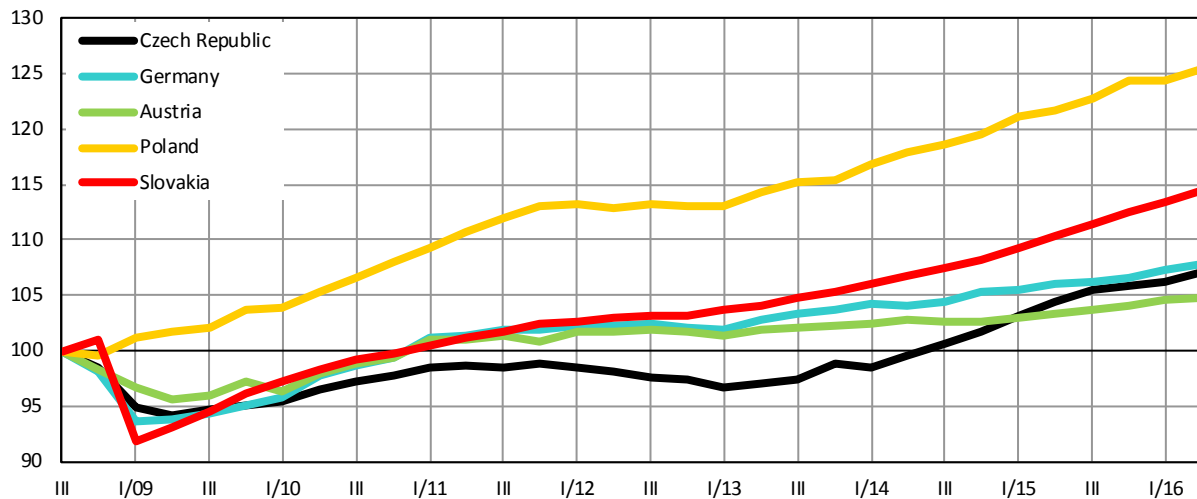
Source: Eurostat. Calculations of the MoF.

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

in % of GDP, derived using the Hodrick-Prescott filter
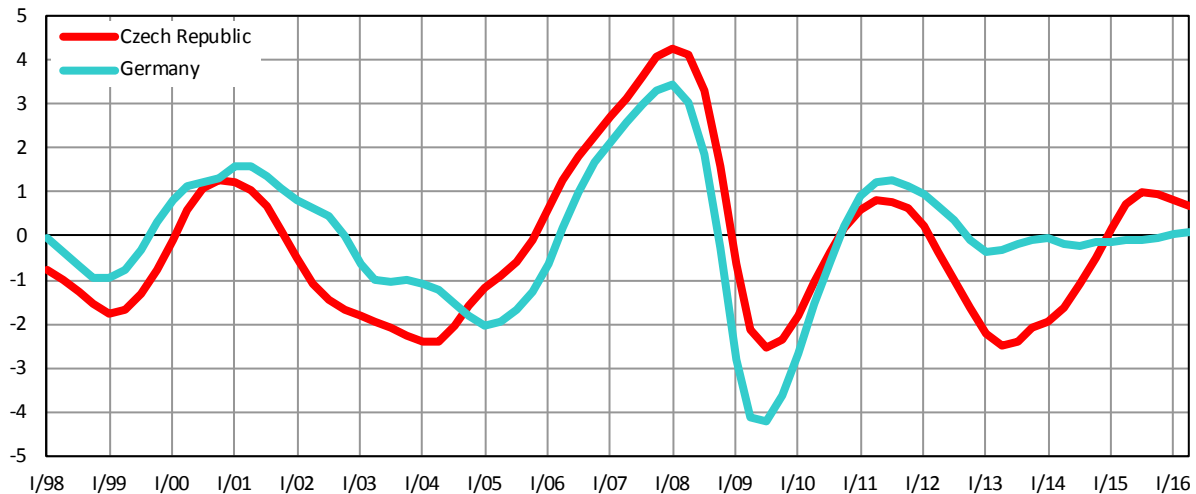
Source: Eurostat. Calculations of the MoF.

Table 1.1.3: Prices of Selected Commodities – yearly

spot prices

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Crude oil Brent	USD/barrel	96.9	61.5	79.6	111.3	111.6	108.6	99.0	52.4	44	51
	growth in %	34.0	-36.5	29.3	39.9	0.3	-2.6	-8.8	-47.1	-16.9	18.1
Crude oil Brent index *(in CZK)*	2005=100	106.7	76.1	100.0	129.5	143.8	139.9	134.6	85.1	70	83
	growth in %	11.1	-28.6	31.4	29.5	11.0	-2.7	-3.8	-36.8	-18.1	18.7
Wheat	USD/t	287.0	190.1	194.5	280.0	276.1	265.8	242.5	185.6	.	.
	growth in %	26.5	-33.7	2.3	44.0	-1.4	-3.8	-8.8	-23.5	.	.
Wheat price index *(in CZK)*	2005=100	130.8	98.5	100.0	133.6	146.4	140.6	135.7	123.7	.	.
	growth in %	6.2	-24.7	1.5	33.6	9.6	-4.0	-3.5	-8.8	.	.

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

Table 1.1.4: Prices of Selected Commodities – quarterly

spot prices

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4 Forecast
Crude oil Brent	USD/barrel	54.0	61.7	50.4	43.6	33.8	45.6	45.8	49
	growth in %	-50.1	-43.8	-50.5	-43.0	-37.3	-26.1	-9.2	12.5
Crude oil Brent index *(in CZK)*	2005=100	87.3	100.7	81.5	70.9	54.7	71.8	73.0	79
	growth in %	-38.8	-30.4	-41.7	-36.3	-37.3	-28.6	-10.4	11.9
Wheat price	USD/t	205.0	196.3	178.8	162.3	162.6	159.2	128.2	.
	growth in %	-17.6	-28.4	-21.0	-26.4	-20.7	-18.9	-28.3	.
Wheat price index *(in CZK)*	2005=100	136.1	131.6	118.6	108.4	107.9	103.0	83.9	.
	growth in %	0.9	-11.4	-7.0	-17.7	-20.7	-21.7	-29.2	.

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

Graph 1.1.9: Dollar Prices of Oil

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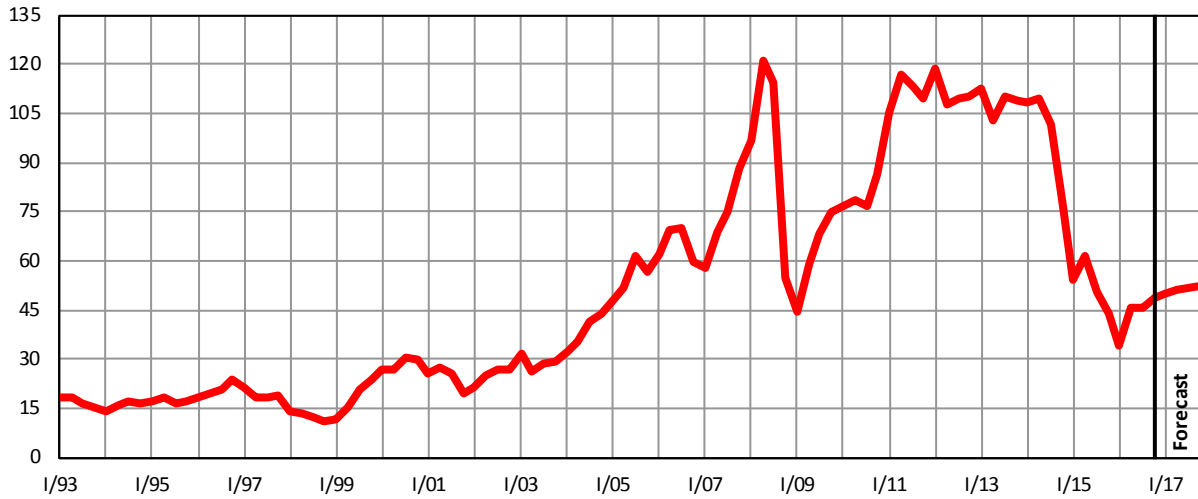
Source: U. S. Energy Information Administration. Calculations of the MoF.

Graph 1.1.10: Koruna Indices of Prices of Selected Commodities

index 2010=100
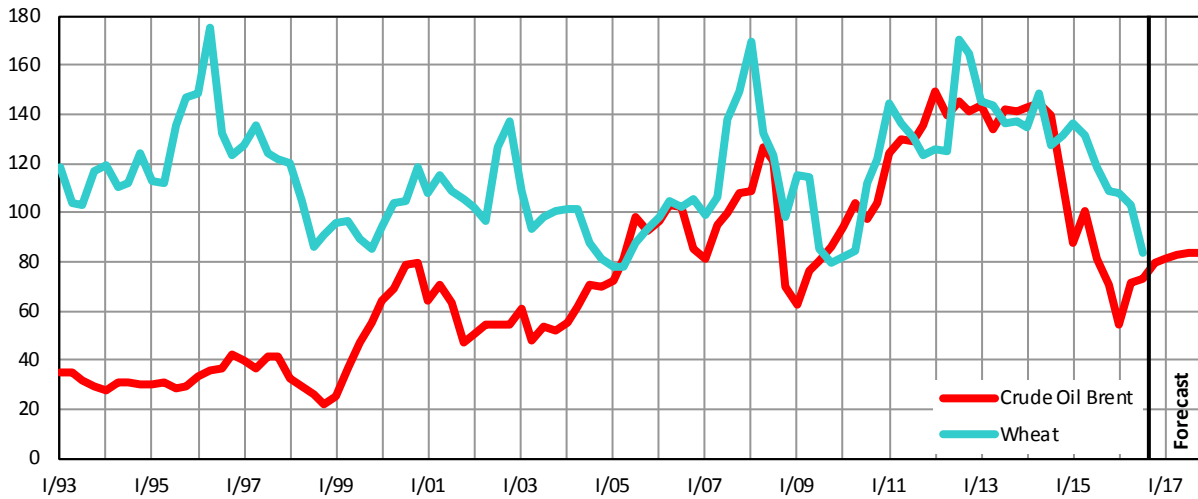
Source: IMF, U. S. Energy Information Administration. Calculations of the MoF.

1.2 Fiscal Policy

The general government sector reached a **record-breaking low** deficit of **0.6% of GDP** in **2015**, in nominal terms CZK 28.6 billion. It is an improvement by 1.3 pp YoY.

In comparison with the spring notification of the government deficit and debt, there has been a slight deterioration of 2015 by 0.2 pp, i.e. almost by CZK 10 billion, due to new information. This included mainly adjustments to the amount of expenditure on EU projects which were eventually not reimbursed to the Czech Republic from EU funds. In particular, items of capital transfers receivables and payables were reduced on the revenue side and increased on the expenditure side.

We expect that the general government deficit will be further reduced to 0.2% of GDP in **2016**. In comparison with the previous Macroeconomic Forecast, it is a slight improvement of the expected balance by 0.1 pp (from –0.3% of GDP), mainly due to lower government investment. Since the economy is in a positive output gap, the structural balance of the general government sector should reach –0.4% of GDP in 2016, and the fiscal effort should thus be 0.2 pp. Structural balance is thus expected to be approximately 0.5 pp above the level of the medium-term budgetary objective, which implies prudent management and sustainability of public finances. Fiscal space is sufficiently robust even in the event of unexpected circumstances, which is also confirmed by October ratings by Fitch and Moody's.

The main economic indicators are very favourable in the current year. The amount of cash collection has been showing very high surpluses every month almost since the beginning of the year (even the highest in the available time series). In terms of actual tax revenues, very good collection of taxes is noticeable, similarly to the previous year. In the case of VAT, the YoY growth in collection in the first nine months of 2016 was significantly higher than the expected household and government consumption, which indicates, despite a YoY decrease in government sector investment, functionality of measures targeting tax evasion. Very good results are also achieved by local governments, which reached a record-high surplus of more than CZK 50 billion in the first eight months of this year, according to the monthly budgetary report.

Positive development is also indicated by quarterly national accounts. Currently, figures for the first two quarters are available, in which the government sector balance is also significantly better in a YoY comparison, which promises very good budgetary results.

In terms of YoY development of revenue and expenditure, an increase in tax revenues and social security contributions by 3.7% is expected, which is due to good macroeconomic development as well as the measures to fight tax evasion. Significantly lower incomes are expected for accrual EU subsidies. The reason is a high comparison base of 2015, when a large portion of funds from the 2007–2013 programming period allocation was utilised, and a slower start of a new financial perspective.

The expenditure side is characterized by a further reduction in interest expenditure, which is a result of the stabilization of the general government sector debt, effective management of state financial assets, the situation on world financial markets and expectations of investors that the CNB will discontinue the exchange rate commitment in 2017. The Ministry of Finance of the Czech Republic was able to take advantage of favourable conditions on the primary market of government bonds, repeatedly issued bonds with negative yields and thus achieved additional income to the State Treasury from their sales.

There should also be a decrease in investment, which is linked to the end of the possibility to utilize funds from the previous programming period. At the same time, there was a one-off increase in investment in 2015 due to lease of supersonic aircraft. In addition to EU funds, the forecast thus also expects reduced investment from national resources.

General government consumption should increase by 4.1%, which is a slight slowdown in comparison with the previous year. It will be driven mainly by an increase in the wage bill of approximately 5%. Higher growth should also be recorded in intermediate consumption, in particular in central government institutions, e.g. the Road and Motorway Directorate or the Railway Infrastructure Administration (mainly expenditure on repairs and maintenance of transport infrastructure).

Government sector debt reached 40.3% of GDP in 2015. We expect a debt reduction both in absolute and relative terms in 2016. At the end of 2016, the debt should reach 38.6% of GDP as a result of state debt reduction and reduction in local governments' debt thanks to their surplus performance continuing for several years.

We expect the general government balance to improve gradually in the years 2017–2019. In 2018, for the first time in history of the CR, the total balance of the general government should reach a surplus. This reflects not only the expected outstanding budget results on the local government level, but also the government's strategy of reducing the deficits of the state budget. Structural balance should deteriorate slightly to –0.6% of GDP in 2017; however, unadjusted balance should remain at the level of the year 2016. In the following years, fiscal effort should be around 0.3 pp. Fiscal effort should be on average positive in the years 2017–2019, primarily due to measures on the revenue side, owing mainly to significantly more efficient collection of taxes. For these years, one can expect that synergistic effects of the already implemented electronic VAT reporting and electronic

registration of sales, which will take effect in December 2016, will have a positive impact on the revenue side.

The improving budgetary outcomes will also be reflected in the general government debt, which should gradually decline to 37.1% of GDP in 2019. Indebtedness will be rising moderately in absolute terms; however, the pace of increase will gradually slow down as the need of debt financing decreases.

Graph 1.2.1: Decomposition of the Government Balance
in % of GDP
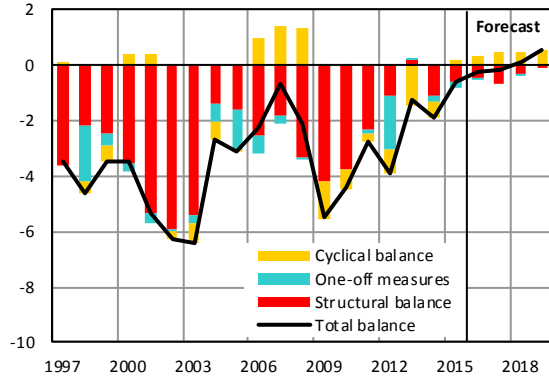
Source: CZSO. Calculations of the MoF.

Graph 1.2.2: Government Debt
in % of GDP
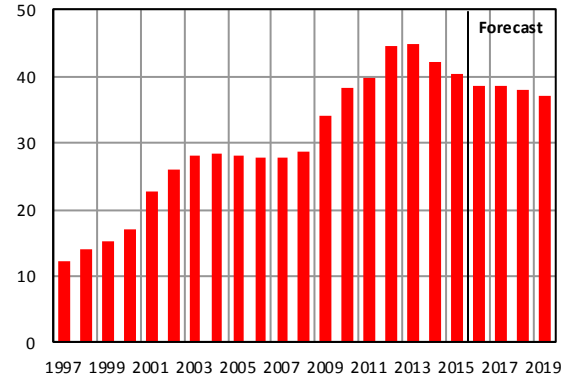
Source: CZSO. Calculations of the MoF.

Table 1.2.1: Net Lending/Borrowing and Debt

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
								Forecast	*Forecast*	*Outlook*	*Outlook*
General government balance [1]	*% GDP*	**-4.4**	**-2.7**	**-3.9**	**-1.2**	**-1.9**	**-0.6**	**-0.2**	**-0.2**	**0.1**	**0.5**
	bill. CZK	-175	-110	-160	-51	-83	-29	-11	-10	7	27
Cyclical balance	*% GDP*	**-0.7**	**-0.3**	**-0.9**	**-1.4**	**-0.6**	**0.2**	**0.3**	**0.4**	**0.5**	**0.5**
Cyclically adjusted balance	*% GDP*	**-3.7**	**-2.5**	**-3.1**	**0.2**	**-1.3**	**-0.8**	**-0.6**	**-0.6**	**-0.3**	**0.0**
One-off measures [2]	*% GDP*	**0.0**	**-0.1**	**-2.0**	**0.0**	**-0.3**	**-0.2**	**-0.1**	**0.0**	**0.0**	**0.0**
Structural balance	*% GDP*	**-3.7**	**-2.4**	**-1.1**	**0.2**	**-1.1**	**-0.6**	**-0.4**	**-0.6**	**-0.3**	**0.0**
Fiscal effort [3]	*pp*	**0.5**	**1.4**	**1.3**	**1.3**	**-1.3**	**0.5**	**0.2**	**-0.2**	**0.3**	**0.3**
Interest expenditure	*% GDP*	**1.3**	**1.3**	**1.4**	**1.3**	**1.3**	**1.1**	**1.0**	**0.9**	**0.8**	**0.8**
Primary balance	*% GDP*	**-3.1**	**-1.4**	**-2.5**	**0.1**	**-0.6**	**0.4**	**0.7**	**0.7**	**1.0**	**1.3**
Cyclically adjusted primary balance	*% GDP*	**-2.4**	**-1.1**	**-1.6**	**1.5**	**0.0**	**0.2**	**0.4**	**0.3**	**0.5**	**0.8**
General government debt	*% GDP*	**38.2**	**39.8**	**44.5**	**44.9**	**42.2**	**40.3**	**38.6**	**38.5**	**38.0**	**37.1**
	bill. CZK	1 509	1 606	1 805	1 840	1 819	1 836	1 814	1 872	1 920	1 948
Change in debt-to-GDP ratio	*pp*	4.1	1.7	4.6	0.4	-2.7	-1.9	-1.7	-0.1	-0.4	-0.9

1) General government net lending (+)/borrowing (–)

2) 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.

3) Change in structural balance.

Source: CZSO. Calculations of the MoF.

1.3 Monetary Policy, Financial Sector and Exchange Rates

1.3.1 Monetary Policy

For a long time, the CNB's monetary policy can be characterized as eased. The two-week repo rate has been set at 0.05% since November 2012. Since November 2013, the CNB has been using the exchange rate as an additional monetary policy instrument, through its commitment not to allow the koruna to strengthen below 27 CZK/EUR. Since the second half of 2015, the CNB has again been intervening on the foreign exchange market. The total aggregate volume of interventions reached approximately EUR 14.5 billion between July 2015 and August 2016. The CNB can intervene against pressures for the koruna's appreciation basically without limits.

Graph 1.3.1: FX Interventions of the CNB and the Exchange Rate
monthly volume of foreign exchange interventions in EUR billion, CZK/EUR exchange rate
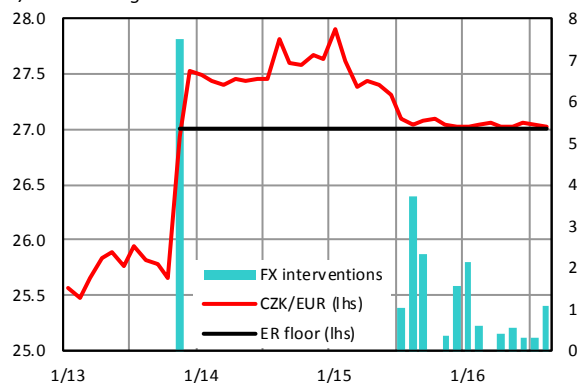
Source: CNB

1.3.2 Financial Sector and Interest Rates

In the third quarter of 2016, the **3M** (3-month) **PRIBOR** interbank market rate averaged 0.3% (*in line with the forecast*). With respect to the expected stability of monetary policy rates, the 3M PRIBOR should remain at this level also throughout the rest of the year 2016 and in 2017.

Graph 1.3.2: Interest Rates
in % p.a.
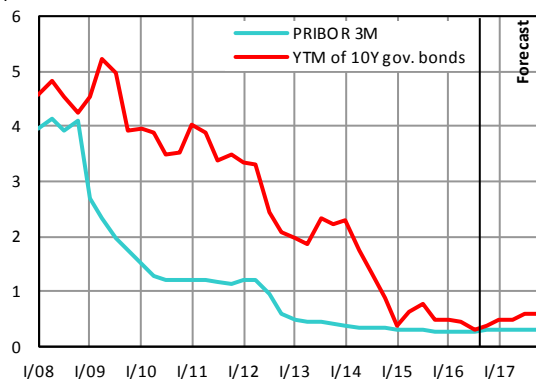
Source: CNB. Calculations of the MoF.

With respect to the practically zero reference interest rates of the CNB and inflation pressures that have long

been very weak, long-term interest rates continue to be at extremely low values. We estimate that the **yield to maturity on 10-year government bonds** for convergence purposes reached 0.3% in the third quarter of 2016 (*versus 0.6%*), and we forecast 0.4% on average for the whole year of 2016 (*versus 0.6%*). With respect to the expected development of inflation, we forecast only a slight increase in long-term interest rates to 0.6% in 2017 (*versus 0.8%*).

In June 2016, the CNB conducted another regular bank lending survey which concluded that, in the second quarter of 2016, credit standards had become tighter for loans to non-financial corporations, eased for consumer loans to households and tighter for housing loans to households. For the third quarter of 2016, banks expected changes in standards in the same direction as in the second quarter.

Graph 1.3.3: Loans
YoY growth rate, in %
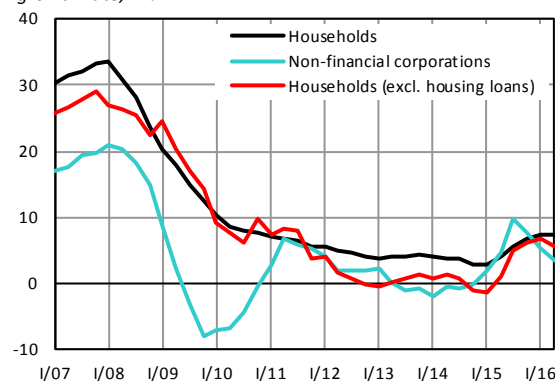
Source: CNB. Calculations of the MoF.

The growth of loans to households, the dynamics of which are mostly influenced by housing loans, which are, in volume terms, the most important loan category (see Graph 1.3.6), continues to slowly increase. In combination with a noticeable rise in offer prices of flats (9.9% in the third quarter), the risk of housing market overheating cannot be ruled out. Consumer loans, which increased by 7.3% YoY in the second quarter of 2016, continued to be influenced by a merger of a bank with a non-banking entity (in June 2015) and the related changes in the banking and monetary statistics. So-called "other loans", which include e.g. loans to sole traders, have been steadily slightly growing (by 2.5% in the second quarter of 2016). The growth of loans to non-financial corporations has been considerably slowing down in recent months (due to strong decreases in short-term loans but also to a slowdown of growth in long-term loans).

Graph 1.3.4: Non-performing Loans
ratio of non-performing to total loans, in %
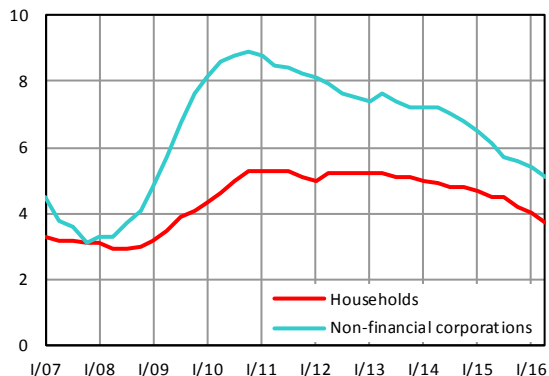
The share of non-performing loans from total loans has been continuously decreasing in line with the economic cycle. In the second quarter of 2016, the share stood at 3.7% for households (0.3 pp less QoQ, 0.8 pp less YoY) and at 5.1% for non-financial corporations (0.3 pp less QoQ and 1.0 pp less YoY).

Graph 1.3.5: Deposits
YoY growth rate, in %
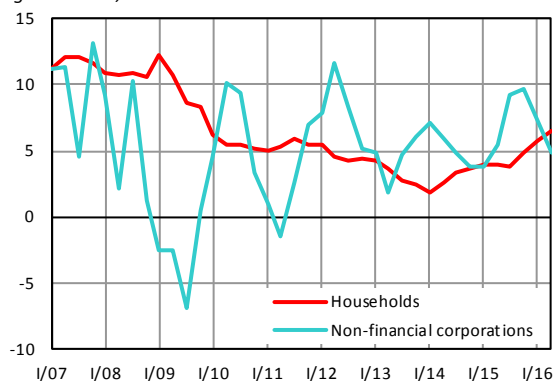
Household deposits in the second quarter of 2016 increased by 6.5% YoY, and thus their growth has further accelerated. The growth of non-financial corporations' deposits has slowed down to 4.9%; however, this indicator is considerably volatile (see Graph 1.3.5).

1.3.3 Exchange Rates

From the change in the exchange rate regime in November 2013 until approximately mid-2015, the CZK/EUR exchange rate mostly hovered close to the level of 27.50 CZK/EUR. At the end of the second quarter of 2015, the CZK exchange rate started strengthening in connection with favourable developments of the economy, approaching the value of 27 CZK/EUR, close to which it remained in the second half of 2015 and the course of the year of 2016 so far.

It is not determined yet when and in what manner will the CNB stop using the exchange rate instrument. On the basis of available information (repeated CNB's statement that it considers it likely that the exchange rate commitment will be discontinued in the first half of 2017), we have made a technical assumption for the period until the second quarter of 2017 that the exchange rate will remain stable at 27.0 CZK/EUR (*unchanged*). We expect that, subsequently, the koruna will again start strengthening slightly against the euro, approximately by 0.6% QoQ. The expected development is in line with the CNB's statement that it will not allow considerable appreciation of the koruna after it discontinues the exchange rate commitment.

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 1.10 USD/EUR (*unchanged*).

Table 1.3.1: Interest Rates – yearly

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
										Forecast	*Forecast*
Repo 2W rate CNB (*end of period*)	in % p.a.	2.25	1.00	0.75	0.75	0.05	0.05	0.05	0.05	.	.
Main refinancing rate ECB (*end of period*)	in % p.a.	2.50	1.00	1.00	1.00	0.75	0.25	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	0.25	0.50	.	.
PRIBOR 3M	in % p.a.	4.04	2.19	1.31	1.19	1.00	0.46	0.36	0.31	0.3	0.3
YTM of 10Y government bonds	in % p.a.	4.55	4.67	3.71	3.71	2.80	2.11	1.58	0.58	0.4	0.6

Table 1.3.2: Interest Rates – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
									Forecast
Repo 2W rate CNB (*end of period*)	in % p.a.	0.05	0.05	0.05	0.05	0.05	0.05	0.05	.
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.	0.25	0.25	0.25	0.50	0.50	0.50	0.50	.
PRIBOR 3M	in % p.a.	0.33	0.31	0.31	0.29	0.29	0.29	0.29	0.3
YTM of 10Y government bonds	in % p.a.	0.37	0.62	0.80	0.51	0.48	0.45	0.30	0.4

Table 1.3.3: Interest Rates, Deposits and Loans – yearly

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Households – MFI (*CR, unless stated otherwise*)											
Interest rates on loans	*in % p.a.*	6.93	6.64	6.81	7.00	7.01	6.83	6.46	6.03	5.57	5.14
Loans	*growth in %*	32.7	32.2	31.7	29.0	16.3	8.7	6.5	4.8	4.0	3.5
Loans without housing loans	*growth in %*	28.3	27.3	25.3	19.1	8.3	6.8	1.4	0.4	0.3	2.7
Interest rates on deposits	*in % p.a.*	1.22	1.29	1.55	1.38	1.25	1.20	1.18	1.01	0.84	0.65
Deposits	*growth in %*	8.2	11.8	10.8	10.0	5.6	5.4	4.7	3.2	2.9	4.1
Share of non-performing loans	*in %*	3.7	3.2	3.0	3.7	4.8	5.3	5.2	5.2	4.9	4.5
Loans to deposits ratio	*in %*	43	51	59	62	64	65	65	65	65	66
Loans to deposits ratio (*Eurozone*)	*in %*	99	99	94	89	90	90	87	84	82	81
Non-financial firms – MFI (*CR, unless stated otherwise*)											
Interest rates on loans	*in % p.a.*	4.29	4.85	5.59	4.58	4.10	3.93	3.69	3.19	3.00	2.77
Loans	*growth in %*	17.3	18.5	18.6	0.0	-4.8	5.2	2.5	0.1	-0.9	6.1
Interest rates on deposits	*in % p.a.*	1.08	1.41	1.80	0.87	0.56	0.52	0.56	0.41	0.29	0.19
Deposits	*growth in %*	10.5	10.0	5.7	-2.9	6.9	2.3	8.2	4.4	5.4	7.0
Share of non-performing loans	*in %*	4.5	3.8	3.6	6.2	8.6	8.5	7.8	7.4	7.1	6.0
Loans to deposits ratio	*in %*	113	122	137	141	125	129	122	117	110	109
Loans to deposits ratio (*Eurozone*)	*in %*	306	308	329	326	308	301	291	264	239	211

Source: CNB, ECB. Calculations of the MoF.

Table 1.3.4: Interest Rates, Deposits and Loans – quarterly

		2014		2015				2016	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Households – MFI (*CR, unless stated otherwise*)									
Interest rates on loans	*in % p.a.*	5.52	5.40	5.28	5.18	5.11	4.97	4.85	4.70
Loans	*growth in %*	3.6	2.7	2.9	3.9	5.6	6.9	7.5	7.3
Loans without housing loans	*growth in %*	0.6	-1.2	-1.4	1.0	4.9	6.1	6.9	5.5
Interest rates on deposits	*in % p.a.*	0.81	0.77	0.72	0.66	0.62	0.59	0.55	0.48
Deposits	*growth in %*	3.4	3.7	4.0	3.9	3.8	4.8	5.8	6.5
Share of non-performing loans	*in %*	4.8	4.8	4.7	4.5	4.5	4.2	4.0	3.7
Loans to deposits ratio	*in %*	66	65	65	65	67	66	66	66
Loans to deposits ratio (*Eurozone*)	*in %*	82	81	81	81	81	81	81	80
Non-financial firms – MFI (*CR, unless stated otherwise*)									
Interest rates on loans	*in % p.a.*	2.98	2.93	2.88	2.80	2.72	2.67	2.63	2.60
Loans	*growth in %*	-0.9	-0.1	2.0	4.8	9.8	7.8	5.3	3.5
Interest rates on deposits	*in % p.a.*	0.26	0.24	0.22	0.20	0.17	0.15	0.13	0.11
Deposits	*growth in %*	4.9	3.8	3.8	5.4	9.2	9.7	7.2	4.9
Share of non-performing loans	*in %*	7.0	6.8	6.5	6.1	5.7	5.6	5.4	5.1
Loans to deposits ratio	*in %*	110	107	110	111	111	105	108	109
Loans to deposits ratio (*Eurozone*)	*in %*	239	230	217	216	210	202	203	202

Source: CNB, ECB. Calculations of the MoF.

Graph 1.3.6: Ratio of Bank Loans to Households to GDP
yearly moving sums, in %
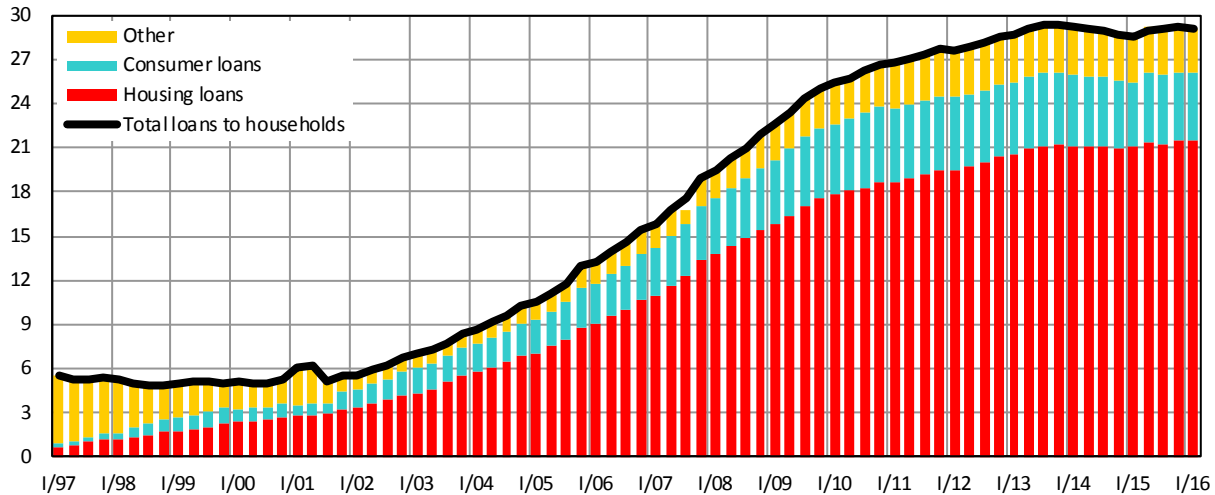
Source: CNB, CZSO. Calculations of the MoF.

Table 1.3.5: Exchange Rates – yearly

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
								Forecast	Forecast	Outlook	Outlook
Nominal exchange rates											
CZK / EUR	average	25.29	24.59	25.14	25.98	27.53	27.28	27.0	26.9	26.2	25.6
	appreciation in %	4.6	2.8	-2.2	-3.2	-5.6	0.9	0.9	0.6	2.4	2.5
CZK / USD	average	19.11	17.69	19.59	19.57	20.75	24.65	24.3	24.4	23.8	23.3
	appreciation in %	-0.3	8.0	-9.7	0.1	-5.7	-15.8	1.4	-0.5	2.4	2.5
NEER	average of 2010=100	100.0	103.1	99.5	97.3	92.5	92.5	95	95	98	100
	appreciation in %	2.1	3.1	-3.5	-2.2	-4.9	-0.1	2.4	0.7	2.6	2.2
Real exchange rate to EA12 [1]	average of 2010=100	100.0	101.8	99.8	96.7	92.7	93.4	94	94	97	99
	appreciation in %	2.4	1.8	-2.0	-3.1	-4.2	0.7	0.5	0.4	2.5	2.8
REER	average of 2010=100	100.0	102.1	99.2	96.9	91.8	91.3	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	1.2	2.1	-2.8	-2.3	-5.2	-0.6	.	.	.	.

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

Table 1.3.6: Exchange Rates – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	Forecast
Nominal exchange rates									
CZK / EUR	average	27.62	27.38	27.07	27.06	27.04	27.04	27.03	27.0
	appreciation in %	-0.7	0.2	2.0	2.1	2.2	1.3	0.2	0.1
CZK / USD	average	24.55	24.79	24.53	24.71	24.54	23.94	24.21	24.6
	appreciation in %	-18.4	-19.2	-15.0	-10.5	0.0	3.6	1.3	0.6
NEER	average of 2010=100	91.7	91.1	93.4	93.6	94.9	94.7	95	94
	appreciation in %	-1.4	-2.0	1.6	1.5	3.5	3.9	1.2	0.9
Real exchange rate to EA12 [1]	average of 2010=100	92.0	93.1	93.9	94.5	94.1	93.9	93	94
	appreciation in %	-0.1	0.2	1.6	1.4	2.3	0.9	-0.5	-0.6
REER	average of 2010=100	90.7	89.8	92.4	92.0	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	-2.3	-2.5	1.5	0.7	.	.	.	.

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

Graph 1.3.7: Nominal Exchange Rates

quarterly averages, average 2010=100 (rhs)
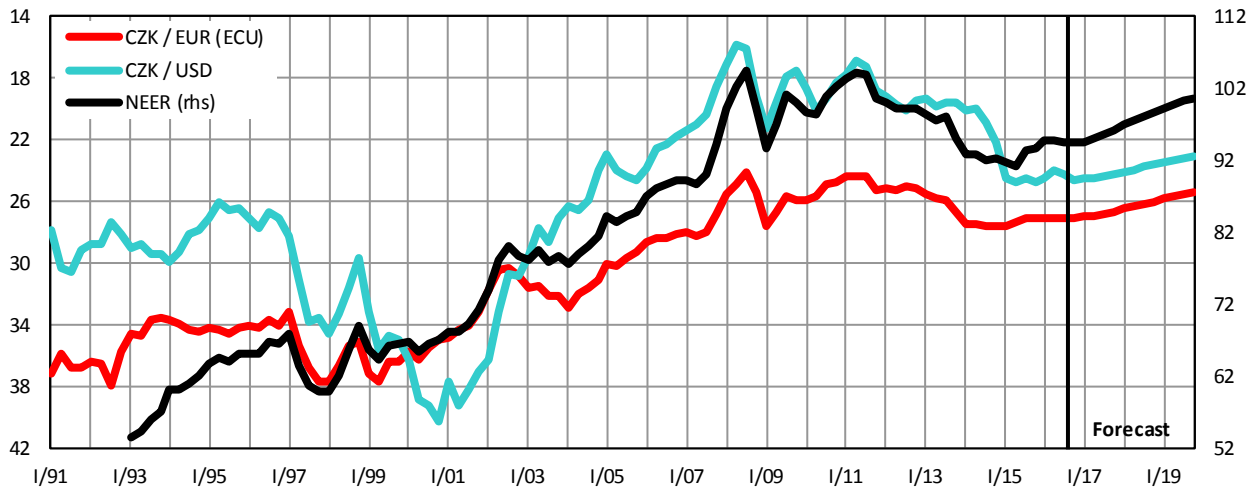
Source: CNB. Calculations of the MoF.

Graph 1.3.8: Real Exchange Rate to EA12

quarterly averages, deflated by GDP deflators, average 2010=100
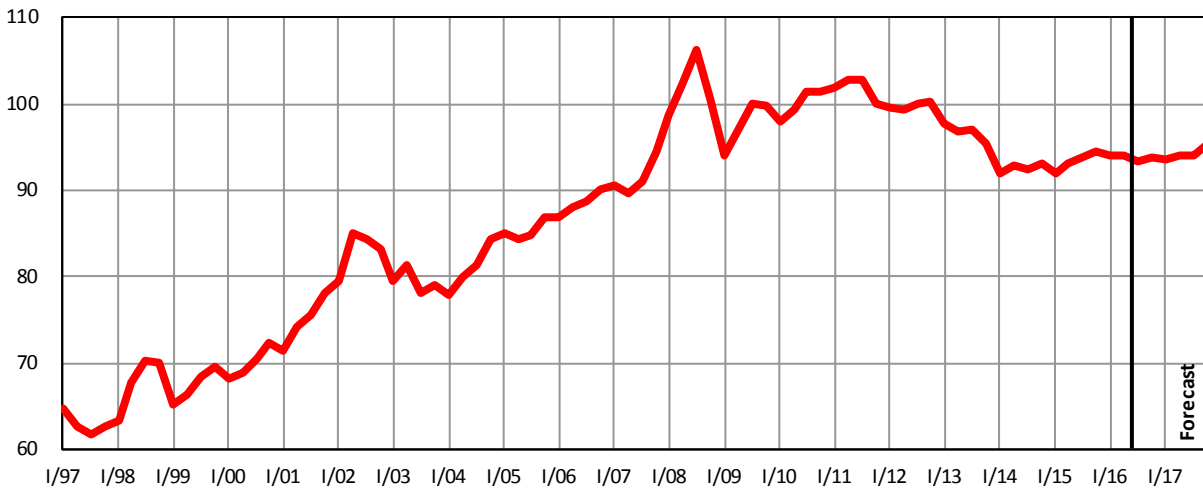
Source: CNB, Eurostat. Calculations of the MoF.

Graph 1.3.9: Real Exchange Rate to EA12

deflated by GDP deflators, YoY growth rate in %, contributions in percentage points
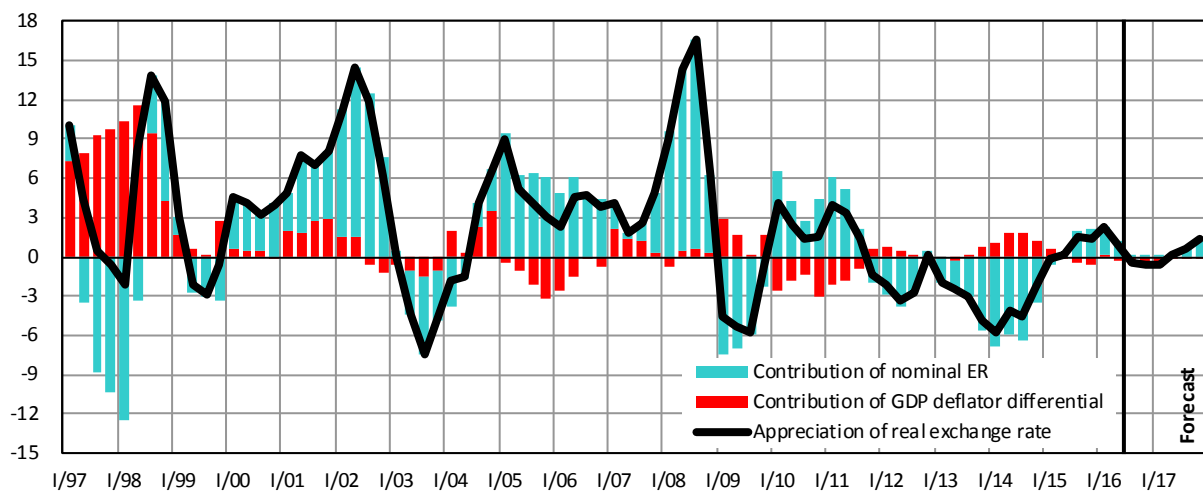
Source: CNB, Eurostat. Calculations of the MoF.

1.4 Structural Policies

1.4.1 Business Environment

The Act on Public Procurement, which came into effect on 1 October 2016, should increase transparency and reduce the administrative requirements of the procurement process and, at the same time, ensure compliance with the European legal regulation. According to the new legal regulation, it will be possible to exclude such a bidder from a tender who did not prove successful in the past. It will not be possible to conclude contracts with tender participants who do not meet the requirements of the Act or the contracting authorities. For selected types of tenders, more obligatory evaluating criteria will be introduced, not only the lowest price. Winners of public contracts will have to prove their ownership structure. Public institutions will be able to award contracts for legal services in judicial and administrative disputes without any bidding process.

1.4.2 Taxes

As of 1 October 2016, the **Government Regulation on the Reverse Charge** extended the reverse charge regime for VAT to wholesale telecommunication services.

1.4.3 Financial Markets

On 27 July, the President of the Czech Republic signed the **Act on Consumer Loans**, transposing into the Czech legal system the Directive on credit agreements for consumers relating to residential immovable properties (the Mortgage Credit Directive, MCD) and, at the same time, unifying regulation of all types of consumer loans. The new legal regulation strengthens the position of consumers, limits sanctions for late loan repayments and strengthens the responsibility of creditors for granting loans. At the same time, it deals with serious and systematic problems in the sector of non-banking providers and loan intermediaries, in particular unfair trading practices and the low expertise and credibility of some loan distributors. Supervision over all loan providers and intermediaries will be transferred to the CNB. The Act will come into effect on 1 December 2016.

The **Act on Central Account Record-Keeping**, which came into effect on 6 October 2016, should help to fight crime, e.g. tax evasion or money laundering. The Act authorizes the CNB to establish and administer a central database of basic information on natural persons' and legal entities' accounts. The central account records will not include information on account balances; data history will be created as late as after starting operation and the data will be archived for 5 years.

1.4.4 Education, Science and Research

The **amendment to the School Act**, which came into effect on 1 September 2016, introduces a compulsory year of pre-school education that can be, however, replaced by home education. In the following years, four-year-old, three-year-old and two-year-old children will gradually be entitled to places in kindergartens. At the same time, the amendment regulates the system of entrance exams for the fields of secondary education completed with the leaving examination and the model of the leaving examination. However, the aforementioned regulations will only come into effect in later years.

1.4.5 Labour Market

On 1 August 2016, the **amendment to the Act on Pension Insurance** came into effect. If pension growth does not reach 2.7% as set by the valorization rule, the government will be able to increase the incomes of pensioners with its regulation so that the average old-age pensions will grow by 2.7%.

On 1 October 2016, another **amendment to the Act on Pension Insurance** came into effect, which lowers the retirement age for a defined group of miners. Miners who have worked 3,300 shifts underground in underground mines or 2,200 shifts in uranium mines will become entitled to retirement seven years earlier.

At its meeting on 5 September 2016, the Government approved another **amendment to the Act on Pension Insurance**, which introduces a ceiling for retirement age at 65 years. This limit will be revised by the Government every 5 years based on Report on the state pension system including the current demographic forecast; the first report should be submitted in 2019. The age ceiling should be revised in the event of a significant change in life expectancy so that the expected time spent in retirement amounts to a quarter of the total life expectancy.

An **amendment to the Labour Code**, approved by the Government on 24 August 2016, increases protection of employees returning from parental leave and orders employers to draw up a social plan in the event of collective redundancies. The amendment is expected to come into effect on 1 July 2017.

An **amendment to the Employment Act**, approved by the Government on 24 August 2016, obliges recruitment agencies to make a deposit of CZK 500 thousand to ensure their financial capacity and contributory obligations to the state. Another measure is an extension of the maximum time period of allowance for socially purposeful jobs from one to two years; the aim is to extend the time job seekers remain on the labour market. The amendment also envisages abolition of the possibility of job seekers to perform non-colliding employment based on agreements to complete work. This provision is to encourage job seekers to look for employment contributing to health insurance and to reduce the length of their registration at labour offices. The amendment is expected to come into effect 15 days after its publication in the Collection of Laws.

With effect from 1 January 2017, **Government Regulation on Minimum Wage** of 5 October 2016 will increase minimum wage to CZK 11,000 per month (an increase of 11.1%) for all groups of employees including recipient of disability pensions.

1.5 Demographic Trends

The population of the Czech Republic is slightly and steadily rising. As of 30 June 2016, 10.565 million people lived in the Czech Republic. Its population increased by 11.0 thousand persons during the first half of 2016. Net migration was positive (10.1 thousand persons) while natural increase was slightly positive (+1.0 thousand persons).

These results are fully in line with tendencies of recent years. With a more or less zero natural increase, a small increase in the population of approximately 0.1–0.2% per year is a result of net positive migration. In the first half of 2016, similarly as in previous years, most persons that moved to the Czech Republic from abroad were from Slovakia and Ukraine.

Graph 1.5.1: Age Groups
shares on total population, in %
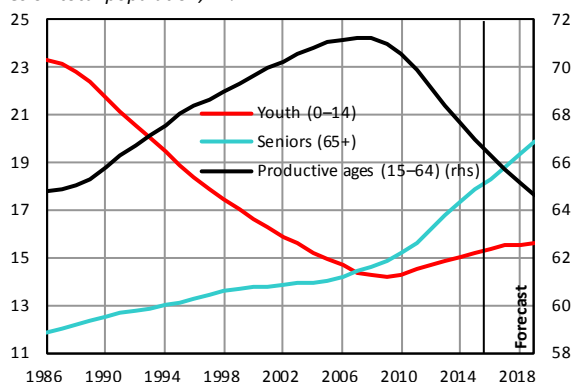
Source: CZSO. Calculations of the MoF.

Another long-term trend is a gradual decrease in the **working-age population** (15–64 years). In the second quarter of 2016, the YoY decrease in this category was 63 thousand persons, which corresponds to 0.9% (see Graph 1.5.2).

With respect to the past fluctuations in birth-rate, however, the development in this category is far from being homogeneous. The decrease was concentrated in the age group 15–39 years with the decrease of 90 thousand persons, while the population aged 55–64 years was reduced by 33 thousand persons. In contrast, a considerable increase in the number of people in the age group 40–54 years was recorded, by 61 thousand. People of this age group show the highest employment and participation rates, which fully eliminates, thus far, the impact of population ageing on the size of labour force. On the other hand, it is likely that the gradual ageing of the labour force will translate into a slower growth of labour productivity.

Graph 1.5.2: Population Aged 15–64
based on LFS, YoY increases of quarterly averages, in thousands
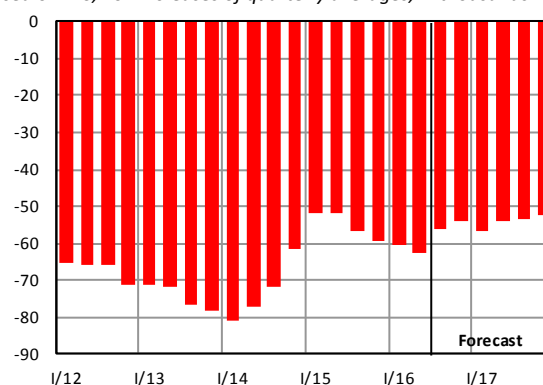
Source: CZSO. Calculations of the MoF.

The share of **seniors aged over 64 years** in the total population reached 18.5% in the second quarter of 2016 and, due to the lengthening life expectancy and demographic structure, should regularly increase approximately by 0.5 pp per year. The number of seniors in the population should exceed 2 million persons during the year 2017. From the perspective of the sustainability of the pension system, however, increases in the retirement age are adequate to match the lengthening of life expectancy in the next 20–25 years. Problems, however, could occur after 2040, when boomers born around 1975 will be retiring.

The number of **old-age pensioners** more or less stagnated in 2012–2014, which was a result of a high increase in their number following a parametric change in the system in 2011 (see Graph 1.5.5). Since 2015, growth of the number of pensioners resumed, being roughly in line with demographic development and the increasing statutory retirement age. At the end of June 2016, the YoY increase was 19 thousand pensioners.

Graph 1.5.3: Life Expectancy at Birth
in years
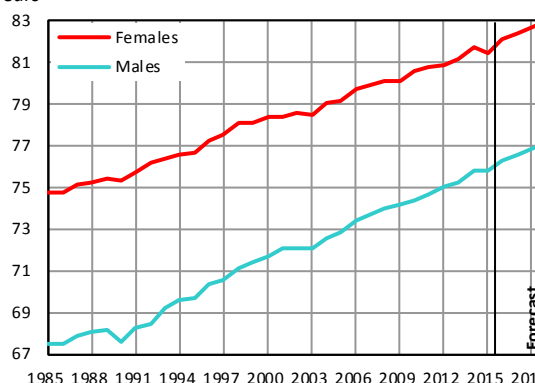
Source: CZSO.

Table 1.5.1: Demographics

in thousands of persons (unless stated otherwise)

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
								Forecast	*Forecast*	*Outlook*	*Outlook*
Population (January 1)		**10 507**	**10 487**	**10 505**	**10 516**	**10 512**	**10 538**	**10 554**	**10 569**	**10 583**	**10 596**
	growth in %	0.4	-0.2	0.2	0.1	0.0	0.2	0.1	0.1	0.1	0.1
Age structure (January 1)											
(0–14)		**1 494**	**1 522**	**1 541**	**1 560**	**1 577**	**1 601**	**1 624**	**1 638**	**1 646**	**1 651**
	growth in %	1.0	1.8	1.3	1.2	1.1	1.5	1.4	0.9	0.5	0.3
(15–64)		**7 414**	**7 328**	**7 263**	**7 188**	**7 109**	**7 057**	**6 998**	**6 942**	**6 889**	**6 842**
	growth in %	-0.2	-1.2	-0.9	-1.0	-1.1	-0.7	-0.8	-0.8	-0.8	-0.7
(65 and more)		**1 599**	**1 637**	**1 701**	**1 768**	**1 826**	**1 880**	**1 932**	**1 989**	**2 048**	**2 103**
	growth in %	2.7	2.4	3.9	3.9	3.3	3.0	2.8	2.9	3.0	2.7
Old-age pensioners (January 1)[1]		**2 108**	**2 260**	**2 340**	**2 341**	**2 340**	**2 355**	**2 377**	**2 396**	**2 414**	**2 430**
	growth in %	2.1	.	3.5	0.0	0.0	0.6	0.9	0.8	0.8	0.6
Old-age dependency ratios (January 1, in %)											
Demographic [2]		**21.6**	**22.3**	**23.4**	**24.6**	**25.7**	**26.6**	**27.6**	**28.7**	**29.7**	**30.7**
Under current legislation [3]		**36.6**	**37.4**	**37.8**	**38.3**	**38.8**	**39.3**	**39.8**	**40.2**	**40.6**	**40.9**
Effective [4]		**42.8**	**45.9**	**47.9**	**47.6**	**47.2**	**46.9**	**46.8**	**46.6**	**46.8**	**47.0**
Fertility rate		**1.493**	**1.427**	**1.452**	**1.456**	**1.528**	**1.570**	**1.46**	**1.46**	**1.47**	**1.47**
Population increase		**-20**	**19**	**11**	**-4**	**26**	**16**	**15**	**14**	**13**	**12**
Natural increase		**10**	**2**	**0**	**-2**	**4**	**0**	**-4**	**-5**	**-6**	**-8**
Live births		**117**	**109**	**109**	**107**	**110**	**111**	**101**	**99**	**98**	**96**
Deaths		**107**	**107**	**108**	**109**	**106**	**111**	**105**	**105**	**104**	**104**
Net migration		**16**	**17**	**10**	**-1**	**22**	**16**	**19**	**19**	**19**	**20**
Immigration		**31**	**23**	**30**	**30**	**42**	**35**	**.**	**.**	**.**	**.**
Emigration		**15**	**6**	**20**	**31**	**20**	**19**	**.**	**.**	**.**	**.**
Census difference		**-46**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

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.
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
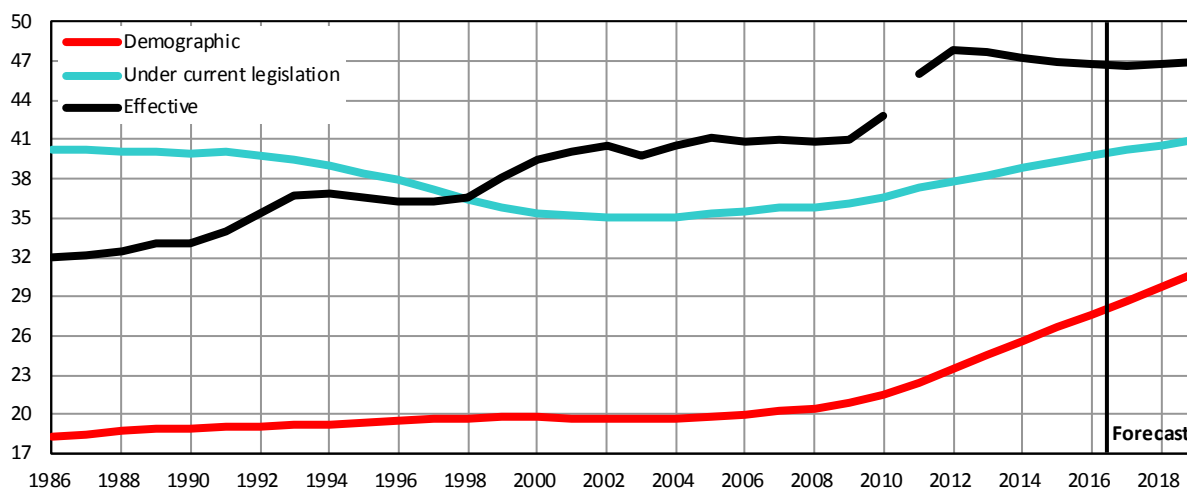
Source: CZSO. Calculations of the MoF.

Graph 1.5.5: Old-Age Pensioners

absolute increase over a year in thousands of persons
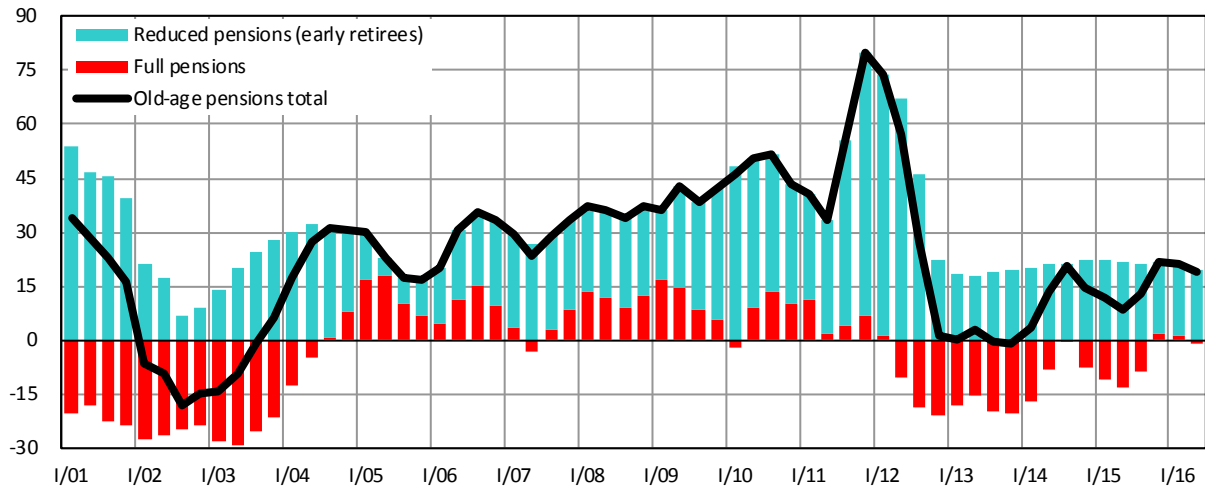
Note: Adjusted for the transfer of disability pensions to old-age pensions for people over 64 years in 2010.
Source: Czech Social Security Administration, CZSO. Calculations of the MoF.

2 Economic Cycle

2.1 Position within the Economic Cycle

Approximately since the beginning of 2015, the economy has been, according to our calculations, in the conditions of a **positive output gap** (see Graph 2.1.1), which, however, has so far been expanding very slowly. We estimate its extent to be 1.1% of potential product in the second quarter of 2016.

In individual sectors of the economy, the cyclical position manifests itself in various manners. Some structural barriers can already be seen on the labour market. Although the unemployment rate (LFS) has been below its long-term average since the beginning of 2014, it has been further decreasing and has been the lowest in the EU since the beginning of 2016. The number of vacancies recorded by the Ministry of Labour and Social Affairs highly exceeds the average level and shows considerable increases in a YoY comparison. In the case of some professions or regions, mismatches between supply and demand have been manifesting themselves more and more. This fact is reflected in an acceleration of real wage growth.

In the development of consumer prices, on the contrary, one can see effects of the positive output gap in a YoY growth of core inflation. This is because the overall inflation rate is significantly affected by a decrease in the prices of imported goods, in particular of fuels.

Since 2014, the YoY growth in **potential product** has been accelerating. It reached 2.1% in the second quarter of 2016, which we consider a result approaching the long-term growth possibilities of the Czech economy. With respect to the forecast level of economic growth, widening of the positive output gap should remain gradual in the coming period.

The main driver of acceleration of potential growth is **total factor productivity**. The contribution of its trend component, derived by the Hodrick-Prescott filter, increased from a minimum of 0.3 pp during the recession in 2012 to 1.5 pp in the second quarter of 2016.

The decrease or only modest growth of investments in 2008–2013 has contributed to the slowdown of potential product growth. The recent investment wave, supported by efforts for maximal possible utilization 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. The current decrease in investment, however, leads to a repeated, yet so far only a slight, reduction in the contribution of capital stock.

Labour supply is being affected by a long-lasting decrease in the working-age population, caused by the process of population ageing (see Chapter 1.5). In the second quarter of 2016, **demographic development** slowed potential product growth by 0.4 pp.

The negative impact of the decline in the population aged 15–64 years on labour supply is more than compensated by an increase in the **participation rate**. Its increase by more than 5 pp in comparison with the end of 2011 is exceptional both in the historical context of the Czech economy and when compared to other European countries. Structural factors – an increase in the number of inhabitants in age groups with naturally high participation, labour market flexibility and an increase in the statutory and effective retirement age – are predominating here. The contribution of the participation rate to potential product growth was 0.6 pp in the second quarter of 2016.

From a long-run perspective, the regular **average working time** is shortening in the Czech Republic. As the economic cycle progresses, however, the intensity of this factor's effect is decreasing. In the second quarter of 2016, the contribution of the number of hours usually worked was only 0.1 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

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 H1
Output gap	%	3.8	3.9	-3.7	-2.0	-0.7	-2.3	-3.7	-1.6	0.6	0.9
Potential product [1]	growth in %	4.0	3.4	2.1	1.0	0.7	0.9	0.9	1.1	1.8	2.1
Contributions:											
Trend TFP	pp	2.9	2.0	1.2	0.7	0.4	0.3	0.5	0.9	1.3	1.5
Fixed assets	pp	1.1	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.5	0.5
Demography [2]	pp	0.3	0.3	0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4
Participation rate	pp	-0.2	0.0	0.3	0.2	0.3	0.8	0.9	0.5	0.5	0.6
Usually worked hours	pp	0.0	-0.1	-0.3	-0.3	-0.2	-0.3	-0.3	-0.2	-0.1	-0.1

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

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

Graph 2.1.3: Potential Product and GVA
QoQ growth rate, in %
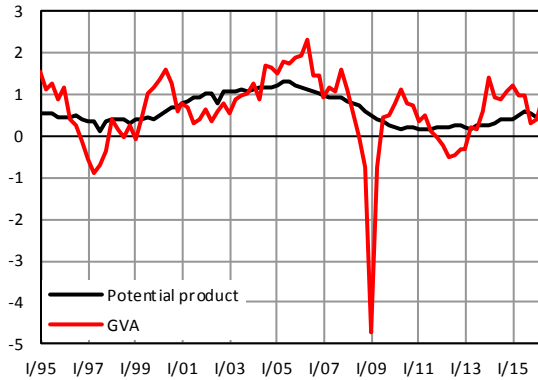
Graph 2.1.4: Levels of Potential Product and GVA
in bill. CZK of 2010
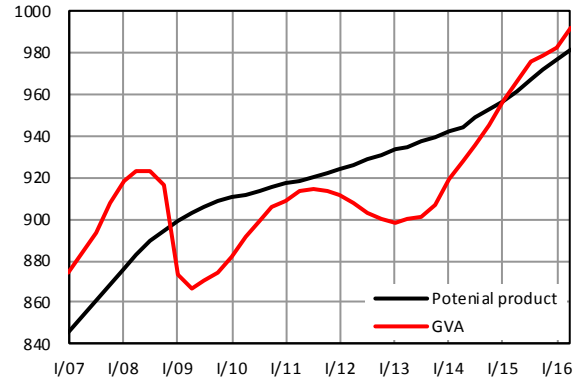
Graph 2.1.5: Capacity Utilisation in Industry
smoothed by Hodrick-Prescott filter, in %
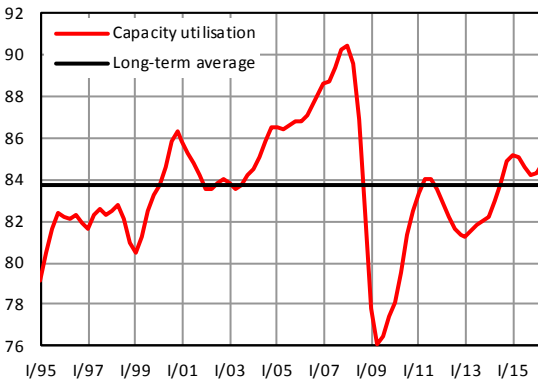
Graph 2.1.6: Total Factor Productivity
YoY growth rate, in %
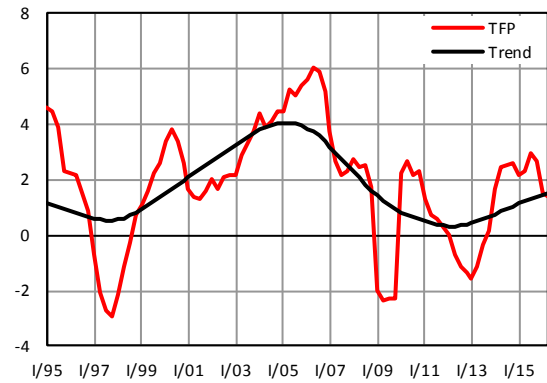
2.2 Business Cycle Indicators

Confidence indicator in industry increased in the third quarter of 2016, thus reducing losses from the previous period and indicating a continuation of high YoY growth of GVA in industry.

Confidence indicator in construction recorded a slump related to a lower volume of investment from EU funds, indicating a continuation of GVA slump in this sector. 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, which has been strengthening for a long time, also recorded resumption in growth in the third quarter of 2016.

Consumer confidence indicator also developed similarly, slightly increasing in the third quarter of 2016, implying

that the growth dynamics of household consumption will be maintained in late 2016. The conclusion results from the fact that the development of the consumer confidence indicator leads household consumption by 1–2 quarters.

As a result, the composite confidence indicator signals, thanks to the strengthening of most of its components, an acceleration of the YoY growth dynamics of GVA in the third quarter of 2016.

However, the composite leading indicator signals gradual decrease in the positive cyclical component for the second half of 2016. We therefore approach the recorded increase in the composite confidence indicator in the third quarter of 2016 rather conservatively.

Graph 2.2.1: Confidence and GVA in Industry
2005=100 (lhs), YoY growth in % (rhs)
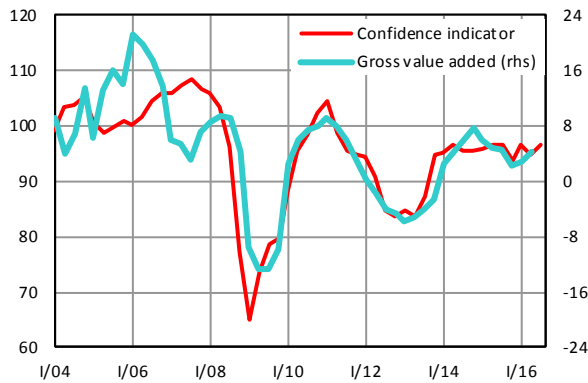
Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction
2005=100 (lhs), YoY growth in % (rhs)
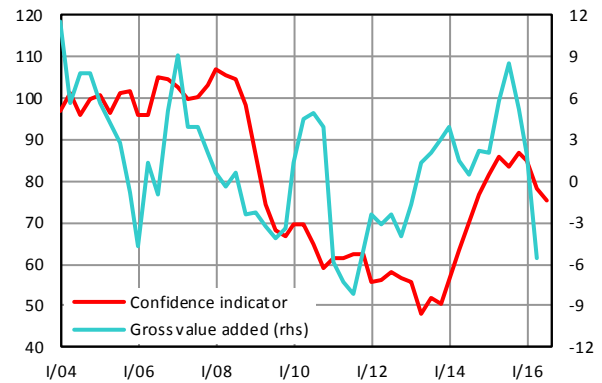
Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services
2005=100 (lhs), YoY growth in % (rhs)
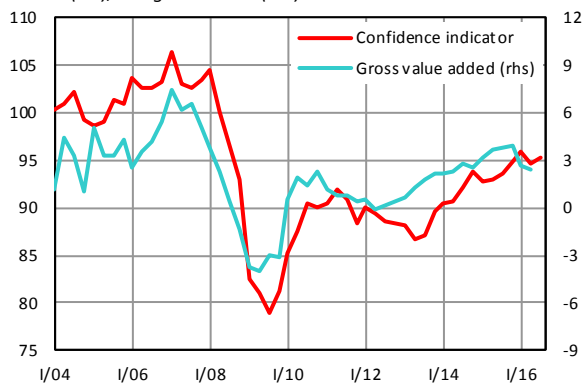
Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Consumer Confidence and Consumption
2005=100 (lhs), YoY growth in % (rhs)
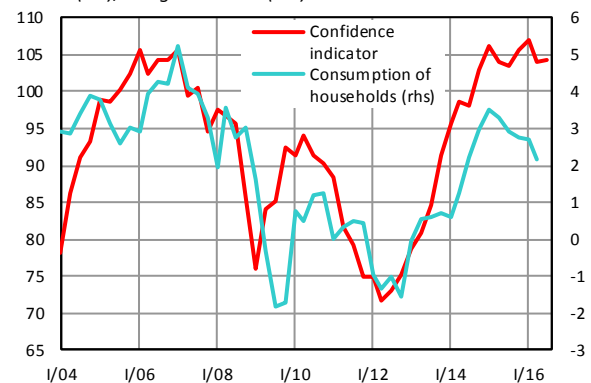
Source: CZSO.

Graph 2.2.5: Composite Confidence Indicator and GVA
2005=100 (lhs), YoY growth in % (rhs)
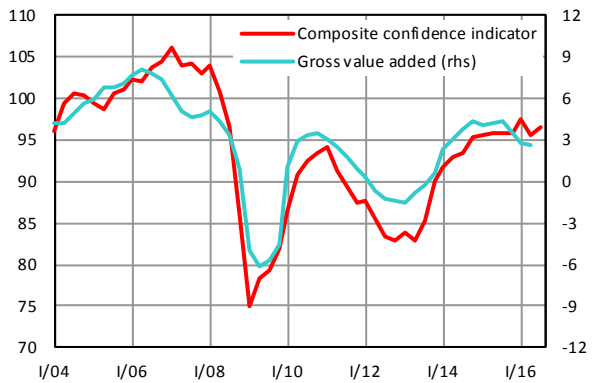
Source: CZSO.

Graph 2.2.6: Composite Leading Indicator
2005=100 (lhs), in % of GVA (rhs)
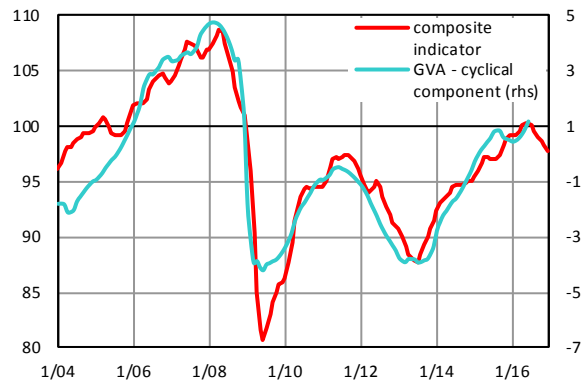
Note: Synchronized with the cyclical component of GVA derived from the Cobb-Douglas production function (see Chapter 2.1), on a monthly basis.
Source: CZSO. Calculations of the MoF.

3 Forecast of the Development of Macroeconomic Indicators

3.1 Economic Output

3.1.1 GDP in the Second Quarter of 2016

Economic performance measured by real GDP rose by 3.6% YoY (*versus 3.0%*) in the second quarter of 2016, while seasonally adjusted GDP increased by 0.9% QoQ (*versus 0.4%*). The greatest contributor to the QoQ growth of gross value added by 0.9% was industry and the section Public administration and defence, education, health and social work. Gross value added growth was slowed down only by construction (contribution –0.3 pp), which suffered from, above all, a slump in government investment demand.

The YoY increase in GDP in the second quarter of 2016 reflected growing domestic and, most importantly, foreign demand. The main contributor to growth was, despite a slight slowdown of export markets, the balance of foreign trade in goods and services, which reflected an increase in export performance. A perceptibly higher growth rate of exports more than offset the effect of weaker domestic demand (export is more import-intensive than domestic demand), and the growth in imports thus accelerated as a result. The GDP growth dynamics were considerably increased by final consumption expenditure, both of households and of the government sector. A significantly negative contribution of gross fixed capital formation to GDP growth was mitigated by increased build-up of inventories.

The increase in household consumption was due to increasing disposable income and high consumer confidence. Expenditure on durable goods was the most dynamically growing component of household consumption, which continues to suggest optimism of households regarding the future economic developments as expenditure on durable goods may be postponed to a certain extent. Expenditure on semi-durable goods, services and mainly non-durable goods, which are less sensitive to economic fluctuations, also contributed to total household consumption growth. In comparison with the same quarter of the previous year, the savings rate of households decreased less than expected. Household consumption increased by 2.6% (*versus 3.5%*) in real terms. Government consumption grew by 2.5% (*versus 2.1%*) due to an increase in employment in state administration and higher spending on goods and services.

Dissipation of increased investment activity co-financed by EU funds from the previous financial perspective fully translated into a decrease in gross fixed capital formation by 4.1% (*versus growth of 1.5%*). Gross fixed capital formation was dragged down mainly by a slump in investment in other buildings and structures, and to a lesser extent also a slump in investment in other machinery and equipment. Purchases of transport equipment, investment in dwellings and intellectual property products had an impact in the opposite direction. Considering the positive contribution of change in inventories, gross capital formation decreased less than investment in fixed capital, specifically by 2.9% (*versus growth of 1.2%*).

Amid an acceleration of exports of both components, the YoY growth of exports of goods and services increased by 3.4 pp to 8.4% (*versus 5.9%*) compared to the previous quarter. Imports of goods and services increased by 5.6% (*in line with the estimate*), as pressures on increasing its growth rate resulting from a strong growth of exports were mitigated by weaker domestic demand.

A higher decrease in import prices compared to export prices resulted in an improvement of the terms of trade of 1.4% (*versus 0.7%*). The trading gain resulting from foreign trade brought about a situation where real gross domestic income, which unlike GDP includes this factor, increased by 4.7% YoY (*versus 3.5%*).

Gross operating surplus grew by 5.2% (*versus 2.6%*), compensation of employees increased by 5.4% (*in line with the estimate*) and net taxes on production were lower by 3.0% YoY (*versus growth of 1.2%*). As a result, nominal GDP recorded growth of 4.5% (*versus 3.5%*).

3.1.2 Estimate for the Third Quarter of 2016

The estimate of GPD and its structure is based on the course of phenomena we already observed in the previous period. We estimate that real GDP increased by 1.5% YoY (*versus 1.3%*) and by 0.3% QoQ (*versus 0.5%*). The estimated decrease in the QoQ dynamics of GDP is mainly due to the non-standard high growth in the second quarter of 2016, and it also reflects figures about economic development in the third quarter which were available as of the cut-off date of the forecast.

We suppose that GDP growth was driven mainly by the growth of household consumption and foreign trade. Due to increasing disposable income and rising consumer confidence, the final consumption expenditure of households could have increased by 2.3% YoY (*versus 2.9%*) while government consumption could have risen by 2.2% (*versus 2.1%*). Gross fixed capital formation decreased, according to our estimate, by 5.3% (*versus 2.4%*) due to a weaker than expected start of the new financial perspective and a slower recovery of private investment activity growth.

Foreign trade may have had a positive impact on DGP dynamics, mainly thanks to a solid growth of export markets. We estimate that exports of goods and services grew by 5.4% (*versus 5.1%*) and imports, in relation to the slowdown of domestic demand, increased by 4.3% (*versus 5.4%*).

3.1.3 Forecast for the Years 2016 and 2017

In 2016, economic growth should be driven by consumption and balance of foreign trade, while gross fixed capital formation will negatively affect growth. We expect real GDP to grow by 2.4% (*versus 2.2%*) in 2016 and by 2.5% (*versus 2.4%*) in 2017.

Household consumption will be supported by the growth of real disposable income and, as evidenced by the business cycle surveys, also by consumers' optimistic expectations. For 2016, we expect a gradual increase in the contribution of consumer loans to private consumption resources. Household savings rate should decrease in 2016 and – to a greater extent – also in 2017, which will support the acceleration of private consumption dynamics. Household consumption could thus increase by 2.5% (*versus 3.1%*) in 2016, and its growth could accelerate to 2.8% (*versus 2.7%*) in 2017.

We expect that government consumption will grow by 2.3% (*versus 2.2%*) in 2016 and by 1.6% (*unchanged*) in 2017. The main driver of government consumption growth in 2016 will be an increase in compensation of employees, partially related to the planned creation of up to 13 thousand new jobs. In contrast, the contribution of expenditure on goods and services should be lower than in 2015 as the increased drawdown of non-investment funds from EU funds from the 2007–2013 programming period fades out. On the other hand, government expenditures associated with routine maintenance and repairs of transport infrastructure may be higher.

In 2016, private and government sector investment are significantly influenced by the development of investment co-financed from EU funds. While this investment grew dynamically in 2015 in relation to closure of the 2007–2013 programming period, it recorded a deep decline in the first and second quarters of 2016. One may believe that a significant decline will also be reported in the second half of 2016 due to a slow start of the new financial perspective 2014–2020.

However, private investment is supported by eased monetary conditions and a growth in gross operating surplus. The above-average utilization of production capacities in manufacturing given by the position of the economy in the economic cycle should also contribute to private investment growth. Also, increasing frictions on the labour market could motivate businesses to invest in order to increase labour productivity. On the other hand, utilization of external sources of financing is lower (the YoY growth in loans to non-financial corporations essentially stagnated in August 2016 – see Chapter 1.3), and private investment growth may also be hampered by increased risks in the external environment. Despite that, our overall expectation is that total private investment will increase in 2016.

In the case of government sector investment, we expect not only a decrease in investment co-financed from EU funds but also a YoY decrease in investment expenditure financed from national resources. Moreover, the comparison base of 2015 is higher due to lease of supersonic aircraft.

Total gross fixed capital formation could thus decrease by 3.6% (*versus 0.6%*) in 2016. In 2017, investment in fixed capital could increase by 2.8% (*unchanged*), with the positive contribution of both private and government investment.

Gross capital formation should decrease by 1.9% (*versus 1.2%*) in 2016 despite a positive contribution of change in inventories to GDP growth. For 2017, we expect the growth of total gross capital formation of 2.4% (*versus 2.6%*) with a more or less zero contribution of change in inventories to GDP growth. The forecast has been revised due to the change of the forecast of gross fixed capital formation growth.

We expect that exports of goods and services will grow by 5.8% (*versus 5.6%*) in 2016 and by 4.8% (*versus 4.9%*) in 2017. Lower growth dynamics compared to 2015 mainly reflect the expected slowdown of the growth of export markets not offset by a sufficient increase in export performance (see Chapter 3.4). On the side of imports of goods and services, we expect the impact of a slower growth of exports and weaker private consumption and import-intensive investment demand. Hence, imports will probably grow by 4.6% (*versus 5.2%*) in 2016 and by 5.0% (*versus 5.1%*) in 2017.

Table 3.1.1: Real GDP by Type of Expenditure – yearly

chained volumes, reference year 2010

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
								Forecast	Forecast	Outlook	Outlook
Gross domestic product	bill. CZK 2010	3 954	4 033	4 001	3 981	4 089	4 275	4 379	4 488	4 597	4 710
	growth in %	**2.3**	**2.0**	**-0.8**	**-0.5**	**2.7**	**4.5**	**2.4**	**2.5**	**2.4**	**2.4**
Private consumption expenditure [1]	bill. CZK 2010	1 947	1 952	1 929	1 939	1 973	2 034	2 084	2 142	2 193	2 243
	growth in %	**1.0**	**0.3**	**-1.2**	**0.5**	**1.8**	**3.0**	**2.5**	**2.8**	**2.4**	**2.3**
Government consumption exp.	bill. CZK 2010	810	792	776	796	804	820	838	852	864	875
	growth in %	**0.4**	**-2.2**	**-2.0**	**2.5**	**1.1**	**2.0**	**2.3**	**1.6**	**1.4**	**1.3**
Gross capital formation	bill. CZK 2010	1 074	1 094	1 051	997	1 083	1 191	1 169	1 197	1 229	1 263
	growth in %	**4.4**	**1.8**	**-3.9**	**-5.1**	**8.6**	**10.0**	**-1.9**	**2.4**	**2.6**	**2.8**
Gross fixed capital formation	bill. CZK 2010	1 066	1 075	1 042	1 016	1 056	1 151	1 109	1 139	1 173	1 209
	growth in %	**1.3**	**0.9**	**-3.1**	**-2.5**	**3.9**	**9.0**	**-3.6**	**2.8**	**2.9**	**3.1**
Change in stocks and valuables	bill. CZK 2010	8	18	9	-19	26	40	60	58	56	55
Exports of goods and services	bill. CZK 2010	2 616	2 856	2 978	2 984	3 242	3 492	3 696	3 872	4 062	4 263
	growth in %	**14.8**	**9.2**	**4.3**	**0.2**	**8.7**	**7.7**	**5.8**	**4.8**	**4.9**	**5.0**
Imports of goods and services	bill. CZK 2010	2 494	2 661	2 732	2 734	3 008	3 256	3 404	3 573	3 748	3 932
	growth in %	**14.9**	**6.7**	**2.7**	**0.1**	**10.1**	**8.2**	**4.6**	**5.0**	**4.9**	**4.9**
Gross domestic expenditure	bill. CZK 2010	3 831	3 838	3 756	3 733	3 860	4 043	4 091	4 190	4 284	4 379
	growth in %	**1.8**	**0.2**	**-2.1**	**-0.6**	**3.4**	**4.7**	**1.2**	**2.4**	**2.2**	**2.2**
Methodological discrepancy [2]	bill. CZK 2010	0	0	-1	0	-4	-5	-3	-3	-3	-3
Real gross domestic income	bill. CZK 2010	3 954	3 990	3 942	3 956	4 112	4 303	4 436	4 535	4 646	4 762
	growth in %	**1.0**	**0.9**	**-1.2**	**0.4**	**3.9**	**4.6**	**3.1**	**2.2**	**2.4**	**2.5**
Contributions to GDP growth [3]											
Gross domestic expenditure	pp	**1.7**	**0.2**	**-2.1**	**-0.6**	**3.2**	**4.4**	**1.1**	**2.3**	**2.1**	**2.1**
Consumption	pp	**0.6**	**-0.3**	**-1.0**	**0.8**	**1.1**	**1.8**	**1.6**	**1.6**	**1.4**	**1.3**
Household expenditure	pp	**0.5**	**0.1**	**-0.6**	**0.3**	**0.9**	**1.5**	**1.2**	**1.3**	**1.1**	**1.1**
Government expenditure	pp	**0.1**	**-0.5**	**-0.4**	**0.5**	**0.2**	**0.4**	**0.4**	**0.3**	**0.3**	**0.3**
Gross capital formation	pp	**1.2**	**0.5**	**-1.1**	**-1.3**	**2.1**	**2.6**	**-0.5**	**0.6**	**0.7**	**0.7**
Gross fixed capital formation	pp	**0.4**	**0.2**	**-0.8**	**-0.6**	**1.0**	**2.3**	**-1.0**	**0.7**	**0.7**	**0.8**
Change in stocks	pp	**0.8**	**0.3**	**-0.2**	**-0.7**	**1.1**	**0.3**	**0.4**	**0.0**	**0.0**	**0.0**
Foreign balance	pp	**0.5**	**1.8**	**1.3**	**0.1**	**-0.5**	**0.1**	**1.3**	**0.2**	**0.4**	**0.4**
External balance of goods	pp	**0.8**	**2.0**	**1.4**	**0.1**	**-0.1**	**-0.6**	**1.0**	**0.2**	**0.3**	**0.3**
External balance of services	pp	**-0.2**	**-0.2**	**-0.1**	**0.0**	**-0.4**	**0.7**	**0.3**	**0.1**	**0.1**	**0.1**
Gross value added	bill. CZK 2010	3 583	3 655	3 624	3 606	3 729	3 876	.	.	.	.
	growth in %	**2.9**	**2.0**	**-0.8**	**-0.5**	**3.4**	**3.9**	.	.	.	.
Net taxes and subsidies on products	bill. CZK 2010	371	378	376	375	363	399	.	.	.	.

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1 *Prelim.*	Q2 *Prelim.*	Q3 *Estimate*	Q4 *Forecast*
Gross domestic product	bill. CZK 2010	996	1 074	1 093	1 112	1 022	1 113	1 109	1 135
	growth in %	**4.6**	**5.0**	**4.2**	**4.3**	**2.7**	**3.6**	**1.5**	**2.1**
	growth in % [1]	**4.6**	**5.0**	**4.8**	**4.0**	**3.0**	**2.6**	**1.9**	**2.0**
	QoQ in % [1]	**1.4**	**1.3**	**1.0**	**0.3**	**0.4**	**0.9**	**0.3**	**0.5**
Private consumption expenditure [2]	bill. CZK 2010	484	507	514	528	496	520	526	542
	growth in %	**3.6**	**3.3**	**2.4**	**2.9**	**2.4**	**2.6**	**2.3**	**2.5**
Government consumption exp.	bill. CZK 2010	189	199	201	231	194	204	205	236
	growth in %	**1.3**	**1.3**	**3.3**	**1.9**	**2.3**	**2.5**	**2.2**	**2.1**
Gross capital formation	bill. CZK 2010	242	308	331	310	246	299	318	305
	growth in %	**12.7**	**14.3**	**8.8**	**5.3**	**1.7**	**-2.9**	**-3.8**	**-1.5**
Gross fixed capital formation	bill. CZK 2010	250	278	299	324	249	267	283	310
	growth in %	**5.4**	**10.5**	**10.1**	**9.5**	**-0.5**	**-4.1**	**-5.3**	**-4.1**
Change in stocks and valuables	bill. CZK 2010	-8	29	32	-14	-3	32	36	-5
Exports of goods and services	bill. CZK 2010	854	873	852	913	897	946	898	954
	growth in %	**7.6**	**7.5**	**6.3**	**9.3**	**5.0**	**8.4**	**5.4**	**4.5**
Imports of goods and services	bill. CZK 2010	775	810	803	868	811	855	837	902
	growth in %	**8.9**	**8.9**	**6.8**	**8.4**	**4.6**	**5.6**	**4.3**	**3.8**
Gross domestic expenditure	bill. CZK 2010	916	1 013	1 045	1 069	936	1 022	1 049	1 084
	growth in %	**5.3**	**5.9**	**4.5**	**3.4**	**2.2**	**0.9**	**0.4**	**1.3**
Methodological discrepancy [3]	bill. CZK 2010	1	-1	-3	-2	0	-1	-2	-1
Real gross domestic income	bill. CZK 2010	1 003	1 079	1 099	1 122	1 042	1 130	1 121	1 143
	growth in %	**5.2**	**4.8**	**4.2**	**4.5**	**3.9**	**4.7**	**2.0**	**1.9**
Gross value added	bill. CZK 2010	909	974	988	1 006	930	1 010	.	.
	growth in %	**4.1**	**4.1**	**3.7**	**3.9**	**2.3**	**3.7**	.	.
	growth in % [1]	**4.1**	**4.2**	**4.3**	**3.5**	**2.7**	**2.7**	.	.
	QoQ in % [1]	**1.2**	**1.0**	**1.0**	**0.3**	**0.4**	**0.9**	.	.
Net taxes and subsidies on products	bill. CZK 2010	88	101	105	107	93	103	.	.

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

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
								Forecast	Forecast	Outlook	Outlook
Gross domestic product	bill. CZK	**3 954**	**4 034**	**4 060**	**4 098**	**4 314**	**4 555**	**4 703**	**4 864**	**5 048**	**5 249**
	growth in %	0.8	2.0	0.6	0.9	5.3	5.6	3.3	3.4	3.8	4.0
Private consumption expenditure [1]	bill. CZK	**1 947**	**1 979**	**1 998**	**2 025**	**2 074**	**2 140**	**2 201**	**2 288**	**2 380**	**2 477**
	growth in %	1.5	1.6	1.0	1.4	2.4	3.2	2.9	4.0	4.0	4.1
Government consumption exp.	bill. CZK	**810**	**813**	**804**	**826**	**849**	**890**	**926**	**959**	**983**	**1006**
	growth in %	-0.3	0.4	-1.1	2.7	2.8	4.8	4.1	3.5	2.5	2.4
Gross capital formation	bill. CZK	**1 074**	**1 087**	**1 063**	**1 011**	**1 116**	**1 246**	**1 222**	**1 266**	**1 317**	**1 375**
	growth in %	3.3	1.2	-2.2	-4.9	10.4	11.6	-1.9	3.6	4.0	4.4
Gross fixed capital formation	bill. CZK	**1 066**	**1 067**	**1 052**	**1 027**	**1 084**	**1 198**	**1 158**	**1 204**	**1 257**	**1 317**
	growth in %	0.2	0.1	-1.4	-2.4	5.5	10.5	-3.3	3.9	4.4	4.8
Change in stocks and valuables	bill. CZK	**8**	**20**	**11**	**-16**	**32**	**48**	**64**	**62**	**60**	**58**
External balance	bill. CZK	**123**	**154**	**195**	**236**	**275**	**279**	**354**	**351**	**369**	**391**
Exports of goods and services	bill. CZK	**2 616**	**2 876**	**3 092**	**3 150**	**3 561**	**3 778**	**3 852**	**4 015**	**4 209**	**4 425**
	growth in %	13.4	9.9	7.5	1.9	13.0	6.1	1.9	4.2	4.8	5.1
Imports of goods and services	bill. CZK	**2 494**	**2 722**	**2 897**	**2 914**	**3 286**	**3 499**	**3 498**	**3 664**	**3 841**	**4 034**
	growth in %	15.8	9.1	6.5	0.6	12.8	6.5	0.0	4.7	4.8	5.0
Gross national income	bill. CZK	**3 656**	**3 728**	**3 808**	**3 854**	**4 022**	**4 255**	**4 427**	**4 578**	**4 746**	**4 923**
	growth in %	0.3	2.0	2.1	1.2	4.4	5.8	4.0	3.4	3.7	3.7
Primary income balance	bill. CZK	**-297**	**-305**	**-252**	**-245**	**-292**	**-299**	**-276**	**-286**	**-302**	**-326**

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Prelim.	Prelim.	Estimate	Forecast
Gross domestic product	bill. CZK	**1 053**	**1 143**	**1 163**	**1 196**	**1 095**	**1 194**	**1 187**	**1 227**
	growth in %	6.3	6.1	5.0	5.0	4.0	4.5	2.1	2.6
Private consumption expenditure [1]	bill. CZK	**508**	**535**	**542**	**556**	**521**	**549**	**557**	**574**
	growth in %	3.7	3.7	2.4	2.9	2.6	2.7	2.8	3.4
Government consumption exp.	bill. CZK	**199**	**214**	**217**	**260**	**207**	**223**	**225**	**271**
	growth in %	4.7	4.4	6.7	3.6	4.3	4.2	3.7	4.2
Gross capital formation	bill. CZK	**253**	**322**	**346**	**324**	**259**	**312**	**331**	**320**
	growth in %	14.9	16.5	10.1	6.3	2.2	-3.4	-4.2	-1.3
Gross fixed capital formation	bill. CZK	**261**	**290**	**311**	**336**	**260**	**278**	**295**	**325**
	growth in %	7.4	12.7	11.5	10.3	-0.3	-4.1	-4.9	-3.5
Change in stocks and valuables	bill. CZK	**-7**	**32**	**35**	**-12**	**-1**	**33**	**36**	**-5**
External balance	bill. CZK	**93**	**72**	**58**	**56**	**108**	**110**	**74**	**61**
Exports of goods and services	bill. CZK	**933**	**953**	**917**	**975**	**934**	**983**	**937**	**998**
	growth in %	7.4	7.2	3.7	6.1	0.1	3.1	2.2	2.3
Imports of goods and services	bill. CZK	**840**	**881**	**859**	**919**	**826**	**872**	**863**	**937**
	growth in %	8.0	8.9	4.3	5.0	-1.7	-1.0	0.5	1.9

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 of GDP in the given year
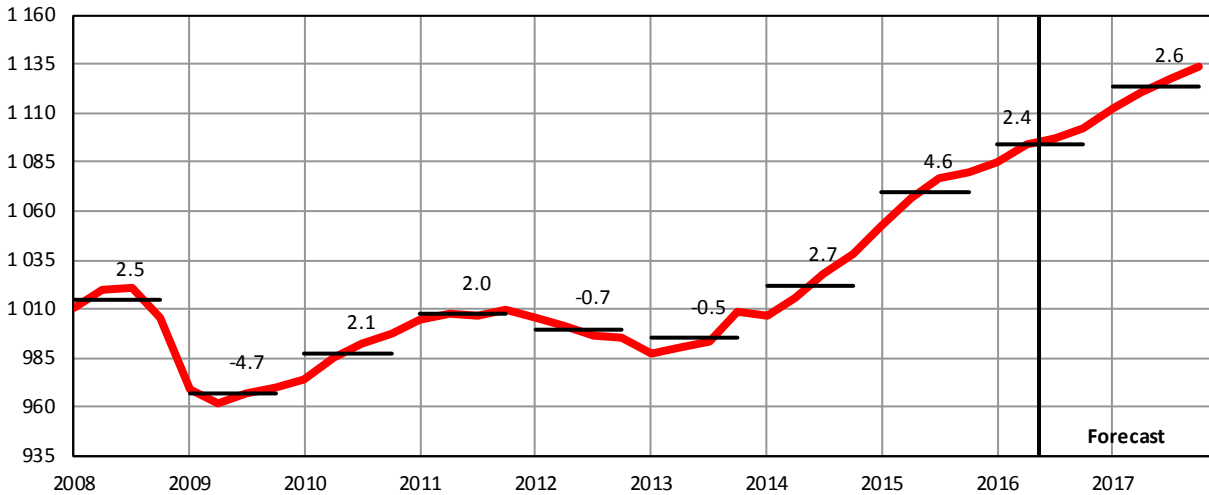
Graph 3.1.2: Gross Domestic Product (real)

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
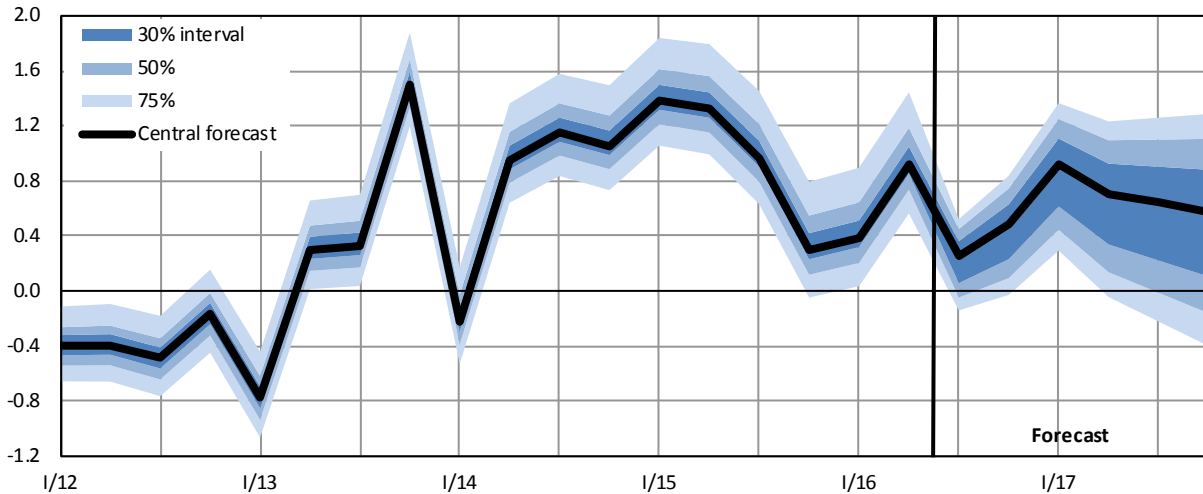
Graph 3.1.3: Resources of Gross Domestic Product

QoQ real growth rate of GDP in %, contributions of individual components in percentage points, seasonally adjusted
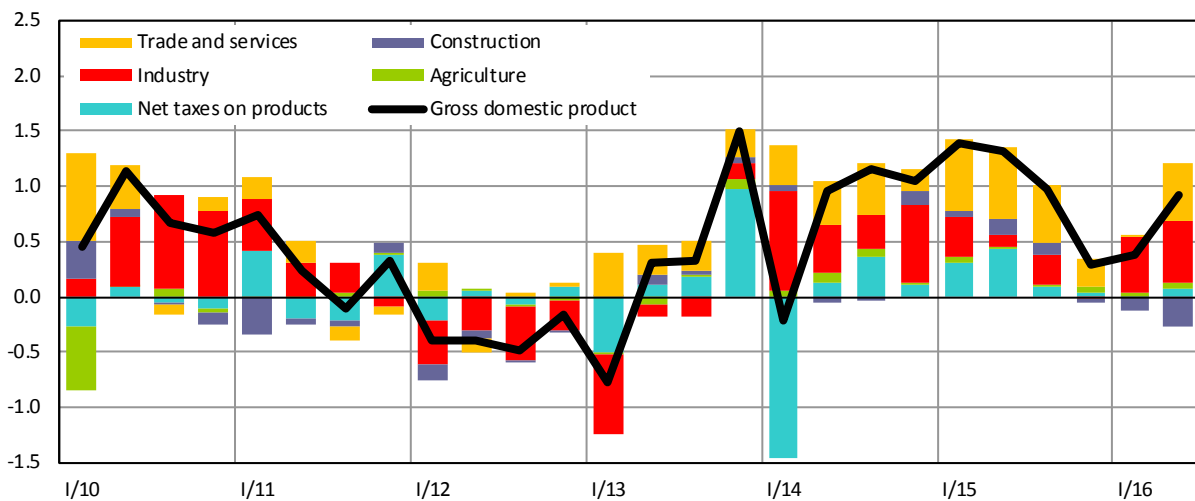
Graph 3.1.4: Gross Domestic Product by Type of Expenditure

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

Legend:
- Net exports
- Gross capital formation
- Final consumption expenditure
- Gross domestic product

Forecast
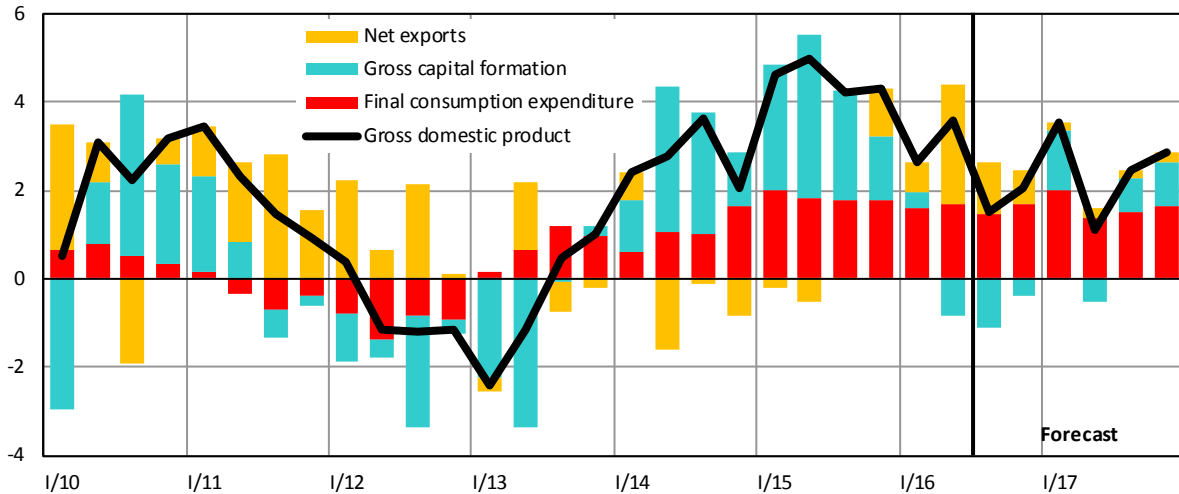
Graph 3.1.5: Consumption of Households

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

Legend:
- Services
- Non-durable goods
- Semi-durable goods
- Durable goods
- Consumption of households
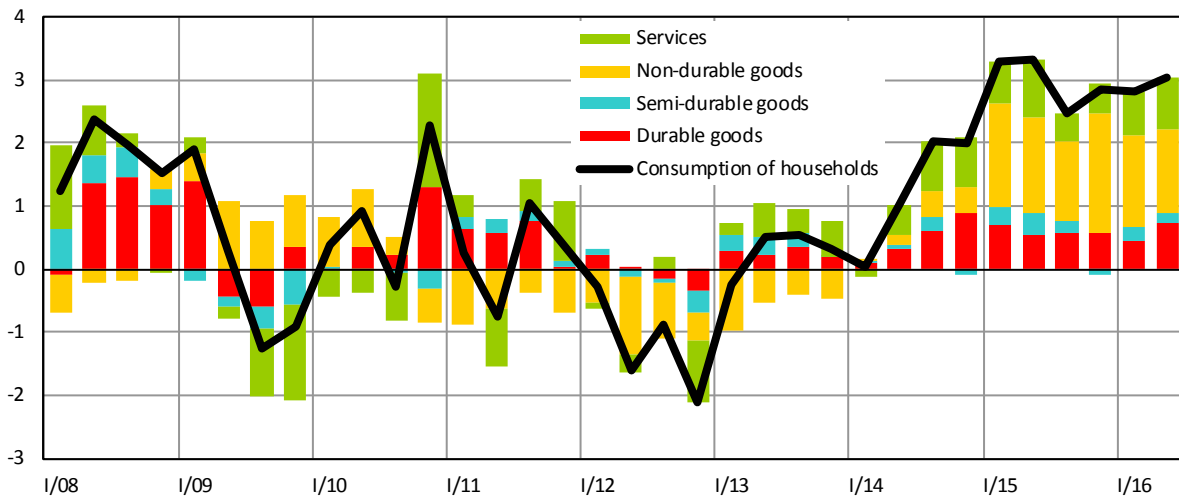
Graph 3.1.6: Gross Fixed Capital Formation

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

Forecast
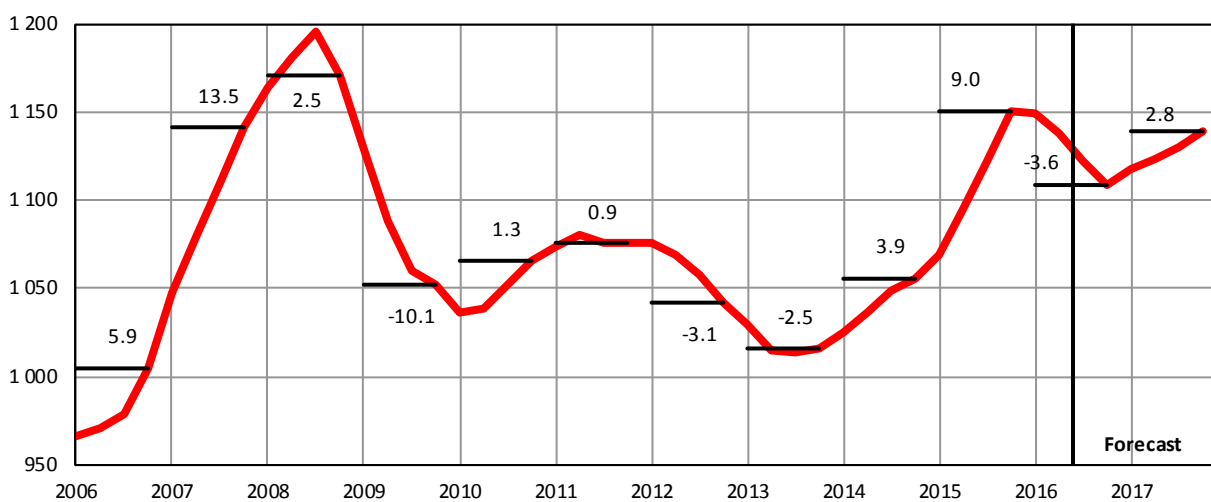
Graph 3.1.7: Gross Fixed Capital Formation by Type of Expenditure

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

Legend:
- Other
- Transport equipment
- Dwellings
- ICT, other machinery and equipment
- Other buildings and structures
- Gross fixed capital formation
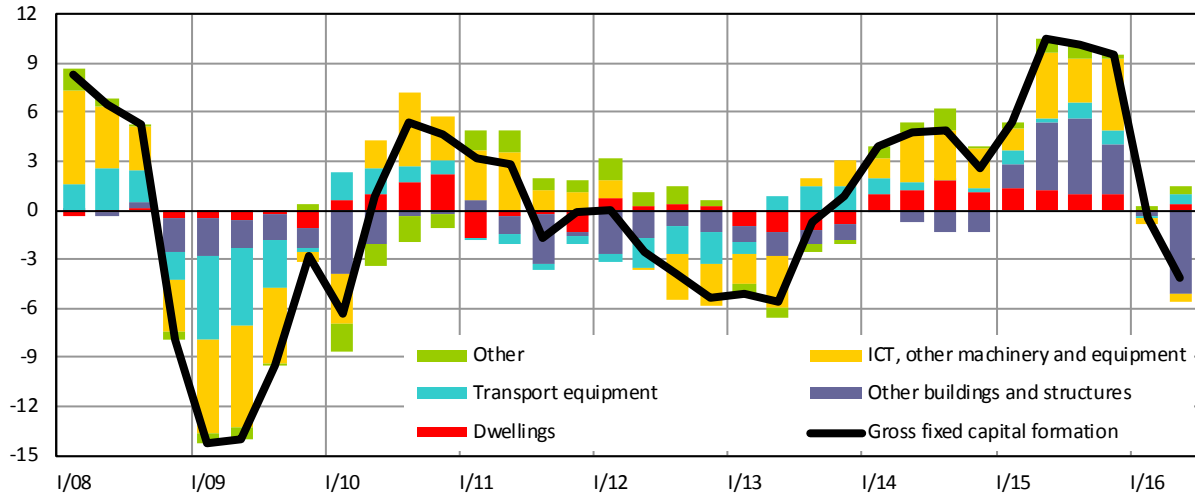
Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Gross Fixed Capital Formation by Sector

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

Legend:
- Households
- Firms
- General government
- Gross fixed capital formation
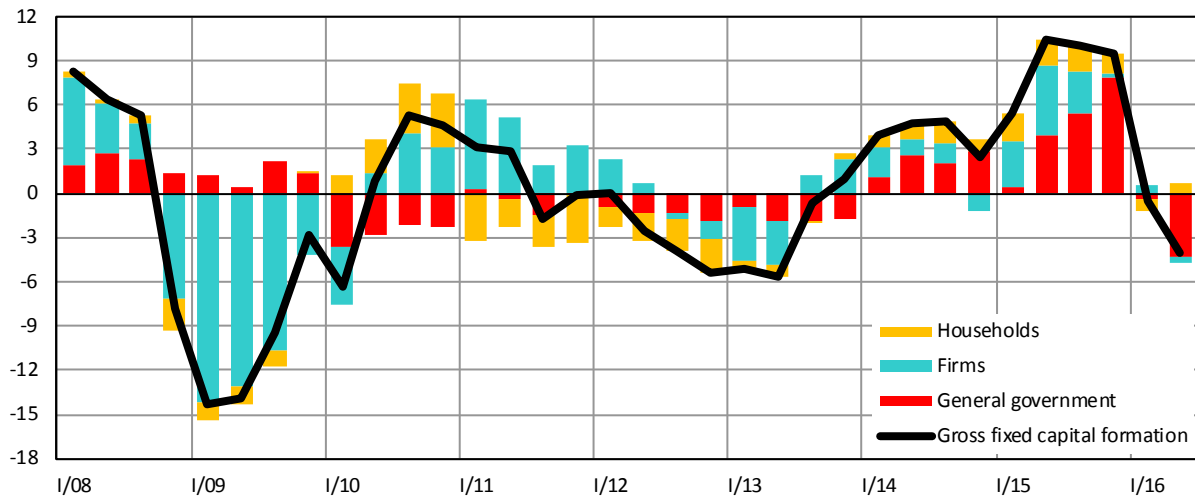
Source: CZSO. Calculations of the MoF.

Graph 3.1.9: Nominal Gross Domestic Product

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

Legend:
- Balance of taxes and subsidies
- Gross operating surplus
- Compensation of employees
- Gross domestic product

Forecast
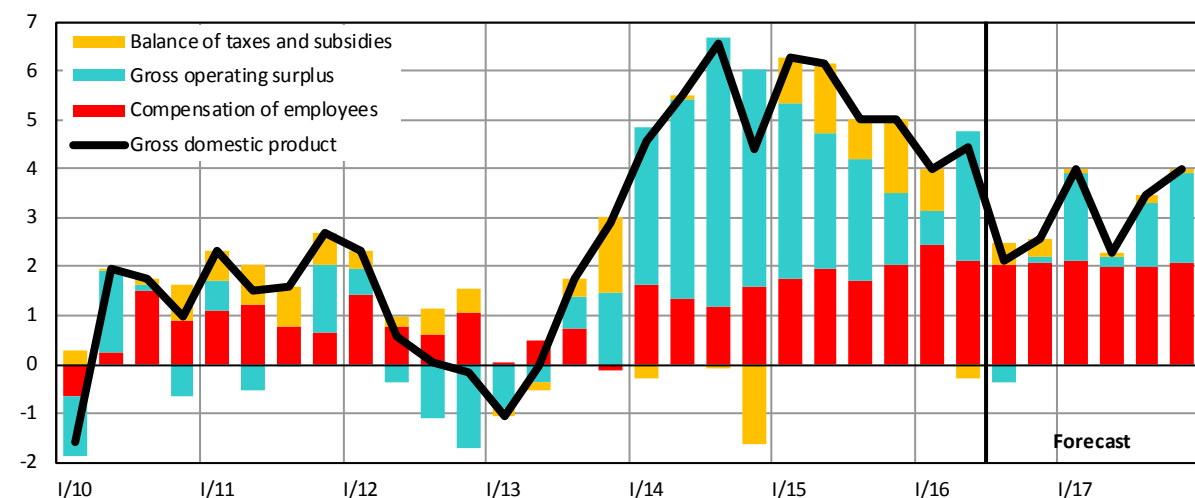
Source: CZSO. Calculations of the MoF.

Table 3.1.5: GDP by Type of Income – yearly

		2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
GDP	*bill. CZK*	**3 954**	**4 034**	**4 060**	**4 098**	**4 314**	**4 555**	**4 703**	**4 864**	**5 048**	**5 249**
	growth in %	0.8	2.0	0.6	0.9	5.3	5.6	3.3	3.4	3.8	4.0
Balance of taxes and subsidies	*bill. CZK*	**341**	**369**	**385**	**402**	**381**	**433**	**448**	**454**	**472**	**485**
	% of GDP	8.6	9.1	9.5	9.8	8.8	9.5	9.5	9.3	9.3	9.2
	growth in %	3.5	8.4	4.4	4.2	-5.1	13.4	3.7	1.2	4.0	2.7
Taxes on production and imports	*bill. CZK*	**447**	**488**	**508**	**528**	**518**	**566**	.	.	.	.
	growth in %	4.0	9.2	4.1	3.9	-1.8	9.3	.	.	.	.
Subsidies on production	*bill. CZK*	**107**	**119**	**123**	**126**	**137**	**134**	.	.	.	.
	growth in %	5.7	11.8	3.0	2.7	8.5	-2.2	.	.	.	.
Compensation of employees	*bill. CZK*	**1 589**	**1 626**	**1 665**	**1 676**	**1 735**	**1 815**	**1 914**	**2 010**	**2 100**	**2 194**
(domestic concept)	*% of GDP*	40.2	40.3	41.0	40.9	40.2	39.9	40.7	41.3	41.6	41.8
	growth in %	1.3	2.3	2.4	0.7	3.5	4.7	5.4	5.0	4.5	4.5
Wages and salaries	*bill. CZK*	**1 209**	**1 237**	**1 269**	**1 275**	**1 321**	**1 379**	**1 454**	**1 527**	**1 596**	**1 667**
	growth in %	0.6	2.3	2.6	0.5	3.6	4.4	5.4	5.0	4.5	4.5
Social security contributions	*bill. CZK*	**380**	**390**	**396**	**402**	**414**	**436**	**460**	**483**	**504**	**527**
	growth in %	3.7	2.5	1.6	1.4	3.1	5.4	5.4	5.0	4.5	4.5
Gross operating surplus	*bill. CZK*	**2 024**	**2 038**	**2 010**	**2 020**	**2 198**	**2 307**	**2 341**	**2 401**	**2 476**	**2 570**
	% of GDP	51.2	50.5	49.5	49.3	50.9	50.6	49.8	49.4	49.1	49.0
	growth in %	0.0	0.7	-1.4	0.5	8.8	5.0	1.5	2.6	3.1	3.8
Consumption of capital	*bill. CZK*	**850**	**864**	**880**	**906**	**939**	**981**	**999**	**1 029**	**1 070**	**1 113**
	growth in %	1.0	1.7	1.8	3.0	3.6	4.5	1.8	3.0	4.0	4.0
Net operating surplus	*bill. CZK*	**1 174**	**1 174**	**1 130**	**1 114**	**1 259**	**1 325**	**1 342**	**1 372**	**1 406**	**1 457**
	growth in %	-0.8	0.0	-3.8	-1.4	13.0	5.3	1.3	2.3	2.5	3.6

Source: CZSO. Calculations of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1 Prelim.	Q2 Prelim.	Q3 Estimate	Q4 Forecast
GDP	*bill. CZK*	**1 053**	**1 143**	**1 163**	**1 196**	**1 095**	**1 194**	**1 187**	**1 227**
	growth in %	6.3	6.1	5.0	5.0	4.0	4.5	2.1	2.6
Balance of taxes and subsidies	*bill. CZK*	**90**	**114**	**119**	**110**	**100**	**110**	**124**	**114**
	growth in %	11.7	15.5	8.3	18.8	10.4	-3.0	4.7	3.9
Compensation of employees	*bill. CZK*	**434**	**450**	**447**	**483**	**460**	**475**	**471**	**508**
(domestic concept)	*growth in %*	4.2	4.9	4.5	5.0	5.9	5.4	5.3	5.2
Wages and salaries	*bill. CZK*	**328**	**341**	**342**	**369**	**347**	**359**	**360**	**388**
	growth in %	3.6	4.6	4.7	4.7	6.0	5.4	5.3	5.2
Social security contributions	*bill. CZK*	**107**	**109**	**106**	**114**	**113**	**115**	**111**	**120**
	growth in %	5.9	6.1	3.6	5.9	5.6	5.5	5.3	5.2
Gross operating surplus	*bill. CZK*	**528**	**579**	**596**	**603**	**535**	**609**	**592**	**605**
	growth in %	7.2	5.4	4.8	2.8	1.4	5.2	-0.7	0.2

Source: CZSO. Calculations of the MoF.

3.2 Prices

3.2.1 Consumer Prices

The Czech economy is still characterized by low inflation, the causes of which lie in the external environment. However, the YoY inflation should increase already in the fourth quarter of 2016 due to the base effect.

Growth in consumer prices reached 0.5% YoY (*versus 0.3%*) in September 2016. The contribution of administrative measures was 0.1 pp and was mainly due to the contribution of excise duties. Inflation was mitigated mainly by prices in the transport division (decrease in fuel prices by 7.3%) and the food and non-alcoholic beverages division, which contributed −0.2 pp each to the YoY growth in consumer prices. In contrast, the alcoholic beverages and tobacco division made the highest contribution to price level growth with the contribution of 0.4 pp.

Out of the administrative measures, in the first three quarters of 2016, consumer prices were mainly affected by an increase in the excise duty on tobacco and a decrease in natural gas price, which the CZSO reports as a regulated price. In the fourth quarter of 2016, the most significant administrative measure will be that in December 2016 the VAT rate will decrease in food services from 21% to 15%, except for alcoholic beverages. Due to the timing of this measure, however, its expected contribution to MoM inflation at the time of its introduction (−0.2 to −0.1 pp) will not quite manifest itself in the average inflation rate of 2016. The introduction of the fiscalization of cash payments will probably have an opposite and similarly marginal effect on consumer prices. We expect the contribution of administrative measures to the YoY increase in consumer prices in December 2016 to reach −0.1 pp (*unchanged*).

A more significant acceleration of YoY inflation can be expected already in the fourth quarter of 2016 when YoY growth of the CZK crude oil price will probably become positive (see Chapter 1.1.3). In addition to the crude oil price, the main factors of price development in 2016 will have a nearly neutral (CZK/EUR exchange rate) or a pro-inflationary effect (growing demand in connection with a positive output gap, and rising unit labour costs).

In 2016, the **average inflation rate** should reach 0.5% (*unchanged*), with a YoY increase in consumer prices of 1.0% (*unchanged*) in December.

In 2017, inflation should increase further. At present, we do not envisage any significant factors that would have an anti-inflationary effect in 2017.

Administrative measures should have approximately neutral impact on inflation in 2017. We expect almost stagnating regulated prices and virtually zero impacts of changes in indirect taxes. There will be opposing forces; the aforementioned VAT increase on the one hand, and the impact of an increase in the excise duty on tobacco on the other hand, which should, however, be halved in comparison with 2016.

We expect that the increasing price of crude oil, growth of domestic demand amid a positive output gap, and an increase in unit labour costs will result in an increase in consumer prices. **In 2017**, the **average inflation rate** should thus reach 1.2% (*unchanged*), with a YoY increase in consumer prices of 1.5% (*unchanged*) in December. The transition of the current YoY decrease in the crude oil price into its growth should mainly be apparent in the structure of YoY inflation in 2017.

3.2.2 Deflators

In the second quarter of 2016, the 0.9% (*versus 0.6%*) growth of gross domestic product deflator was caused by an increase in the gross domestic expenditure deflator of 0.3% (*in line with the estimate*) and by an improvement of the terms of trade of 1.4% (*versus 0.7%*).

Lower crude oil prices played a role in the development of price indexes. In comparison with the forecast, the decrease in the import deflator exceeded the export deflator even more significantly; the main source of variation is therefore terms of trade. The gross fixed capital formation deflator stagnated instead of a slight growth. In contrast, the household and government consumption deflators showed higher growth values in comparison with the forecast.

We expect that the GDP deflator should increase by 0.8% (*versus 0.6%*) in 2016 and by 0.9% (*versus 1.1%*) in 2017. Terms of trade should improve by 0.7% (*versus 0.3%*) in 2016; in contrast, they should decrease by 0.3% (*versus 0.2%*) in 2017. The gross domestic expenditure deflator could increase by 0.5% (*unchanged*) in 2016 and by 1.3% (*unchanged*) in 2017. The main change in the forecast for 2016, which is the improvement of the terms of trade, is based on a significantly greater decrease in import prices in comparison with export prices in the first half of 2016 due to severe leakage of low crude oil prices in the prices of products of mainly the chemical industry on world markets. For 2017, we expect – despite lower prices of imported goods – an increase in the consumption deflator growth reflecting growing internal inflationary factors.

Table 3.2.1: Prices – yearly

		2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Consumer Price Index											
Average of a year	*average 2005=100*	114.9	117.1	121.0	122.7	123.2	123.6	124.2	125.6	127.6	129.9
	growth in %	**1.5**	**1.9**	**3.3**	**1.4**	**0.4**	**0.3**	**0.5**	**1.2**	**1.6**	**1.8**
December	*average 2005=100*	115.5	118.3	121.1	122.8	122.9	123.0	124.2	126.1	128.1	130.6
	growth in %	**2.3**	**2.4**	**2.4**	**1.4**	**0.1**	**0.1**	**1.0**	**1.5**	**1.6**	**1.9**
Of which the contribution of:											
Administrative measures [1]	*percentage points*	**1.6**	**1.2**	**2.2**	**1.0**	**-0.2**	**0.1**	**-0.1**	**0.1**	**0.2**	**0.2**
Market increase	*percentage points*	**0.7**	**1.2**	**0.1**	**0.4**	**0.3**	**0.0**	**1.1**	**1.5**	**1.4**	**1.8**
HICP	*average 2005=100*	113.7	116.2	120.3	121.9	122.4	122.8	123.4	124.7	126.7	128.9
	growth in %	**1.2**	**2.1**	**3.5**	**1.4**	**0.4**	**0.3**	**0.5**	**1.1**	**1.5**	**1.8**
Offering prices of flats	*average 2010=100*	100.0	95.1	96.1	97.2	100.7	106.9	.	.	.	.
	growth in %	**-4.1**	**-4.9**	**1.1**	**1.1**	**3.6**	**6.2**	**.**	**.**	**.**	**.**
Deflators											
GDP	*average 2010=100*	100.0	100.0	101.5	102.9	105.5	106.5	107.4	108.4	109.8	111.5
	growth in %	**-1.5**	**0.0**	**1.5**	**1.4**	**2.5**	**1.0**	**0.8**	**0.9**	**1.3**	**1.5**
Domestic final use	*average 2010=100*	100.0	101.1	102.9	103.5	104.6	105.7	106.3	107.7	109.2	110.9
	growth in %	**-0.2**	**1.1**	**1.8**	**0.5**	**1.1**	**1.1**	**0.5**	**1.3**	**1.4**	**1.6**
Consumption of households	*average 2010=100*	100.0	101.4	103.6	104.5	105.1	105.2	105.6	106.8	108.5	110.4
	growth in %	**0.5**	**1.4**	**2.2**	**0.8**	**0.6**	**0.1**	**0.4**	**1.1**	**1.6**	**1.8**
Consumption of government	*average 2010=100*	100.0	102.7	103.6	103.8	105.6	108.5	110.5	112.6	113.8	115.0
	growth in %	**-0.6**	**2.7**	**0.9**	**0.2**	**1.7**	**2.8**	**1.8**	**1.9**	**1.1**	**1.1**
Fixed capital formation	*average 2010=100*	100.0	99.2	100.9	101.1	102.7	104.1	104.5	105.6	107.2	109.0
	growth in %	**-1.1**	**-0.8**	**1.7**	**0.1**	**1.6**	**1.4**	**0.3**	**1.1**	**1.5**	**1.6**
Exports of goods and services	*average 2010=100*	100.0	100.7	103.8	105.6	109.8	108.2	104.2	103.7	103.6	103.8
	growth in %	**-1.2**	**0.7**	**3.1**	**1.7**	**4.0**	**-1.5**	**-3.7**	**-0.5**	**-0.1**	**0.2**
Imports of goods and services	*average 2010=100*	100.0	102.3	106.1	106.6	109.2	107.5	102.7	102.5	102.5	102.6
	growth in %	**0.8**	**2.3**	**3.7**	**0.5**	**2.5**	**-1.6**	**-4.4**	**-0.2**	**-0.1**	**0.1**
Terms of trade	*average 2010=100*	100.0	98.5	97.9	99.0	100.5	100.7	101.4	101.1	101.1	101.2
	growth in %	**-2.0**	**-1.5**	**-0.6**	**1.2**	**1.5**	**0.1**	**0.7**	**-0.3**	**0.0**	**0.1**

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

		2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3 Estimate	2016 Q4 Forecast
Consumer Price Index	average 2005=100	123.2	124.0	123.8	123.2	123.7	124.3	124.5	124.2
	growth in %	**0.1**	**0.7**	**0.4**	**0.1**	**0.5**	**0.2**	**0.5**	**0.8**
Of which the contribution of:									
Administrative measures [1]	percentage points	**0.2**	**0.3**	**0.2**	**0.1**	**0.2**	**0.2**	**0.1**	**0.0**
Market increase	percentage points	**-0.1**	**0.4**	**0.2**	**0.0**	**0.3**	**0.0**	**0.4**	**0.8**
HICP	average 2005=100	122.3	123.3	123.0	122.4	122.9	123.5	123.7	123.3
	growth in %	**0.0**	**0.7**	**0.3**	**0.0**	**0.5**	**0.2**	**0.5**	**0.8**
Offering prices of flats	average 2010=100	102.9	105.6	108.1	110.9	113.4	116.5	118.8	.
	growth in %	**3.6**	**5.0**	**6.1**	**9.6**	**10.2**	**10.3**	**9.9**	**.**
Deflators									
GDP	average 2010=100	105.7	106.4	106.4	107.5	107.2	107.3	107.0	108.1
	growth in %	**1.6**	**1.1**	**0.7**	**0.7**	**1.3**	**0.9**	**0.6**	**0.5**
Domestic final use	average 2010=100	104.8	105.7	105.7	106.6	105.4	106.0	106.1	107.6
	growth in %	**1.3**	**1.4**	**1.0**	**0.6**	**0.7**	**0.3**	**0.4**	**0.9**
Consumption of households	average 2010=100	104.9	105.5	105.4	105.2	105.0	105.6	105.8	106.0
	growth in %	**0.1**	**0.5**	**0.0**	**0.0**	**0.1**	**0.1**	**0.4**	**0.8**
Consumption of government	average 2010=100	104.9	107.7	108.0	112.6	107.0	109.5	109.7	114.8
	growth in %	**3.4**	**3.1**	**3.3**	**1.7**	**2.0**	**1.7**	**1.6**	**2.0**
Fixed capital formation	average 2010=100	104.2	104.3	104.1	103.9	104.5	104.3	104.5	104.6
	growth in %	**1.9**	**2.0**	**1.3**	**0.7**	**0.3**	**0.0**	**0.4**	**0.6**
Exports of goods and services	average 2010=100	109.3	109.2	107.6	106.8	104.2	103.9	104.3	104.5
	growth in %	**-0.2**	**-0.3**	**-2.5**	**-2.9**	**-4.7**	**-4.9**	**-3.1**	**-2.1**
Imports of goods and services	average 2010=100	108.4	108.8	107.0	105.8	101.9	102.0	103.1	103.9
	growth in %	**-0.8**	**0.0**	**-2.3**	**-3.1**	**-6.0**	**-6.2**	**-3.7**	**-1.9**
Terms of trade	average 2010=100	100.8	100.4	100.6	100.9	102.2	101.8	101.2	100.6
	growth in %	**0.6**	**-0.3**	**-0.1**	**0.3**	**1.4**	**1.4**	**0.6**	**-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 %
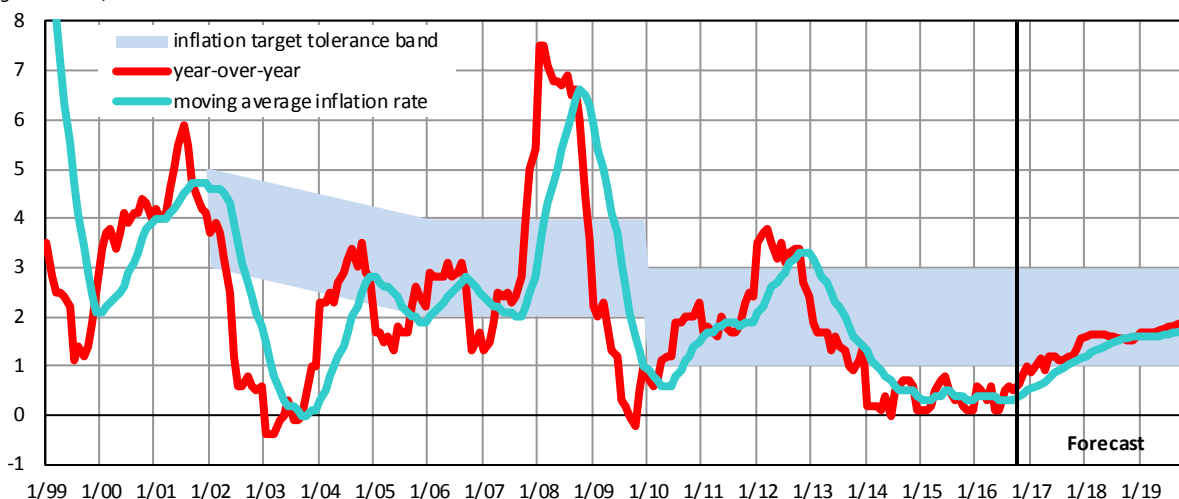
Note: For the years 2002–2005 the highlighted area represents target band for headline inflation, whereas from 2006 on it is the tolerance band of the CNB's point target for headline inflation.
Source: CNB, CZSO. Calculations of the MoF.

Graph 3.2.2: Consumer Prices

decomposition of YoY growth of CPI, contributions in pp, CPI growth rate in %, Transport excluding administrative measures and excises
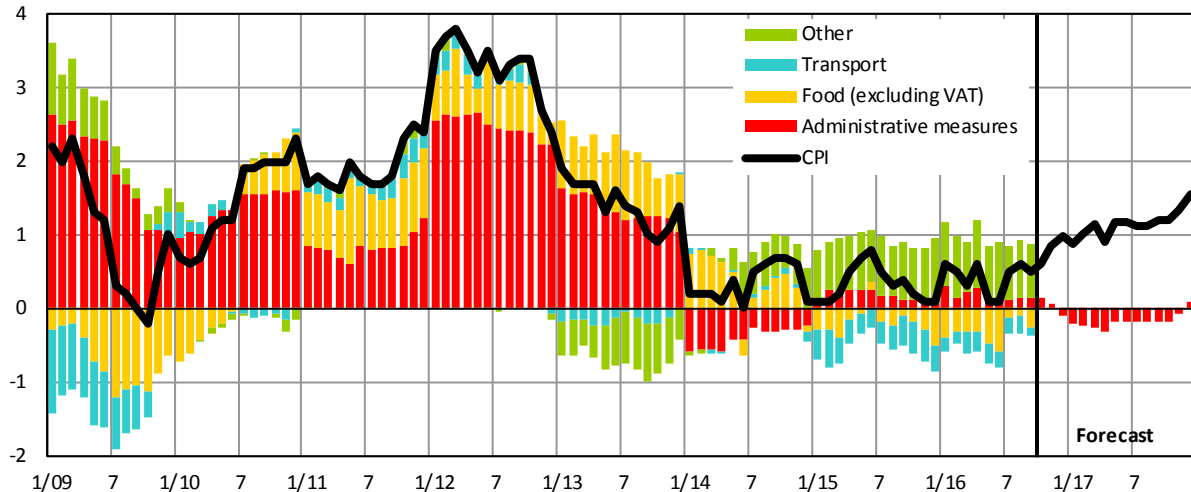
Source: CZSO. Calculations of the MoF.

Graph 3.2.3: Indicators of Consumer Prices

YoY growth rate, in %
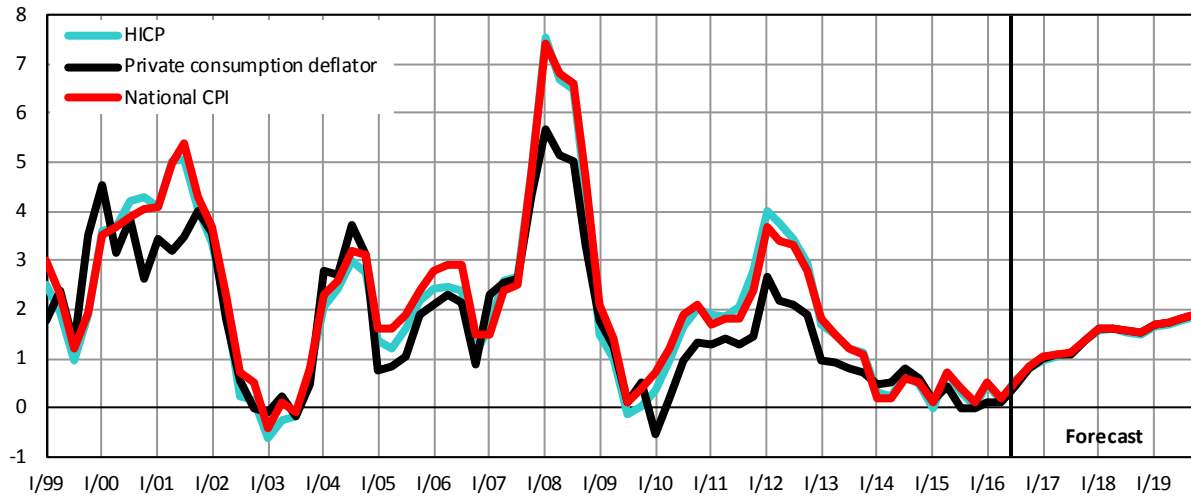
Source: CZSO, Eurostat. Calculations of the MoF.

Graph 3.2.4: GDP Deflator

YoY growth rate, in %
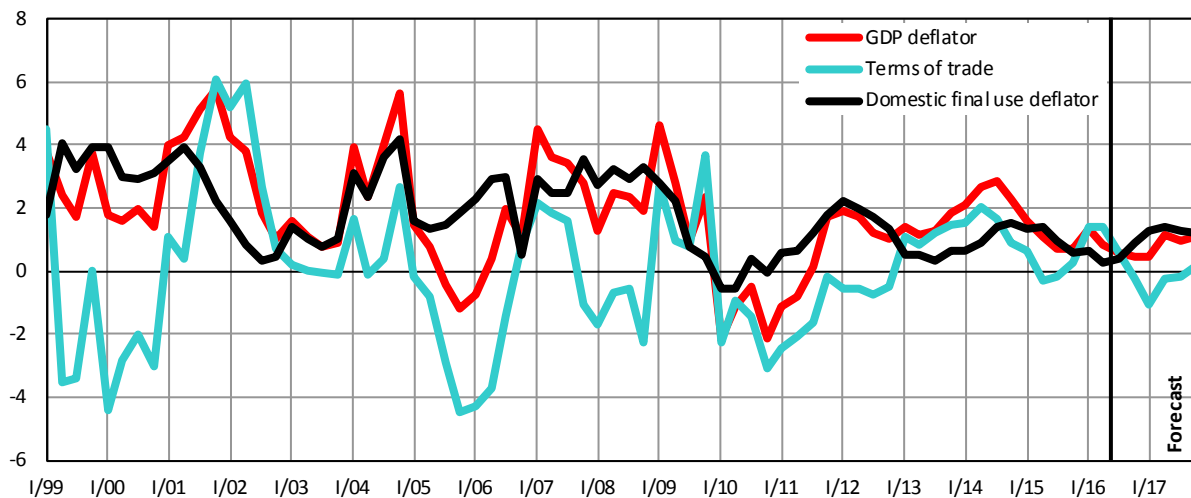
Source: CZSO. Calculations of the MoF.

Graph 3.2.5: Terms of Trade

YoY growth rate, in %
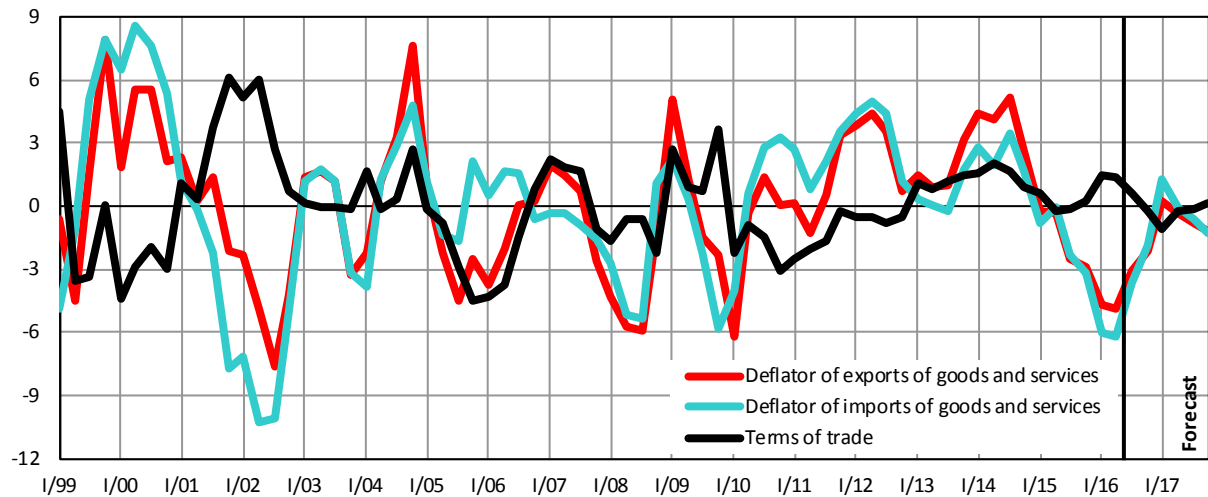
Source: CZSO. Calculations of the MoF.

3.3 Labour Market

The labour market developed broadly in line with the economic cycle in the second quarter of 2016. Growth of employment, driven by the employee category, continued and both the employment rate and the rate of economic activity for the age group 15–64 years reached their new historically record-breaking values (71.7% or 74.7%, respectively). The unemployment rate (LFS) continued to decline considerably; the decrease in registered unemployment was also significant. The number of vacancies continued to grow and exceeded 140 thousand. These factors determined the growth of the wage bill and the average wage.

3.3.1 Employment

Employment (LFS) grew by 1.7% YoY (*in line with the estimate*) in the second quarter of 2016. The number of employees increased by 2.0% (*versus 2.4%*), the number of entrepreneurs rose by 0.1% (*versus decrease of 1.6%*). The number of entrepreneurs without employees increased by 4.4% YoY, whereas the number of entrepreneurs with employees decreased by 11.7%. It can be expected that the number of non-standard (e.g. the so-called "švarcsystém" of concealed employment relationships) or part-time job positions will continue to fall.

Graph 3.3.1: Employees in Different Statistics
YoY growth rate, in %
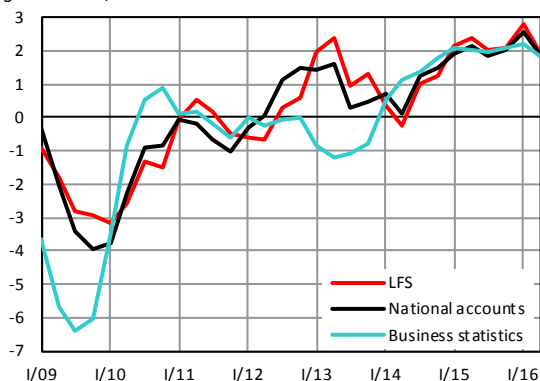
Source: CZSO.

In terms of sectors, manufacturing still contributed considerably to the growth of employment (in business statistics), followed by real estate activities, professional, scientific and technical activities, or transportation and storage. On the contrary, a decrease was recorded in mining and quarrying, construction, agriculture or water supply.

For the purpose of forecasting employment, we assume that employers will be forced by circumstances to raise wages rather than to significantly increase the number of employees. This development will be largely due to the increasing shortage of workers in many professions, especially in technical fields but also, for example, in the health sector. These frictions have already been manifesting in virtually all regions of the Czech Republic.

We are not changing the forecast of employment development for 2016 (an increase by 1.6%). For 2017–2019, we expect only a slight increase in employment by 0.3% (*versus 0.1%*). With respect to demographic factors (except for the increase in the statutory age of retirement there are virtually no aspects of additional increase of the number of employees) and with a very low unemployment rate, there is only very little space for further growth of employment.

3.3.2 Unemployment

Due to a dynamic economic growth, there was further reduction in the number of unemployed persons registered at labour offices (by 64 thousand YoY in September) as well as according to the LFS statistics (by 53 thousand YoY in the second quarter). The seasonally adjusted unemployment rate (LFS) has been the lowest in the EU since the beginning of 2016.

Graph 3.3.2: Indicators of Unemployment
seasonally adjusted data, in %
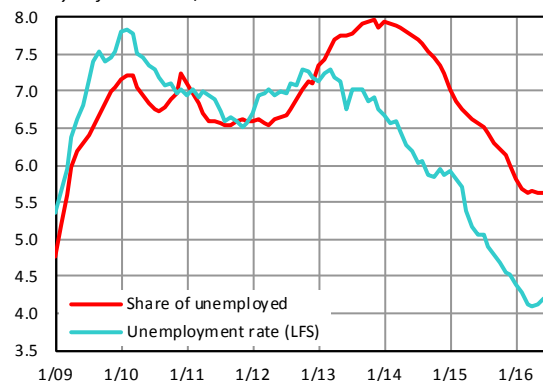
Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Taking into account the development in the second quarter of 2016, we expect that the **unemployment rate** (LFS) will average 4.0% in 2016 (*versus 4.1%*). In connection with the expected economic development, we forecast a slight decrease in the unemployment rate to 3.9% (*versus 4.0%*) in 2017. It can be stated that there is very little space left for a further decrease in LFS unemployment (the unemployment rate in this methodology is already very close to the natural rate of unemployment).

3.3.3 Economic Activity Rate

Economic activity rate (15–64 year-olds) grew by 0.9 pp YoY to 74.7% in the second quarter of 2016 (*versus 75.1%*). The participation rate should continue to grow further (see Graph 3.3.6), with structural and 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 gradual increases in the statutory retirement age playing a crucial role.

3.3.4 Wages

The **wage bill** (national accounts methodology, domestic concept) increased by 5.4% in the second quarter of 2016 (*versus 5.4%*). Wages again increased significantly in the manufacturing (by 6.8%), which is the most significant sector in terms of employment. In addition to an increase in the hourly wage, some production facilities also show prolongation of working hours and thereby an increase in total earnings. In comparison with other sectors, growth in the section Public administration and defence, education, health and social work was relatively lower (4.3%); however, this difference in growth rates should be significantly reduced in the second half of 2016 with a view to increasing pay tariffs.

Graph 3.3.3: Collection of Social Security Contributions and Total Wage Bill
YoY growth rate, in %
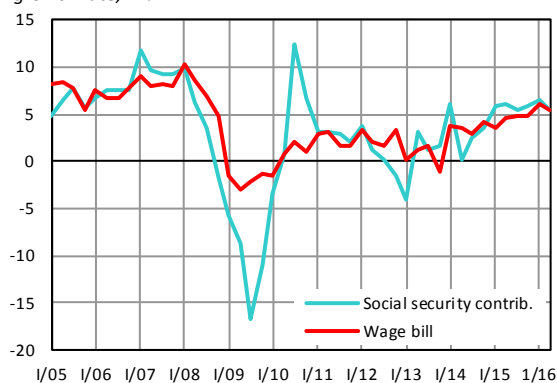
Note: Time series of the collection of social security contributions is influenced, among other factors, by a legislative change in 2009 and a payout of exceptional bonuses at the end of 2012.
Source: CZSO, Ministry of Finance.

Based on August data about wages in industry and the development of cash collection of the state budget, the growth rate of the wage bill in the third quarter of 2016 should be similar to that in the previous quarter. In the case of education, the increase in wages of employees in the general government sector manifested itself already in September, when the wage bill of teaching staff was increased by 8%. A 5% increase in wages will apply to public employees starting from November, which should be reflected in an increase in the wage bill in the fourth quarter of 2016. Wages of healthcare service providers' employees should increase by an average 10% from

January 2017. With regard to the good condition of the Czech economy and growing wages in the non-business sector, we expect the wage bill to grow by 5.2% (*versus 5.1%*) in the fourth quarter.

The very low unemployment rate together with companies' efforts to retain their employees will influence the wage bill growth. The increase in the minimum and guaranteed wage (see Chapter 1.4) will lead to an increase in wages of worst-paid workers. The aforementioned wage bill increase will be reflected in the YoY growth rate of wages throughout most of the year. The aforementioned factors, the continued growth in domestic demand and the accelerating inflation rate should translate into a 5.0% (*versus 4.9%*) increase of the wage bill in 2017.

The **average wage** (business statistics, full-time equivalent) increased by 3.9% (*versus 4.2%*) in the second quarter of 2016. The highest growth was recorded in banking and insurance (by 6.9%) due to bonuses paid to employees. The average wage in accommodation and food services (by 5.9%) also increased dynamically; however, its level is still far below the overall average. The average wage in the national economy could grow nominally by 4.3% (*versus 4.4%*) in 2016, which would correspond to real growth of 3.9% (*versus 3.9%*). The increase in the minimum wage should lead to a shift in wage distribution, which will be reflected mainly by an increase in lower earnings bands. The average nominal wage could grow by 4.8% (*versus 4.7%*) in 2017.

Graph 3.3.4: Nominal Monthly Wage
YoY growth rate, in %
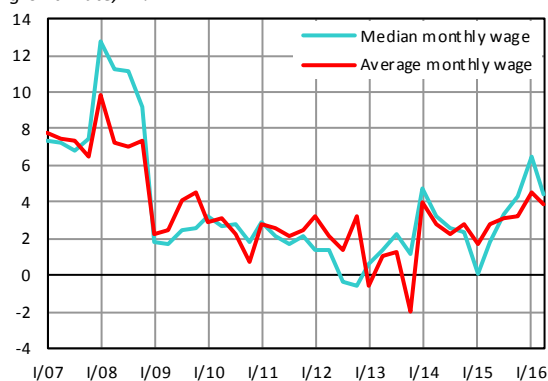
Source: CZSO.

Box 3.1: Potential and Limits of the Labour Market in the Czech Republic

Czech labour market is in a very good shape. Seasonally adjusted unemployment rate fell to 4.0% (LFS methodology) in the second quarter of 2016, which is the best result since 1996. In the same quarter, seasonally adjusted employment rate reached record-high 71.7%, just like participation rate at 74.7%. Apart from the decline in the number of unemployed persons, the contributory factors include rising number of persons in the age group 40–49, which is usually characterized by high participation rate, and increasing statutory retirement age being followed by actual retirement. These tendencies are likely to continue, as relatively large age cohorts born in the 50s and 60s will be leaving the labour market and very small age cohorts born around 2000 will be entering it.

The current level of the unemployment rate can probably be described as approaching the natural rate, i.e. virtually full employment, where everyone who wants to work is employed. The current state is reflected in accelerating growth of wages that results from an inadequate supply of the labour force being demanded. Moreover, problems of some industries, which manifest themselves e.g. in the lay-offs of miners or decreasing employment in construction due to falling new orders, have a negative impact on the decline in the unemployment rate. The question therefore remains if there is room for further decrease in unemployment and whether this state is sustainable. It is possible to compare the current situation with the business cycle peak in the years 2007 and 2008.

In terms of the education and age structure of the unemployed, there are no significant differences between the present and the situation 8–9 years ago. The only exception is roughly doubling of the share of job seekers aged 60–64 years to the current 6% as a result of increasing statutory retirement age. Compared with the year 2008, one can also observe smaller regional differences. The share in total unemployment of the regions with the highest unemployment (Ústí nad Labem and Moravian-Silesian regions hit by a decline in heavy industry) has decreased, which reflects the increasing amount of time that has passed since the turn of the millennium when the affected regions underwent structural changes. Local labour markets have at least partially adapted to these changes; a part of the working-age population has moved elsewhere.

Graph 1: Estimates of the Unemployment and Output Gap in the Czech Economy

Unemployment gap in pp (rhs), output gap in % of potential output

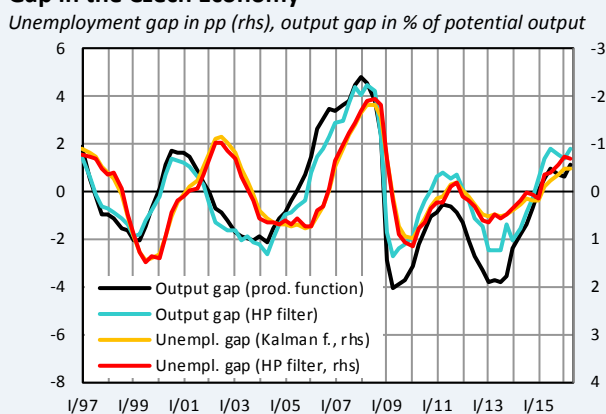Source: CZSO. Calculations of the MoF.

Graph 2: Phillips curve

Number of registered unemployed in thousands, core inflation in %
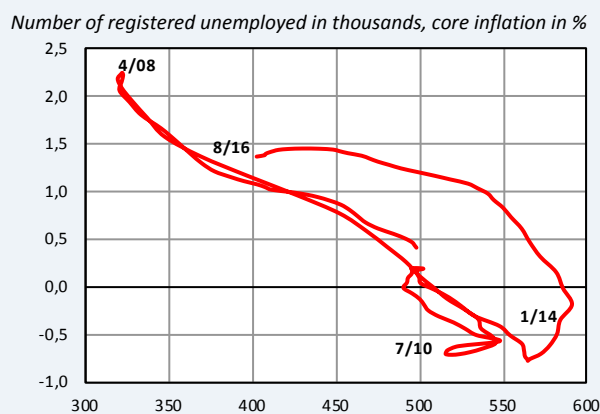
Source: CZSO, Ministry of Labour and Social Affairs.

Distinguishing between cyclical and structural determinants of unemployment is an important aspect of the analysis. The concept of equilibrium unemployment rate associated either with constant growth of wages (the co-called NAWRU – non-accelerating wage rate of unemployment) or with constant growth of the price level (the so-called NAIRU – non-accelerating inflation rate of unemployment) is most often used to derive the cyclical component of unemployment rate. Even though a whole range of methods to estimate these equilibria exists, for the needs of this box we chose statistical concepts of the Hodrick-Prescott filter and Kalman filter using data on the growth of real unit labour costs. The cyclical component of unemployment rate, or the unemployment gap, is then the difference between the actual and equilibrium unemployment rate.

The unemployment gap exhibits a high correlation with the output gap (see Graph 1). Up until 2007 the unemployment gap lagged the output gap by approximately two quarters; after 2008, however, this lag has virtually disappeared. This results from the changed behaviour on the labour market that increases its flexibility on both supply and demand side (e.g. repeated extension of fixed-term contracts, agency employment, flexibility of wages).

Another important finding is the different position of the unemployment rate in the business cycle. Prior to the Great Recession at the turn of 2008 and 2009 the cyclical component of unemployment was significant, but now we observe that the positive unemployment gap has only started to widen. However, the cyclical aspect has to be viewed not only in the context of the output gap itself but also the growth rate of potential output, which is now considerably lower than in the years 2007–2008.

The position in the business cycle can also be seen on the Phillips curve, which captures the relationship between the rates of inflation and unemployment. Before the onset of foreign exchange interventions in November 2013, there was almost a textbook-like negative correlation between core inflation and unemployment rate. It is apparent from Graph 2 that this relationship has recently been disrupted. This is explained by the high openness of the Czech economy, as lower unemployment resulting in a higher demand may not necessarily lead to an increase in prices, especially if there is a simultaneous decrease in commodity prices and hence also in import prices.

Graph 3: Beveridge curve (unemployment rate LFS)
Unemployment rate in %, number of vacancies in thousands
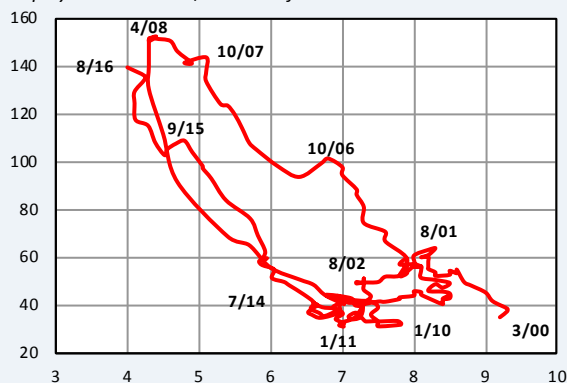
Source: CZSO, Ministry of Labour and Social Affairs.

Graph 4: Beveridge curve (unemployment MPSV)
Number of unemployed and vacancies in thousands
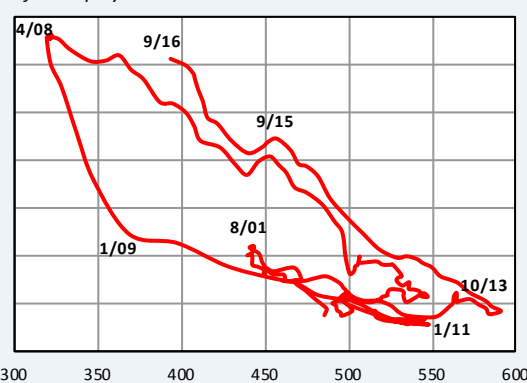
Source: Ministry of Labour and Social Affairs.

The Beveridge curve, comparing seasonally adjusted data on unemployment and number of vacancies, also shows the structural and cyclical positions of the labour market. Whereas unemployment rate in the LFS methodology reaches almost the same levels as at the peak of the cycle in 2008 (see Graph 3), registered unemployment remains higher by some 80 thousand persons (see Graph 4). At first glance this difference could be showing an increase in structural unemployment, but it is mainly due to a more intensive use of active employment policy (45 thousand persons in September 2016, compared with cca 21 thousand in September 2008), strong increase in the number of persons subject to property seizures or in personal bankruptcy[1] who work in the informal economy and remain registered at the labour offices, and also higher number of persons in non-colliding employment[2]. Hysteresis, too, plays a role here; many mainly older-aged job seekers, who previously hadn't found a job, have lost their interest in working or may work in the informal economy.

In terms of the number of vacancies, the current situation resembles that of 2008. The reason is also the position in the economic cycle (positive output gap) resulting in a higher fluctuation of employees. There is a similar structural phenomenon here as at the previous business cycle peak, i.e. a substantial share of low-skill vacancies matching the skill structure of the unemployed. These vacancies, however, are often unattractive because of low wages, which makes them hard to fill. They can be found not only in manufacturing, but also in certain sections of services, such as retail trade, accomodation and food services.

When it comes to future developments, one can expect that the unemployment rate (LFS methodology) will be declining only gradually in the short to medium-term horizon, as the scope for further decreases remains very limited for the aforementioned structural reasons. Under certain circumstances, the unemployment ratio can decrease more significantly as a result of e.g. more stringent controls of illegal employment or lower use of partial unemployment.

From a longer-term perspective, though, significant risks exist. Above all, they include a strong orientation of the economy on labour intensive and also strongly procyclical automotive industry (employment in automotive industry accounts for only about 3% of total employment, but there is a host of dependent firms in other industries). Although the Czech labour market is rather flexible in the EU context, there are still areas with potential for improvement. Compared with other countries, the use of part-time contracts is minimal in the Czech Republic. In the second quarter of 2016, their share stood at 6.3%, whereas it was 19.6% in the EU, 27.1% in Germany and even 49.8% in the Netherlands. Future changes in technology related to the so-called Industry 4.0, for which the Czech Republic as a country with traditionally high share of industry should adequately prepare, pose a specific challenge for reform of the education system. At the same time, convergence towards advanced economies of western Europe in terms of rising share of the tertiary sector on total employment has not been very noticeable so far.

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[1] There were 731 personal bankruptcies declared in 2008, compared with 16,655 in 2015. There were 554 thousand seizures in 2008, 782 thousand in 2015, with the peak of 959 thousand seizures in 2011.

[2] The following cases are regarded as non-colliding employment: work on the basis of an employment contract or service relationship, provided that monthly income does not exceed half of the minimum wage; or work on the basis of an agreement to perform work a contract for work, provided that monthly remuneration or remuneration alloted to one month of the contract duration does not exceed half of the minimum wage.

Table 3.3.1: Labour Market – yearly

		2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Labour Force Survey											
Employment	av. in thous.persons	4 885	4 872	4 890	4 937	4 974	5 042	5 124	5 140	5 155	5 169
	growth in %	-1.0	0.4	0.4	1.0	0.8	1.4	1.6	0.3	0.3	0.3
Employees	av. in thous.persons	4 019	3 993	3 990	4 055	4 079	4 168	4 256	4 277	4 291	4 303
	growth in %	-2.1	0.0	-0.1	1.6	0.6	2.2	2.1	0.5	0.3	0.3
Entrepreneurs and	av. in thous.persons	866	880	901	882	895	874	868	863	865	866
self-employed	growth in %	4.7	2.0	2.4	-2.1	1.5	-2.3	-0.7	-0.6	0.2	0.2
Unemployment	av. in thous.persons	384	351	367	369	324	268	216	209	207	207
Unemployment rate	average in per cent	7.3	6.7	7.0	7.0	6.1	5.1	4.0	3.9	3.9	3.8
Long-term unemployment [1]	av. in thous.persons	160	144	161	163	141	127	.	.	.	.
Labour force	av. in thous.persons	5 269	5 223	5 257	5 306	5 298	5 310	5 340	5 350	5 362	5 376
	growth in %	-0.3	-0.2	0.7	0.9	-0.2	0.2	0.6	0.2	0.2	0.3
Population aged 15–64	av. in thous.persons	7 399	7 295	7 229	7 154	7 081	7 026	6 968	6 914	6 865	6 821
	growth in %	-0.4	-0.7	-0.9	-1.0	-1.0	-0.8	-0.8	-0.8	-0.7	-0.6
Employment/Pop. 15–64	average in per cent	66.0	66.8	67.6	69.0	70.2	71.8	73.5	74.3	75.1	75.8
Employment rate 15–64 [2]	average in per cent	65.0	65.7	66.5	67.7	69.0	70.2	71.9	72.8	73.5	74.2
Labour force/Pop. 15–64	average in per cent	71.2	71.6	72.7	74.2	74.8	75.6	76.6	77.4	78.1	78.8
Participation rate 15–64 [3]	average in per cent	70.2	70.5	71.6	72.9	73.5	74.0	75.0	75.8	76.5	77.2
Registered unemployment											
Unemployment	av. in thous.persons	528.7	507.8	504.4	564.4	561.4	478.9	408	376	368	355
Share of unemployed [4]	average in per cent	7.0	6.7	6.8	7.7	7.7	6.6	5.6	5.2	5.1	5.0
Wages and salaries											
Average monthly wage [5]											
Nominal	CZK	23 864	24 455	25 067	25 035	25 768	26 467	27 600	28 900	30 100	31 300
	growth in %	2.2	2.5	2.5	-0.1	2.9	2.7	4.3	4.6	4.2	4.2
Real	CZK 2005	20 769	20 884	20 717	20 403	20 916	21 413	22 200	23 000	23 600	24 100
	growth in %	0.8	0.6	-0.8	-1.5	2.5	2.4	3.8	3.4	2.5	2.4
Median monthly wage	CZK	20 294	20 743	20 828	21 110	21 786	22 310	.	.	.	.
	growth in %	2.6	2.2	0.4	1.4	3.2	2.4	.	.	.	.
Wage bill	growth in %	0.6	2.3	2.6	0.5	3.6	4.4	5.4	5.0	4.5	4.5
Labour productivity	growth in %	3.4	2.3	-1.2	-0.8	2.2	3.1	0.8	2.2	2.1	2.2
Unit labour costs [6]	growth in %	0.0	0.6	3.0	0.5	0.4	-0.5	2.5	2.3	2.0	2.0
Compens. of employees / GDP	%	40.2	40.3	41.0	40.9	40.2	39.9	40.7	41.3	41.6	41.8

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Estimate*	Q4 *Forecast*
Labour Force Survey									
Employment	*av. in thous. persons*	**4 988**	**5 044**	**5 060**	**5 076**	**5 087**	**5 128**	**5 140**	**5 142**
	YoY growth in %	1.3	1.7	1.3	1.2	2.0	1.7	1.6	1.3
	QoQ growth in %	0.4	0.3	0.1	0.3	1.0	0.1	0.1	0.1
Employees	*av. in thous. persons*	**4 116**	**4 161**	**4 189**	**4 205**	**4 231**	**4 244**	**4 275**	**4 272**
	growth in %	2.1	2.4	2.0	2.1	2.8	2.0	2.1	1.6
Entrepreneurs and	*av. in thous. persons*	**872**	**883**	**872**	**871**	**855**	**885**	**864**	**870**
self-employed	*growth in %*	-2.3	-1.7	-2.1	-3.1	-1.9	0.2	-0.8	-0.2
Unemployment	*av. in thous.persons*	**317**	**262**	**257**	**237**	**231**	**210**	**212**	**209**
Unemployment rate	*average in per cent*	**6.0**	**4.9**	**4.8**	**4.5**	**4.3**	**3.9**	**4.0**	**3.9**
Long-term unemployment [1]	*av. in thous.persons*	**145**	**122**	**125**	**115**	**106**	**91**	**.**	**.**
Labour force	*av. in thous. persons*	**5 306**	**5 306**	**5 318**	**5 313**	**5 318**	**5 338**	**5 352**	**5 351**
	growth in %	0.5	0.5	0.2	-0.2	0.2	0.6	0.7	0.7
Population aged 15–64	*av. in thous. persons*	**7 050**	**7 037**	**7 017**	**7 001**	**6 990**	**6 975**	**6 961**	**6 947**
	growth in %	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8
Employment/Pop. 15–64	*average in per cent*	**70.8**	**71.7**	**72.1**	**72.5**	**72.8**	**73.5**	**73.8**	**74.0**
	increase over a year	1.4	1.7	1.5	1.4	2.0	1.9	1.7	1.5
Employment rate 15–64 [2]	*average in per cent*	**69.4**	**70.2**	**70.5**	**70.8**	**71.0**	**71.7**	**72.3**	**72.4**
	increase over a year	1.4	1.5	1.2	1.1	1.6	1.6	1.8	1.6
Labour force/Pop. 15–64	*average in per cent*	**75.3**	**75.4**	**75.8**	**75.9**	**76.1**	**76.5**	**76.9**	**77.0**
	increase over a year	0.9	0.9	0.7	0.5	0.8	1.1	1.1	1.1
Participation rate 15–64 [3]	*average in per cent*	**73.9**	**73.9**	**74.2**	**74.2**	**74.3**	**74.7**	**75.3**	**75.5**
	increase over a year	0.8	0.7	0.4	0.1	0.4	0.9	1.1	1.3
Registered unemployment									
Unemployment	*av. in thous. persons*	**546.0**	**481.9**	**451.2**	**436.4**	**458.9**	**407.8**	**387.5**	**378**
Share of unemployed [4]	*average in per cent*	**7.5**	**6.6**	**6.2**	**6.0**	**6.3**	**5.6**	**5.3**	**5.2**
Wages and salaries									
Average monthly wage [5]									
Nominal	*CZK*	25 361	26 279	26 051	28 142	26 493	27 297	27 200	29 400
	growth in %	**1.7**	**2.8**	**3.1**	**3.2**	**4.5**	**3.9**	**4.4**	**4.6**
Real	*CZK 2005*	20 585	21 193	21 043	22 843	21 417	21 961	21 900	23 700
	growth in %	**1.6**	**2.1**	**2.6**	**3.1**	**4.0**	**3.6**	**3.8**	**3.8**
Median monthly wage	*CZK*	21 154	22 064	22 383	23 639	22 533	23 047	.	.
	growth in %	**0.0**	**1.8**	**3.3**	**4.3**	**6.5**	**4.5**	**.**	**.**
Wage bill	*growth in %*	**3.6**	**4.6**	**4.7**	**4.7**	**6.0**	**5.4**	**5.3**	**5.2**

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 of employment in the given year
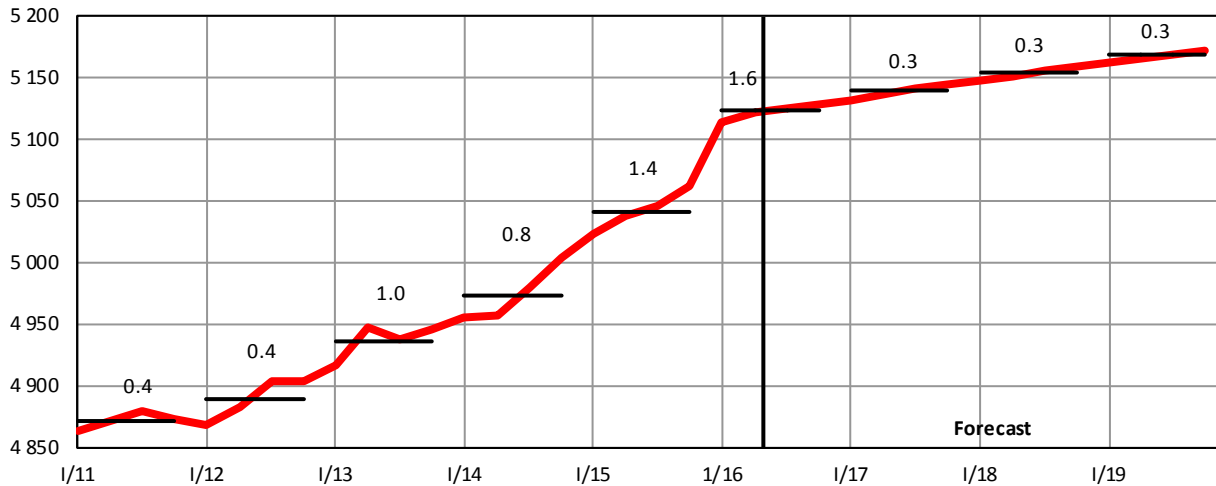
Graph 3.3.6: Ratio of Labour Force and Employment to Population Aged 15–64
in %
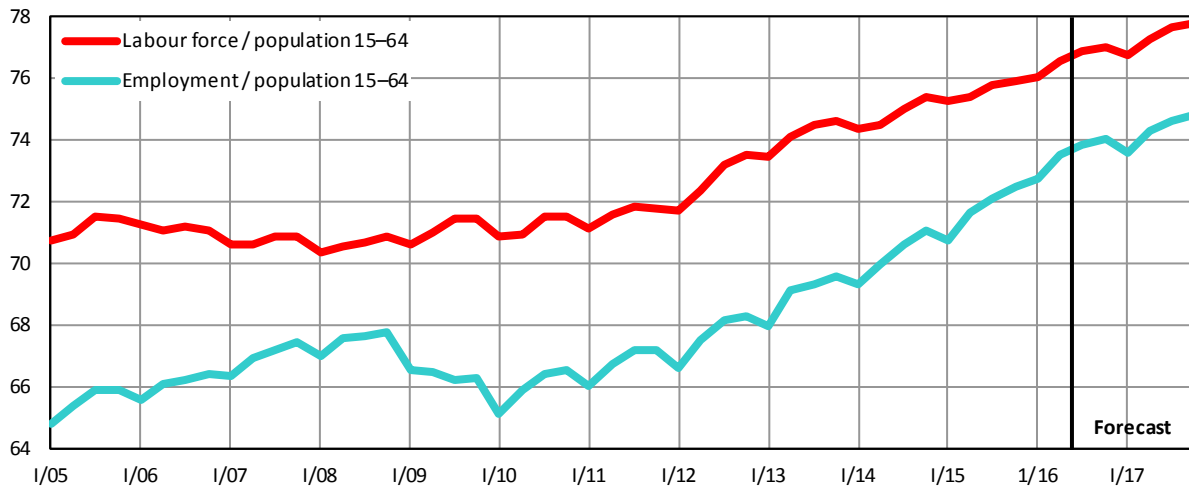
Graph 3.3.7: Unemployment
quarterly average, in thousands of persons, in % (rhs)
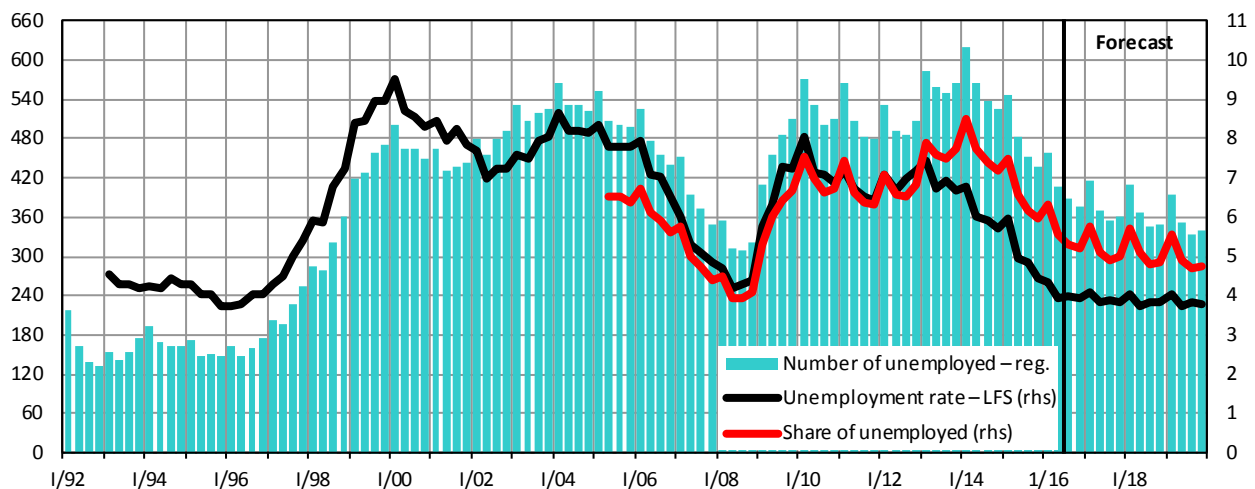
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Graph 3.3.8: Economic Output and Unemployment

YoY real GDP growth rate in %, change in unemployment in thousands of persons
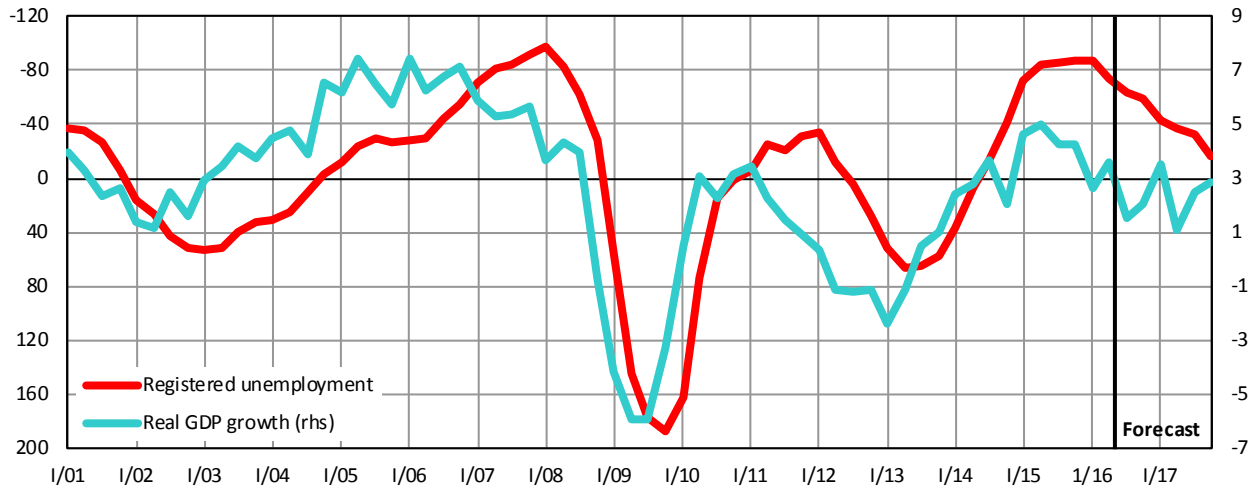
Source: CZSO, Ministry of Labour and Social Affairs. Calculations of the MoF.

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
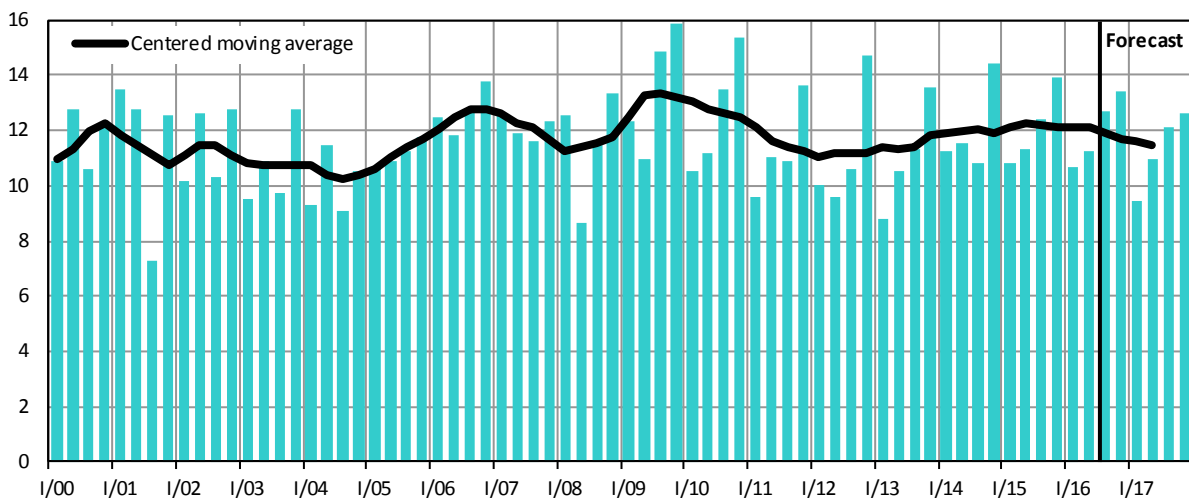
Source: CZSO. Calculations of the MoF.

Table 3.3.3: Income and Expenditures of Households – yearly

SNA methodology – national concept

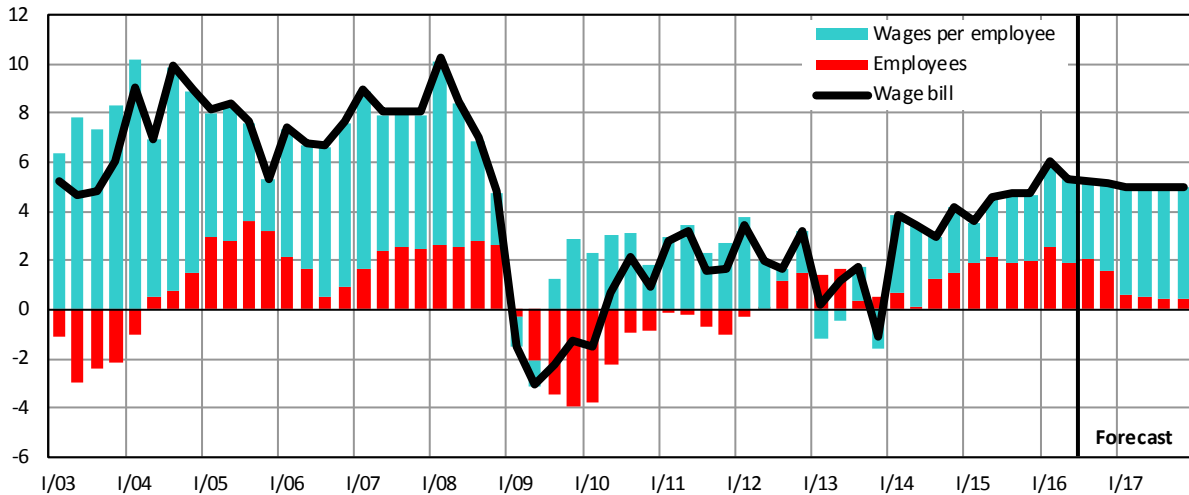|		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Current income											
Compensation of employees	bill.CZK	**1 593**	**1 553**	**1 585**	**1 627**	**1 669**	**1 692**	**1 760**	**1 847**	**1 950**	**2 045**
	growth in %	5.8	-2.5	2.0	2.6	2.6	1.3	4.0	5.0	5.6	4.9
Gross operating surplus	bill.CZK	**657**	**686**	**685**	**674**	**654**	**645**	**662**	**684**	**685**	**695**
and mixed income	growth in %	4.0	4.5	-0.2	-1.7	-2.9	-1.3	2.6	3.3	0.2	1.5
Property income received	bill.CZK	**177**	**158**	**152**	**153**	**147**	**158**	**166**	**162**	**155**	**155**
	growth in %	9.8	-11.0	-3.5	0.5	-4.0	7.8	5.1	-2.4	-4.3	-0.2
Social benefits not-in-kind	bill.CZK	**493**	**535**	**542**	**553**	**567**	**563**	**576**	**590**	**605**	**623**
	growth in %	4.7	8.6	1.2	2.1	2.4	-0.6	2.2	2.6	2.4	3.0
Other current transfers received	bill.CZK	**143**	**141**	**140**	**139**	**151**	**146**	**160**	**181**	**186**	**191**
	growth in %	13.2	-1.4	-1.0	-0.5	8.6	-3.1	9.2	13.3	2.6	3.0
Current expenditure											
Property income paid	bill.CZK	**31**	**19**	**23**	**21**	**15**	**21**	**16**	**18**	**16**	**16**
	growth in %	11.2	-36.7	17.7	-8.5	-27.2	40.5	-24.3	10.8	-9.1	-0.3
Curr. taxes on income and property	bill.CZK	**145**	**140**	**137**	**156**	**158**	**166**	**177**	**183**	**194**	**203**
	growth in %	-9.9	-3.0	-2.6	13.8	1.6	4.9	6.9	3.0	6.0	4.9
Social contributions	bill.CZK	**637**	**603**	**621**	**640**	**654**	**670**	**696**	**735**	**769**	**814**
	growth in %	3.3	-5.3	2.9	3.0	2.3	2.4	3.8	5.6	4.7	5.8
Other current transfers paid	bill.CZK	**146**	**143**	**141**	**145**	**154**	**140**	**150**	**168**	**170**	**170**
	growth in %	12.1	-1.6	-1.6	3.2	6.2	-9.3	6.9	12.0	1.7	0.0
Gross disposable income	bill.CZK	**2 106**	**2 168**	**2 182**	**2 184**	**2 206**	**2 208**	**2 285**	**2 362**	**2 431**	**2 506**
	growth in %	7.4	3.0	0.7	0.1	1.0	0.1	3.5	3.4	2.9	3.1
Final consumption	bill.CZK	**1 887**	**1 891**	**1 920**	**1 952**	**1 970**	**1 997**	**2 044**	**2 110**	**2 170**	**2 256**
	growth in %	7.9	0.2	1.5	1.7	0.9	1.3	2.4	3.2	2.9	4.0
Change in share in pension funds	bill.CZK	**24**	**17**	**15**	**16**	**15**	**35**	**35**	**35**	**32**	**34**
Gross savings	bill.CZK	**243**	**295**	**278**	**248**	**250**	**246**	**276**	**288**	**293**	**284**
Capital transfers											
(income (-) / expenditure (+))	bill.CZK	**-25**	**-25**	**-29**	**-25**	**-21**	**-13**	**-32**	**-13**	**-17**	**-22**
Gross capital formation	bill.CZK	**219**	**212**	**230**	**198**	**183**	**181**	**195**	**218**	**225**	**235**
	growth in %	2.8	-3.1	8.8	-13.9	-7.8	-1.3	8.3	11.4	3.2	4.6
Change in financial assets and liab.	bill.CZK	**47**	**106**	**75**	**73**	**87**	**77**	**110**	**81**	**84**	**70**
Real disposable income	growth in %	**2.5**	**2.1**	**0.1**	**-1.3**	**-1.2**	**-0.8**	**2.9**	**3.3**	**2.5**	**1.9**
Gross savings rate	%	**11.5**	**13.6**	**12.7**	**11.4**	**11.3**	**11.1**	**12.1**	**12.2**	**12.0**	**11.3**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The current account balance to GDP[3] ratio reached 1.9% (*versus 1.5%*) in the second quarter of 2016, which was a QoQ improvement of 0.6% of GDP[4] and thus a historic high.

The growth of export markets, which reached 3.5% in the second quarter of 2016 (*versus 3.8%*), was slightly slower than expected. With regard to the projected GDP growth of our main business partners, the export market growth should slow down in comparison with 2015 in the horizon of the forecast. In 2016, export markets should increase by 3.7% (*versus 4.0%*) and we expect them to grow by 3.8% (*against 3.9%*) in 2017.

However, acceleration in the growth of export performance (an indicator of a change in the market share of Czech goods on foreign markets) that increased to 5.1% in the second quarter of 2016 did not offset the slowdown in the export market growth. Export performance is no more supported by the weakening of the CZK/EUR exchange rate. The expected leaving of the regime of using the exchange rate as an additional monetary policy instrument around mid-2017 will weigh on growth of export performance and with regard to a low growth of private investment, we expect its slowdown in the horizon of the forecast. Export performance growth should reach 2.2% (*versus 1.7%*) in 2016, and it should further slow down to 1.0% (*versus 0.9%*) in 2017.

Quarterly growth rates of foreign trade (balance of payments methodology) have had a decreasing tendency since the beginning of 2014. Moreover, import growth exceeded export growth in 2015, and the surplus on the trade balance decreased by 0.5% of GDP YoY. This development was influenced by a growing domestic demand driving imports. In addition to consumption, it was a strong growth of investment, and here especially investment activity of the government. Since the fourth quarter of 2015, the relation of export and import growth dynamics has reversed and the surplus on the balance of goods started increasing again, especially in the important group Machinery and transport equipment.

The dominant factor influencing terms of trade of foreign trade in goods is still the YoY lower crude oil price. An improvement of the terms of trade into positive values since September 2015 has so far continued in the course of the year 2016, with a peak in April. The deficit on the fuel balance reached 1.9% of GDP in the second quarter of 2016. In connection with the scenario of crude oil price development, we expect that the deficit on the fuel balance will remain at this level in 2016. For 2017, we already expect YoY growth of the USD crude oil price,

and thus also a deepening of the deficit on the fuel balance to 2.2% of GDP.

According to current data, the balance of goods reached a surplus of 5.4% of GDP (*versus 5.0%*) in the second quarter of 2016, which was 0.5% of GDP more in annual terms. With regard to the aforementioned, we improved the forecast of the surplus on the balance of goods to 5.7% of GDP (*versus 5.1%*). In connection with the scenario of crude oil price growth we expect only a slight deterioration to 5.4% of GDP (*versus 4.9%*) in 2017.

Since the first quarter of 2015, the surplus on the balance of services has been steadily increasing. Total surplus on the balance of services reached 1.8% of GDP (*versus 1.7%*) in the second quarter of 2016, improving by 0.5% of GDP YoY. With the continuing economic growth, the growth rates of exports and imports of services are expected to be nearly identical in the following period. Imports of services related to the lease of JAS-39 Gripen aircraft will not be important in terms of the total volumes. In 2016 and 2017, the surplus on the balance of services should reach, identically, 1.9% of GDP (*versus 1.7% in both years*).

In the second quarter of 2016, the YoY increase in the current account surplus of 1.3% of GDP was, in addition to the aforementioned increase in the surplus on trade balance, due to an improvement of the deficit on the primary income balance of 0.9% of GDP on the one side, and to a decrease (from a surplus to a deficit) in the balance of secondary income by 0.6 % on the other. The deficit of primary income reached 4.8% of GDP (*versus 5.0%*) in the second quarter of 2016. The improvement was caused by a lower outflow of income from foreign direct investment to foreign owners (in particular dividends amid a slowdown in profitability growth) and by a gradually improving surplus of compensation of employees. Recently, pressures on wage growth and thereby also on the division into the net profits of companies and compensation of employees have been strengthening. These pressures will probably persist also in 2017. Therefore, we expect basically an unchanged deficit of primary income in the following two years. This deficit could reach 4.7% of GDP (*versus 5.0%*) in 2016 and 4.8% of GDP (*versus 5.1%*) in 2017.

In the above context, we expect that the current account will continue to show a considerable surplus. This surplus could reach 2.3% of GDP (*versus 1.5%*) in 2016. We expect a decrease in the positive balance to 1.8% of GDP (*versus 1.2%*) in 2017.

The risk to external business relations in the forecast's horizon is the United Kingdom's withdrawal from the EU and the related uncertainties, including likely turbulences in financial markets that can negatively influence mutual trade exchange.

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[3] All the *quarterly* figures relative to GDP are listed in annual moving totals.
[4] The CNB revised the current account for the first quarter from 1.4% of GDP to 1.3% of GDP.

Table 3.4.1: Balance of Payments – yearly

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
										Forecast	*Forecast*
Goods and services	bill.CZK	85	147	119	157	201	237	275	286	354	352
	% GDP	**2.1**	**3.7**	**3.0**	**3.9**	**5.0**	**5.8**	**6.4**	**6.3**	**7.5**	**7.2**
Goods	bill.CZK	-4	65	40	75	124	167	220	211	266	261
	% GDP	**-0.1**	**1.7**	**1.0**	**1.9**	**3.0**	**4.1**	**5.1**	**4.6**	**5.7**	**5.4**
Services	bill.CZK	89	82	78	81	78	70	56	75	88	91
	% GDP	**2.2**	**2.1**	**2.0**	**2.0**	**1.9**	**1.7**	**1.3**	**1.6**	**1.9**	**1.9**
Primary income	bill.CZK	-148	-217	-250	-223	-238	-249	-261	-244	-221	-231
	% GDP	**-3.7**	**-5.5**	**-6.3**	**-5.5**	**-5.9**	**-6.1**	**-6.0**	**-5.3**	**-4.7**	**-4.8**
Secondary income	bill.CZK	-12	-19	-11	-18	-27	-10	-7	-1	-27	-31
	% GDP	**-0.3**	**-0.5**	**-0.3**	**-0.5**	**-0.7**	**-0.2**	**-0.2**	**0.0**	**-0.6**	**-0.6**
Current account	bill.CZK	-75	-89	-142	-85	-63	-22	7	41	106	90
	% GDP	**-1.9**	**-2.3**	**-3.6**	**-2.1**	**-1.6**	**-0.5**	**0.2**	**0.9**	**2.3**	**1.8**
Capital account	bill.CZK	26	51	38	13	53	82	32	106	43	51
	% GDP	**0.6**	**1.3**	**1.0**	**0.3**	**1.3**	**2.0**	**0.7**	**2.3**	**0.9**	**1.0**
Net lending/borrowing	bill.CZK	-49	-38	-104	-72	-10	61	40	148	149	141
	% GDP	**-1.2**	**-1.0**	**-2.6**	**-1.8**	**-0.3**	**1.5**	**0.9**	**3.2**	**3.2**	**2.9**
Financial account	bill.CZK	-43	-72	-122	-75	12	68	63	194	.	.
Direct investments	bill.CZK	-36	-38	-95	-47	-121	7	-80	27	.	.
Portfolio investments	bill.CZK	9	-159	-150	-6	-55	-93	90	-164	.	.
Financial derivatives	bill.CZK	3	1	5	4	-9	-5	-6	-5	.	.
Other investments	bill.CZK	-59	62	77	-9	116	-30	-14	-15	.	.
Reserve assets	bill.CZK	40	61	41	-17	80	188	73	351	.	.
International investment position	bill.CZK	-1 534	-1 726	-1 823	-1 823	-1 864	-1 695	-1 578	-1 396	.	.
	% GDP	**-38.2**	**-44.0**	**-46.1**	**-45.2**	**-45.9**	**-41.4**	**-36.6**	**-30.7**	**.**	**.**
Gross external debt	bill.CZK	1 862	1 956	2 164	2 312	2 434	2 733	2 946	3 132	.	.
	% GDP	**46.4**	**49.9**	**54.7**	**57.3**	**60.0**	**66.7**	**68.3**	**68.8**	**.**	**.**

Source: CNB, CZSO. Calculations of the MoF.

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	*Forecast*
Goods and services	bill.CZK	**279**	**275**	**272**	**286**	**299**	**333**	**349**	**354**
Goods	bill.CZK	**225**	**216**	**207**	**211**	**220**	**250**	**263**	**266**
Services	bill.CZK	**54**	**59**	**66**	**75**	**79**	**83**	**86**	**88**
Primary income	bill.CZK	**-285**	**-256**	**-259**	**-244**	**-231**	**-225**	**-223**	**-221**
Secondary income	bill.CZK	**23**	**7**	**15**	**-1**	**-9**	**-19**	**-23**	**-27**
Current account	bill.CZK	**18**	**26**	**29**	**41**	**59**	**89**	**103**	**106**
Capital account	bill.CZK	**42**	**94**	**99**	**106**	**94**	**63**	**53**	**43**
Net lending/borrowing	bill.CZK	**59**	**119**	**128**	**148**	**153**	**152**	**156**	**149**
Financial account	bill.CZK	**84**	**158**	**163**	**194**	**197**	**141**	**.**	**.**
Direct investments	bill.CZK	**-58**	**-19**	**12**	**27**	**39**	**-22**	**.**	**.**
Portfolio investments	bill.CZK	**121**	**75**	**-13**	**-164**	**-241**	**-327**	**.**	**.**
Financial derivatives	bill.CZK	**-4**	**1**	**-3**	**-5**	**-3**	**-7**	**.**	**.**
Other investments	bill.CZK	**-61**	**-34**	**-156**	**-15**	**-62**	**44**	**.**	**.**
Reserve assets	bill.CZK	**86**	**135**	**322**	**351**	**464**	**453**	**.**	**.**
International investment position	stock in bill.CZK	**-1 388**	**-1 383**	**-1 468**	**-1 396**	**-1 294**	**-1 263**	**.**	**.**
Gross external debt	stock in bill.CZK	**2 958**	**2 971**	**3 194**	**3 132**	**3 220**	**3 353**	**.**	**.**

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

Legend: Secondary income, Services, Primary income, Goods, Current account, Forecast
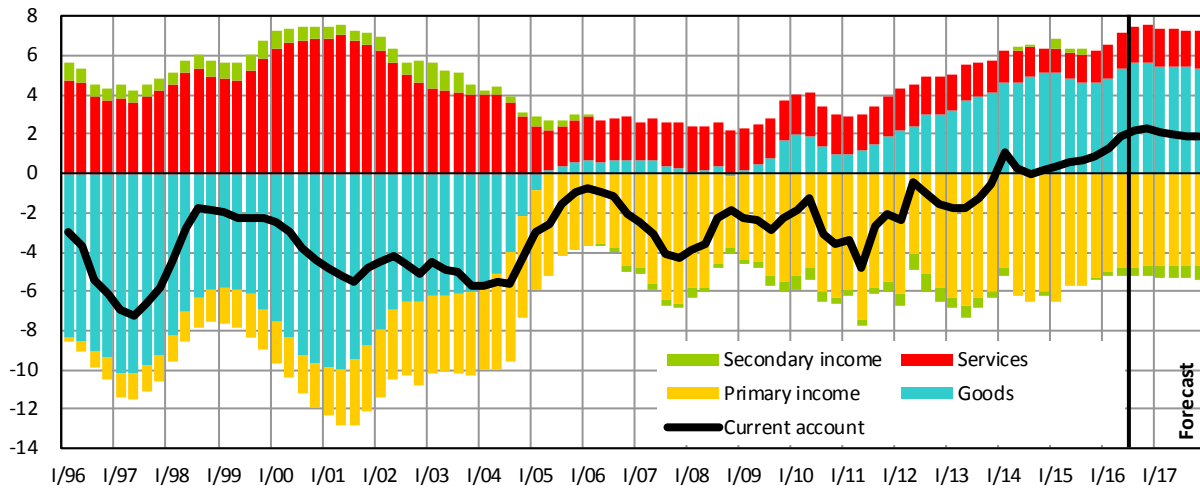
Source: CNB, CZSO. Calculations of the MoF.

Graph 3.4.2: Balance of Trade (national concept)

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

Legend: Other items, Machinery (SITC 7), Mineral fuels (SITC 3), Trade balance, Forecast
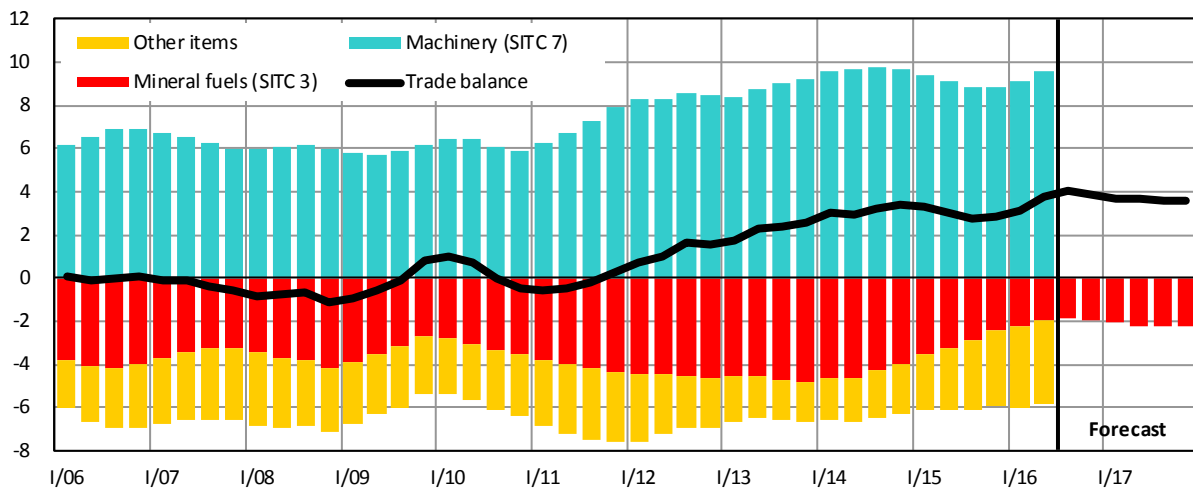
Note: The data in the chart show imports in cif methodology. For this reason, the chart is not comparable with Tables 3.4.1 and 3.4.2, where imports are in fob methodology. Trade balance in the national concept (unlike in the BoP methodology in Tables 3.4.1 and 3.4.2) does not include the import of JAS-39 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

Legend: Transport, Tourism, Processing, Others, Services, Forecast
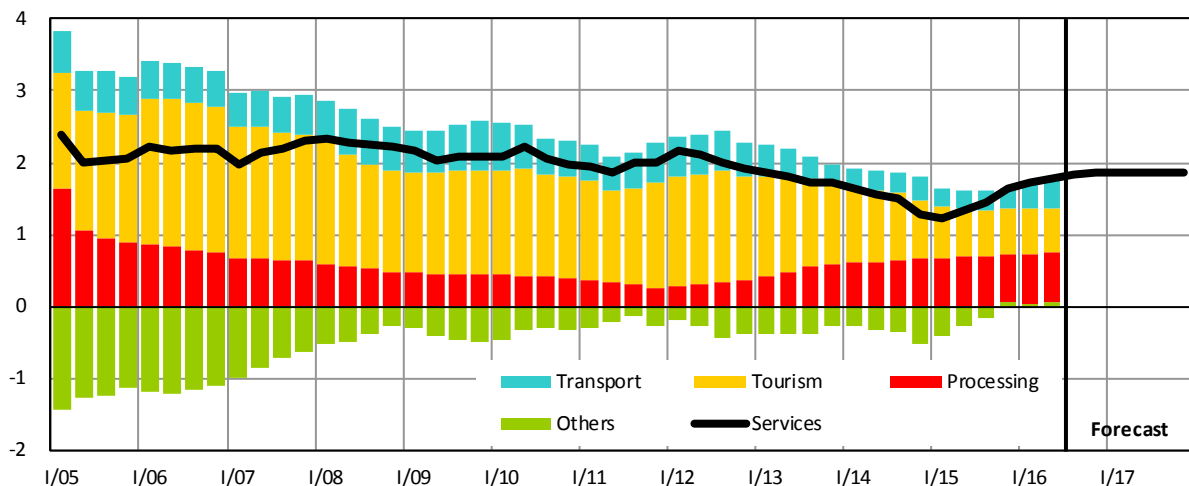
Source: CNB, CZSO. Calculations of the MoF.

Graph 3.4.4: Balance of Primary Income

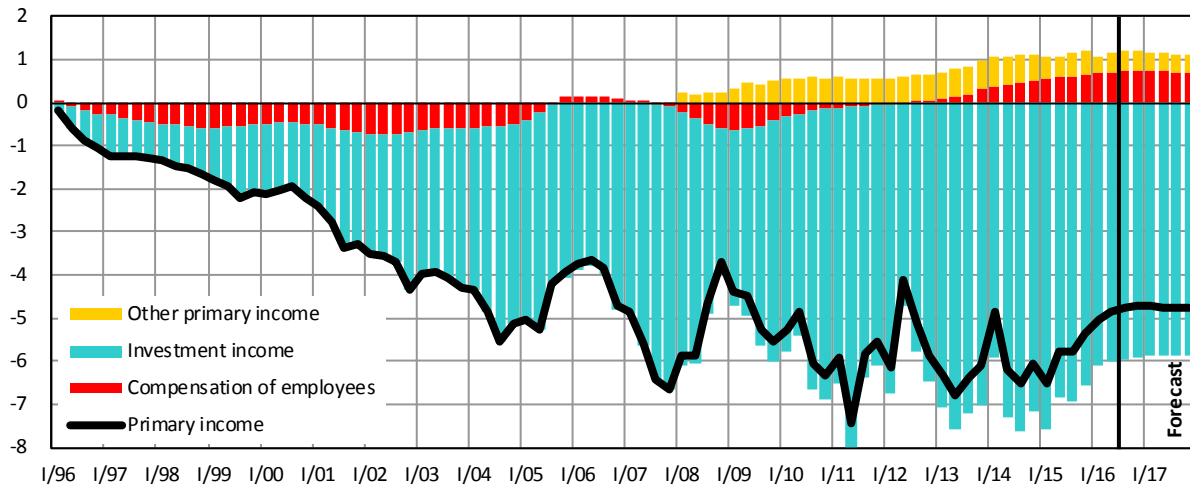*moving sums of the latest 4 quarters, in % of GDP*

Source: CNB, CZSO. Calculations of the MoF.

Table 3.4.3: Decomposition of Exports of Goods – yearly

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
GDP [1]	average of 2005=100	100.8	96.5	100.0	103.4	104.4	105.2	107.2	109.4	112	114
	growth in %	**1.7**	**-4.2**	**3.6**	**3.4**	**0.9**	**0.9**	**1.9**	**2.0**	**2.1**	**1.9**
Import intensity [2]	average of 2005=100	98.7	92.0	100.0	104.0	103.1	104.5	107.3	110.8	112	114
	growth in %	**-0.1**	**-6.7**	**8.7**	**4.0**	**-0.8**	**1.4**	**2.6**	**3.2**	**1.5**	**1.8**
Export markets [3]	average of 2005=100	99.4	88.8	100.0	107.5	107.6	110.0	115.0	121.2	126	130
	growth in %	**1.7**	**-10.7**	**12.6**	**7.5**	**0.1**	**2.3**	**4.6**	**5.3**	**3.7**	**3.8**
Export performance	average of 2005=100	96.8	96.9	100.0	102.5	106.7	104.9	109.6	111.8	114	115
	growth in %	**2.5**	**0.1**	**3.2**	**2.5**	**4.1**	**-1.6**	**4.5**	**1.9**	**2.2**	**1.0**
Real exports	average of 2005=100	96.3	86.1	100.0	110.1	114.8	115.5	126.1	135.4	143	150
	growth in %	**4.2**	**-10.5**	**16.1**	**10.1**	**4.2**	**0.6**	**9.2**	**7.4**	**6.0**	**4.8**
1 / NEER	average of 2005=100	98.9	102.2	100.0	97.1	100.6	102.9	108.1	108.2	106	105
	growth in %	**-10.5**	**3.4**	**-2.2**	**-2.9**	**3.6**	**2.3**	**5.1**	**0.1**	**-2.3**	**-0.7**
Prices on foreign markets	average of 2005=100	102.4	99.3	100.0	103.8	103.5	102.7	101.4	99.8	98	98
	growth in %	**6.3**	**-3.1**	**0.8**	**3.8**	**-0.4**	**-0.7**	**-1.2**	**-1.6**	**-2.0**	**0.1**
Exports deflator	average of 2005=100	101.2	101.4	100.0	100.8	104.0	105.6	109.7	108.0	103	103
	growth in %	**-4.9**	**0.2**	**-1.4**	**0.8**	**3.2**	**1.5**	**3.8**	**-1.5**	**-4.3**	**-0.7**
Nominal exports	average of 2005=100	97.4	87.2	100.0	111.0	119.4	122.0	138.3	146.2	148	154
	growth in %	**-0.9**	**-10.5**	**14.7**	**11.0**	**7.5**	**2.2**	**13.4**	**5.8**	**1.4**	**4.1**

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Estimate*	Q4 *Forecast*
GDP [1]	average of 2010=100	108.6	109.1	109.6	110.3	110.9	111.5	112	112
	growth in %	**1.8**	**2.1**	**2.1**	**2.0**	**2.2**	**2.2**	**2.1**	**2.0**
Import intensity [2]	average of 2010=100	110.1	110.6	110.9	111.4	111.8	112.0	113	113
	growth in %	**3.4**	**3.3**	**3.4**	**2.8**	**1.6**	**1.3**	**1.7**	**1.6**
Export markets [3]	average of 2010=100	119.5	120.6	121.6	122.9	124.0	124.8	126	127
	growth in %	**5.3**	**5.5**	**5.6**	**4.9**	**3.8**	**3.5**	**3.8**	**3.6**
Export performance	average of 2010=100	112.3	112.1	108.0	114.6	113.8	117.9	110	116
	growth in %	**2.2**	**1.0**	**0.1**	**4.4**	**1.3**	**5.1**	**1.6**	**0.9**
Real exports	average of 2010=100	134.2	135.3	131.3	140.9	141.1	147.1	138	147
	growth in %	**7.6**	**6.6**	**5.7**	**9.5**	**5.2**	**8.8**	**5.5**	**4.5**
1 / NEER	average of 2010=100	109.1	109.8	107.1	106.8	105.5	105.7	106	106
	growth in %	**1.4**	**2.0**	**-1.6**	**-1.4**	**-3.4**	**-3.7**	**-1.2**	**-0.9**
Prices on foreign markets	average of 2010=100	100.0	99.4	100.3	99.5	98.0	97.4	98	98
	growth in %	**-1.6**	**-2.1**	**-0.9**	**-1.6**	**-2.0**	**-2.0**	**-2.4**	**-1.6**
Exports deflator	average of 2010=100	109.2	109.2	107.4	106.4	103.4	103.0	104	104
	growth in %	**-0.2**	**-0.2**	**-2.5**	**-3.1**	**-5.3**	**-5.7**	**-3.6**	**-2.5**
Nominal exports	average of 2010=100	146.5	147.6	141.0	149.8	145.9	151.5	143	153
	growth in %	**7.3**	**6.4**	**3.1**	**6.2**	**-0.4**	**2.6**	**1.7**	**2.0**

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

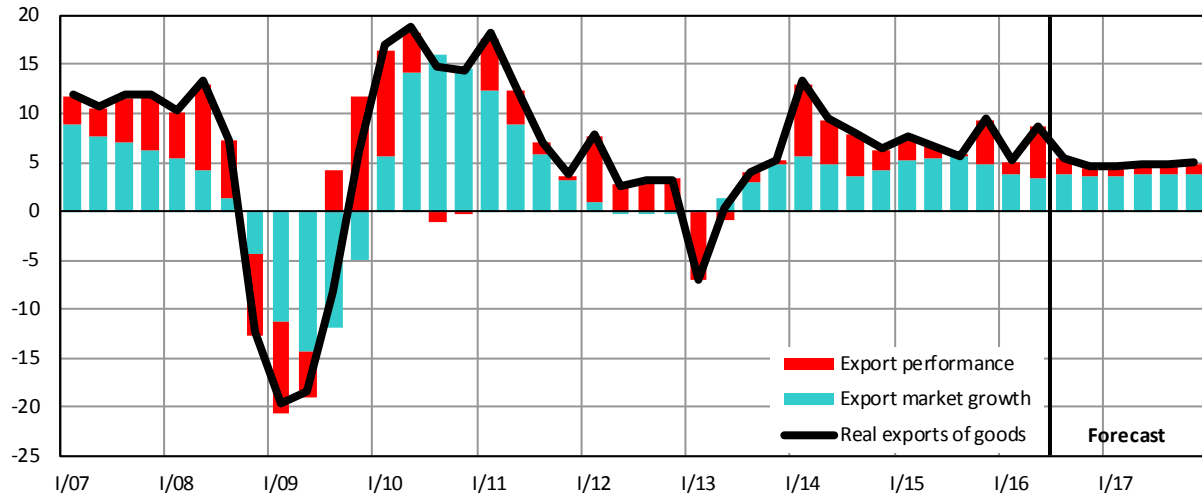**Graph 3.4.5: GDP and Imports of Goods in Main Partner Countries**
YoY growth rate, in %

Source: Eurostat. Calculations of the MoF.

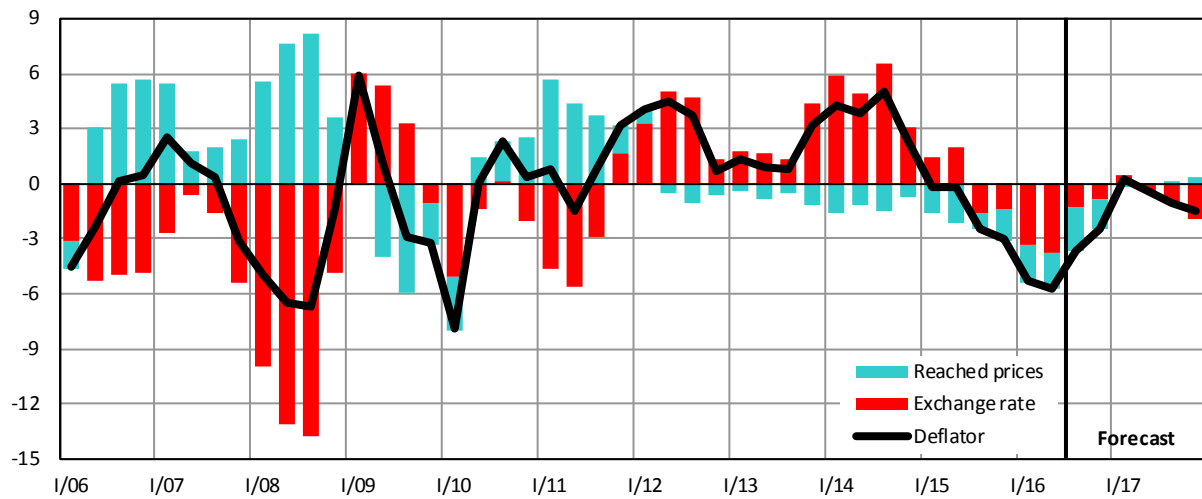**Graph 3.4.6: Real Exports of Goods**

decomposition of YoY growth, in %

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 2014 are based on Eurostat statistics. Since 2015, our own calculations on the basis of real exchange rates have been used.

Using the purchasing power parity method, comparisons of economic output for individual countries within the EU are made in purchasing power standards (PPS). PPS is an artificial currency unit expressing a quantity of goods that can be bought on average for one euro in the EU28 territory after converting the exchange rate for countries using currency units other than the euro.

The level of GDP per capita converted by **current purchasing power parity** increased in all monitored countries in 2015. However, there was a slight decrease in relative economic level towards the EA12 countries in Greece, Estonia, Lithuania, Croatia and Portugal. In the Czech Republic, the purchasing power parity was 17.29 CZK/PPS compared to the EU28 and 17.00 CZK/EUR compared to the EA12. The economic level was circa 25,000 PPS, corresponding to 80% of the economic level in the EA12. In 2016 and 2017, the relative economic level of the Czech Republic should increase gradually up to 82% of the EA12 average in 2017, thanks to stronger economic growth in the Czech Republic than in the EA12.

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 15,800 in 2015, i.e. 50% of the EA12 level. Higher economic growth will result in a gradual increase in the relative level up to 52% of the EA12 average in 2017.

When comparing price levels, the **comparative price level of GDP** in the Czech Republic increased by 1 pp in 2015, thus reaching 62% of the EA12 average. In the coming years, the comparative price level of GDP should increase slightly up to 63% in 2017, which will continue to help the competitiveness of the Czech economy.

Through the decomposition of GDP per capita into individual components[5] (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 in the monitored countries has long been increasing; however, its level is still relatively low compared to the EA12 average. Although the economic crisis slowed down labour productivity growth, its absolute level did not decrease in any of the monitored countries in 2008–2015. In the given period, however, a decrease in the relative level of labour productivity to the EA12 countries was seen in Greece and Slovenia, whereas increases in the relative level in Poland, Latvia and Lithuania exceeded 6 pp. In the Czech Republic, after a five-year period of stagnation, labour productivity started growing again in 2014, reaching 65% of the EA12 average in 2015.

In the case of the **labour market component**, which gives the number of hours worked per working-age person, there is the opposite situation. From 2008 to 2015, the absolute level of this indicator decreased in all monitored countries, except for Poland, the Czech Republic, Lithuania and Slovakia. The highest slump – by 15% – was seen in Greece due to a 19% decrease in the number of hours worked. In contrast, the relative level of the labour market component has long been exceeding the EA12 average in all countries, with the exception of Slovakia; in Estonia, Latvia, Poland and the Czech Republic by more than 20 pp in 2015.

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 2008–2015, the sharpest decrease of 4.4 pp was recorded in the Czech Republic. Compared to the EA12 average, however, the demographic component is still higher in all monitored countries; it exceeded the EA12 average by 10 pp in Slovakia in 2015.

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[5] 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

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Czech Republic	PPS	21 100	20 200	20 600	21 600	21 800	22 300	23 500	25 000	25 900	26 800
	EA12=100	74	75	74	75	75	77	79	80	81	82
Slovenia	PPS	23 100	20 700	21 100	21 500	21 600	21 500	22 600	23 700	24 400	25 300
	EA12=100	81	77	75	75	74	74	76	76	77	78
Slovakia	PPS	18 600	17 400	18 600	19 000	19 800	20 300	21 200	22 200	23 200	24 300
	EA12=100	65	65	67	66	68	70	71	71	73	75
Portugal	PPS	20 400	19 700	20 500	20 300	20 500	20 600	21 400	22 300	23 000	23 800
	EA12=100	71	74	73	71	71	71	72	72	72	73
Lithuania	PPS	16 200	13 800	15 300	17 000	18 500	19 600	20 700	21 300	22 400	23 600
	EA12=100	57	51	55	59	64	67	70	68	70	73
Estonia	PPS	17 600	15 200	16 100	18 000	19 500	19 900	20 700	21 200	21 900	22 800
	EA12=100	62	57	57	63	67	69	70	68	69	70
Poland	PPS	14 200	14 500	15 700	16 800	17 600	17 900	18 600	19 700	20 500	21 400
	EA12=100	50	54	56	59	61	62	62	63	64	66
Greece	PPS	24 300	23 100	22 100	20 100	19 600	19 700	19 900	20 300	20 500	21 300
	EA12=100	85	86	79	70	68	68	67	65	64	66
Hungary	PPS	16 300	15 700	16 500	17 100	17 200	17 800	18 800	19 700	20 200	21 000
	EA12=100	57	59	59	60	59	61	63	63	64	65
Latvia	PPS	15 500	12 800	13 300	14 700	16 000	16 700	17 500	18 500	19 400	20 300
	EA12=100	54	48	48	51	55	57	59	60	61	63
Croatia	PPS	16 400	15 000	14 900	15 500	15 900	15 800	16 100	16 700	17 300	17 900
	EA12=100	58	56	53	54	55	54	54	54	54	55

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

Graph 3.5.1: GDP per Capita – Using Current Purchasing Power Parities
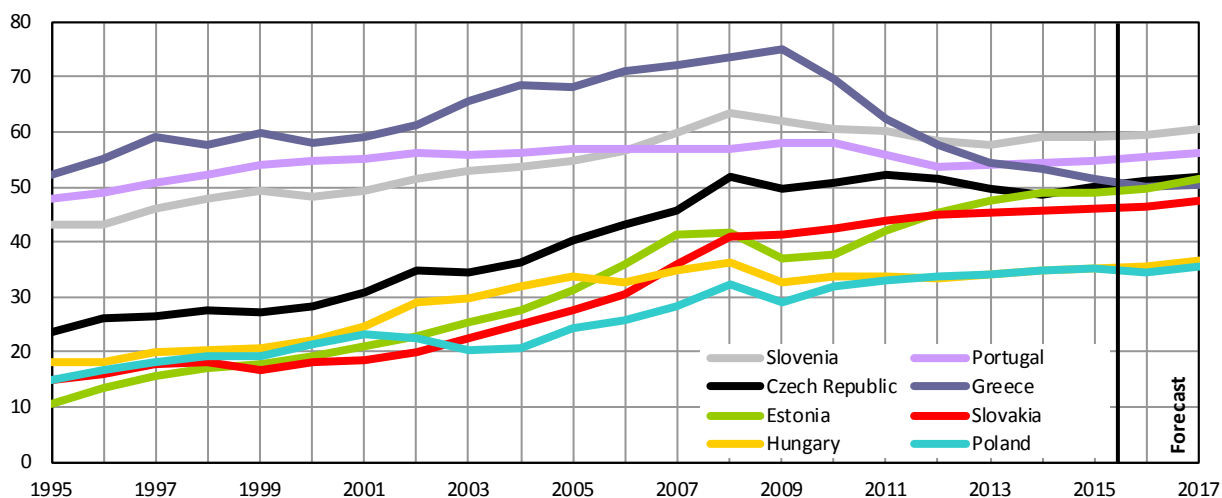*EA12=100*
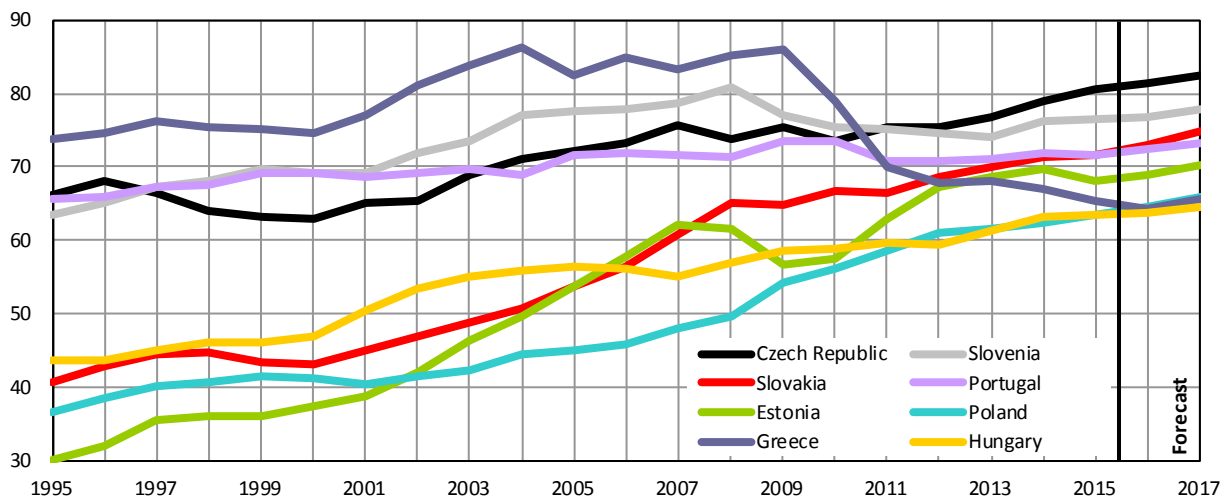
Source: AMECO, CZSO, Eurostat. Calculations of the MoF.

Table 3.5.2: GDP per Capita – Using Current Exchange Rates

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Slovenia	*EUR*	18 800	17 700	17 700	18 000	17 500	17 400	18 100	18 700	19 200	20 000
	EA12=100	63	62	60	60	58	58	59	59	59	61
Comparative price level	EA12=100	**78**	**80**	**80**	**80**	**78**	**78**	**78**	**77**	**77**	**78**
Portugal	*EUR*	16 900	16 600	17 000	16 700	16 000	16 300	16 600	17 300	17 900	18 600
	EA12=100	57	58	58	56	53	54	54	55	55	56
Comparative price level	EA12=100	**80**	**79**	**79**	**79**	**75**	**76**	**76**	**77**	**77**	**77**
Czech Republic	*EUR*	15 400	14 100	14 900	15 600	15 400	15 000	14 900	15 800	16 500	17 100
	EA12=100	52	49	51	52	51	50	49	50	51	52
Comparative price level	EA12=100	**70**	**66**	**69**	**69**	**68**	**65**	**61**	**62**	**63**	**63**
Greece	*EUR*	21 800	21 400	20 300	18 600	17 300	16 500	16 300	16 200	16 100	16 700
	EA12=100	74	75	69	62	58	54	53	51	50	51
Comparative price level	EA12=100	**86**	**87**	**88**	**89**	**85**	**80**	**79**	**79**	**78**	**77**
Estonia	*EUR*	12 300	10 600	11 000	12 500	13 500	14 300	15 000	15 400	16 000	17 000
	EA12=100	42	37	38	42	45	47	49	49	50	51
Comparative price level	EA12=100	**68**	**65**	**66**	**67**	**67**	**69**	**70**	**72**	**72**	**73**
Slovakia	*EUR*	12 200	11 800	12 400	13 100	13 400	13 700	14 000	14 500	15 000	15 700
	EA12=100	41	41	43	44	45	45	46	46	46	47
Comparative price level	EA12=100	**63**	**64**	**64**	**66**	**66**	**65**	**64**	**64**	**64**	**64**
Lithuania	*EUR*	10 200	8 500	9 000	10 300	11 200	11 800	12 500	12 900	13 600	14 500
	EA12=100	34	30	31	35	37	39	41	41	42	44
Comparative price level	EA12=100	**61**	**58**	**56**	**58**	**58**	**58**	**58**	**59**	**60**	**60**
Latvia	*EUR*	11 200	8 800	8 500	9 800	10 800	11 300	11 800	12 300	12 900	13 600
	EA12=100	38	31	29	33	36	38	39	39	40	41
Comparative price level	EA12=100	**69**	**64**	**61**	**64**	**65**	**65**	**65**	**65**	**65**	**66**
Hungary	*EUR*	10 700	9 400	9 800	10 100	10 000	10 300	10 600	11 100	11 500	12 100
	EA12=100	36	33	34	34	33	34	35	35	36	37
Comparative price level	EA12=100	**63**	**56**	**57**	**57**	**56**	**55**	**55**	**56**	**56**	**57**
Poland	*EUR*	9 600	8 300	9 400	9 900	10 100	10 200	10 700	11 100	11 100	11 700
	EA12=100	32	29	32	33	34	34	35	35	34	35
Comparative price level	EA12=100	**65**	**54**	**57**	**56**	**55**	**55**	**56**	**56**	**54**	**54**
Croatia	*EUR*	11 200	10 500	10 500	10 400	10 300	10 200	10 200	10 400	10 800	11 200
	EA12=100	38	37	36	35	34	34	33	33	33	34
Comparative price level	EA12=100	**65**	**65**	**67**	**64**	**63**	**62**	**61**	**61**	**61**	**61**

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

Graph 3.5.2: GDP per Capita – Using Current Exchange Rates
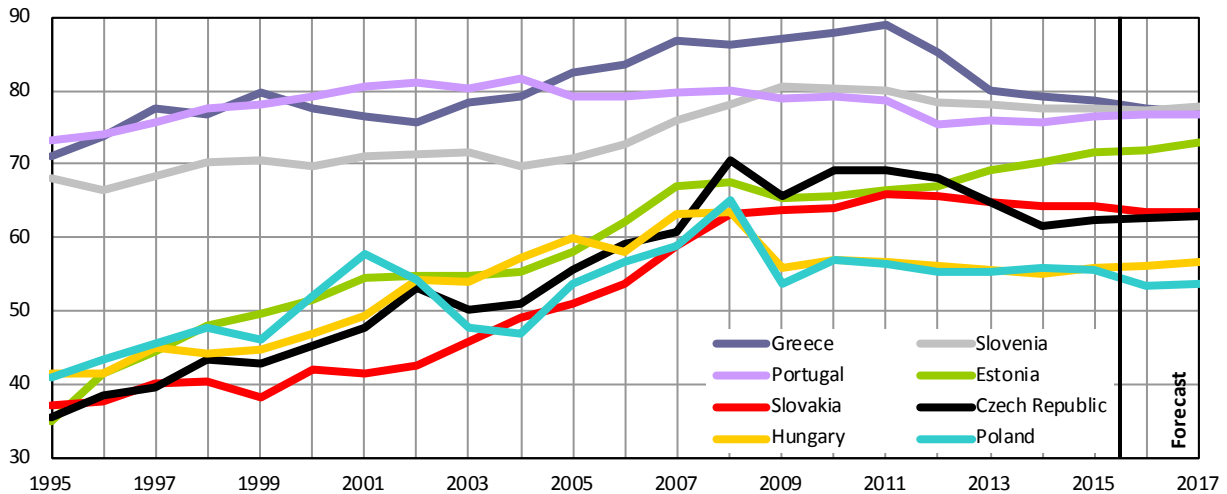*EA12=100*

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

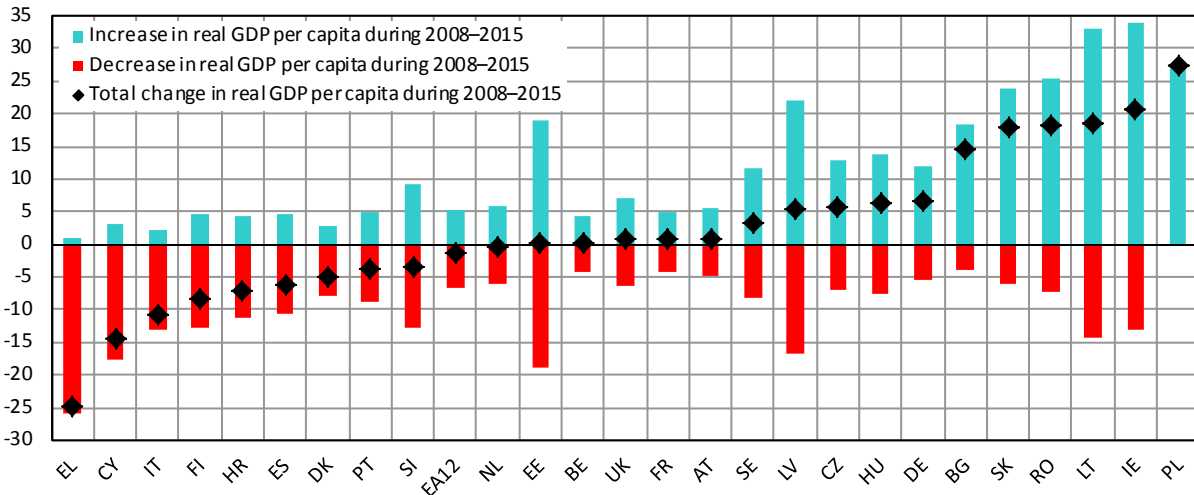**Graph 3.5.3: Comparative Price Level of GDP per Capita**
EA12=100

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

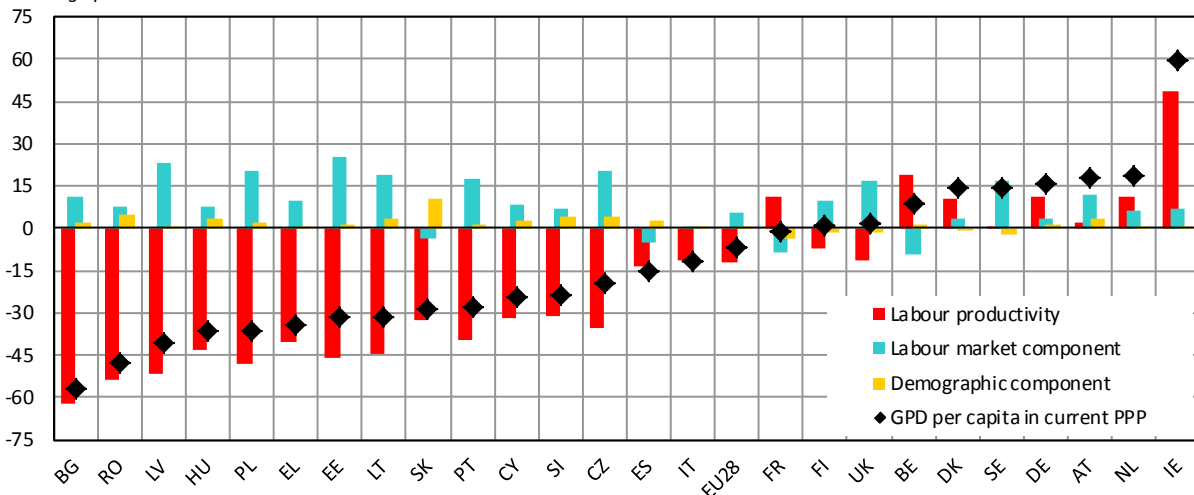**Graph 3.5.4: Change in Real GDP per Capita during 2008–2015**
growth in %

Source: Eurostat. Calculations of the MoF.

Graph 3.5.5: Current PPP Adjusted GDP per Capita Level Relative to the EA12 Average in 2015
*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 2008–2015

growth in %

Legend:
- Labour productivity
- Residue
- Labour market component
- Demographic component
- ◆ GPD per capita in current PPP
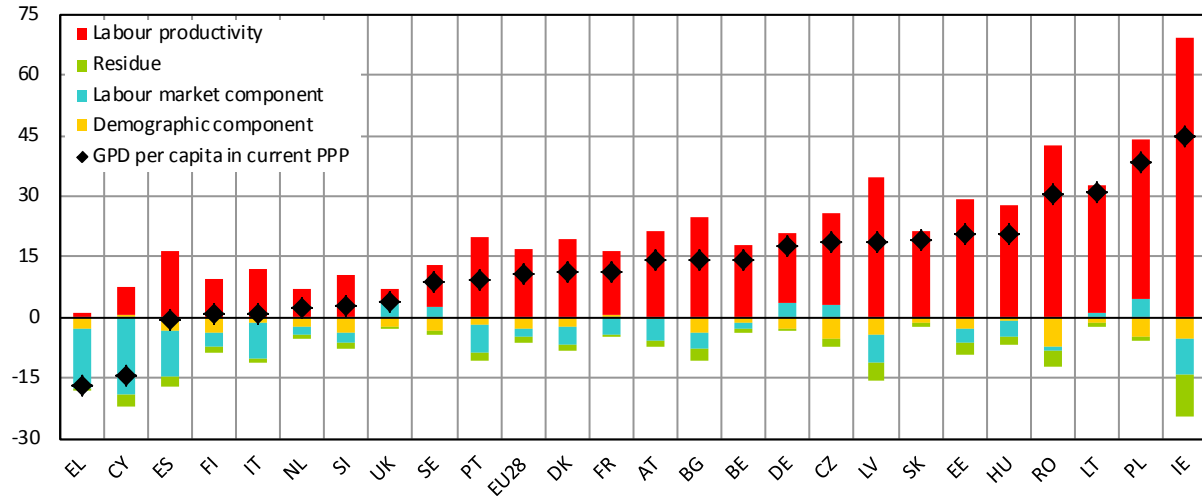
Source: Eurostat. Calculations of the MoF.

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 14 institutions are monitored. Out of these, 9 institutions are domestic (CNB, Ministry of Labour and Social Affairs, domestic banks and investment companies) and 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

		September 2016			November 2016
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2016)	growth in %, const.pr.	2.1	2.6	2.4	2.4
Gross domestic product (2017)	growth in %, const.pr.	2.1	3.0	2.6	2.5
Average inflation rate (2016)	%	0.4	1.2	0.6	0.5
Average inflation rate (2017)	%	1.4	2.1	1.8	1.2
Average monthly wage (2016)	growth in %	3.4	4.4	4.0	4.3
Average monthly wage (2017)	growth in %	3.5	5.0	4.2	4.8
Current account / GDP (2016)	%	1.1	2.4	1.6	2.3
Current account / GDP (2017)	%	0.5	1.6	1.0	1.8

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

According to the institutions' estimates, real GDP growth in 2016 and 2017 should reach 2.4% and 2.6%, respectively. The MoF's forecast is in line with these estimates.

In 2016 and 2017, according to the institutions' estimates, the average inflation rate should reach 0.6% or 1.8%, respectively. According to the MoF's forecast, the return to the CNB's 2% inflation target should be considerably slower.

According to the monitored institutions' forecasts, the nominal average wage should increase by 4.0% in 2016 and 4.2% in 2017. Considering the favourable labour market situation, according to the MoF's forecast, the average wage growth should be slightly higher and reach 4.3% in 2016 and 4.8% in 2017.

In the opinion of the monitored institutions, the current account of the balance of payments should reach a slight surplus of 1.6% of GDP in 2016 and 1.0% of GDP in 2017. With regard to the favourable development of the balance of goods, services and primary income, the MoF's forecast expects a higher surplus of the current account, specifically one of 2.3% of GDP for 2016 and 1.8% of GDP for 2017.

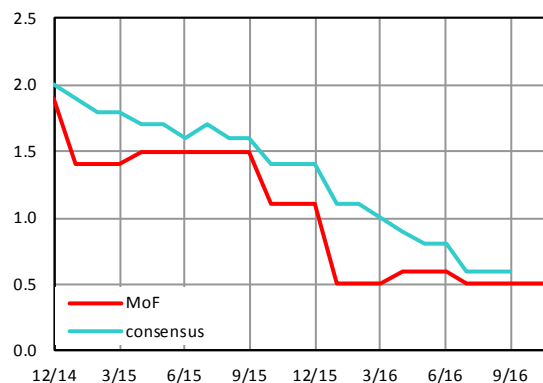**Graph 4.1: Forecast of Real GDP Growth for 2016**
in %; the month, in which the monitoring was conducted on the horizontal axis
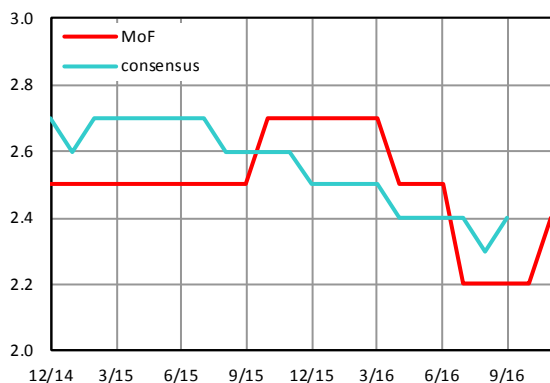
Source: Forecasts of individual institutions. Calculations of the MoF.

Graph 4.2: Forecast of Average Inflation Rate for 2016
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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