Ministry of Finance
Financial Policy Department

Macroeconomic Forecast

of the Czech Republic

October 2015

Macroeconomic Forecast

of the Czech Republic

October 2015

Table of Contents

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
EU27	EU28 excluding Croatia
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
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 **12 October 2015**.

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 2015) are indicated by italics. Data relating to the years 2017 and 2018 are calculated by extrapolation, indicating only the direction of possible developments, and as such are not commented upon in the following text.

Summary of and Risks to the Forecast

The dynamic growth of the Czech economy continues. **Real GDP increased by 1.1% QoQ in the second quarter of 2015.** YoY growth reached 4.6%, marking the highest increase since the fourth quarter of 2007.

Real gross value added increased by 0.9% QoQ in the second quarter of 2015. It rose in all sections of the economy, with the highest contribution coming from manufacturing.

Economic growth remains driven exclusively by **domestic demand**. The most dynamic item of use is gross fixed capital formation where efforts for the maximal use of the EU funds manifested itself with strong YoY growth of 7.4%. In addition, household consumption is accelerating under the conditions of low inflation and improving situation on the labour market, and government consumption growth is not negligible either. In foreign trade, growth of the main trading partners' economies and increased imports, which reflect the growth of domestic demand and the high import content of Czech exports, offset each other.

Other basic macroeconomic indicators also confirm the favourable state of the Czech economy. Very **low inflation** is mainly caused by a deep decline of mineral fuel prices and generally low inflation on the global scale. On the **labour market,** the good state of the economy is reflected in dynamically growing employment and decreasing unemployment. An increase in the **surplus on the current account** of the balance of payments in the second quarter of 2015 is also positive.

However, many of the causes of robust growth of the Czech economy can be identified as one-off factors, the effect of which is limited only to this year. It mainly concerns **utilization of the EU funds** from the programming period 2007–2013, which can only be used by the end of 2015. Another positive factor is **fiscal stimulation** (partially also related to utilization of the EU funds), the extent of which we estimate to be approx. 0.8% of GDP. Positive supply shock in the form of a **decline in the world crude oil prices** is also estimated to be time-limited.

Strong economic growth in the second quarter of 2015 and positive outlook for the remaining part of the year have led to a **further upward revision of the forecast for real GDP growth** in **2015** from 3.9% **to 4.5%**.

In **2016,** the aforementioned one-off factors should gradually disappear. The termination of financing of projects from the previous programming period and a slower start of drawdown from the new financial perspective 2014–2020 will reduce investment growth. Fiscal policy should be restrictive, focused on decreasing the general government sector deficit. World fuel prices should remain at a low level; however, their slight increase can already be expected in YoY terms.

Economic growth in 2016 should thus reflect normal conditions and possibilities of the Czech economy.

In spite of that, the expected good state of the economy has resulted in an **increase in the forecast of real GDP growth for 2016** from 2.5% **to 2.7%.**

However, better real economic development will probably not show itself in the nominal GDP level. The forecast for consumer inflation for 2015 and 2016 has been revised downwards. In addition, **stagnation to worsening of the terms of trade** can now be seen in foreign trade. The import prices of non-fuel commodities are growing probably due to the lagged reaction to the Czech currency depreciation, and export prices are decreasing. This will cause lower growth of the GDP deflator, nominal GDP and it could also influence companies' profitability. Nevertheless, **the forecast of development of the most important tax bases**, i.e. nominal wage bill and nominal consumption of households, **remains virtually unchanged**.

We consider **the forecast risks to be tilted to the downside**, in particular due to risks in the external environment.

For world trade and the development on financial markets, they are not only uncertainties related to **monetary policy in the USA** (timing of the increase in monetary policy rates and the impact on emerging economies), but mainly the **slowing of the Chinese economy** and fears of its further continuation. However, this factor 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 supplier chains.

Another unfavourable factor is **geopolitical risks**. Instability in the Middle East and Northern Africa can influence the development on the oil and natural gas market; however, the return of the Iranian crude oil to the world markets could have an effect in the direction of a price decrease.

In addition, escalation of conflicts in this region caused a deep **migration crisis,** the economic impact of which on the individual EU states cannot be estimated yet. However, with regard to the low number of applicants for asylum in the Czech Republic, the direct impacts on the Czech economy should be negligible.

With respect to the Czech economy's structure and strong trade interconnectedness with Germany, a negative risk is also the further development in the case regarding the emissions level of some diesel engines in the cars of the **Volkswagen** concern. However, for the time being we do not expect that the impact on the

Czech Republic would be too significant from the macroeconomic perspective.

Last but not least, a risk for the Czech economy could be the **continuation of more significant pressures on the appreciation of the Czech koruna exchange rate** below 27 CZK/EUR. However, the CNB can intervene basically without limitation against these tendencies; moreover, for the time being the amount of foreign exchange reserves as a percentage of GDP is at a low level.

Table: Main Macroeconomic Indicators

		2010	2011	2012	2013	2014	2015	2016	2015	2016
							Current forecast		Previous forecast	
Gross domestic product	bill. CZK	3 954	4 023	4 042	4 077	4 261	4 482	4 642	4 469	4 647
Gross domestic product	growth in %, const.pr.	2.3	2.0	-0.9	-0.5	2.0	4.5	2.7	3.9	2.5
Consumption of households	growth in %, const.pr.	1.0	0.3	-1.5	0.7	1.5	2.9	2.5	2.9	2.4
Consumption of government	growth in %, const.pr.	0.4	-3.0	-1.8	2.3	1.8	2.2	2.0	2.0	1.6
Gross fixed capital formation	growth in %, const.pr.	1.3	1.1	-3.2	-2.7	2.0	8.2	2.9	6.4	3.1
Contr. of foreign trade to GDP growth	p.p., const.pr.	0.5	1.9	1.3	0.0	-0.2	-0.2	0.3	-0.4	0.3
Contr. of increase in stocks to GDP growth	p.p., const.pr.	0.8	0.2	-0.2	-0.6	0.6	0.7	0.0	0.9	-0.1
GDP deflator	growth in %	-1.5	-0.2	1.4	1.4	2.5	0.7	0.9	1.0	1.5
Average inflation rate	%	1.5	1.9	3.3	1.4	0.4	0.4	1.1	0.5	1.5
Employment (LFS)	growth in %	-1.0	0.4	0.4	1.0	0.8	1.3	0.3	1.0	0.2
Unemployment rate (LFS)	average in %	7.3	6.7	7.0	7.0	6.1	5.2	4.9	5.7	5.5
Wage bill (domestic concept)	growth in %, curr.pr.	0.6	2.2	2.5	0.4	1.9	4.2	4.3	4.2	4.1
Current account balance	% of GDP	-3.6	-2.1	-1.6	-0.5	0.6	0.7	0.2	0.5	0.2
General government balance	% of GDP	-4.4	-2.7	-4.0	-1.3	-1.9	-1.9	.	-1.9	-1.2
Assumptions:										
Exchange rate CZK/EUR		25.3	24.6	25.1	26.0	27.5	27.3	27.1	27.5	27.5
Long-term interest rates	% p.a.	3.7	3.7	2.8	2.1	1.6	0.7	1.2	0.8	1.3
Crude oil Brent	USD/barrel	80	111	112	109	99	54	59	61	68
GDP in Eurozone (EA-12)	growth in %, const.pr.	2.0	1.7	-0.8	-0.3	0.8	1.4	1.6	1.4	1.8

Source: CNB, CZSO, Eurostat, U. S. Energy Information Administration, own calculations

GDP should keep on growing without major fluctuations

QoQ growth rate of real GDP in %,contributions of GVA and net taxes on products in percentage points, seasonally adjusted
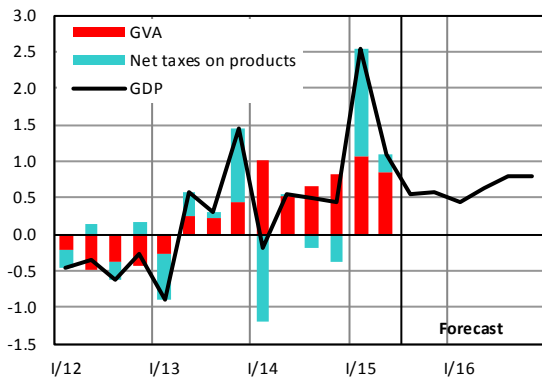
Source: CZSO, own calculations

Inflation should gradually approach the 2% target

decomposition of YoY growth of CPI, contributions in pp
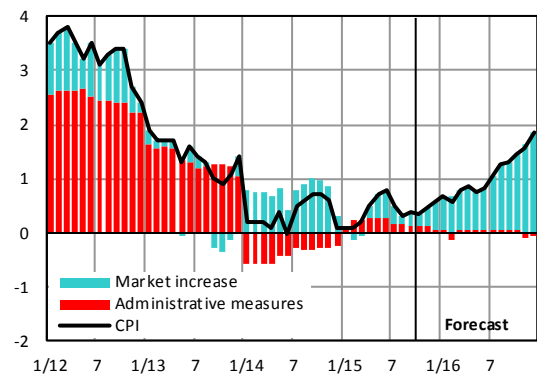
Source: CZSO, own calculations

Unemployment should continue to decline

registered unemployment, in thousands of persons, seasonally adjusted
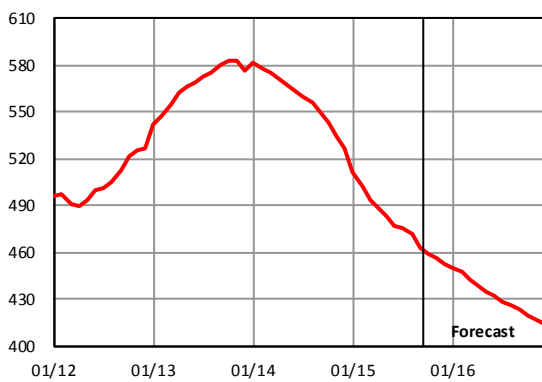
Source: Ministry of Labour and Social Affairs, own calculations

Real wage growth should exceed 2%

average gross monthly wage, YoY growth rate, in %
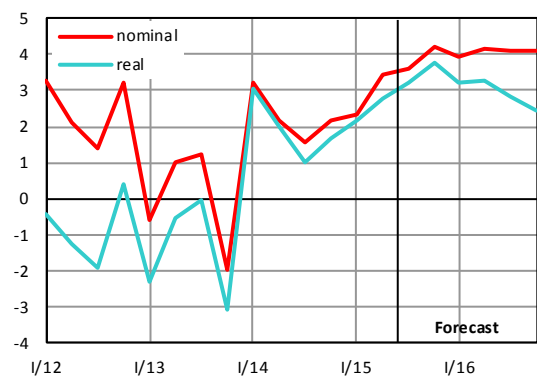
Source: CZSO, own calculations

A Forecast Assumptions

A.1 External Environment

The growth rate of the global economy continues to stagnate at a level slightly exceeding 3%; however, the outlook has deteriorated slightly compared to the last forecast. The developments in individual regions remain diverse. While the US economy is experiencing a period of strong growth, recovery in the EU is still very fragile. Structural problems are weighing on the growth potential in emerging economies, in the long run particularly insufficient or non-efficient investments and low labour productivity.

The growth of the Chinese economy is slowing down, which is intensifying fears of a faster decline in its growth rate. A decline in nominal imports not only reflects the falling prices of imported commodities (see Chapter A.1.3), but also weak domestic demand. Non-efficient investments have resulted in a sharp increase in debt and the creation of excessive capacities, in particular in heavy industry and on the real estate market. In order to achieve the declared GDP growth rate, the government is taking a number of measures. The government reformed the exchange rate formation mechanism, reduced the benchmark lending rates already for the fifth time in one year and the requirements for minimal reserves of commercial banks also decreased. The government also promised to increase government expenditures. In its reaction to a decline on the Chinese stock market, the government carried out the direct purchases of shares, restricted short sales (speculation on a decrease in prices) or banned shareholders with more than a 5% share from selling shares for a period of six months. However, the direct and intermediated impact of the Chinese economic slow-down on the Czech Republic should be marginal. Exports of goods (national concept, from yearly moving sums) into China were 0.8% of GDP in the second quarter of 2015.

Geopolitical tensions in Eastern Ukraine persist. Sanction measures against Russia from the USA and the EU are still active, the Russian economy is struggling with recession. However, neither Russia nor Ukraine represents an important export markets for the Czech Republic. Goods exports (national concept, from yearly moving sums) into Russia decreased from 2.6% of GDP in the first quarter of 2013 to 1.9% of GDP in the second quarter of 2015 without any macroeconomic impacts being recorded.

A.1.1 USA

After poor performance in the first quarter of 2015, to which unfavourable weather largely contributed, the US economy recorded QoQ growth of real GDP of 0.9%

in the following quarter (*versus 0.6%*). Growth was driven mainly by domestic demand, in particular by household consumption and, to a lesser extent, by investments. Foreign demand contributed to the economic growth only slightly.

Domestic demand should still remain the driver of the economy. The growing confidence of consumers, creation of new jobs, growth of real wages, a higher increase in credit and low energy prices are all having favourable effects on household consumption. However, faster economic growth is prevented by the strong domestic currency, the deteriorating situation in emerging economies and the still relatively small company investments whose more significant recovery is restricted by a decline in energetics investments. Turbulence on the Chinese stock market has resulted in an increase in volatility on the world financial markets; in August 2015 the Dow Jones and S&P 500 stock market indices recorded the lowest values for the whole year of 2015.

The economy is still supported by the monetary policy of the Fed, which has been keeping interest rates at 0–0.25% since the end of 2008. Although it evaluates the performance of the US economy relatively favourably, the Fed has again postponed an increase in interest rates due to the weakening global economy and increase in volatility on the financial markets. At the same time, it still expects a further improvement on the labour market, in particular a decrease in underemployment and a faster growth of wages. The interest rates can already be increased in 2015; however, the Fed also intends to maintain a highly eased monetary policy for a certain period afterwards. During the first eight months of 2015, YoY growth of domestic inflation fluctuated around zero, capacity utilization in industry is still relatively deep below the level which could generate inflationary pressures. The inflation rate could rise towards the 2% target as late as in the medium-term horizon, given the acceleration of wage growth and the dissipation of the transitory effects of the low price of energies and imports.

The unemployment rate decreased by 1 pp to 5.1% YoY in August 2015, which is the lowest value recorded since April 2008. The unemployment rate has probably already reached the natural level; however, wage growth still remains rather low. Moreover, the US economy has been coping for a long time with a decreasing participation rate and its long-term unemployment rate remains relatively high.

The forecast for GDP growth in 2015 has been increased to 2.5% (*versus 2.2%*), and we expect GDP growth to accelerate slightly to 2.8% (*versus 2.9%*) in 2016.

A.1.2 EU

The economic recovery in the European Union remains very fragile and weak. Both in the EU28 and the EA12, quarterly GDP growth slowed slightly in the second quarter of 2015 and reached 0.4% (*versus 0.5%*) in the EU28 and 0.3% (*versus 0.4%*) in the EA12. In the annual comparison, GDP increased by 1.9% (*versus 1.7%*), while GDP of the EA12 increased by 1.5% (*versus 1.3%*). The developments in individual countries remain considerably differentiated. In many countries, structural problems of economies are still weighing on an economic recovery.

The ECB is also trying to support economic recovery, maintaining the main refinancing rate at the level of 0.05% and the deposit rate at –0.20% since September 2014 in order to increase the activity on the interbank market. Moreover, the asset purchase programme has been extended since March 2015, among others, by government bonds of the euro zone countries and the monthly volume of purchases has been increased to EUR 60 billion. The asset purchase programme should continue at least until September 2016, however, the ECB is ready to extend and prolong the programme if necessary. An easing of monetary and financial conditions should support the return of inflation towards 2% through an increase in investment and consumption. Despite the ECB's efforts, however, YoY growth of HICP in the EA12 reached only 0.1% in August 2015, in particular due to a decrease in energy prices.

In connection with the economic recovery, the labour market situation is also gradually improving. The unemployment rate in the EU28 and the EA12 has been slowly decreasing since mid-2013. In August 2015, it reached 9.5% (YoY decrease of 0.6 pp) in the EU28 and 11.0% (0.5 pp YoY less) in the EU12. However, enormous differences still persist among individual economies. The worst situation is still in Greece, where the unemployment rate stood at 25.2% in June 2015. Of the EU28 countries for which data for August 2015 was available as of the cut-off date, the highest unemployment rate was recorded in Spain (22.2%), Croatia (15.5%) and Cyprus (15.3%); on the other hand, the lowest rate was recorded in Germany (4.5%).

The growth of economic activity should continue. However, taking into account lower foreign demand related to the considerably weaker growth of imports in emerging economies, we do not expect an acceleration of its dynamics in the second half of 2015. The economic growth will also be mitigated by high debts of both the private and public sectors in some countries. The main recovery factor will probably remain expenditures on private consumption, which will be supported by the improving labour market situation and lower energy prices. The weaker exchange rate and low interest rates will influence investments favourably. We assume that the GDP of the EA12 will increase by 1.4% (*unchanged*) this year and we expect to see a slight acceleration in its growth to 1.6% (*versus 1.8%*) in 2016.

In comparison with the previous forecast, the risks of Greece leaving the euro zone have been reduced considerably. Within the already third bailout programme, which was agreed in August 2015, Greece could receive up to EUR 86 billion from the European Stability Mechanism over three years in exchange for the necessary reforms, among others in the area of the tax system, pensions or the labour market. It will also be necessary to recapitalize Greek banks, which are still struggling with the high volume of non-performing loans and which have also faced a strong outflow of deposits in recent months. For the period of the bailout programme duration, the situation in Greece should not represent an important risk for the developments in the euro zone.

The recovery of the **German** economy is becoming stronger only slowly, the QoQ GDP growth accelerated to 0.4% (*versus 0.5%*) in the second quarter of 2015. The dominant growth factor was net export. The strong growth of German exports was mainly due to a weak euro exchange rate, the low oil price and strong foreign demand, especially from the USA. On the contrary, domestic demand recorded a decrease, as low contributions of household and government expenditures on consumption were exceeded by negative contributions of a change in inventories and gross fixed capital formation due to a decrease in construction investments. The values of the Ifo and PMI indicators show cautious optimism, the evaluation of future developments is rather favourable. However, the decreasing consumers' confidence index (GfK) reflects fears regarding the further developments of the global economy and the migration crisis solution. The main growth driver in the second half of 2015 should be household consumption supported by low oil prices, the expansive monetary policy of the ECB and the good labour market situation. Despite the current strong growth in the USA and Great Britain, which are the most important export markets of Germany, it is possible to expect a slight decline in foreign demand due to the slowing economic growth in emerging economies. The negative risk is also the further development in the case regarding the emissions level of some diesel engines in the cars of the Volkswagen concern, which damages the traditionally good name of German products. Therefore, we expect growth of 1.5% (*versus 1.6%*) in 2015 and its slight acceleration to 1.8% (*versus 2.0%*) in 2016.

After the unexpectedly strong growth in the first quarter of 2015, **France** again recorded stagnation (*versus*

0.4%) in the following quarter when the positive contribution of net exports was fully offset by the negative contribution of a change in inventories. Domestic demand remains weak, contributions of household and government expenditures and gross fixed capital formation reached negligible values. After the temporary solution of the Greek crisis, confidence of firms again increased, however, the values of consumer's confidence indicators and PMI are not too convincing. The weak euro exchange rate, low interest rates and low energy prices will support economic growth in the second half of 2015. On the contrary, the structural unemployment still remains at a high level and the participation rate is low. In 2015, GDP growth could accelerate to 1.0% (*versus 1.3%*) and further to 1.4% (*versus 1.7%*) in 2016. A more dynamic economic recovery is mainly prevented by the low competitiveness of French companies and the continuing rigidities on the labour market.

Graph A.1.1: Growth of GDP in EA12 and in the USA
QoQ growth rate, in %, seasonally and working day adjusted
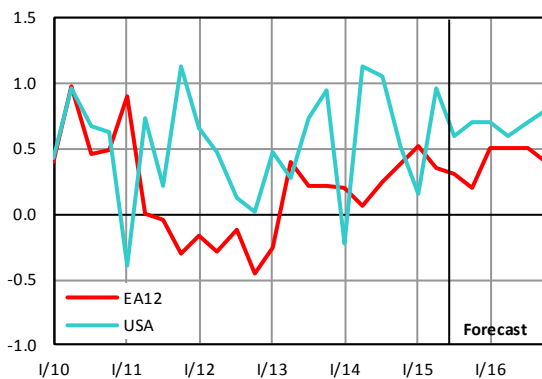
Source: Eurostat, own calculations

Poland was among the most quickly growing countries in the EU also in the second quarter of 2015 when its GDP increased by 0.9% QoQ (*versus 0.8%*). Its growth was mainly driven by domestic demand, while the main pro-growth component included household expenditures on consumption. To a lesser extent, investments also contributed to growth. The impact of net exports was neutral. The price level has already been falling since August 2014 due to a decline in the oil price and a reduction of food prices reflecting the Russian sanctions. The reduction of the monetary policy rates in March 2015 should contribute to a faster recovery of investments. Domestic demand is further supported by the improving labour market situation; the unemployment rate decreased by 1.5 pp YoY to 7.2% in August 2015. Even in spite of some uncertainty related to the further development (the parliamentary election in October 2015), we expect strong GDP growth in 2015 and 2016, identically of 3.5% (*unchanged*).

Recovery of the **Slovak** economy is becoming stronger. In the second quarter of 2015, GDP increased by 0.8%

QoQ (*in line with the estimate*), i.e. the same percentage as in the first quarter of 2015; however, growth accelerated to 3.1% (*versus 3.0%*) in YoY comparison. Growth was driven by domestic demand, in particular by investments of the private and public sectors, while net exports mitigated the economic growth. We expect investments and household consumption to remain the main source of growth for the remaining part of 2015. An effort to draw down the EU funds from the programming period 2007–2013 and new infrastructure projects will contribute to investment growth. Household consumption will further be supported by low inflation rate due to a decrease in energy and food prices. In 2015, GDP growth could accelerate to 3.2% (*versus 3.1%*). For 2016, we forecast GDP growth in the same level of 3.2% (*versus 3.5%*). The reason for the reduction of the estimate is the deteriorated outlook in developing economies.

A.1.3 Commodity Prices

The year 2015 can be identified as the year of a slump in the world commodity prices. Out of 53 commodities, the prices of which are regularly recorded by the IMF, 48 commodities posted a YoY decrease in dollar prices in August 2015. In many cases, this dip was so deep that the prices expressed in CZK fell considerably too, despite the YoY depreciation of the CZK/USD exchange rate of 14.0%.

Out of commodities important for the Czech economy, the YoY decline in the koruna prices of Brent crude oil of 46.4%, the Russian natural gas of 25.4%, iron ore of 30.5% or food commodities – wheat of 20.7% and pork meat of 19.6%, can be mentioned. For all these commodities, there is a considerable excess of supply over demand. In the case of a number of food commodities, there is the effect of good crops with a small occurrence of natural disasters.

For mineral commodities, long-term factors, such as technological progress on the supply side or strong pressure on using cost-saving technologies on the demand side, manifest themselves to a lesser extent. The structure of global economic growth, for instance, is driving the prices down in the short term. Large emerging market economies with high material intensity of production (for example Russia, Brazil or China) are struggling with economic problems, while some of them (Brazil, Russia) are going through recession. Low and decreasing commodity prices strengthen the global low-inflation environment.

The price of **Brent crude oil** averaged USD 50.4/barrel (*versus USD 62*) in the third quarter of 2015, decreasing by USD 11.3 compared to the previous quarter. This decrease in spot prices also manifested itself to a similar extent in the prices of futures contracts for the nearest period. On the contrary, the price of futures for a more distant period decreased less, and therefore the steepness of the curve of these contracts in-

creased. This apparently indicates that the market believes in a slight, gradual increase in the oil prices.

From the economic perspective, this outlook is also confirmed by the probability of a future decrease in production in the USA where investments in the mining sectors have decreased dynamically and where the total number of drills is also decreasing. The limitation of supply could be weakened by the return of Iranian crude oil to the world markets or the OPEC cartel's effort not to decrease oil production. On average for the whole year 2015, the price of Brent crude oil should reach 54 USD/barrel (*versus 61 USD*), in 2016 it could increase to 59 USD/barrel (*versus 68 USD*).

An extremely deep YoY decline in the koruna oil prices of more than a third (and to a lesser extent also a decrease in the natural gas prices or prices of other imported commodities) is providing an extraordinary growth stimulus for the Czech economy in 2015 (see

Graph A.1.2). In 2016, this situation should not continue anymore and the koruna oil prices should return to YoY growth.

Graph A.1.2: Koruna Prices of Brent Crude Oil
YoY change in %
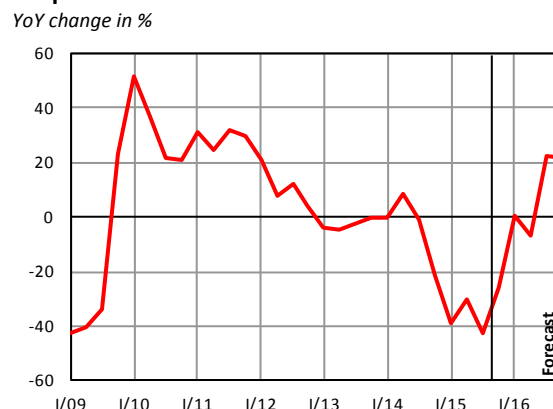
Source: CNB, U. S. Energy Information Admin., own calculations

Table A.1.1: Real Gross Domestic Product – yearly
growth rate, in %, seasonally adjusted data (except for the Czech Republic)

	2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
World	5.7	3.1	0.0	5.4	4.2	3.4	3.3	3.4	3.2	3.6
USA	1.8	-0.3	-2.8	2.5	1.6	2.2	1.5	2.4	2.6	2.8
China	14.2	9.6	9.2	10.4	9.3	7.7	7.7	7.3	6.8	6.7
EU28	3.1	0.4	-4.4	2.1	1.8	-0.5	0.2	1.4	1.7	1.9
EA12	2.9	0.3	-4.4	2.0	1.7	-0.8	-0.3	0.8	1.4	1.6
Germany	3.4	0.8	-5.6	3.9	3.7	0.6	0.4	1.6	1.5	1.8
France	2.3	0.1	-2.9	1.9	2.1	0.2	0.7	0.2	1.0	1.4
United Kingdom	2.6	-0.3	-4.3	1.9	1.6	0.7	1.7	3.0	2.7	2.3
Austria	3.5	1.2	-3.6	1.8	3.0	0.7	0.3	0.5	0.8	1.5
Hungary	0.5	0.7	-6.4	0.8	1.8	-1.5	1.7	3.5	2.7	2.3
Poland	7.2	3.9	2.5	3.7	4.8	1.9	1.7	3.5	3.5	3.5
Slovakia	10.7	5.4	-5.3	4.8	2.7	1.6	1.4	2.4	3.2	3.2
Czech Republic	5.5	2.7	-4.8	2.3	2.0	-0.9	-0.5	2.0	4.5	2.7

Source: CZSO, Eurostat, IMF, NBS China, own calculations

Graph A.1.3: Real Gross Domestic Product
YoY growth rate, in %, seasonally adjusted data
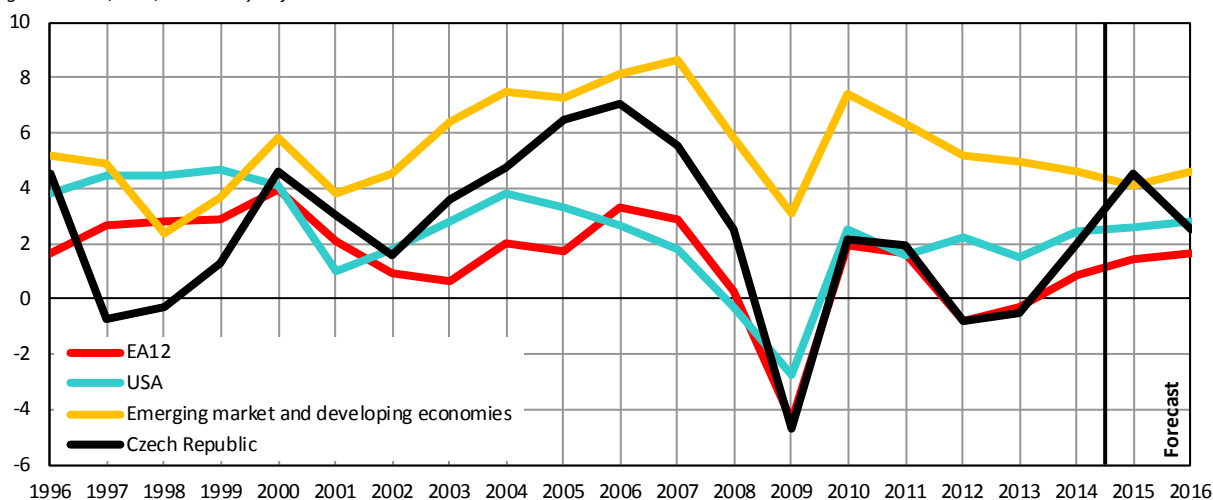
Note: Emerging market and developing economies comprising 154 countries (according to the IMF's classification)
Source: Eurostat, IMF, own calculations

Table A.1.2: Real Gross Domestic Product – quarterly

growth rate, in %, seasonally adjusted data

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 Estimate	Q4 Forecast
USA	*QoQ*	**-0.2**	**1.1**	**1.1**	**0.5**	**0.2**	**1.0**	**0.6**	**0.7**
	YoY	1.7	2.6	2.9	2.5	2.9	2.7	2.3	2.4
China	*QoQ*	**1.6**	**1.8**	**1.9**	**1.7**	**1.3**	**1.8**	**1.8**	**1.5**
	YoY	7.4	7.4	7.2	7.2	6.9	6.9	6.8	6.6
EU28	*QoQ*	**0.3**	**0.3**	**0.4**	**0.5**	**0.5**	**0.4**	**0.3**	**0.3**
	YoY	1.4	1.3	1.3	1.5	1.7	1.9	1.8	1.6
EA12	*QoQ*	**0.2**	**0.1**	**0.3**	**0.4**	**0.5**	**0.3**	**0.3**	**0.2**
	YoY	1.0	0.7	0.7	0.9	1.2	1.5	1.6	1.4
Germany	*QoQ*	**0.7**	**-0.1**	**0.2**	**0.6**	**0.3**	**0.3**	**0.3**	**0.4**
	YoY	2.3	1.4	1.2	1.5	1.1	1.6	1.7	1.5
France	*QoQ*	**-0.2**	**-0.1**	**0.3**	**0.1**	**0.7**	**0.0**	**0.2**	**0.3**
	YoY	0.7	-0.2	0.2	0.1	0.9	1.1	1.0	1.2
United Kingdom	*QoQ*	**0.9**	**0.9**	**0.7**	**0.8**	**0.4**	**0.7**	**0.8**	**0.7**
	YoY	2.7	3.0	3.0	3.4	2.9	2.6	2.7	2.6
Austria	*QoQ*	**0.3**	**-0.3**	**0.0**	**-0.2**	**0.7**	**0.1**	**0.2**	**0.3**
	YoY	1.2	0.5	0.4	-0.2	0.3	0.7	0.9	1.4
Hungary	*QoQ*	**0.7**	**1.2**	**0.6**	**0.7**	**0.7**	**0.5**	**0.7**	**0.6**
	YoY	3.5	3.9	3.5	3.2	3.2	2.5	2.6	2.5
Poland	*QoQ*	**1.0**	**0.7**	**0.9**	**0.8**	**1.0**	**0.9**	**0.8**	**0.8**
	YoY	3.6	3.4	3.4	3.5	3.4	3.6	3.5	3.5
Slovakia	*QoQ*	**0.5**	**0.6**	**0.7**	**0.7**	**0.8**	**0.8**	**0.9**	**0.8**
	YoY	2.2	2.4	2.5	2.6	2.9	3.1	3.3	3.4
Czech Republic	*QoQ*	**-0.2**	**0.6**	**0.5**	**0.5**	**2.5**	**1.1**	**0.6**	**0.6**
	YoY	2.2	2.1	2.3	1.3	4.1	4.6	4.7	4.8

Source: Eurostat, NBS China, own calculations

Graph A.1.4: Real Gross Domestic Product – Czech Republic and the neighbouring states

YoY growth rate, in %, seasonally adjusted data
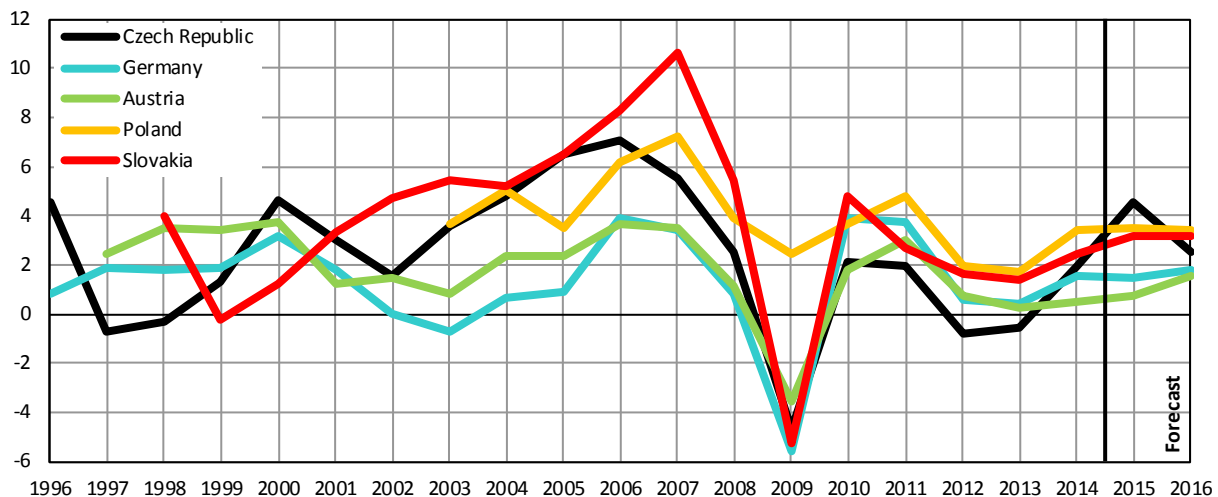
Source: Eurostat, own calculations

Graph A.1.5: Real Gross Domestic Product – Czech Republic and the neighbouring states

Q3 2008=100, seasonally adjusted data
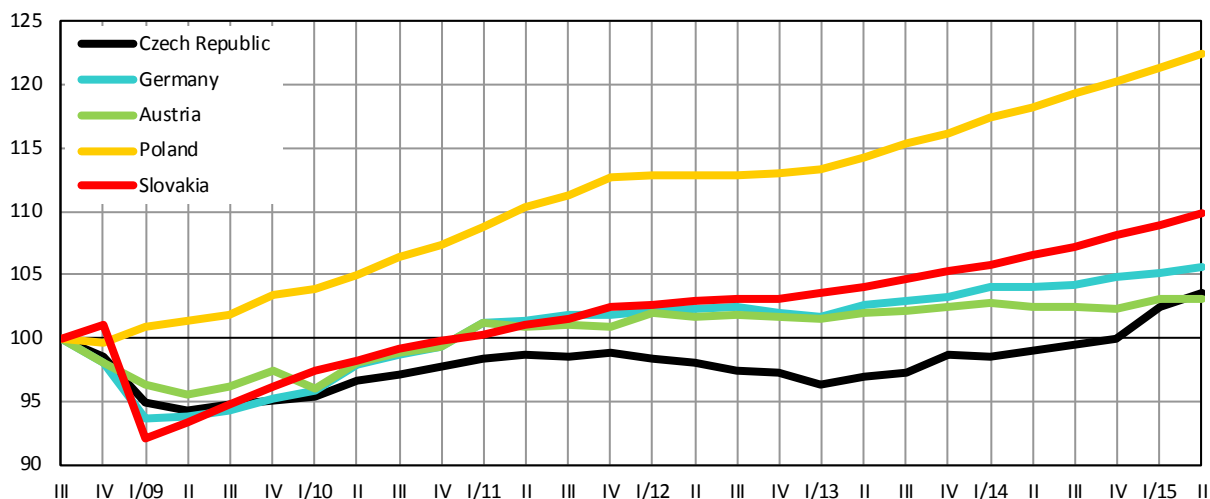
Source: Eurostat, own calculations

Table A.1.3: Prices of Selected Commodities – yearly

spot prices

		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Crude oil Brent	*USD/barrel*	**72.4**	**96.9**	**61.5**	**79.6**	**111.3**	**111.6**	**108.6**	**99.0**	**54**	**59**
	growth in %	11.1	34.0	-36.5	29.3	39.9	0.3	-2.6	-8.8	-45.2	8.3
Crude oil Brent index *(in CZK)*	*2005=100*	**96.0**	**106.7**	**76.1**	**100.0**	**129.5**	**143.8**	**139.9**	**134.6**	**88**	**95**
	growth in %	-0.9	11.1	-28.6	31.4	29.5	11.0	-2.7	-3.8	-34.7	8.5
Wheat	*USD/t*	**255.2**	**325.9**	**223.4**	**223.7**	**316.2**	**313.3**	**312.2**	**284.9**	**208**	**193**
	growth in %	33.1	27.7	-31.5	0.1	41.4	-0.9	-0.3	-8.8	-27.1	-7.3
Wheat price index *(in CZK)*	*2005=100*	**120.4**	**129.5**	**100.6**	**100.0**	**131.3**	**144.4**	**143.7**	**138.6**	**120**	**112**
	growth in %	18.4	7.5	-22.3	-0.6	31.3	10.0	-0.5	-3.5	-13.3	-7.1

Source: IMF, U. S. Energy Information Administration, own calculations

Table A.1.4: Prices of Selected Commodities – quarterly

spot prices

		2014				2015			
		Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3** Estimate	**Q4** Forecast
Crude oil Brent	*USD/barrel*	**108.1**	**109.7**	**101.9**	**76.4**	**54.0**	**61.7**	**50.4**	**51**
	growth in %	-3.8	7.0	-7.6	-30.0	-50.1	-43.8	-50.5	-33.3
Crude oil Brent index *(in CZK)*	*2005=100*	**142.7**	**144.6**	**139.9**	**111.2**	**87.3**	**100.7**	**80.8**	**83**
	growth in %	-0.5	8.3	-1.3	-21.1	-38.8	-30.4	-42.2	-25.6
Wheat price	*USD/t*	**297.1**	**322.1**	**262.5**	**257.9**	**238.8**	**216.1**	**188**	**188**
	growth in %	-7.6	2.6	-14.2	-16.2	-19.6	-32.9	-28.2	-27.1
Wheat price index *(in CZK)*	*2005=100*	**140.0**	**151.7**	**128.7**	**134.1**	**137.9**	**126.0**	**108**	**109**
	growth in %	-4.4	3.9	-8.4	-5.5	-1.5	-16.9	-16.2	-18.8

Source: IMF, U. S. Energy Information Administration, own calculations

Graph A.1.6: Dollar Prices of Oil

USD/barrel
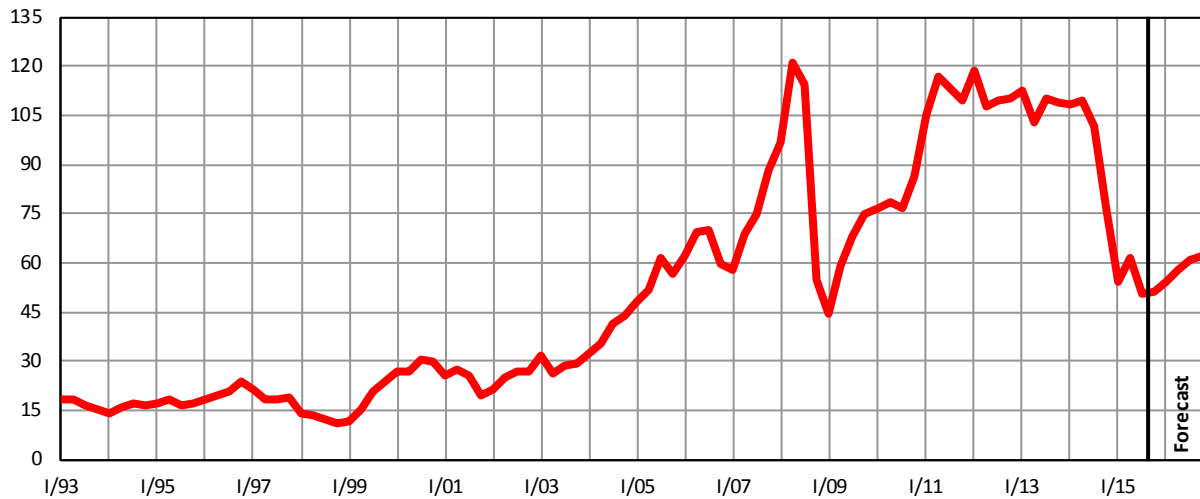
Source: U. S. Energy Information Administration, own calculations

Graph A.1.7: Koruna Indices of Prices of Selected Commodities

index 2010=100

Source: IMF, U. S. Energy Information Administration, own calculations

A.2 Fiscal Policy

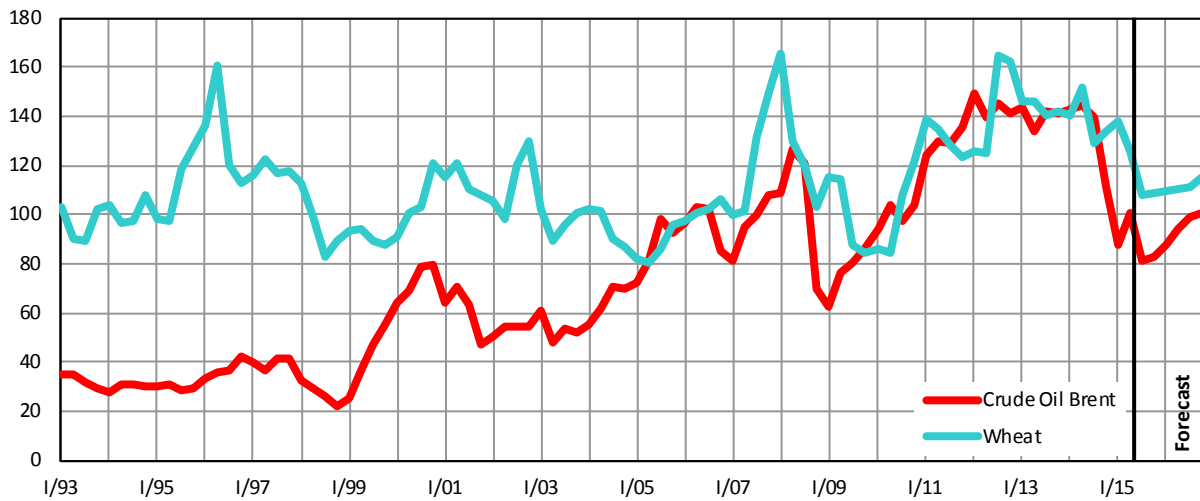The general government sector deficit reached 1.9% of GDP in 2014, which was a deterioration of 0.7 pp in comparison with 2013. Major factors behind this development include the disbursement by the Deposit Insurance Fund to the clients of bankrupt credit unions amounting to 0.3% of GDP, a YoY drop (on accrual basis) of revenues from excise duty on tobacco products resulting from the introduction of restricted time validity of tobacco stamps and, last but not least, a nearly 17% increase in investment of the general government sector. The government's final consumption expenditure rose by 2.9% in nominal terms and was driven primarily by social benefits in kind (expenditures on health care paid by health insurance companies to health care institutions outside the government sector) and an increase in wages in the government sector. Purchases of goods and services rose only slightly.

Compared to the July Macroeconomic Forecast, new entities were included in the government institution sector. In addition to the inclusion of all allowance organizations in the sector, another important change is the inclusion of public hospitals, including those which have the form of trade companies (joint-stock companies or liability limited companies). Although changes in the sector had no big impact on the total balance or debt, the inclusion of hospitals radically changed the structure of government consumption. In the past, most of the health care was paid as the social transfers in kind (the purchase of health care for citizens); nevertheless, only payments to health care institutions outside the government sector are now included in social transfers in kind. At present, health care in hospitals of the government sector is displayed mainly in their intermediate consumption and compensation of employees, as the provider of health care is directly the government sector. The impact on the deficit and debt of the government sector is relatively small in both cases.

In 2015, we expect a stable development of the level of the general government **deficit**, i.e. 1.9% of GDP. On the revenue side, there should again be a sharp increase in the collection of excise duty on tobacco products and also VAT collection should develop favourably, even despite the introduction of the second reduced tax rate on selected groups of commodities. The collection of direct taxes should increase by nearly 3%, driven (similarly as in 2014) especially by revenues from corporate income tax. A higher basis of the year 2014 is weighing on the development of personal income tax; the tax refund to working pensioners is included in 2014, not as a loss of taxes (it increases personal income tax), but as the transfer to households

(an increase in expenditures). Social contributions should completely mirror the development of the wage bill in the economy; their rate will be slightly increased only by an increase in payments for state insured persons.

We also expect a high increase in accrual subsidies from the EU, which should occur in an effort to draw down the remaining funds from the programming period 2007–2013. An increase in income subsidies will be reflected on the expenditure side in government investments, which should increase by more than 35%. However, the source of investment growth will not only be the European funds, but also national investments and, last but not least, also the one-off inclusion of financial leasing of the supersonic aircrafts JAS-39 Gripen amounting to approximately CZK 10.5 billion.

On the expenditure side, the final government consumption should further accelerate slightly (growth of 3.5%) which is (similarly as in 2014) driven largely by an increase in both benefits in kind and compensation of employees. An increased rate of these items can already be seen in the first two quarters of 2015. In the social sphere, the acceleration of pension growth should be apparent due to their extraordinary increase in 2015 of 1.8% as compensation for limited indexation performed in the past.

The year 2015 can be assessed positively as government investments are rising and at the same time the collection of taxes is increasing relatively considerably even if major changes in the collection of taxes are planned as late as for 2016. It mainly concerns the electronic VAT report, the fiscalization of cash payments and the financial and customs administration restructuring.

All VAT payers will have a new obligation to provide the Financial Administration with not only their tax declaration but also other information – the so-called electronic VAT report. This will comprise a list of taxable transactions including the supplier and purchaser. The Financial Administration will be matching these reports, thus ensuring better control over the eligibility of excessive returns and the tax liability itself.

The basic premise of the fiscalization of cash payments is the instantaneous reporting of sales to the Financial Administration in electronic form. Emphasis will be placed on limiting the additional administrative burden for the liable entities (there will be a possibility of a one-off tax credit to compensate for the costs), and on the need to report only minimum information required for a proper control of tax liabilities.

The level of **debt** should reach 40.8% of GDP in 2015, which is deeply below the level of 60% of GDP given by the Stability and Growth Pact. Thus the debt continues to fall in relative terms (compared to 2013 also in abso-

lute terms) especially thanks to a better utilization of state treasury funds in the liquidity management. In 2015, the nominal amount of debt is also increased by the lease of the supersonic aircrafts JAS-39 Gripen.

Graph A.2.1: Decomposition of the Government Balance
in % of GDP
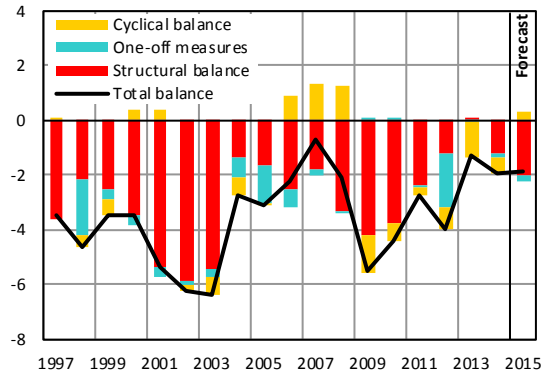
Source: CZSO, own calculations

Graph A.2.2: Government Debt
in % of GDP
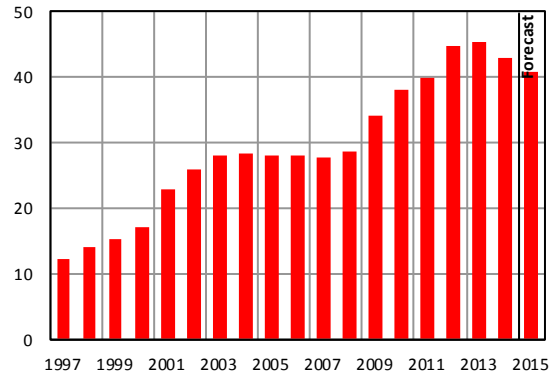
Source: CZSO, own calculations

Table A.2.1: Net Lending/Borrowing and Debt

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast
General government balance [1]	% GDP	-2.3	-0.7	-2.1	-5.5	-4.4	-2.7	-4.0	-1.3	-1.9	-1.9
	bill. CZK	-79	-27	-85	-216	-175	-110	-160	-51	-83	-83
Cyclical balance	% GDP	0.9	1.3	1.3	-1.4	-0.7	-0.3	-0.8	-1.3	-0.6	0.3
Cyclically adjusted balance	% GDP	-3.2	-2.0	-3.4	-4.1	-3.7	-2.5	-3.2	0.0	-1.4	-2.2
One-off measures [2]	% GDP	-0.7	-0.3	-0.1	0.0	0.0	-0.1	-2.0	-0.1	-0.2	-0.2
Structural balance	% GDP	-2.5	-1.8	-3.3	-4.2	-3.7	-2.4	-1.2	0.1	-1.2	-2.0
Fiscal effort [3]	percent. points	-0.9	0.7	-1.5	-0.9	0.5	1.3	1.2	1.3	-1.3	-0.8
Interest expenditure	% GDP	1.0	1.1	1.0	1.2	1.3	1.3	1.4	1.3	1.3	1.2
Primary balance	% GDP	-1.2	0.4	-1.1	-4.3	-3.1	-1.4	-2.5	0.1	-0.6	-0.7
Cyclically adjusted primary balance	% GDP	-2.1	-1.0	-2.4	-2.9	-2.4	-1.2	-1.7	1.4	-0.1	-1.0
General government debt	% GDP	27.9	27.8	28.7	34.1	38.2	39.9	44.7	45.2	42.7	40.9
	bill. CZK	979	1 066	1 151	1 336	1 509	1 606	1 806	1 842	1 821	1 832
Change in debt-to-GDP ratio	percent. points	-0.1	-0.1	0.9	5.4	4.1	1.8	4.7	0.5	-2.4	-1.9

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, own calculations

A.3 Monetary Policy, Financial Sector and Exchange Rates

A.3.1 Monetary Policy

The CNB's monetary policy remains eased. Since November 2012, the two-week repo rate has been set at 0.05%, i.e. technically at the zero lower bound. Since November 2013, the CNB has also been using the exchange rate as an additional monetary policy instrument, through the commitment not to allow strengthening below 27 CZK/EUR. For the first time since November 2013, the CNB directly intervened on the exchange rate market in July 2015 (in a volume of EUR 1.033 billion). Interventions against the strengthening of the Czech koruna continued also in August 2015; their monthly volume increased to EUR 3.735 billion.

A.3.2 Financial Sector and Interest Rates

In the third quarter of 2015, the **3M** (3-month) **PRIBOR** interbank market rate averaged 0.3% (*consistent with the forecast*). The 3M PRIBOR should remain at this level also in the fourth quarter of 2015 and in 2016 (*unchanged*).

With respect to the practically zero reference interest rates of the CNB, low inflation and moderate inflation expectations, long-term interest rates are at low values. **The yield to maturity on 10-year government bonds** for convergence purposes reached only 0.8% (*versus 1.0%*) in the third quarter of 2015. Long-term interest rates could average 0.7% (*versus 0.8%*) in 2015 as a whole and – with respect to the expected development of inflation – could increase to 1.2% (*versus 1.3%*) in 2016*.

Graph A.3.1: Interest Rates
in % p.a.
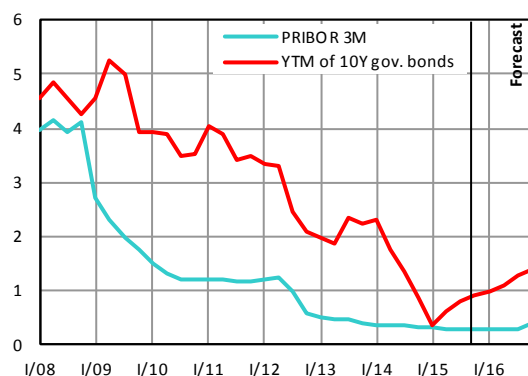
Source: CNB, own calculations

In July 2015, the CNB conducted another bank lending survey. The survey concluded that in the second quarter of 2015 credit standards eased further in all segments of the credit market. For the third quarter of 2015, banks expected a further easing of the credit standards for consumer loans to households and for loans to non-financial corporations, and keeping the same standards for housing loans to households.

Graph A.3.2: Loans
YoY growth rate, in %
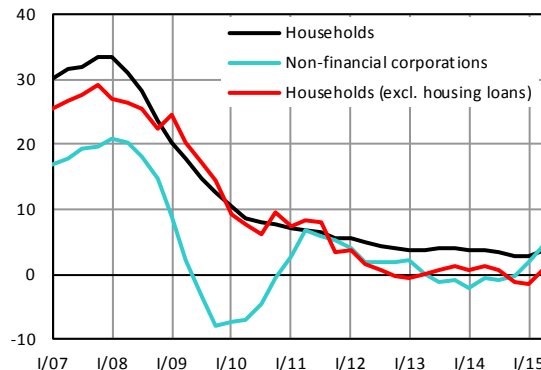
Source: CNB, own calculations

The growth of loans to households, driven by housing loans in the long run, remains relatively low. Starting from June 2015, consumer loans show YoY growth exceeding 7% (compared to a slight decrease in the previous months), but this sharp change in the development was due to a merger of a foreign bank branch with a non-banking entity and the related changes in banking and monetary statistics. So-called "other loans", which include e.g. loans to sole traders, have been growing slightly. The growth of loans to non-financial corporations has been accelerating considerably in the recent months due to the strengthening economic upturn.

Graph A.3.3: Non-performing Loans
ratio of non-performing to total loans, in %
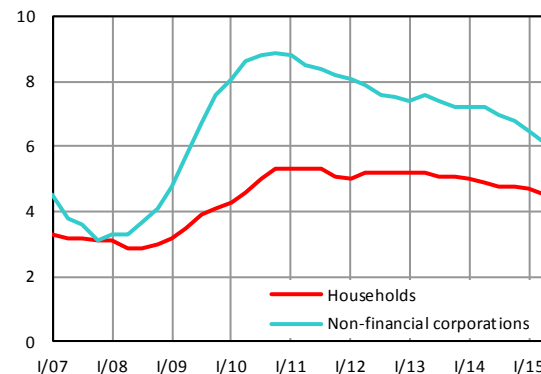
Source: CNB, own calculations

The share of non-performing loans in the total loans has been decreasing slowly, reflecting the improvement of the overall situation of the real economy. In the second quarter of 2015, the share stood at 4.5% for households (0.2 pp less QoQ and 0.4 pp less YoY) and at 6.1% for non-financial corporations (0.4 pp less QoQ and 1.1 pp less YoY).

Graph A.3.4: Deposits
YoY growth rate, in %
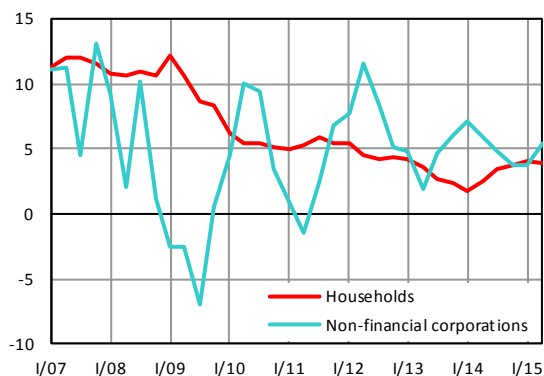
Source: CNB, own calculations

The growth of household deposits remains moderate. The growth of household disposable income, which is still relatively low (though accelerating), in combination with reduced concerns about future developments are probably reflected here. The growth of deposits of non-financial corporations has increased slightly.

The Prague Stock Exchange Index PX slightly exceeded 970 points at the end of September 2015, which represented a decrease of 1.1% compared to the end of the second quarter of 2015. In comparison with the end of September 2014, the index value was lower by 2.0%. Recently, increased volatility due to external factors has been recorded, in particular due to uncertainty regarding developments of the Chinese economy.

A.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. Compared to the previous years, the exchange rate was very stable, with only small fluctuations. At the end of the second quarter of 2015, the koruna exchange rate started strengthening in connection with favourable developments of the economy, approaching the value 27 CZK/EUR near which it remained for the whole third quarter of 2015 (on average 27.07 CZK/EUR). In the third quarter of 2015, the koruna strengthened by 2.0% YoY, which cannot be considered to be significant movement taking into account historical experience.

It is not determined yet when and in what manner the CNB will stop using the exchange rate instrument. Based on the available information (especially the CNB's statement that it will not stop using the exchange rate as a monetary policy instrument before the second half of 2016), we have made a technical assumption that the exchange rate will remain stable at 27.1 CZK/EUR until the end of 2016. We expect that subsequently the koruna will again start strengthening slightly against the euro, approximately by 0.5% 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 made a technical assumption of stability at the level of 1.10 USD/EUR (*unchanged*).

Table A.3.1: Interest Rates – yearly

|		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Repo 2W rate CNB (*end of period*)	in % p.a.	3.50	2.25	1.00	0.75	0.75	0.05	0.05	0.05	.	.
Main refinancing rate ECB (*end of period*)	in % p.a.	4.00	2.50	1.00	1.00	1.00	0.75	0.25	0.05	.	.
Federal funds rate (*end of period*)	in % p.a.	4.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	.	.
PRIBOR 3M	in % p.a.	3.09	4.04	2.19	1.31	1.19	1.00	0.46	0.36	0.3	0.3
YTM of 10Y government bonds	in % p.a.	4.28	4.55	4.67	3.71	3.71	2.80	2.11	1.58	0.7	1.2

Source: CNB, ECB, Fed, own calculations

Table A.3.2: Interest Rates – quarterly

		2014				2015			
		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.	0.15	0.15	0.05	0.05	0.05	0.05	0.05	.
Federal funds rate (*end of period*)	in % p.a.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	.
PRIBOR 3M	in % p.a.	0.37	0.36	0.35	0.34	0.33	0.31	0.31	0.3
YTM of 10Y government bonds	in % p.a.	2.30	1.76	1.36	0.88	0.37	0.62	0.80	0.9

Source: CNB, ECB, Fed, own calculations

Table A.3.3: Interest Rates, Deposits and Loans – yearly

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Households – MFI (*CR, unless stated otherwise*)											
– interest rates on loans	*in % p.a.*	7.53	6.93	6.64	6.81	7.00	7.01	6.83	6.46	6.03	5.57
– 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 %*	28.6	28.3	27.3	25.3	19.1	8.3	6.8	1.4	0.4	0.3
– interest rates on deposits	*in % p.a.*	1.24	1.22	1.29	1.55	1.38	1.25	1.20	1.18	1.01	0.84
– deposits	*growth in %*	6.1	8.2	11.8	10.8	10.0	5.6	5.4	4.7	3.2	2.9
– share of non-performing loans	*in %*	4.2	3.7	3.2	3.0	3.7	4.8	5.3	5.2	5.2	4.9
– loans to deposits ratio	*in %*	35	43	51	59	62	64	65	65	65	65
– loans to deposits ratio (Eurozone)	*in %*	94	99	99	94	89	90	90	87	84	82
Non-financial firms – MFI (*CR, unless stated otherwise*)											
– interest rates on loans	*in % p.a.*	4.27	4.29	4.85	5.59	4.58	4.10	3.93	3.69	3.19	3.00
– loans	*growth in %*	13.0	17.3	18.5	18.6	0.0	-4.8	5.2	2.5	0.1	-0.9
– interest rates on deposits	*in % p.a.*	0.99	1.08	1.41	1.80	0.87	0.56	0.52	0.56	0.41	0.29
– deposits	*growth in %*	5.7	10.5	10.0	5.7	-2.9	6.9	2.3	8.2	4.4	5.4
– share of non-performing loans	*in %*	5.7	4.5	3.8	3.6	6.2	8.6	8.5	7.8	7.4	7.1
– loans to deposits ratio	*in %*	107	113	122	137	141	125	129	122	117	110
– loans to deposits ratio (Eurozone)	*in %*	305	306	308	329	326	308	301	291	264	239

Source: CNB, ECB, own calculations

Table A.3.4: Interest Rates, Deposits and Loans – quarterly

		2013		2014				2015	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Households – MFI (*CR, unless stated otherwise*)									
– interest rates on loans	*in % p.a.*	5.96	5.83	5.73	5.62	5.52	5.40	5.28	5.18
– loans	*growth in %*	4.1	4.2	3.9	3.8	3.6	2.7	2.9	3.9
– loans without housing loans	*growth in %*	0.7	1.2	0.6	1.2	0.6	-1.2	-1.4	1.0
– interest rates on deposits	*in % p.a.*	0.97	0.94	0.92	0.87	0.81	0.77	0.72	0.66
– deposits	*growth in %*	2.7	2.4	1.8	2.6	3.4	3.7	4.0	3.9
– share of non-performing loans	*in %*	5.1	5.1	5.0	4.9	4.8	4.8	4.7	4.5
– loans to deposits ratio	*in %*	66	66	65	65	66	65	65	65
– loans to deposits ratio (Eurozone)	*in %*	84	84	83	82	82	81	81	81
Non-financial firms – MFI (*CR, unless stated otherwise*)									
– interest rates on loans	*in % p.a.*	3.17	3.09	3.06	3.04	2.98	2.93	2.88	2.80
– loans	*growth in %*	-1.2	-0.9	-1.9	-0.6	-0.9	-0.1	2.0	4.8
– interest rates on deposits	*in % p.a.*	0.39	0.36	0.34	0.32	0.26	0.24	0.22	0.20
– deposits	*growth in %*	4.7	6.1	7.1	5.9	4.9	3.8	3.8	5.4
– share of non-performing loans	*in %*	7.4	7.2	7.2	7.2	7.0	6.8	6.5	6.1
– loans to deposits ratio	*in %*	117	111	112	111	111	107	113	115
– loans to deposits ratio (Eurozone)	*in %*	262	248	242	247	239	230	217	216

Source: CNB, ECB, own calculations

Graph A.3.5: Ratio of Bank Loans to Households to GDP

yearly moving sums, in %

Source: CNB, CZSO, own calculations

Table A.3.5: Exchange Rates – yearly

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
Nominal exchange rates:											
CZK / EUR	average	26.45	25.29	24.59	25.14	25.98	27.53	27.3	27.1	26.8	26.2
	appreciation in %	-5.6	4.6	2.8	-2.2	-3.2	-5.6	0.9	0.7	1.3	2.1
CZK / USD	average	19.06	19.11	17.69	19.59	19.57	20.75	24.6	24.6	24.3	23.8
	appreciation in %	-10.5	-0.3	8.0	-9.7	0.1	-5.7	-15.6	-0.2	1.3	2.1
NEER	average of 2010=100	98.0	100.0	103.1	99.5	97.3	92.5	92	92	93	95
	appreciation in %	-3.2	2.1	3.1	-3.5	-2.2	-4.9	-0.8	0.3	1.3	2.1
Real exchange rate to EA12[1]	average of 2010=100	97.7	100.0	101.6	99.4	96.3	92.3	93	93	95	98
	appreciation in %	-4.2	2.4	1.6	-2.1	-3.1	-4.2	0.4	0.5	1.5	3.4
REER	average of 2010=100	98.9	100.0	102.1	99.2	96.9	91.8	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	-3.7	1.2	2.1	-2.8	-2.3	-5.2	.	.	.	.

1) Deflated by GDP deflators.
Source: CNB, Eurostat, own calculations

Table A.3.6: Exchange Rates – quarterly

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 Estimate	Q4 Forecast
Nominal exchange rates:									
CZK / EUR	average	27.44	27.45	27.62	27.62	27.62	27.38	27.07	27.1
	appreciation in %	-6.8	-5.9	-6.4	-3.5	-0.7	0.2	2.0	1.9
CZK / USD	average	20.04	20.02	20.84	22.10	24.55	24.79	24.35	24.6
	appreciation in %	-3.3	-1.2	-6.4	-11.4	-18.4	-19.2	-14.4	-10.3
NEER	average of 2010=100	93.0	93.0	91.9	92.3	91.7	91.1	92	92
	appreciation in %	-5.5	-4.7	-6.2	-3.0	-1.4	-2.0	0.3	-0.3
Real exchange rate to EA12[1]	average of 2010=100	91.8	92.7	92.1	92.6	91.5	92.5	93	94
	appreciation in %	-5.7	-4.0	-4.6	-2.5	-0.4	-0.2	1.1	1.2
REER	average of 2010=100	92.9	92.1	91.0	91.4	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	-5.6	-5.3	-6.6	-3.2	.	.	.	.

1) Deflated by GDP deflators.
Source: CNB, Eurostat, own calculations

Graph A.3.6: Nominal Exchange Rates

quarterly averages, average 2010=100 (rhs)

- CZK / EUR (ECU)
- CZK / USD
- NEER (rhs)

Forecast
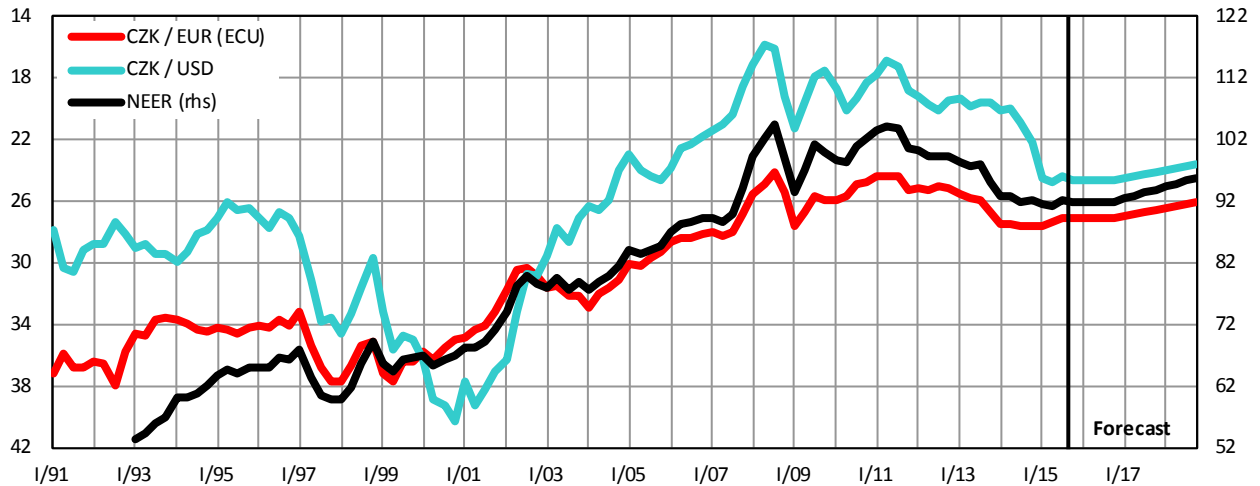
Source: CNB, own calculations

Graph A.3.7: Real Exchange Rate to EA12

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

Forecast
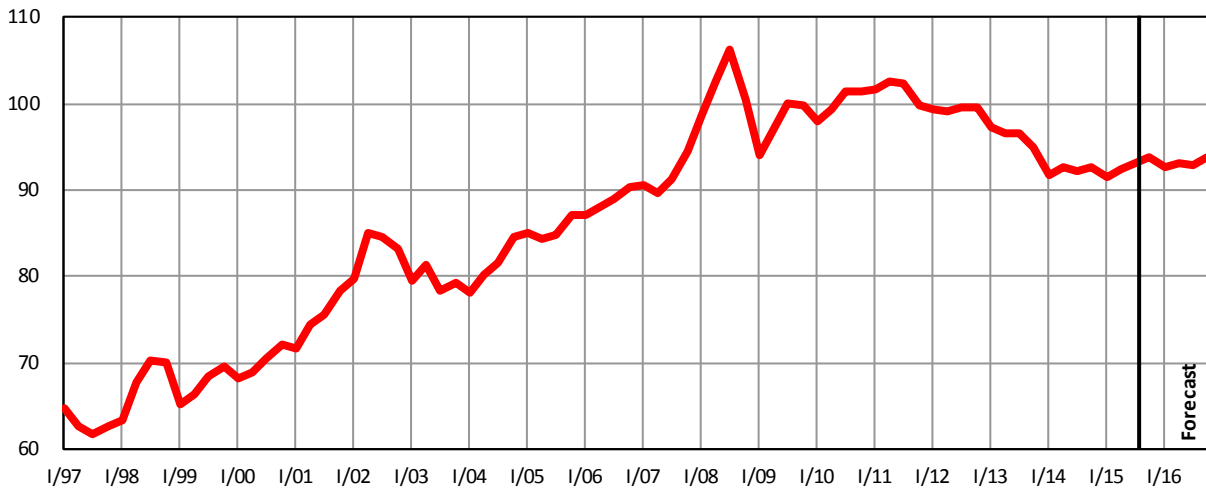
Source: CNB, Eurostat, own calculations

Graph A.3.8: Real Exchange Rate to EA12

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

- Contribution of nominal ER
- Contribution of GDP deflator differential
- Appreciation of real exchange rate

Forecast
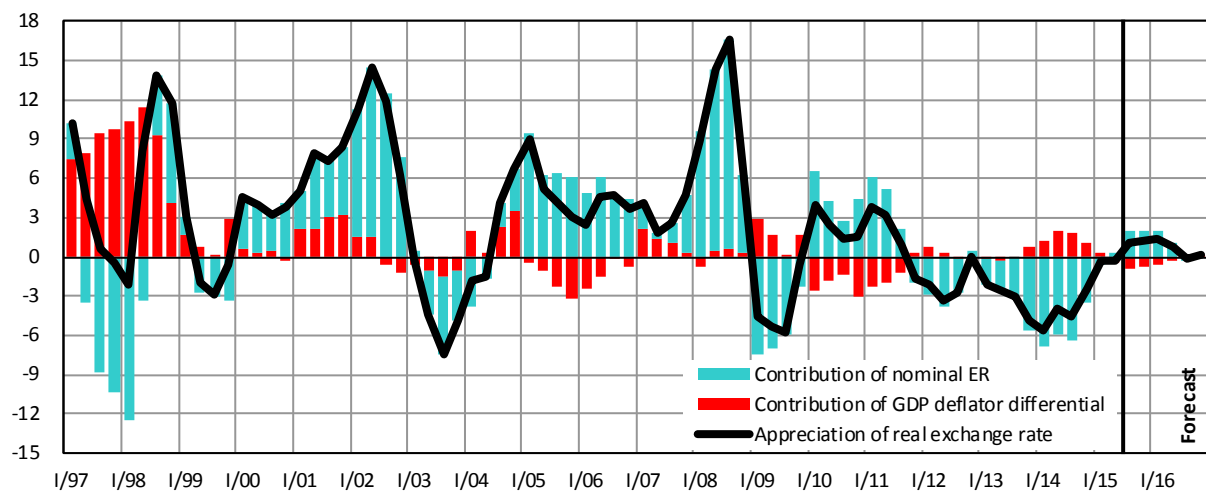
Source: CNB, Eurostat, own calculations

A.4 Structural Policies

A.4.1 Business Environment
On 18 September 2015, the Chamber of Deputies approved the **bill on the register of contracts**. According to the new legal regulation, the state, regions, municipalities with extended competence, state-funded institutions, public research institutions, universities, state and national enterprises and companies with a majority participation of the state will publish contracts with performance above CZK 50,000 excl. VAT in the register. The aforementioned entities will send contracts to the register within one month from their conclusion. The register administrator will publish them in short order, whereby the contract will come into effect. If a contract is not published within three months from its conclusion, it will be cancelled. No information will be published in the register which cannot be provided according to regulations on the free access to information. The Act does not apply to municipalities not exercising extended competence, intelligence services, institutions with protected budget chapters and companies with majority participation of the state of which shares are traded at the stock exchange. The Act should come into effect on 1 July 2016, and the rule related to contract effectiveness on 1 July 2017.

The bill on public procurement, which was approved by the government on 5 October 2015, should increase transparency and reduce administrative requirements of the procurement process and at the same time ensure compliance with the European legal regulation. According to the bill, 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. The Act should come into effect on the first day of the third calendar month following its announcement.

A.4.2 Taxes
The bill on gambling and the related **bill on gambling tax** approved by the government on 29 July 2015 should prevent and eliminate socially pathological phenomena connected with operating gambling, open the Czech gambling market for operators with registered offices in the EU and make tax collection more effective. In this connection, the tax on gambling will be introduced, while the tax rate will be fixed at 35% for technical games, 30% for live games, lotteries and bingo and 25% for betting and tombola with a total betting amount up to CZK 100,000. The Act is scheduled to come into effect from 1 January 2017.

On 23 September 2015, the government approved the **amendment to the Income Tax Act** which will increase tax allowances for the second child by CZK 100 per month and for the third and any additional child by CZK 300 per month. The amendment also facilitates taxation of solar power stations with installed output up to 10 kW and implements the EU Directive into the Czech legal order which regulates payment of dividends and removes double economic taxation of profit. The Act is scheduled to come into effect on 1 January 2016.

In order to put cigarette excise tax rates in line with the EU Directive requirements, on 2 October 2015 the Chamber of Deputies approved the **amendment to the Excise Tax Act**. In addition, the amendment introduces the three-year plan of regulating excise duties on tobacco products; this excise duty will be increased not only in 2016, but also in the following two years. The amendment should come into effect on 1 January 2016. With respect to the existence of the time-limit for the sale of tobacco products taxed according to the previous rate, we do not assume any similar fluctuation of macroeconomic aggregates in these cases as in 2013–2015.

A.4.3 Financial Markets
On 1 July 2015, the government approved **the bill on recovery and resolution on the financial market**, transposing the Bank Recovery and Resolution Directive into the Czech legal system. The new legal regulation lays down the complex legal framework for prevention, early intervention and resolution of banks, securities traders with the initial capital exceeding EUR 730,000 and savings or loan cooperatives. In this connection, powers and competences of the supervisory authority, planning, early intervention measures, conditions and method of resolution and definition of individual resolution measures are regulated. Last but not least, the Act defines cross border cooperation of resolution authorities. The Act should come into effect on the first day of the calendar month following its announcement.

A.4.4 Labour Market
On 1 October 2015, the **amendment to the Employment Act** came into effect which excluded the possibility to award and provide unemployment benefit to job applicants who have the position of a trading company's member. The amendment has also introduced reduced working time. Employees whom enterprises cannot assign work due to economic crises or natural disasters to the extent of minimally 20% of the prescribed weekly working time will be paid 70% of their wage (50% by the employer and 20% from the state budget). The benefit can be paid for maximally six months with the possibility of one repetition, while the maximal amount of state contribution has been deter-

mined at 12.5% of the average wage. Each application for the unemployment benefit shall be decided on by the government.

The Government Decree on Minimal Wage of 20 August 2015 will increase the minimal wage from 1 January 2016 by CZK 700 to CZK 9,900.

A.5 Demographic Trends

At the end of June 2015, 10.542 million people lived in the Czech Republic. Its population increased by 3.2 thousand persons during the first half of 2015. This was a result of a slightly positive net migration (6.6 thousand persons) and a negative natural increase (–3.4 thousand persons).

Eighteen thousand persons have moved here from abroad (2.4 thousand less YoY), the highest number of them were from Slovakia and Ukraine. The number of persons moving abroad was 11.4 thousand (1.6 thousand more YoY).

The number of births reached 54.2 thousand, which corresponded to the level of the previous year. The number of deaths (57.6 thousand) was 5.3 thousand higher YoY due to the extremely low mortality in the first quarter of 2014, but approximately at the level of 2013.

Graph A.5.1: Age Groups
shares on total population, in %
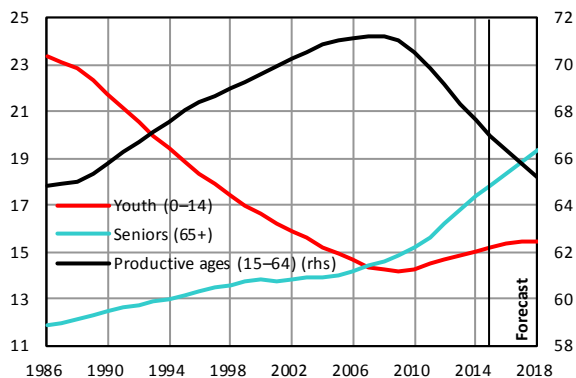
Source: CZSO, own calculations

There has been a long-run decline in the **population aged 15–64 years** (see Graph A.5.1). However, since the beginning of 2014 this decrease has decelerated to 52 thousand persons in the second quarter of 2015 (see Graph A.5.2), mainly due to immigration. In the years to come, the working-age population should continue to decrease by approximately 60 thousand people a year in absolute terms, which is an annual decrease of approximately 0.9% a year. The economic impacts of this situation are described in more detail in Chapter B.1.

In contrast, the structural share of **persons aged over 64 years** in the total population reached 17.8% at the beginning of 2015 and should regularly increase by approximately 0.5 pp annually.

The number of seniors in the population is significantly increasing due to the demographic structure and the

ongoing rise in life expectancy, and it should exceed 2 million persons at the beginning of 2018. From the perspective of the sustainability of the pension system, however, the increases in retirement age are adequate to match the prolonging of the life expectancy in the next 20–25 years.

Graph A.5.2: Population Aged 15–64
based on LFS, YoY increases of quarterly averages, in thousands
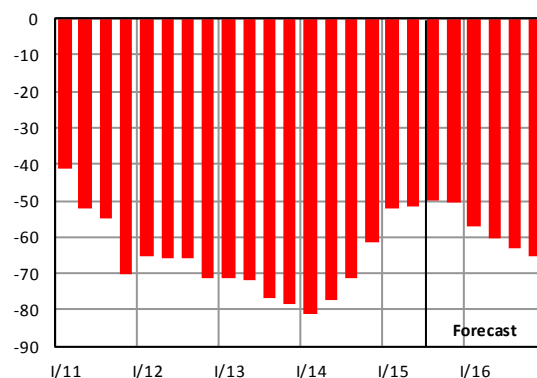
Source: CZSO, own calculations

The number of **old-age pensioners** is increasing more slowly than would correspond to the demographic development and the rising statutory retirement age. In 2014, it increased by 15 thousand, which is less than an increase in the number of persons reaching their retirement age (26 thousand). In the second quarter of 2015, the YoY increase moderated further to 8 thousand pensioners (see Graph A.5.5). The entire increase can be attributed to pensioners with reduced pensions following early retirement, while the number of pensioners entitled to a full pension fell by 13 thousand.

Graph A.5.3: Life Expectancy
in years
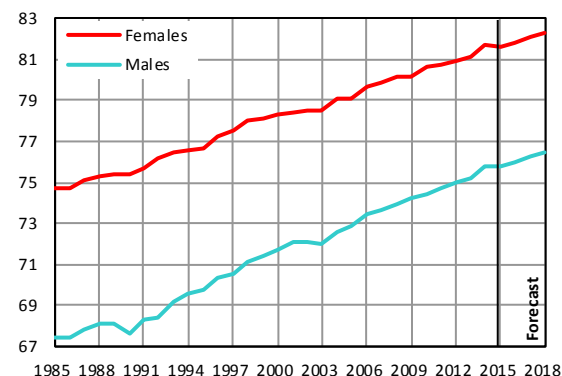
Source: CZSO

Table A.5.1: Demographics

in thousands of persons (unless stated otherwise)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
								Forecast	*Forecast*	*Outlook*	*Outlook*
Population (January 1)		**10 468**	**10 507**	**10 487**	**10 505**	**10 516**	**10 512**	**10 538**	**10 550**	**10 552**	**10 553**
	growth in %	0.8	0.4	-0.2	0.2	0.1	0.0	0.2	0.1	0.0	0.0
Age structure (January 1):											
(0–14)		**1 480**	**1 494**	**1 522**	**1 541**	**1 560**	**1 577**	**1 601**	**1 618**	**1 627**	**1 633**
	growth in %	0.2	1.0	1.8	1.3	1.2	1.1	1.5	1.0	0.6	0.4
(15–64)		**7 431**	**7 414**	**7 328**	**7 263**	**7 188**	**7 109**	**7 057**	**7 001**	**6 936**	**6 874**
	growth in %	0.5	-0.2	-1.2	-0.9	-1.0	-1.1	-0.7	-0.8	-0.9	-0.9
(65 and more)		**1 556**	**1 599**	**1 637**	**1 701**	**1 768**	**1 826**	**1 880**	**1 931**	**1 989**	**2 045**
	growth in %	2.9	2.7	2.4	3.9	3.9	3.3	3.0	2.7	3.0	2.8
Old-age pensioners (January 1)[1]		**2 066**	**2 108**	**2260**	**2340**	**2341**	**2340**	**2355**	**2 362**	**2 380**	**2 398**
	growth in %	1.8	2.1	.	3.5	0.0	0.0	0.6	0.3	0.8	0.8
Old-age dependency ratios (January 1, in %):											
Demographic [2]		20.9	21.6	22.3	23.4	24.6	25.7	26.6	27.6	28.7	29.8
Under current legislation [3]		36.1	36.6	37.4	37.8	38.3	38.8	39.3	39.6	40.1	40.6
Effective [4]		41.0	42.8	45.9	47.9	47.6	47.2	46.9	46.7	46.9	47.3
Fertility rate		**1.492**	**1.493**	**1.427**	**1.452**	**1.456**	**1.528**	**1.45**	**1.45**	**1.46**	**1.46**
Population increase		**39**	**-20**	**19**	**11**	**-4**	**26**	**12**	**2**	**1**	**-1**
Natural increase		**11**	**10**	**2**	**0**	**-2**	**4**	**-5**	**-7**	**-9**	**-11**
Live births		**118**	**117**	**109**	**109**	**107**	**110**	**102**	**100**	**98**	**97**
Deaths		**107**	**107**	**107**	**108**	**109**	**106**	**107**	**107**	**107**	**107**
Net migration		**28**	**16**	**17**	**10**	**-1**	**22**	**17**	**9**	**9**	**10**
Immigration		**40**	**31**	**23**	**30**	**30**	**42**	**.**	**.**	**.**	**.**
Emigration		**12**	**15**	**6**	**20**	**31**	**20**	**.**	**.**	**.**	**.**
Census difference		**x**	**-46**	**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, own calculations

Graph A.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
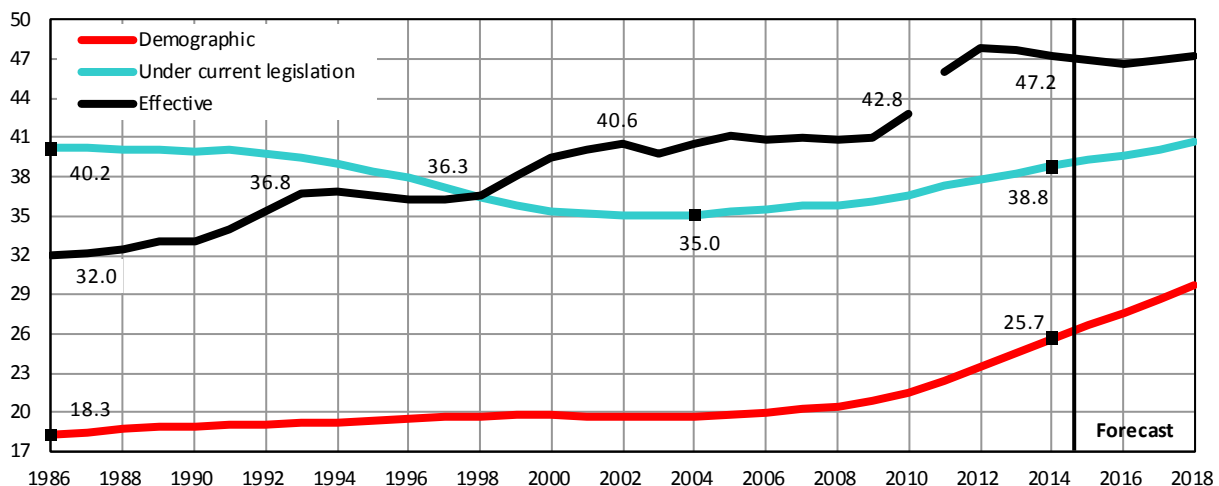
Source: CZSO, own calculations

Graph A.5.5: Old-Age Pensioners
absolute increase over a year in thousands of persons
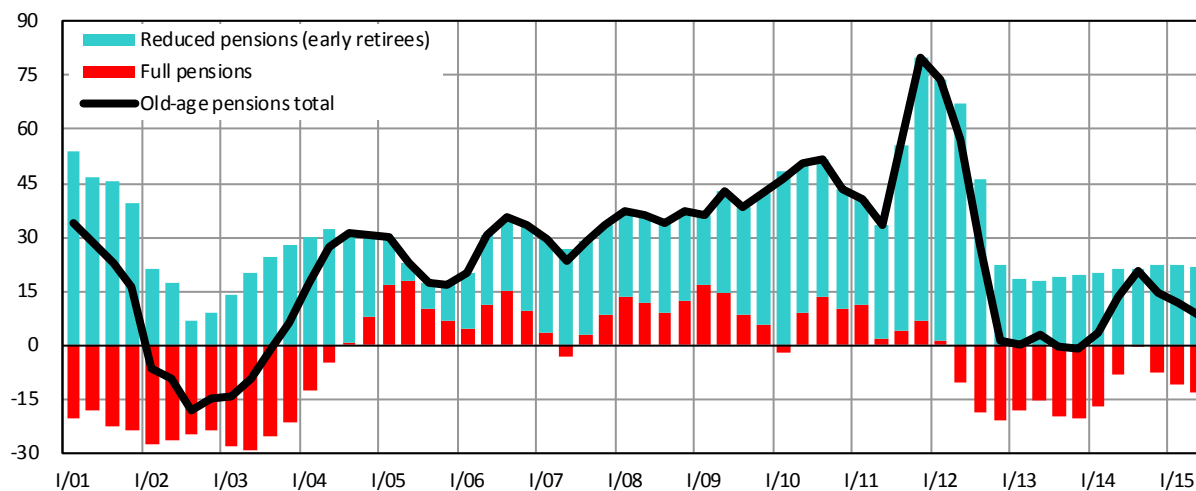
Note: Adjusted for the transfer of disability pensions to old-age pensions for people over 64 years in 2010.
Source: Czech Social Security Administration, CZSO, own calculations

B Economic Cycle

B.1 Position within the Economic Cycle

Potential product, specified on the basis of a calculation by means of the Cobb-Douglas production function, indicates the level of economic output to be achieved with the average utilization of production factors. The growth of potential product expresses the possibilities for long-term sustainable growth of the economy without giving rise to imbalances. It can be broken down into contributions of the labour force, capital stock, and total factor productivity. The output gap identifies the cyclical position of the economy and expresses the relationship between actual and potential product. The concepts of potential product and output gap are used to analyse the economic cycle and to calculate the structural balance of public budgets.

The negative **output gap**, persisting in the Czech economy since the beginning of 2009, has probably closed and the economic output is near its potential level (see Graph B.1.1). The closing of the output gap does not manifest itself unambiguously in the economy. For example, it is confirmed with the unemployment rate (LFS), which is below its long-term average and has been further decreasing. The number of vacancies recorded by the Ministry of Labour and Social Affairs also exceeds the average level and has been further increasing. The utilization of production capacities in industry also exceeds the long-term average (see Graph B.1.5).

For the time being, other indicators do not fully confirm the closing of the output gap. Inflation is still very low, which is, however, largely due to a decrease in prices of imported fuels. Despite their recent acceleration, wage dynamics still lags behind nominal GDP growth for the time being.

In the following years, the economy should find itself, despite the expected slow-down, under the conditions of a positive output gap when any further stimulation by the economic policies could sow the seeds of future macroeconomic imbalances.

Having overcome a long-term period of recessions, stagnation or only weak recovery, the annual growth of **potential product** is gradually accelerating. According to our estimate, it was 1.7% in the second quarter of 2015, which we continue to consider as a result rather undervaluing the real possibilities of the Czech economy.

Growth acceleration is most apparent in **total factor productivity.** The contribution of its trend component, derived by the Hodrick-Prescott filter, which was nearly zero during the recession in 2012, reached 1.1 pp in the second quarter of 2015. With respect to the end point problem, however, this improvement will have to be confirmed in the following periods.

The long-lasting and deep slump in gross fixed capital formation in 2008–2013 has also contributed to the slowing of potential product growth. The current investment wave, supported by efforts for a maximal possible drawdown from the EU funds, has led, for the time being, to an increase in the contribution of **capital stock** from 0.4 pp in 2013 and 2014 only to 0.5 pp in the second quarter of 2015. Capital consumption (depreciations) is still reaching more than four fifths of the level of its gross formation so only less than a fifth is left for development investment.

The labour supply is being affected by a long-lasting decrease in the working-age population, caused by the process of population ageing (see Chapter A.5). In the second quarter of 2015, **demographic development** slowed potential product growth by 0.4 pp.

The negative impact of the decline in the population aged 15–64 years on the labour supply is fully compensated by an increase in the **participation rate** (the ratio of the labour force to the population aged 15–64 years). With respect to its anti-cyclical character, the decrease in its contribution to potential product growth from 0.9 pp in 2013 to 0.5 pp in the second quarter of 2015 can be explained by the economic cycle. In the following period, however, the structural factors of the participation rate – an increase in the number of inhabitants in age groups with a naturally high participation (see Chapter C.3) and an increase in the statutory and real retirement age – should start to predominate.

In the Czech Republic, the regular average working time is shortening. The structural component of this phenomenon can be explained by the fact that the average number of hours worked in the Czech Republic is high, compared to the standards of more developed countries. As the economic cycle progresses, however, the intensity of this factor is weakening. In the second quarter of 2015, the lower number of **hours** usually **worked** slowed potential product growth by only 0.1 pp versus 0.4 pp at the end of the recession in the first quarter of 2013.

Graph B.1.1: Output Gap
in % of potential product
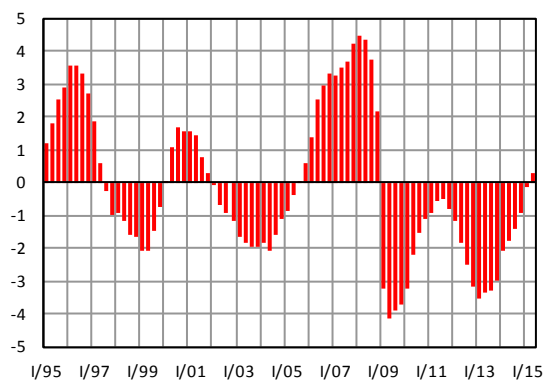
Source: CZSO, own calculations

Graph B.1.2: Potential Product Growth
in %, contributions in percentage points
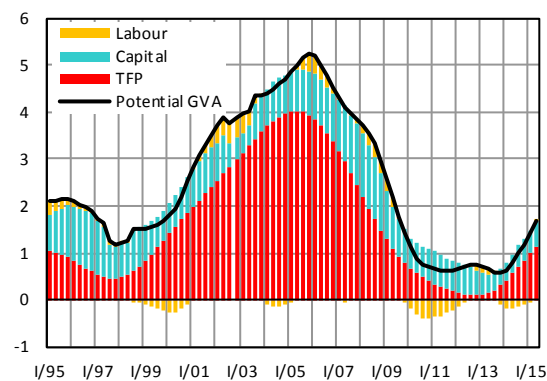
Source: CZSO, own calculations

Graph B.1.3: Potential Product and GVA
QoQ growth rate, in %
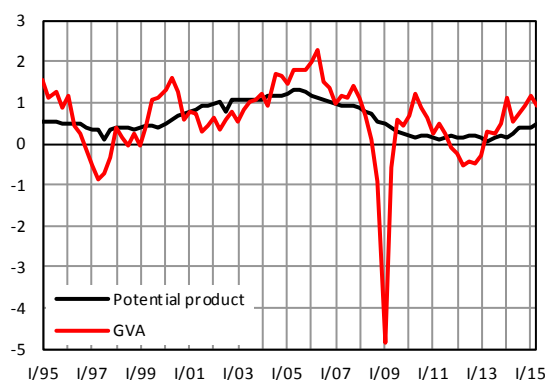
Source: CZSO, own calculations

Graph B.1.4: Levels of Potential Product and GVA
in bill. CZK of 2010
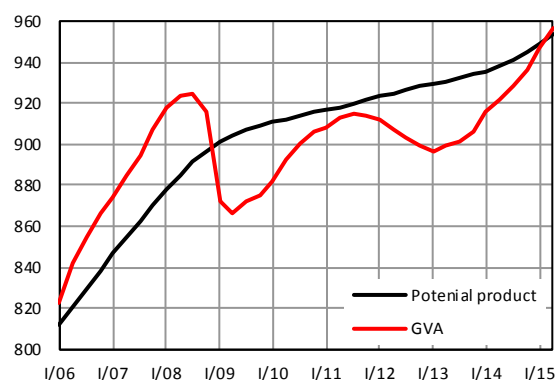
Source: CZSO, own calculations

Graph B.1.5: Capacity Utilisation in Industry
smoothed by Hodrick-Prescott filter, in %
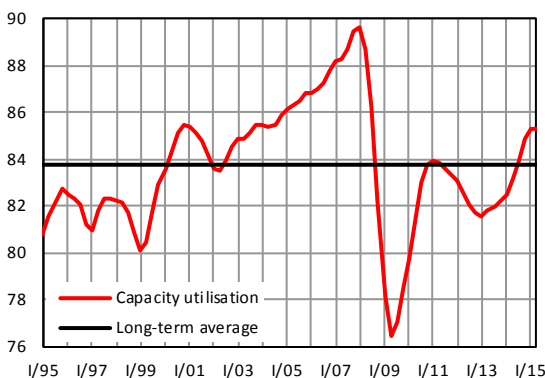
Source: CZSO

Graph B.1.6: Total Factor Productivity
YoY growth rate, in %
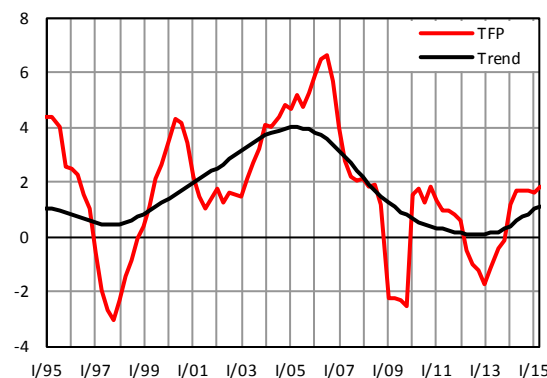
Source: CZSO, own calculations

Table B.1: Output Gap and Potential Product

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Q1-2
Output gap	per cent	2.6	3.7	3.7	-3.8	-2.0	-0.7	-2.2	-3.3	-1.5	0.1
Potential product [1]	growth in %	4.9	4.1	3.4	2.0	0.9	0.6	0.7	0.6	0.9	1.5
Contributions:											
− Trend TFP	perc. points	3.6	2.8	1.8	1.0	0.5	0.3	0.1	0.2	0.6	1.1
− Fixed assets	perc. points	1.0	1.2	1.3	0.9	0.7	0.7	0.6	0.4	0.4	0.5
− Demography [2]	perc. points	0.2	0.3	0.3	0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.4
− Participation rate	perc. points	0.2	-0.2	0.0	0.3	0.2	0.3	0.8	0.9	0.5	0.5
− Usually worked hours	perc. points	-0.1	0.0	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.1

1) Based on gross value added   *2) Contribution of growth of working-age population (15–64 years)*
Source: CZSO, own calculations

B.2 Business Cycle Indicators

Within the so-called business cycle surveys, respondents' views as to the current situation and the short-term outlook are ascertained. The so-called confidence indicators, which are based on the results of these surveys, reflect a wide range of influences shaping the expectations of economic entities and their advantage lies in the quick availability of results. A significant relationship between the confidence indicators and appropriate macroeconomic aggregates enables to assess their course ahead of national accounts publication (questions focused on the evaluation of the current development) or the following quarter (questions focused on the expectations of the future development).

It follows from the development of the confidence indicator in industry that in the third quarter of 2015 GVA growth in industry remained at a similar level as in the second quarter of 2015.

The confidence indicator in construction saw a slight deterioration after the period of its sharp increase. However, we cannot omit here that the correlation between the development of confidence and GVA in this sector is very low, as is apparent from Graph B.2.2.

Confidence in trade and services has been gradually improving, in the third quarter of 2015 nearly reaching the end-2014 level.

As a result, the composite confidence indicator signals the keeping of YoY growth dynamics of GVA in the third quarter of 2015. In contrast, the consumers' confidence indicator signals slowing of growth dynamics of household consumption in the third quarter of 2015. This conclusion results from the fact that the develop-

ment of the consumers' confidence indicator leads household consumption by 1–2 quarters.

The composite leading indicator for the second quarter of 2015 signalled rather stagnation of the relative cyclical component of GDP. This development has not been proven, the positive output gap increased due to the strong QoQ growth of GDP in the second quarter of 2015.

For the third and fourth quarter of 2015, the indicator signals relatively sharp growth of the positive relative cyclical component of GDP. However, when interpreting this signal it is necessary to take into account the temporary loosening of the relation between the composite leading indicator and the cyclical component in the second quarter of 2015 and at the quantitative level considerably higher than the signalled GDP growth in the first half of 2015. Therefore, we interpret the current signal as keeping the positive output gap at least until the end of 2015.

Graph B.2.1: Confidence and GVA in Industry
2005=100 (lhs), YoY growth in % (rhs)
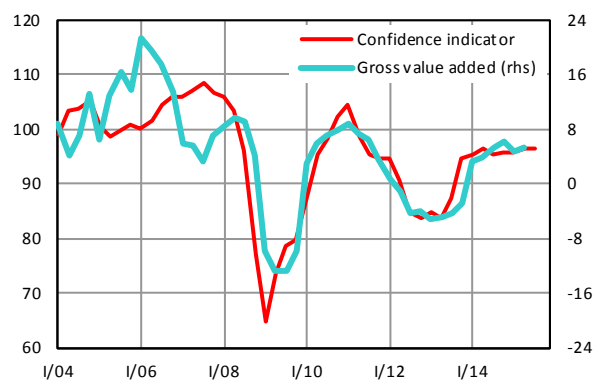
Source: CZSO

Graph B.2.2: Confidence and GVA in Construction
2005=100 (lhs), YoY growth in % (rhs)
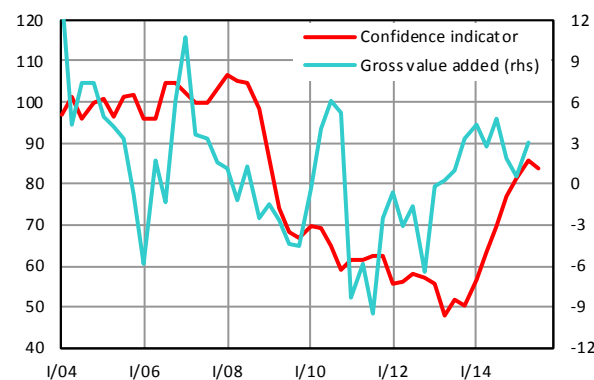
Source: CZSO

Graph B.2.3: Confidence and GVA in Trade and Services
2005=100 (lhs), YoY growth in % (rhs)
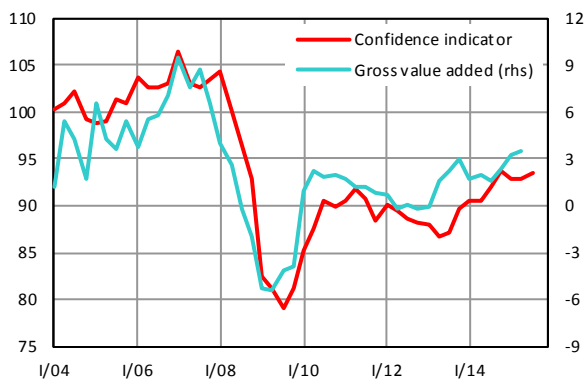
Source: CZSO, own calculations

Graph B.2.4: Consumer Confidence and Consumption
2005=100 (lhs), YoY growth in % (rhs)
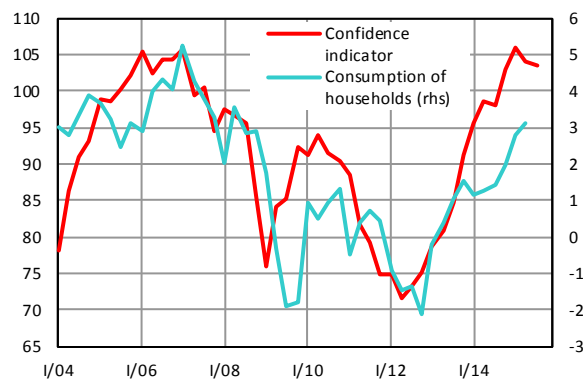
Source: CZSO

Graph B.2.5: Composite Confidence Indicator and GVA
2005=100 (lhs), YoY growth in % (rhs)
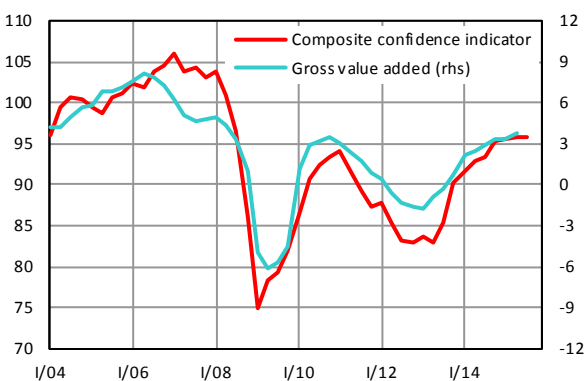
Source: CZSO

Graph B.2.6: Composite Leading Indicator
2005=100 (lhs), in % of GDP (rhs)
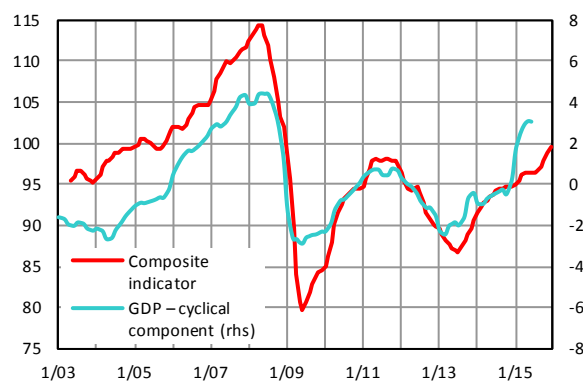
Note: Synchronized with cyclical component of GDP derived by statistical methods (Hodrick-Prescott filter)
Source: CZSO, own calculations

C Forecast of the Development of Macroeconomic Indicators

C.1 Economic Output

C.1.1 GDP in the Second Quarter of 2015

Economic performance measured by real GDP rose by 4.6% YoY (*versus 3.9%*) in the second quarter of 2015, while seasonally adjusted GDP increased by 1.1% QoQ (*versus 0.4%*). The gross value added posted a QoQ growth of 0.9%. The contribution of net taxes on products to GDP growth decreased considerably after their significant fluctuation in the first quarter of 2015, caused by legislative restrictions on the validity of tobacco stamps with the previous tax rate.

YoY increase in GDP in the second quarter of 2015 reflected growing domestic and foreign demand. The main growth factor was again gross capital formation; however, in contrast to the first quarter of 2015, gross fixed capital formation posted a higher contribution (in the first quarter of 2015, the contribution of a change in inventories was higher due to one-off factors). In the second place, final consumption expenditure of both households and the government contributed to the increase in GDP. The increasing demand contributed to the strong growth of imports, which was more than balanced, however, by increased exports. In total, the balance of foreign trade in goods and services had a slight pro-growth effect.

The growth of household consumption resulted from the increasing disposable income (in the second quarter of 2015, YoY growth of real disposable income of households accelerated to 3.1%) with still relatively high consumers' confidence and a nearly constant YoY gross savings rate. Household consumption was mainly supported by the strongly increasing expenditure on durable and semi-durable goods, which suggests a higher certainty of households regarding the increasing phase of the economic cycle. This is also assisted by a low unemployment rate. Expenditure on non-durable goods, which is less sensitive to economic fluctuations, and services also contributed to the growth of total household consumption. Household consumption increased in real terms by 3.0% (*versus 2.9%*). Government consumption was up by 2.2% (*in line with the estimate*).

Gross fixed capital formation was supported by growth of all components, mainly investment in other buildings and structures[1], transport equipment, other machines and equipment and, last but not least, dwell-

ings. Together with a number of other indicators, such as confidence indicators or data on the development in construction and industry, this confirms the continuing recovery of investment activity. Considering the positive YoY contribution of inventories, gross capital formation was increasing more quickly than investment in fixed capital, specifically by 9.4% (*versus 8.2%*).

The growth of foreign trade turnover was lower than the previous forecast assumed; however, it still remains at high values. The growth of exports corresponded to the growth of export markets. Imports were supported by growing exports and recovering domestic demand. Exports thus increased by 6.8% YoY (*versus 8.2%*) and imports by 7.0% (*versus 9.2%*).

The fact that the growth of import prices slightly exceeded the growth of export prices resulted in a deterioration of the terms of trade of 0.1% (*versus an improvement of 0.2%*). The resulting trading loss from the terms of trade brought about a situation where real gross domestic income, which unlike real GDP includes this factor, increased by 4.5% YoY (*versus 4.1%*).

Nominal GDP that increased by 5.4% (*versus 4.6%*) was supported by the growth in the gross operating surplus of 4.7% (*versus 3.5%*), compensation of employees of 4.6% (*versus 4.4%*) and net taxes on production of 12.9% (*versus 12.0%*).

C.1.2 Estimate for the Third Quarter of 2015

The estimate of GDP and its structure is based on the course of phenomena already observed in the previous period and commented on above. We estimate that GDP increased by 4.1% YoY (*versus 3.2%*) and by 0.6% QoQ (*versus 0.4%*) in the third quarter of 2015. The decrease in QoQ dynamics of GDP is a result of the dissipation of one-off tax effects and slowing of the economy after above-average growth in the first half of 2015.

We suppose that GDP growth was due mainly to the growth of gross capital formation and further to final consumption expenditure. Due to the increasing disposable income and strong consumers' confidence, household consumption might have increased by 2.9% (*unchanged*) and government consumption by 2.0% (*versus 1.6%*). According to our estimate, gross capital formation increased by 6.5% (*versus 5.3%*) exclusively due to the growth of gross fixed capital formation.

Foreign trade probably had a slightly positive effect on GDP dynamics. We estimate that exports grew by 7.3%

---

[1] Other buildings and structures include both private and public investment in buildings (except for dwellings) and infrastructure investment.

(*versus 8.6%*), following foreign markets' growth, while imports increased by 7.1% (*versus 9.1%*) due to higher exports and domestic demand. The changes in the forecast relate to the lower than estimated growth rates of both variables in the second quarter of 2015.

C.1.3 Forecast for the Years 2015 and 2016

In 2015, economic growth should be driven exclusively by domestic demand; on the contrary, foreign trade (in expenditure terms) should slightly weigh on GDP growth. The lower oil price will be favourably reflected in a decrease in the costs of firms, thus contributing to the higher growth of gross operating surplus. Domestic demand should also remain the dominant growth factor in 2016, while the contribution of net exports should be slightly positive.

We expect real GDP to grow by 4.5% (*versus 3.9%*) in 2015 and by 2.7% (*versus 2.5%*) in 2016. The upward revision to the forecast for GDP growth is based on the development in the second quarter of 2015 when GDP dynamics was supported mainly by the considerable contribution of gross fixed capital formation. The intensity of the drawdown of the EU funds was probably stronger than the previous forecast assumed.

Household consumption will be supported by the growth of real disposable income and consumers' relatively optimistic expectations, as evidenced by the business cycle surveys. For 2015, we do not expect consumer loans to make any contribution to the resources for private consumption. We have not changed the forecast for the growth of real household consumption for 2015, keeping it at 2.9%; for 2016 we are slightly increasing the forecast to 2.5% (*versus 2.4%*).

We are slightly increasing the forecast for government consumption growth in 2015, taking into account in particular the data for the second quarter of 2015. We expect that government consumption will grow by 2.2% in 2015 (*versus 2.0%*) and by 2.0% in 2016 (*versus 1.6%*). Growth of real government consumption is determined especially by rising compensation of employees, which is supported by an increase in the number of employees (mainly in the first half of 2015), and social benefits in kind where a slightly deficit behaviour of health insurance companies is expected (even when accounting for the increase in payments for state insured persons of app. CZK 1.8 billion in each year). Government consumption growth is also further strengthened by the spending on goods and services, which is apparent mainly in local budgets and is this year probably financed from non-investment funds of the EU from the ending perspective 2007–2013. For this reason, we assume a moderation of the growth rate of spending on goods and services in 2016.

The growth of gross fixed capital formation will be supported mainly by investment in projects cofinanced from the EU funds, which will manifest itself in investment in other buildings and structures. A higher comparison base (in comparison with the July Forecast) is behind the revision of the forecast for the growth of investments in fixed capital in 2016. Firms' own resources for financing investment projects should grow relatively strongly. In the second half of 2015 and in 2016, we expect an increased utilization of firms' credit resources. For 2015, moreover, we expect the one-off effect of the lease of the JAS-39 Gripen aircrafts that will be reflected in an increase in gross fixed capital formation and imports in the last quarter. Therefore, gross fixed capital formation should increase by 8.2% in 2015 (*versus 6.4%*) and by 2.9% in 2016 (*versus 3.1%*).

In 2015, we consider a strong contribution of a change in inventories to GDP growth, which is related to both the already broad-based economic growth and more intensive investment activity. Therefore, we are increasing the forecast for gross capital formation growth in 2015, also due to a change in the forecast for fixed capital formation. Hence, we expect gross capital formation to grow by 11.1% in 2015 (*versus 9.8%*) and by 2.8% in 2016 (*versus 2.6%*).

Export growth that will be mainly supported in 2015 by a low crude oil price (a positive supply shock for the domestic economy and economies of trading partners), together with the increasing domestic demand, will be reflected in import dynamics. Imports could increase by a still high 8.0% in 2015 (*versus 9.4%*) and by 6.4% in 2016 (*versus 7.0%*). Exports could increase in 2015 in real terms by 7.2% (*versus 8.2%*) and in 2016 by 6.4% (*versus 6.9%*).

In addition to the newly released data, the change in the forecast for export growth is also based on a change in expectations regarding the slowed growth of export markets. The new forecast for import growth especially considers a slower growth of exports.

Table C.1.1: Real GDP by Type of Expenditure – yearly

chained volumes, reference year 2010

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
Gross domestic product	bill. CZK 2010	3 865	3 954	4 031	3 995	3 974	4 053	4 235	4 348	4 452	4 558
	growth in %	**-4.8**	**2.3**	**2.0**	**-0.9**	**-0.5**	**2.0**	**4.5**	**2.7**	**2.4**	**2.4**
Private consumption exp.[1]	bill. CZK 2010	1 928	1 947	1 952	1 924	1 938	1 966	2 024	2 074	2 122	2 170
	growth in %	**-0.7**	**1.0**	**0.3**	**-1.5**	**0.7**	**1.5**	**2.9**	**2.5**	**2.3**	**2.3**
Government consumption exp.	bill. CZK 2010	807	810	786	772	790	804	822	838	851	862
	growth in %	**3.0**	**0.4**	**-3.0**	**-1.8**	**2.3**	**1.8**	**2.2**	**2.0**	**1.5**	**1.3**
Gross capital formation	bill. CZK 2010	1 029	1 074	1 094	1 050	997	1 041	1 156	1 189	1 224	1 262
	growth in %	**-18.1**	**4.4**	**1.8**	**-4.1**	**-5.0**	**4.4**	**11.1**	**2.8**	**3.0**	**3.1**
– Gross fixed capital formation	bill. CZK 2010	1 052	1 066	1 077	1 043	1 014	1 035	1 120	1 152	1 192	1 230
	growth in %	**-10.1**	**1.3**	**1.1**	**-3.2**	**-2.7**	**2.0**	**8.2**	**2.9**	**3.4**	**3.2**
– Change in stocks and valuables	bill. CZK 2010	-23	8	16	7	-18	6	36	36	32	32
Exports of goods and services	bill. CZK 2010	2 278	2 616	2 860	2 983	2 984	3 248	3 481	3 703	3 940	4 189
	growth in %	**-9.8**	**14.8**	**9.3**	**4.3**	**0.0**	**8.9**	**7.2**	**6.4**	**6.4**	**6.3**
Imports of goods and services	bill. CZK 2010	2 171	2 494	2 661	2 732	2 734	3 003	3 243	3 452	3 681	3 921
	growth in %	**-11.0**	**14.9**	**6.7**	**2.7**	**0.1**	**9.8**	**8.0**	**6.4**	**6.6**	**6.5**
Gross domestic exp.	bill. CZK 2010	3 763	3 831	3 832	3 746	3 726	3 812	4 002	4 101	4 196	4 294
	growth in %	**-5.5**	**1.8**	**0.0**	**-2.3**	**-0.5**	**2.3**	**5.0**	**2.5**	**2.3**	**2.3**
Methodological discrepancy[2]	bill. CZK 2010	-6	0	0	-1	-1	-4	-5	-4	-4	-4
Real gross domestic income	bill. CZK 2010	3 915	3 954	3 988	3 936	3 949	4 074	4 256	4 364	4 469	4 587
	growth in %	**-3.7**	**1.0**	**0.9**	**-1.3**	**0.3**	**3.2**	**4.4**	**2.5**	**2.4**	**2.6**
Contribution to GDP growth[3]											
– Gross domestic expenditure	percent. points	**-5.4**	**1.7**	**0.0**	**-2.2**	**-0.5**	**2.2**	**4.6**	**2.3**	**2.2**	**2.2**
– consumption	percent. points	**0.3**	**0.6**	**-0.5**	**-1.1**	**0.8**	**1.1**	**1.9**	**1.6**	**1.4**	**1.3**
– household expenditure	percent. points	**-0.3**	**0.5**	**0.1**	**-0.7**	**0.4**	**0.7**	**1.4**	**1.2**	**1.1**	**1.1**
– government expenditure	percent. points	**0.6**	**0.1**	**-0.6**	**-0.4**	**0.5**	**0.4**	**0.4**	**0.4**	**0.3**	**0.2**
– gross capital formation	percent. points	**-5.6**	**1.2**	**0.5**	**-1.1**	**-1.3**	**1.1**	**2.8**	**0.8**	**0.8**	**0.8**
– gross fixed capital formation	percent. points	**-2.9**	**0.4**	**0.3**	**-0.9**	**-0.7**	**0.5**	**2.0**	**0.8**	**0.9**	**0.8**
– change in stocks	percent. points	**-2.7**	**0.8**	**0.2**	**-0.2**	**-0.6**	**0.6**	**0.7**	**0.0**	**-0.1**	**0.0**
– Foreign balance	percent. points	**0.5**	**0.5**	**1.9**	**1.3**	**0.0**	**-0.2**	**-0.2**	**0.3**	**0.2**	**0.2**
– external balance of goods	percent. points	**0.6**	**0.8**	**2.0**	**1.4**	**0.1**	**0.0**	**-0.4**	**0.3**	**0.2**	**0.2**
– external balance of services	percent. points	**-0.1**	**-0.2**	**-0.1**	**-0.1**	**-0.1**	**-0.2**	**0.3**	**0.0**	**0.0**	**0.0**
Gross value added	bill. CZK 2010	3 483	3 583	3 654	3 622	3 603	3 702	.	.	.	.
	growth in %	**-5.5**	**2.9**	**2.0**	**-0.9**	**-0.5**	**2.7**	**.**	**.**	**.**	**.**
Net taxes on products	bill. CZK 2010	384	371	378	372	370	354	.	.	.	.

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, own calculations

Table C.1.2: Real GDP by Type of Expenditure – quarterly

chained volumes, reference year 2010

		2014				2015			
		Q1	Q2	Q3	Q4	Q1 Prelim.	Q2 Prelim.	Q3 Estimate	Q4 Forecast
Gross domestic product	bill. CZK 2010	946	1 015	1 037	1 054	985	1 062	1 079	1 109
	growth in %	**2.2**	**2.1**	**2.6**	**1.0**	**4.1**	**4.6**	**4.1**	**5.1**
	growth in % [1]	**2.2**	**2.1**	**2.3**	**1.3**	**4.1**	**4.6**	**4.7**	**4.8**
	quart.growth in % [1]	**-0.2**	**0.6**	**0.5**	**0.5**	**2.5**	**1.1**	**0.6**	**0.6**
Private consumption exp. [2]	bill. CZK 2010	462	490	503	512	475	504	517	527
	growth in %	**1.0**	**1.3**	**1.6**	**1.8**	**2.8**	**3.0**	**2.9**	**3.0**
Government consumption exp.	bill. CZK 2010	186	196	195	227	191	200	199	232
	growth in %	**1.3**	**2.3**	**0.4**	**3.0**	**2.8**	**2.2**	**2.0**	**2.0**
Gross capital formation	bill. CZK 2010	212	262	289	279	236	286	307	327
	growth in %	**1.5**	**10.9**	**6.1**	**-0.4**	**11.5**	**9.4**	**6.5**	**17.0**
− Gross fixed capital formation	bill. CZK 2010	230	248	266	291	237	266	287	330
	growth in %	**1.1**	**2.9**	**3.0**	**1.1**	**2.9**	**7.4**	**7.6**	**13.6**
− Change in stocks and valuables	bill. CZK 2010	-19	14	22	-12	-1	21	21	-4
Exports of goods and services	bill. CZK 2010	795	813	803	837	852	868	862	898
	growth in %	**11.8**	**8.7**	**8.5**	**6.7**	**7.2**	**6.8**	**7.3**	**7.3**
Imports of goods and services	bill. CZK 2010	709	744	751	798	771	796	805	872
	growth in %	**11.6**	**11.9**	**8.8**	**7.5**	**8.7**	**7.0**	**7.1**	**9.2**
Methodological discrepancy [3]	bill. CZK 2010	0	-1	-1	-2	1	-1	-2	-4
Real gross domestic income	bill. CZK 2010	949	1 022	1 043	1 060	994	1 068	1 082	1 111
	growth in %	**3.5**	**3.8**	**3.9**	**1.6**	**4.8**	**4.5**	**3.7**	**4.8**
Gross value added	bill. CZK 2010	871	930	943	958	901	965	.	.
	growth in %	**2.3**	**2.5**	**3.2**	**2.9**	**3.5**	**3.8**	.	.
	growth in % [1]	**2.1**	**2.4**	**2.9**	**3.4**	**3.4**	**3.8**	.	.
	quart.growth in % [1]	**1.1**	**0.6**	**0.7**	**0.9**	**1.2**	**0.9**	.	.
Net taxes on products	bill. CZK 2010	77	87	95	95	84	98	.	.

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, own calculations

Table C.1.3: Nominal GDP by Type of Expenditure – yearly

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
Gross domestic product	bill. CZK	3 922	3 954	4 023	4 042	4 077	4 261	4 482	4 642	4 820	5 014
	growth in %	-2.3	0.8	1.7	0.5	0.9	4.5	5.2	3.6	3.8	4.0
Private consumption [1]	bill. CZK	1 918	1 947	1 984	1 998	2 030	2 070	2 138	2 215	2 309	2 407
	growth in %	0.2	1.5	1.9	0.7	1.6	2.0	3.2	3.6	4.2	4.3
Government consumption	bill. CZK	812	810	792	783	801	828	858	886	910	932
	growth in %	6.0	-0.3	-2.2	-1.2	2.4	3.3	3.6	3.3	2.7	2.4
Gross capital formation	bill. CZK	1 040	1 074	1 087	1 061	1 010	1 076	1 211	1 258	1 306	1 357
	growth in %	-16.8	3.3	1.2	-2.4	-4.9	6.6	12.6	3.9	3.8	3.9
– Gross fixed capital formation	bill. CZK	1 063	1 066	1 069	1 052	1 025	1 065	1 167	1 216	1 268	1 321
	growth in %	-8.7	0.2	0.3	-1.6	-2.6	4.0	9.6	4.1	4.3	4.1
– Change in stocks and valuables	bill. CZK	-24	8	18	9	-15	10	44	43	38	36
External balance	bill. CZK	152	123	159	200	236	286	275	283	295	317
– Exports of goods and services	bill. CZK	2 307	2 616	2 881	3 097	3 150	3 571	3 791	4 003	4 275	4 568
	growth in %	-9.3	13.4	10.1	7.5	1.7	13.4	6.2	5.6	6.8	6.9
– Imports of goods and services	bill. CZK	2 154	2 494	2 722	2 897	2 914	3 285	3 516	3 721	3 980	4 251
	growth in %	-12.3	15.8	9.1	6.5	0.6	12.7	7.0	5.8	7.0	6.8
Gross national income	bill. CZK	3 646	3 656	3 718	3 788	3 831	3 927	4 151	4 290	4 436	4 601
	growth in %	-2.9	0.3	1.7	1.9	1.1	2.5	5.7	3.3	3.4	3.7
Primary income balance	bill. CZK	-276	-297	-305	-253	-246	-334	-330	-352	-383	-413

1) The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.
Source: CZSO, own calculations

Table C.1.4: Nominal GDP by Type of Expenditure – quarterly

		2014				2015			
		Q1	Q2	Q3	Q4	Q1 Prelim.	Q2 Prelim.	Q3 Estimate	Q4 Forecast
Gross domestic product	bill. CZK	983	1 066	1 092	1 119	1 037	1 124	1 139	1 181
	growth in %	4.4	5.0	5.6	3.1	5.5	5.4	4.3	5.6
Private consumption [1]	bill. CZK	485	515	531	539	499	533	548	558
	growth in %	1.4	1.8	2.4	2.3	2.9	3.5	3.2	3.3
Government consumption	bill. CZK	186	200	200	243	194	207	206	251
	growth in %	2.1	3.6	2.0	5.2	4.4	3.7	3.1	3.1
Gross capital formation	bill. CZK	217	270	299	290	246	299	322	344
	growth in %	2.6	12.9	8.9	2.0	13.5	10.9	7.8	18.4
– Gross fixed capital formation	bill. CZK	236	254	274	301	246	277	299	346
	growth in %	2.6	4.5	5.5	3.2	4.3	9.0	8.8	14.9
– Change in stocks and valuables	bill. CZK	-19	16	25	-11	0	23	24	-2
External balance	bill. CZK	96	81	63	46	98	84	63	30
– Exports of goods and services	bill. CZK	872	892	887	921	935	953	930	973
	growth in %	16.9	13.3	14.2	9.5	7.3	6.9	4.9	5.6
– Imports of goods and services	bill. CZK	776	810	824	874	837	869	867	943
	growth in %	14.9	14.2	12.8	9.5	7.9	7.3	5.2	7.8

1) The consumption of non-profit institutions serving households (NPISH) is included in the private consumption.
Source: CZSO, own calculations

Graph C.1.1: Gross Domestic Product (real)

chained volumes, bill. CZK in const. prices of 2010, seasonally adjusted, growth rates in %
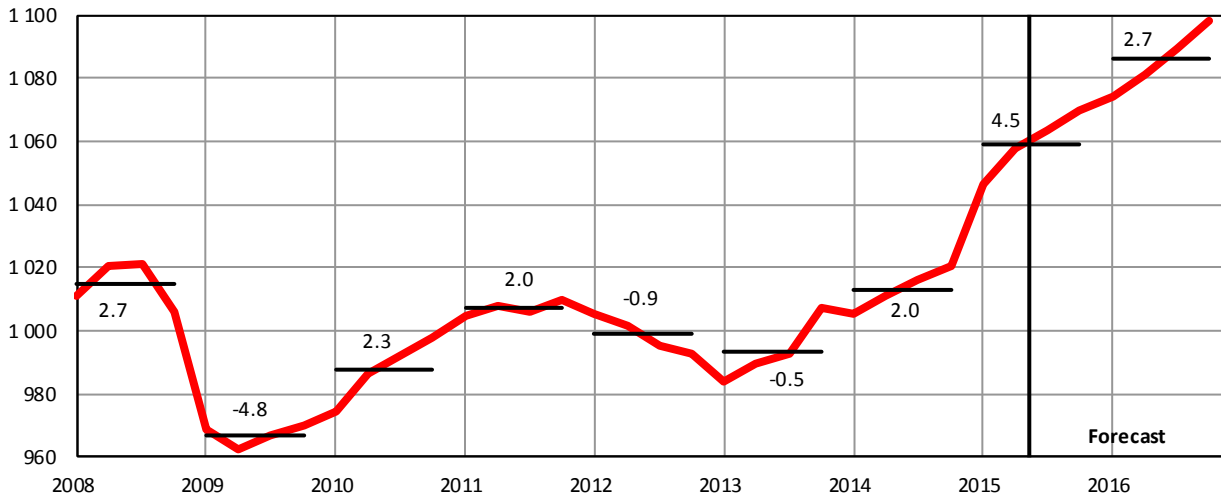
Source: CZSO, own calculations

Graph C.1.2: Gross Domestic Product (real)

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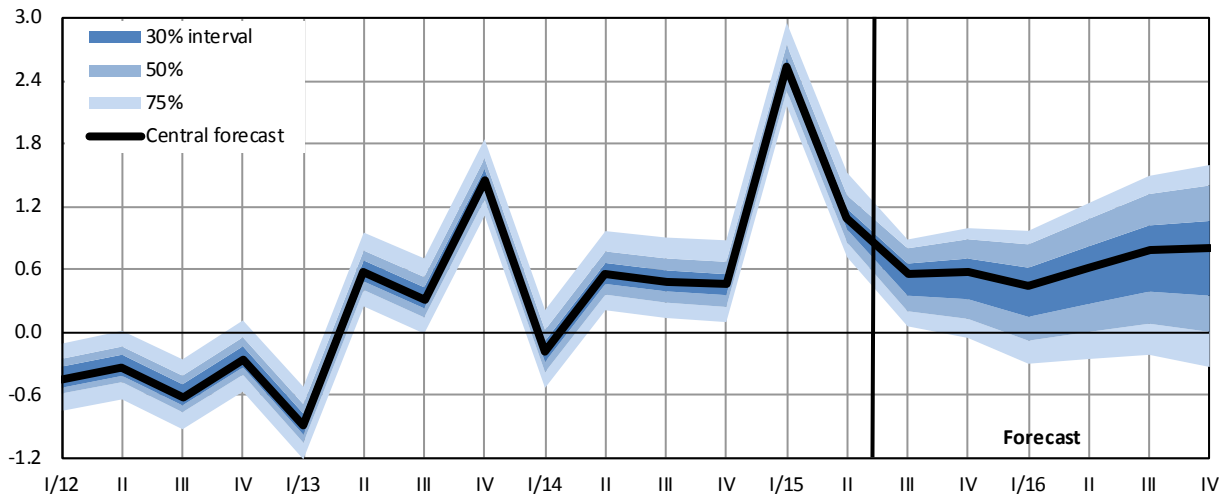
Source: CZSO, own calculations

Graph C.1.3: Gross Domestic Product and Real Gross Domestic Income

YoY growth rate, in %
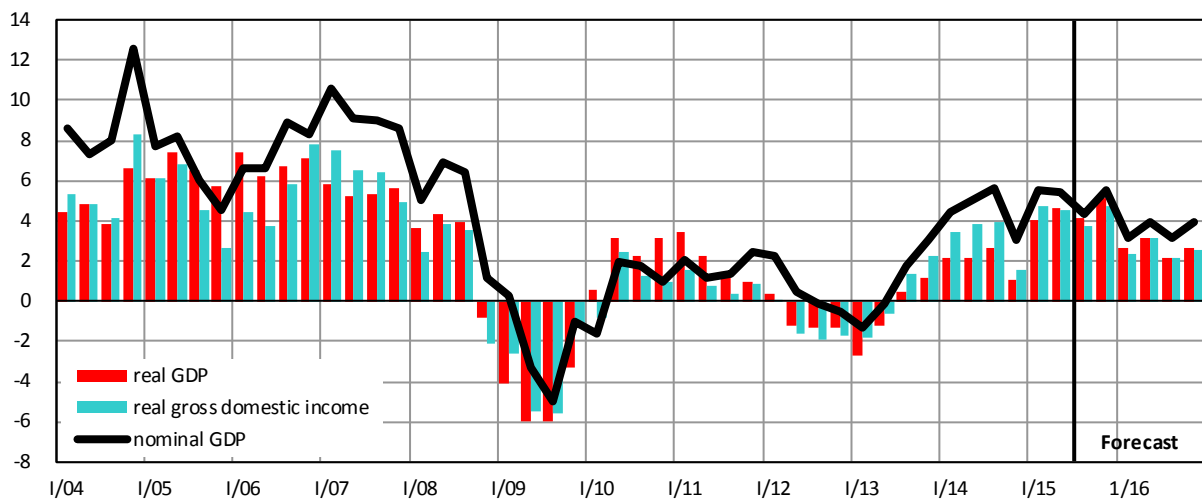
Source: CZSO, own calculations

Graph C.1.4: Gross Domestic Product (real) – contributions to YoY growth

decomposition of GDP YoY growth, contributions in percentage points, GDP growth rate in %
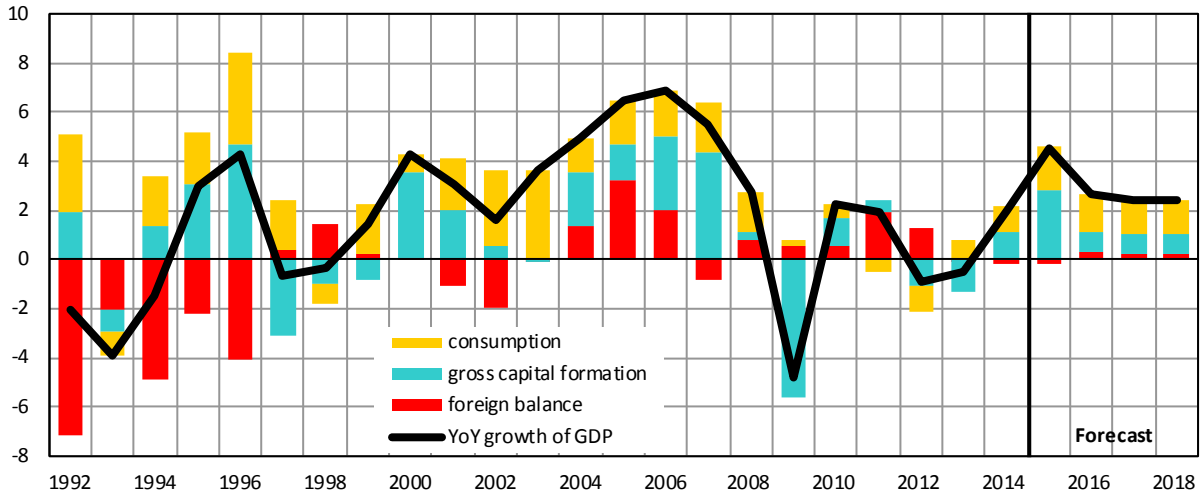
Source: CZSO, own calculations

Graph C.1.5: Private Consumption (incl. NPISH)

YoY growth rate, in %
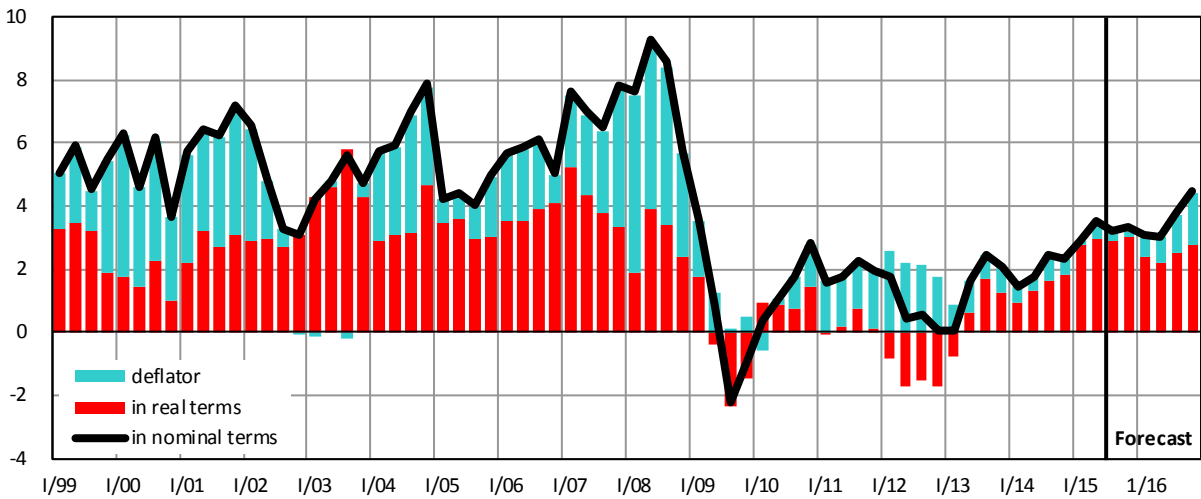
Source: CZSO, own calculations

Graph C.1.6: Gross Fixed Capital Formation

yearly moving sums, bill. CZK in const. prices of 2010, growth rates in %
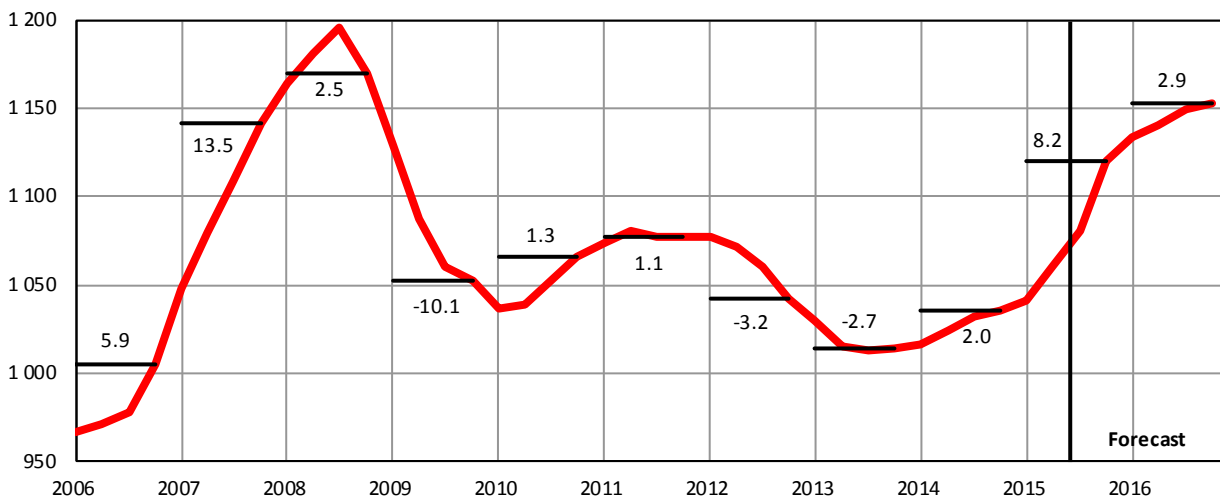
Source: CZSO, own calculations

Graph C.1.7: Decomposition of Real GDP Growth

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

Legend:
- external balance
- effective domestic demand
- change in inventories and valuables
- GDP growth
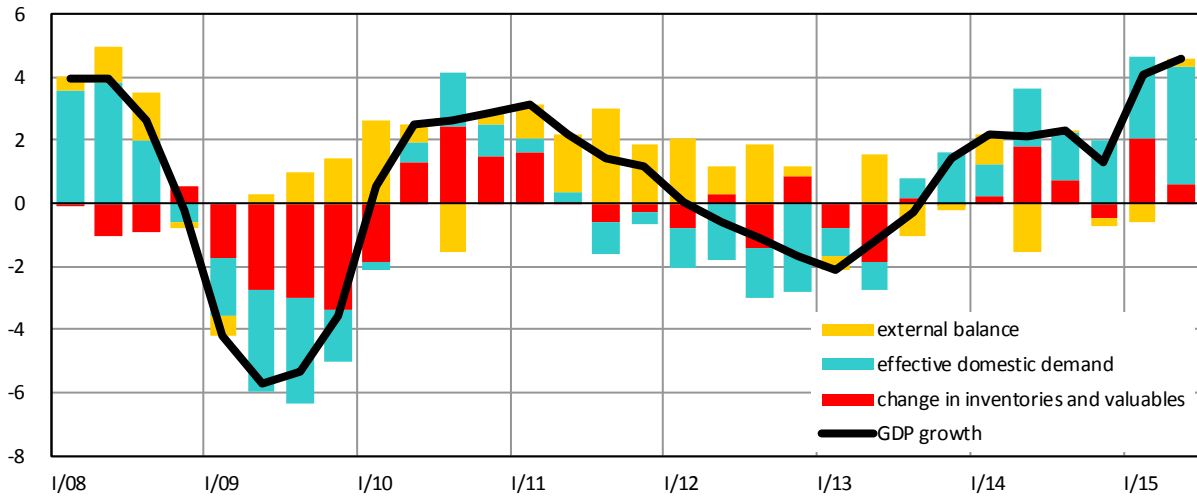
Source: CZSO

Graph C.1.8: Ratio of Exports and Imports of Goods and Services to GDP (nominal)

yearly moving sums, in %

Legend:
- exports
- imports

Forecast
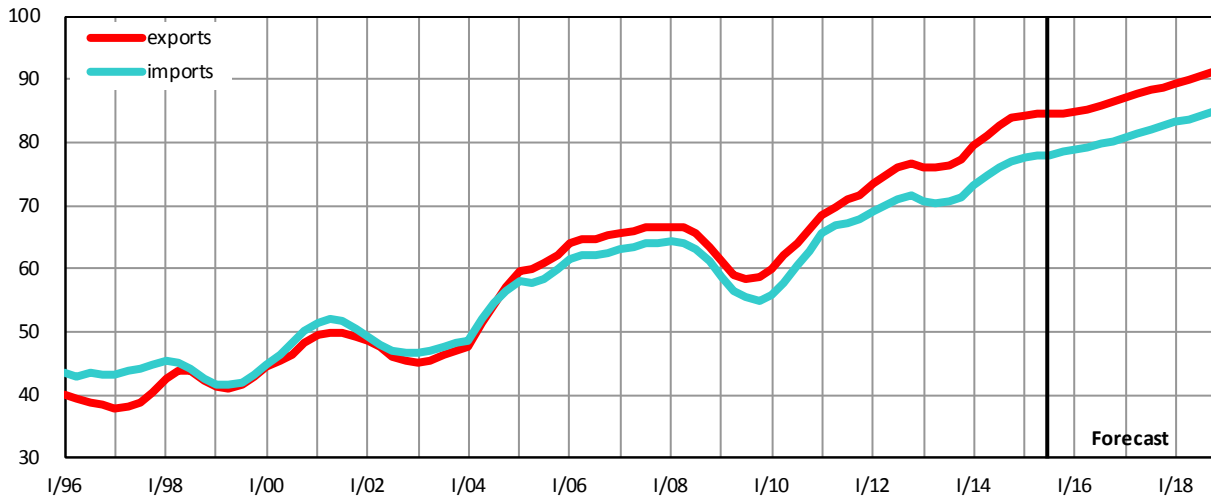
Source: CZSO, own calculations

Graph C.1.9: GDP – Income Structure

yearly moving sums, in %

Forecast

Legend:
- Compensation of employees (dom. concept)
- Gross operating surplus
- Net taxes on products (rhs)
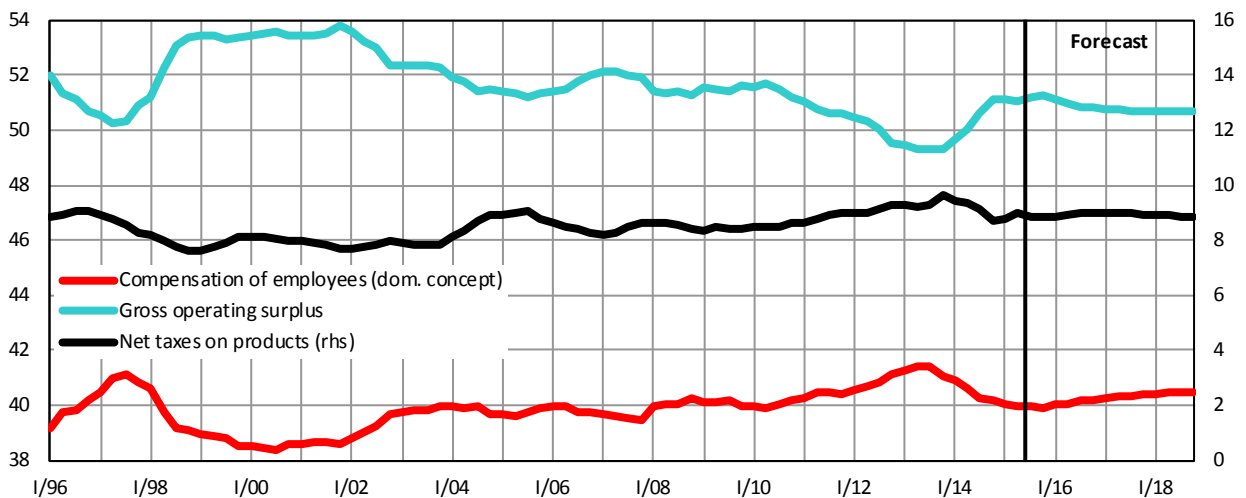
Source: CZSO, own calculations

Table C.1.5: GDP by Type of Income – yearly

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
GDP	bill. CZK	**3 922**	**3 954**	**4 023**	**4 042**	**4 077**	**4 261**	**4 482**	**4 642**	**4 820**	**5 014**
	growth in %	-2.3	0.8	1.7	0.5	0.9	4.5	5.2	3.6	3.8	4.0
Balance of taxes and subsidies	bill. CZK	**329**	**341**	**360**	**376**	**392**	**370**	**396**	**418**	**431**	**443**
	growth in %	-2.9	3.5	5.7	4.4	4.2	-5.7	7.1	5.6	3.2	2.6
− Taxes on production and imports	bill. CZK	**430**	**447**	**488**	**507**	**532**	**524**	.	.	.	.
	growth in %	1.5	4.0	9.0	4.1	4.8	-1.4	.	.	.	.
− Subsidies on production	bill. CZK	**101**	**107**	**127**	**131**	**140**	**154**	.	.	.	.
	growth in %	19.4	5.7	19.5	3.2	6.3	10.4	.	.	.	.
Compensation of employees	bill. CZK	**1 569**	**1 589**	**1 626**	**1 663**	**1 675**	**1 712**	**1 789**	**1 866**	**1 947**	**2 031**
	growth in %	-3.0	1.3	2.3	2.3	0.7	2.3	4.5	4.3	4.3	4.3
− Wages and salaries	bill. CZK	**1 202**	**1 209**	**1 236**	**1 268**	**1 273**	**1 298**	**1 352**	**1 410**	**1 471**	**1 535**
	growth in %	-2.0	0.6	2.2	2.5	0.4	1.9	4.2	4.3	4.3	4.3
− Social security contributions	bill. CZK	**367**	**380**	**390**	**396**	**402**	**415**	**437**	**456**	**475**	**496**
	growth in %	-6.1	3.7	2.5	1.6	1.4	3.3	5.3	4.3	4.3	4.3
Gross operating surplus	bill. CZK	**2 024**	**2 024**	**2 037**	**2 002**	**2 011**	**2 179**	**2 297**	**2 358**	**2 441**	**2 540**
	growth in %	-1.7	0.0	0.6	-1.7	0.4	8.4	5.4	2.6	3.5	4.1
− Consumption of capital	bill. CZK	**841**	**850**	**863**	**879**	**906**	**916**	**942**	**974**	**1 011**	**1 050**
	growth in %	3.6	1.0	1.6	1.9	3.0	1.1	2.9	3.3	3.8	3.9
− Net operating surplus	bill. CZK	**1 183**	**1 174**	**1 173**	**1 123**	**1 105**	**1 263**	**1 355**	**1 384**	**1 431**	**1 490**
	growth in %	-5.2	-0.8	-0.1	-4.3	-1.6	14.3	7.3	2.1	3.4	4.1

Source: CZSO, own calculations

Table C.1.6: GDP by Type of Income – quarterly

		2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1 Prelim.	2015 Q2 Prelim.	2015 Q3 Estimate	2015 Q4 Forecast
GDP	bill. CZK	**983**	**1 066**	**1 092**	**1 119**	**1 037**	**1 124**	**1 139**	**1 181**
	growth in %	4.4	5.0	5.6	3.1	5.5	5.4	4.3	5.6
Balance of taxes and subsidies	bill. CZK	**78**	**96**	**107**	**89**	**87**	**108**	**107**	**93**
	growth in %	-4.1	0.8	-1.5	-16.8	12.5	12.9	0.1	4.5
Compensation of employees	bill. CZK	**411**	**424**	**423**	**454**	**427**	**444**	**441**	**476**
	growth in %	2.5	2.2	1.8	2.6	3.9	4.6	4.3	4.9
− Wages and salaries	bill. CZK	**310**	**321**	**321**	**346**	**320**	**334**	**334**	**363**
	growth in %	2.0	1.9	1.3	2.4	3.3	4.1	4.3	4.9
− Social security contributions	bill. CZK	**101**	**103**	**102**	**108**	**107**	**110**	**107**	**114**
	growth in %	3.9	3.0	3.2	3.1	5.9	6.1	4.3	4.9
Gross operating surplus	bill. CZK	**494**	**546**	**562**	**576**	**522**	**572**	**591**	**611**
	growth in %	7.6	8.1	10.3	7.5	5.7	4.7	5.1	6.2

Source: CZSO, own calculations

C.2 Prices

C.2.1 Consumer Prices

The YoY growth in consumer prices is still very low, reaching 0.4% (*versus 0.6%*) in September 2015. The contribution of administrative measures was only 0.1 pp. The deviation of the recorded development from the forecast is due to both a non-expected renewed decrease in the crude oil price and the related decrease in fuel prices, and the stronger than expected koruna.

The price impacts of cheap crude oil are well apparent from the contributions of individual divisions of the consumer basket. The smallest contribution to the September YoY inflation was made by the division *transport* (–0.5 pp). Fuels were cheaper by 15.1% YoY. In contrast, the largest contribution recorded the division *alcoholic beverages and tobacco* (0.5 pp).

The year 2015 has been characterised so far by very low inflation, mainly due to the aforementioned decrease in the crude oil price and the low growth of prices in the euro zone; the average inflation rate will probably be the same as in 2014.

Administrative measures[2] were already reflected in consumer prices mainly in the first quarter of 2015 (for example, an increase in excise duty on tobacco products, the introduction of the second reduced VAT rate or the abolition of most fees in health care). In the following quarters, impacts of administrative measures were already negligible. Unlike in the July Forecast, we expect that suppliers will cut the price of natural gas mostly at the beginning of 2016, although we cannot rule out the possibility that there will be minor price impacts if some suppliers cut their price already this year. We expect a zero contribution of administrative measures to the YoY growth of consumer prices in December 2015 (*versus –0.1 pp*).

Supply and demand factors influence consumer prices in the opposite direction, and the same should also be true in the remaining part of 2015. On the supply side, the anti-inflationary external cost effects take place due to the aforementioned significant decrease in the crude oil price and decreasing producer prices in the euro zone. They are accompanied by a slight decrease in unit labour costs. On the demand side, in contrast, proinflationary pressures are starting to manifest themselves due to dynamic growth of GDP and the probably already closed output gap (see Chapter B.1). The CZK/USD exchange rate also has a proinflationary effect.

In 2015, the average inflation rate should reach 0.4% (*versus 0.5%*), with a YoY increase in consumer prices of 0.6% (*versus 0.8%*) in December.

---

[2] They include changes in regulated prices (according to the CZSO reporting) and the impact of changes in indirect taxes.

In 2016, out of administrative measures a further increase in excise duty on tobacco products will take effect in consumer prices mainly in the first quarter (contribution of 0.2 pp). In the group of prices reported by the CZSO as regulated prices, we can expect at the beginning of 2016 more visible price impacts of a decrease in the natural gas price (–0.2 pp) and electricity price (–0.1 pp). In the second half of 2016, we expect a decrease in VAT in food services from 21% to 15%, except for alcoholic beverages. The expected contribution of this measure to MoM inflation at the time of its introduction (–0.2 to –0.1 pp) will not manifest itself more considerably, due to its timing, 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.

In 2016, inflation should accelerate after the favourable supply shock, in the form of a YoY lower crude oil price, dissipates. In 2016, the main factors of the price development will probably have a neutral (exchange rate) or a proinflationary effect (increasing demand in connection with the growing positive output gap, growth of crude oil prices and unit labour costs).

We expect YoY inflation to return into the tolerance band surrounding the 2% target of the CNB during 2016 (after more than two years). **In 2016, the average inflation rate** should reach 1.1% (*versus 1.5%*), with a YoY increase in consumer prices of 1.8% (*versus 2.0%*) in December. The decrease in the forecast for inflation is mainly due to the decreased expected crude oil prices, to a lesser extent also due to the assumption of the stronger koruna towards both EUR and USD.

C.2.2 Deflators

A comprehensive indicator of domestic inflation is the gross domestic product deflator, which is a resultant of the gross domestic expenditure deflator and the deflator of the terms of trade. In the second quarter of 2015, its growth of 0.8% (*versus 0.7%*) was caused by an increase in the gross domestic expenditure deflator of 0.9% (*versus 0.6%*) and by a deterioration of the terms of trade of 0.1% (*versus growth of 0.2%*). While the growth of the household consumption deflator was nearly identical to the estimate, the growth rates of the government consumption deflator and gross capital formation deflator were considerably higher, probably due to strong demand pressures resulting from the accelerating investment activity.

For 2015, mainly due to a deterioration of the terms of trade, we are decreasing the forecast for GDP deflator growth. We expect it to grow by 0.7% (*versus 1.0%*) in 2015 and by 0.9% (*versus 1.5%*) in 2016. The terms of trade should decrease by 0.1% (*versus growth of 0.4%*) in 2015, as in 2016 (*versus growth of 0.4%*). The gross

domestic expenditure deflator could increase by 0.8% (*versus 0.7%*) in 2015 and further by 1.1% (*versus 1.3%*) in 2016.

The main change, i.e. a decrease in the terms of trade, is based on the observed higher decrease in export prices related to the return of export enterprises' profitability to the normal extent and a slightly stronger than forecast exchange rate in 2015. The growth of import prices of non-fuel commodities is also considered in the forecast.

Table C.2.1: Prices – yearly

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
Consumer Price Index											
average of a year	*average 2005=100*	113.3	114.9	117.1	121.0	122.7	123.2	123.7	125.0	127.4	129.8
	growth in %	**1.0**	**1.5**	**1.9**	**3.3**	**1.4**	**0.4**	**0.4**	**1.1**	**1.9**	**1.9**
December	*average 2005=100*	112.9	115.5	118.3	121.1	122.8	122.9	123.6	125.9	128.3	130.6
	growth in %	**1.0**	**2.3**	**2.4**	**2.4**	**1.4**	**0.1**	**0.6**	**1.8**	**1.9**	**1.9**
of which the contribution of											
− administrative measures [1]	*percentage points*	**1.0**	**1.6**	**1.2**	**2.2**	**1.0**	**-0.2**	**0.0**	**0.0**	**0.2**	**0.2**
− market increase	*percentage points*	**0.0**	**0.7**	**1.2**	**0.1**	**0.4**	**0.3**	**0.5**	**1.9**	**1.7**	**1.6**
HICP	*average 2005=100*	112.4	113.7	116.2	120.3	121.9	122.4	122.9	124.1	126.4	128.8
	growth in %	**0.6**	**1.2**	**2.1**	**3.5**	**1.4**	**0.4**	**0.4**	**1.0**	**1.9**	**1.9**
Offering prices of flats	*average 2010=100*	104.3	100.0	95.1	96.1	97.2	100.7	.	.	.	.
	growth in %	**-2.7**	**-4.1**	**-4.9**	**1.1**	**1.1**	**3.6**	**.**	**.**	**.**	**.**
Deflators											
GDP	*average 2010=100*	101.5	100.0	99.8	101.2	102.6	105.1	105.8	106.8	108.3	110.0
	growth in %	**2.6**	**-1.5**	**-0.2**	**1.4**	**1.4**	**2.5**	**0.7**	**0.9**	**1.4**	**1.6**
Domestic final use	*average 2010=100*	100.2	100.0	100.8	102.6	103.1	104.3	105.1	106.3	107.8	109.4
	growth in %	**1.5**	**-0.2**	**0.8**	**1.7**	**0.5**	**1.1**	**0.8**	**1.1**	**1.4**	**1.4**
Consumption of households	*average 2010=100*	99.5	100.0	101.6	103.9	104.7	105.3	105.6	106.8	108.8	110.9
	growth in %	**0.9**	**0.5**	**1.6**	**2.2**	**0.9**	**0.5**	**0.3**	**1.1**	**1.9**	**1.9**
Consumption of government	*average 2010=100*	100.6	100.0	100.8	101.4	101.5	103.0	104.4	105.7	107.0	108.2
	growth in %	**2.9**	**-0.6**	**0.8**	**0.6**	**0.1**	**1.5**	**1.3**	**1.3**	**1.2**	**1.1**
Fixed capital formation	*average 2010=100*	101.1	100.0	99.2	100.9	101.0	102.9	104.2	105.5	106.4	107.4
	growth in %	**1.5**	**-1.1**	**-0.8**	**1.7**	**0.1**	**1.9**	**1.3**	**1.2**	**0.9**	**0.9**
Exports of goods and services	*average 2010=100*	101.2	100.0	100.7	103.8	105.6	110.0	108.9	108.1	108.5	109.1
	growth in %	**0.5**	**-1.2**	**0.7**	**3.1**	**1.7**	**4.1**	**-1.0**	**-0.7**	**0.4**	**0.5**
Imports of goods and services	*average 2010=100*	99.2	100.0	102.3	106.1	106.6	109.4	108.4	107.8	108.1	108.4
	growth in %	**-1.5**	**0.8**	**2.3**	**3.7**	**0.5**	**2.6**	**-0.9**	**-0.6**	**0.3**	**0.3**
Terms of trade	*average 2010=100*	102.0	100.0	98.5	97.9	99.0	100.5	100.4	100.3	100.3	100.6
	growth in %	**2.0**	**-2.0**	**-1.5**	**-0.6**	**1.2**	**1.5**	**-0.1**	**-0.1**	**0.0**	**0.3**

1) The contribution of increase in regulated prices and in indirect taxes to increase of December YoY consumer price inflation.
Source: CZSO, Eurostat, own calculations

Table C.2.2: Prices – quarterly

| | | 2014 | | | | 2015 | | | |
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 Estimate	Q4 Forecast
Consumer Price Index	average 2005=100	123.0	123.2	123.3	123.1	123.2	124.0	123.8	123.6
	growth in %	**0.2**	**0.2**	**0.6**	**0.5**	**0.1**	**0.7**	**0.4**	**0.4**
of which the contribution of									
– administrative measures [1]	percentage points	**-0.6**	**-0.5**	**-0.3**	**-0.3**	**0.2**	**0.3**	**0.2**	**0.1**
– market increase	percentage points	**0.8**	**0.7**	**0.9**	**0.8**	**-0.1**	**0.4**	**0.2**	**0.3**
HICP	average 2005=100	122.3	122.5	122.7	122.3	122.3	123.3	123.1	122.8
	growth in %	**0.3**	**0.2**	**0.7**	**0.5**	**0.0**	**0.7**	**0.3**	**0.4**
Offering prices of flats	average 2010=100	99.3	100.6	101.9	101.2	102.9	105.6	108.1	.
	growth in %	**3.0**	**4.1**	**4.6**	**2.7**	**3.6**	**5.0**	**6.1**	**.**
Deflators									
GDP	average 2010=100	103.9	105.1	105.3	106.1	105.3	105.8	105.5	106.6
	growth in %	**2.2**	**2.8**	**2.9**	**2.0**	**1.3**	**0.8**	**0.2**	**0.4**
Domestic final use	average 2010=100	103.1	104.0	104.4	105.4	104.0	105.0	105.1	106.1
	growth in %	**0.6**	**1.0**	**1.5**	**1.4**	**0.9**	**0.9**	**0.7**	**0.7**
Consumption of households	average 2010=100	104.9	105.2	105.6	105.4	105.0	105.7	105.9	105.8
	growth in %	**0.4**	**0.4**	**0.8**	**0.5**	**0.1**	**0.5**	**0.3**	**0.3**
Consumption of government	average 2010=100	99.8	102.2	102.3	106.9	101.4	103.7	103.5	108.1
	growth in %	**0.7**	**1.3**	**1.5**	**2.2**	**1.6**	**1.5**	**1.1**	**1.1**
Fixed capital formation	average 2010=100	102.5	102.6	103.0	103.5	103.9	104.1	104.2	104.6
	growth in %	**1.6**	**1.6**	**2.3**	**2.0**	**1.4**	**1.5**	**1.1**	**1.1**
Exports of goods and services	average 2010=100	109.7	109.7	110.4	110.0	109.7	109.8	107.9	108.3
	growth in %	**4.6**	**4.2**	**5.3**	**2.6**	**0.1**	**0.1**	**-2.3**	**-1.6**
Imports of goods and services	average 2010=100	109.4	108.9	109.7	109.5	108.6	109.1	107.7	108.2
	growth in %	**2.9**	**2.1**	**3.6**	**1.9**	**-0.7**	**0.2**	**-1.8**	**-1.2**
Terms of trade	average 2010=100	100.2	100.7	100.6	100.5	101.0	100.6	100.1	100.1
	growth in %	**1.6**	**2.1**	**1.6**	**0.7**	**0.8**	**-0.1**	**-0.5**	**-0.4**

1) The contribution of increase in regulated prices and in indirect taxes to increase of December YoY consumer price inflation.
Source: CZSO, Eurostat, own calculations

Graph C.2.1: Consumer Prices

YoY growth rate, in %
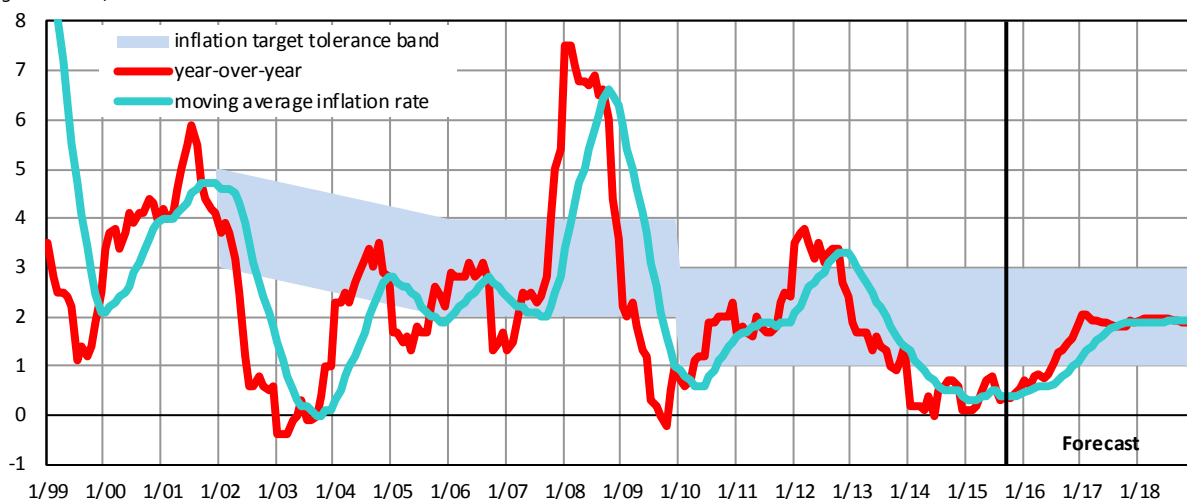
Note: For the years 2002–2005 the highlighted area represents target band for headline inflation, whereas from 2006 on it is the tolerance band of the CNB's point target for headline inflation.
Source: CNB, CZSO, own calculations

Graph C.2.2: Consumer Prices

decomposition of YoY growth of CPI, contributions in pp, CPI growth rate in %, Transport excluding administrative measures and excises
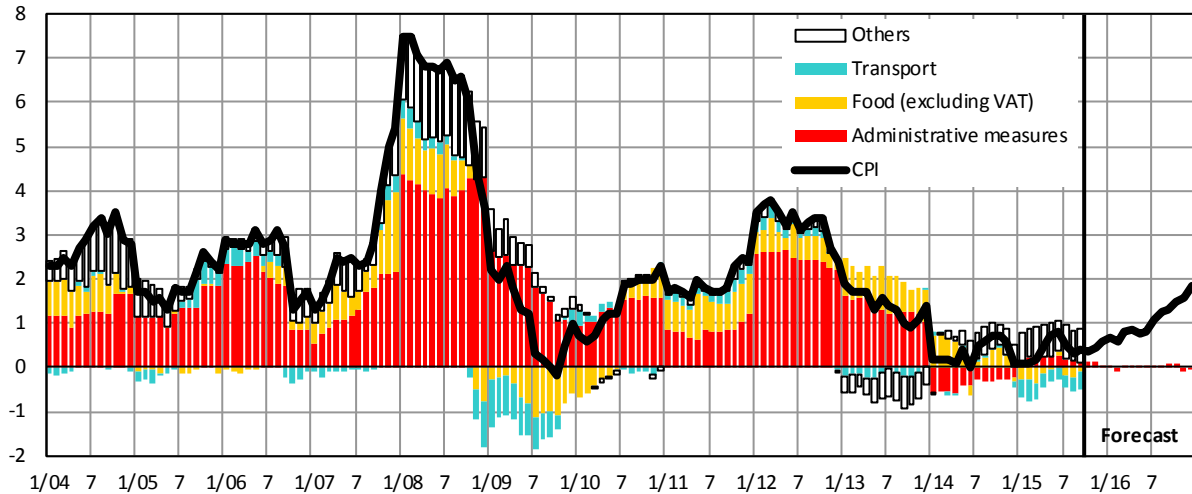
Source: CZSO, own calculations

Graph C.2.3: Indicators of Consumer Prices

YoY growth rate, in %
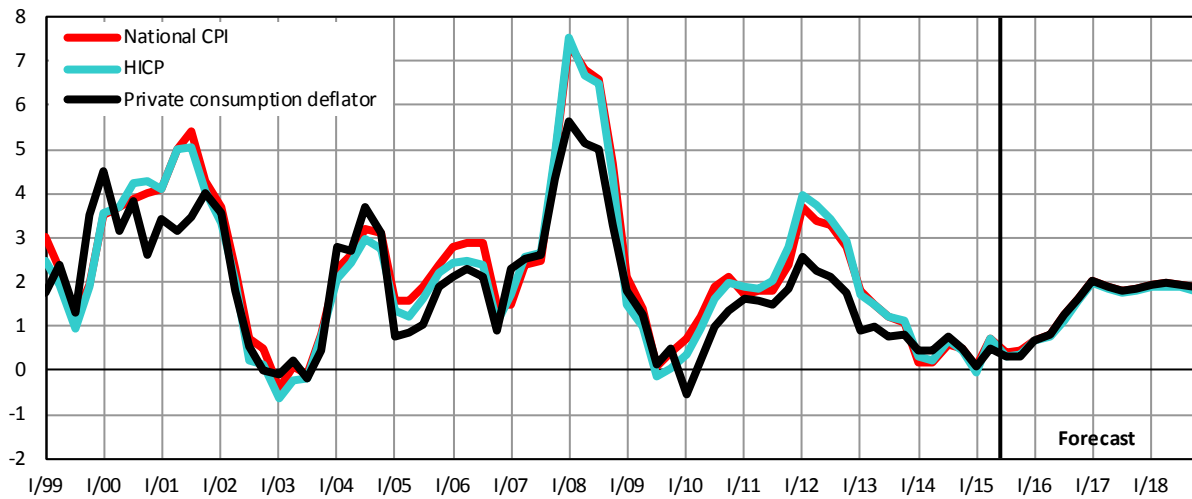
Source: CZSO, Eurostat, own calculations

Graph C.2.4: GDP Deflator

YoY growth rate, in %
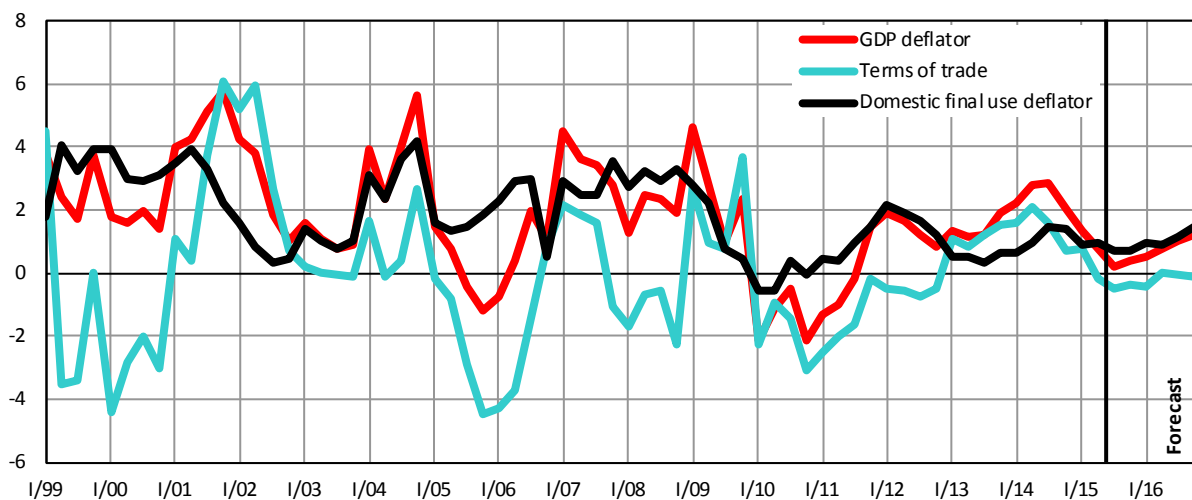
Source: CZSO, own calculations

Graph C.2.5: Terms of Trade

YoY growth rate, in %
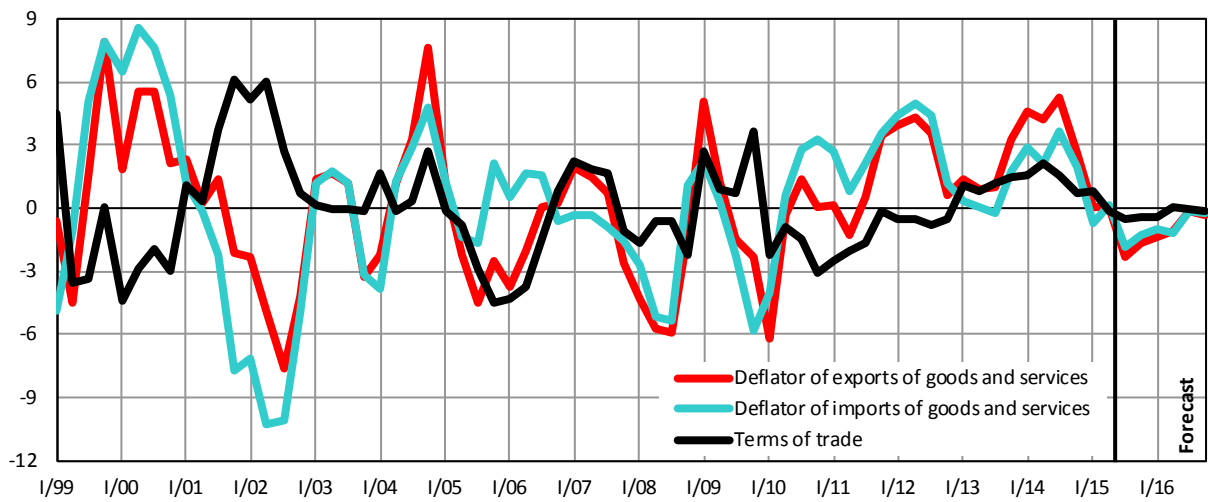
Source: CZSO, own calculations

C.3 Labour Market

The labour market situation in the second quarter of 2015 was in line with the position of the economy in the economic cycle. The considerable growth of employment continued, driven by the category of employees, and the unemployment rate decreased considerably. Growth of the average wage and the wage bill accelerated.

C.3.1 Employment

According to the LFS, **employment** grew by 1.7% YoY (*versus 1.4%*) in the second quarter of 2015, especially due to an increase in the number of employees of 2.4% (*versus 1.7%*). The shift of self-employed persons to the category of employees continued, which has been apparent in particular in technical professions; in terms of sectors, manufacturing contributed to employment growth considerably (growth of 4.3%).

Graph C.3.1: Employees in Different Statistics
YoY growth rate, in %, business statistics in full-time equivalent
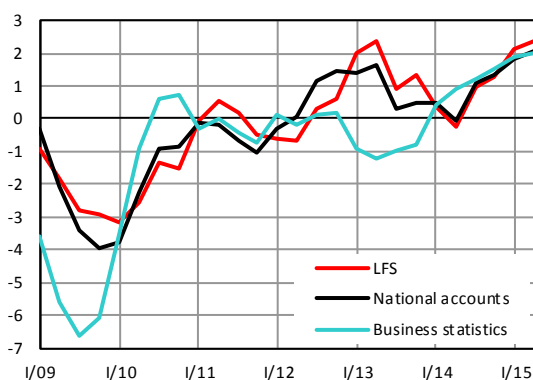
Source: CZSO

For the forecast for employment, we assume that employers will prefer the growth of wages to a further more significant increase in the number of employed persons. The reasons include mainly the rising frictions that will increasingly manifest themselves in regional and professional mismatches between labour demand and supply. At present, a considerable increase in the number of vacancies is already apparent, coinciding with growing employment. Citizens' small willingness for migration for work or longer commuting will also contribute considerably to such frictions.

The employment development in the second quarter of 2015 is mainly behind the increase in the forecast for employment growth in 2015 to 1.3% (*versus 1.0%*). We are also slightly increasing the forecast for 2016 to 0.3% (*versus 0.2%*). The revision of monthly LFS data has also been reflected in a change in the forecast for both employment and unemployment development where, compared to the data on which the previous forecast was based, there was a considerable level increase in the employment rate and a decrease in the unemployment rate for the beginning of 2015.

C.3.2 Unemployment

The improving economic situation has resulted in a very quick reduction of the number of unemployed persons registered at labour offices and also according to the LFS statistics. The registered unemployment statistics indicate both the continuing ability of unemployed to find work on their own and improved functioning of labour offices. Another positive factor is also a decrease in the number of long-term unemployed (also those unemployed for more than 24 months), which has been taking place since the beginning of 2015. A similar picture can be observed in the LFS statistics where the seasonally adjusted long-term unemployment rate decreased considerably in QoQ terms, having factually stagnated since the beginning of 2014. To this outcome contributed both the increased number of long-term unemployed who found work and a decrease in the number of short-term unemployed who have not found work and have become the long-term unemployed.

Graph C.3.2: Indicators of Unemployment
seasonally adjusted data, in %
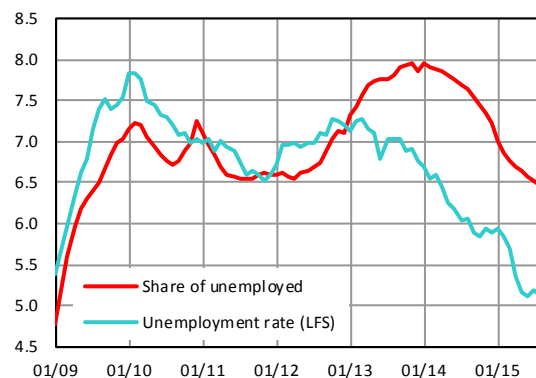
Source: CZSO, Ministry of Labour and Social Affairs, own calculations
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Relatively strong economic growth, especially in 2015, should manifest itself in a further decrease in the unemployment rate, which will be however hampered by the already mentioned structural factors. The **unemployment rate** according to the LFS should average 5.2% in 2015 (*versus 5.7%*). The change in the forecast is especially due to the inclusion of the result of the second quarter of 2015 and the performed revision of LFS monthly data. In relation to the generally benign economic development, we also expect a decrease in the unemployment rate to 4.9% (*versus 5.5%*) in 2016.

C.3.3 Economic Activity Rate

The **economic activity rate** (15–64 year-olds) grew by 0.7 pp YoY in the second quarter of 2015 (*versus 1.0 pp*). For the years to come, we assume its further increase. Structural factors in the form of the increasing weight of cohorts with a naturally high economic

activity rate (especially of those aged 40–49) and the increasing of the statutory retirement age should play a crucial role.

C.3.4 Wages

The wage bill (national accounts methodology, domestic concept) increased by 4.1% in the second quarter of 2015 (*versus 4.4%*) and in line with expectations it posted YoY growth acceleration. A considerable increase in the wage bill in manufacturing of 6.2% contributed to this outcome. The wage bill increased by 5.3% in the section *Public administration, education, health and social work*, due to the abatement of restrictions in the budgetary sphere.

Based on the available data of the state budget cash collection, we estimate that the growth of the wage bill was approximately at the same level in the third quarter of 2015 as in the second quarter of 2015. Considering the improving financial situation of the private sector, the payment of above-standard volume of bonuses at the end of this year is also probable.

From the longer-term perspective, a low inflation rate will weigh on the nominal growth of the wage bill; in contrast, the expected solid growth of real labour productivity should take effect in the direction of higher wages. The real labour productivity, however, is in 2015 burdened with a statistical effect of a change in excise taxes on tobacco products. Compared to the last forecast, the impact of the expected shortage of qualified employees in some professions and regions on the wage growth should be more significant due to a downward revision of the forecast for the unemployment rate. In the budgetary sphere, we also expect the solid growth of the wage bill in 2016, also from the perspective of increasing wage funds in connection with the Civil Service Act.

Even in spite of a slightly lower than expected growth of the wage bill in the second quarter of 2015, we leave the forecast for 2015 at 4.2%. The wage bill should also grow at a similar rate (by 4.3%) in ensuing years, while the forecast has been increased by 0.2 pp. However, the growth of unit labour costs should remain at an acceptable level, posing no risks to the reduction of price competitiveness of the Czech economy. The ratio of compensation of employees to GDP should also be near the long-term average of approximately 40%.

Graph C.3.3: Nominal Monthly Wage
YoY growth rate, in %
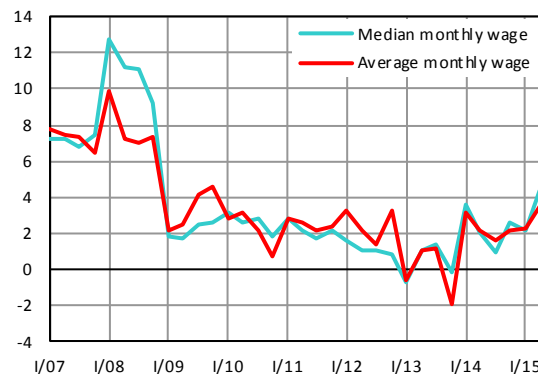
Source: CZSO

The average wage (business statistics, full-time equivalent) increased by 3.4% (*versus 3.2%*) in the second quarter of 2015, with the growth of wages in both the business and non-business spheres contributing to this outcome. In terms of sectors, public administration and defence (growth of 5.6%) and construction (5.1%) participated in this outcome positively, and growth could also be seen in manufacturing (3.7%). The positive signal for household consumption is the highest growth of the median wage since 2008 (of 4.3%). For similar reasons as those relating to the wage bill mentioned above, we expect growth of the average wage of 3.4% in 2015 (*versus 3.3%*) and of 4.1% in 2016 (*versus 4.0%*).

Table C.3.1: Labour Market – yearly

		2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast	2017 Outlook	2018 Outlook
Labour Force Survey											
Employment	*av. in thous.persons*	**4 934**	**4 885**	**4 872**	**4 890**	**4 937**	**4 974**	**5 039**	**5 053**	**5 059**	**5 062**
	growth in %	-1.4	-1.0	0.4	0.4	1.0	0.8	1.3	0.3	0.1	0.1
– employees	*av. in thous.persons*	**4 107**	**4 019**	**3 993**	**3 990**	**4 055**	**4 079**	**4 154**	**4 167**	**4 173**	**4 176**
	growth in %	-2.1	-2.1	0.0	-0.1	1.6	0.6	1.8	0.3	0.1	0.1
– enterpreneurs and	*av. in thous.persons*	**827**	**866**	**880**	**901**	**882**	**895**	**885**	**886**	**887**	**886**
self-employed	*growth in %*	2.5	4.7	2.0	2.4	-2.1	1.5	-1.2	0.2	0.0	0.0
Unemployment	*av. in thous.persons*	**352**	**384**	**351**	**367**	**369**	**324**	**275**	**258**	**253**	**249**
Unemployment rate	*average in per cent*	**6.7**	**7.3**	**6.7**	**7.0**	**7.0**	**6.1**	**5.2**	**4.9**	**4.8**	**4.7**
Long-term unemployment [1]	*av. in thous.persons*	**109**	**160**	**144**	**161**	**163**	**141**	.	.	.	.
Labour force	*av. in thous.persons*	**5 286**	**5 269**	**5 223**	**5 257**	**5 306**	**5 298**	**5 314**	**5 312**	**5 312**	**5 311**
	growth in %	1.0	-0.3	-0.2	0.7	0.9	-0.2	0.3	0.0	0.0	0.0
Population aged 15–64	*av. in thous.persons*	**7 431**	**7 399**	**7 295**	**7 229**	**7 154**	**7 081**	**7 030**	**6 969**	**6 906**	**6 847**
	growth in %	0.3	-0.4	-0.7	-0.9	-1.0	-1.0	-0.7	-0.9	-0.9	-0.8
Employment/Pop. 15–64	*average in per cent*	**66.4**	**66.0**	**66.8**	**67.6**	**69.0**	**70.2**	**71.7**	**72.5**	**73.3**	**73.9**
Employment rate 15–64 [2]	*average in per cent*	**65.4**	**65.0**	**65.7**	**66.5**	**67.7**	**69.0**	**70.2**	**71.0**	**71.7**	**72.3**
Labour force/Pop. 15–64	*average in per cent*	**71.1**	**71.2**	**71.6**	**72.7**	**74.2**	**74.8**	**75.6**	**76.2**	**76.9**	**77.6**
Participation rate 15–64 [3]	*average in per cent*	**70.1**	**70.2**	**70.5**	**71.6**	**72.9**	**73.5**	**74.1**	**74.7**	**75.4**	**76.0**
Registered unemployment											
Unemployment	*av. in thous.persons*	**465.6**	**528.7**	**507.8**	**504.7**	**564.4**	**561.4**	**481**	**433**	**399**	**377**
Share of unemployed [4]	*average in per cent*	**6.1**	**7.0**	**6.7**	**6.8**	**7.7**	**7.7**	**6.6**	**5.9**	**5.5**	**5.3**
Wages and salaries											
Average monthly wage [5]											
– nominal	*CZK*	23 344	23 864	24 455	25 067	25 035	25 607	26 500	27 500	28 700	29 900
	growth in %	**3.3**	**2.2**	**2.5**	**2.5**	**-0.1**	**2.3**	**3.4**	**4.1**	**4.2**	**4.2**
– real	*CZK 2005*	20 604	20 769	20 884	20 717	20 403	20 785	21 400	22 000	22 500	23 000
	growth in %	**2.2**	**0.8**	**0.6**	**-0.8**	**-1.5**	**1.9**	**3.0**	**2.9**	**2.2**	**2.3**
Median monthly wage	*CZK*	19 781	20 294	20 743	20 984	21 077	21 559	.	.	.	.
	growth in %	**2.2**	**2.6**	**2.2**	**1.2**	**0.4**	**2.3**	.	.	.	.
Wage bill	*growth in %*	**-2.0**	**0.6**	**2.2**	**2.5**	**0.4**	**1.9**	**4.2**	**4.3**	**4.3**	**4.3**
Labour productivity	*growth in %*	**-3.1**	**3.4**	**2.2**	**-1.3**	**-0.8**	**1.4**	**3.3**	**2.4**	**2.3**	**2.3**
Unit labour costs [6]	*growth in %*	**2.6**	**0.0**	**0.6**	**3.1**	**0.6**	**0.1**	**-0.5**	**1.6**	**1.9**	**1.9**
Compens. of employees / GDP	*%*	**40.0**	**40.2**	**40.4**	**41.2**	**41.1**	**40.2**	**39.9**	**40.2**	**40.4**	**40.5**

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

Table C.3.2: Labour Market – quarterly

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Estimate*	Q4 *Forecast*
Labour Force Survey									
Employment	*av. in thous. persons*	**4 923**	**4 962**	**4 995**	**5 017**	**4 987**	**5 044**	**5 062**	**5 062**
	YoY growth in %	0.8	0.2	0.8	1.2	1.3	1.7	1.3	0.9
	QoQ growth in %	0.1	0.2	0.4	0.5	0.4	0.3	0.2	0.0
− **employees**	*av. in thous. persons*	**4 030**	**4 064**	**4 105**	**4 118**	**4 116**	**4 161**	**4 177**	**4 163**
	growth in %	0.4	-0.2	1.0	1.2	2.1	2.4	1.7	1.1
− **entrepreneurs and**	*av. in thous. persons*	**893**	**898**	**890**	**899**	**871**	**883**	**886**	**899**
self-employed	*growth in %*	2.8	2.2	0.1	1.0	-2.4	-1.7	-0.5	0.0
Unemployment	*av. in thous.persons*	**358**	**319**	**313**	**305**	**316**	**262**	**264**	**259**
Unemployment rate	*average in per cent*	**6.8**	**6.0**	**5.9**	**5.7**	**6.0**	**4.9**	**4.9**	**4.9**
Long-term unemployment [1]	*av. in thous.persons*	**147**	**138**	**137**	**141**	**145**	**122**	**.**	**.**
Labour force	*av. in thous. persons*	**5 281**	**5 281**	**5 308**	**5 322**	**5 303**	**5 306**	**5 326**	**5 321**
	growth in %	0.1	-0.6	-0.3	0.2	0.4	0.5	0.3	0.0
Population aged 15–64	*av. in thous. persons*	**7 103**	**7 089**	**7 074**	**7 060**	**7 050**	**7 037**	**7 023**	**7 010**
	growth in %	-1.1	-1.1	-1.0	-0.9	-0.7	-0.7	-0.7	-0.7
Employment/Pop. 15–64	*average in per cent*	**69.3**	**70.0**	**70.6**	**71.1**	**70.7**	**71.7**	**72.1**	**72.2**
	increase over a year	1.3	0.9	1.3	1.4	1.4	1.7	1.5	1.2
Employment rate 15–64 [2]	*average in per cent*	**68.1**	**68.7**	**69.3**	**69.8**	**69.4**	**70.2**	**70.6**	**70.7**
	increase over a year	1.2	0.9	1.3	1.5	1.3	1.5	1.2	0.9
Labour force/Pop. 15–64	*average in per cent*	**74.4**	**74.5**	**75.0**	**75.4**	**75.2**	**75.4**	**75.8**	**75.9**
	increase over a year	0.9	0.4	0.5	0.8	0.9	0.9	0.8	0.5
Participation rate 15–64 [3]	*average in per cent*	**73.1**	**73.2**	**73.7**	**74.1**	**73.9**	**73.9**	**74.3**	**74.4**
	increase over a year	0.8	0.4	0.5	0.8	0.8	0.7	0.6	0.3
Registered unemployment									
Unemployment	*av. in thous. persons*	**619.1**	**565.9**	**536.6**	**524.2**	**546.0**	**481.9**	**451.2**	**443**
Share of unemployed [4]	*average in per cent*	**8.5**	**7.8**	**7.4**	**7.2**	**7.5**	**6.6**	**6.2**	**6.0**
Wages and salaries									
Average monthly wage [5]									
− **nominal**	*CZK*	24 754	25 411	25 127	27 107	25 327	26 300	26 000	28 200
	growth in %	**3.2**	**2.1**	**1.6**	**2.2**	**2.3**	**3.4**	**3.6**	**4.2**
− **real**	*CZK 2005*	20 125	20 626	20 379	22 020	20 558	21 200	21 000	22 800
	growth in %	**3.0**	**2.0**	**1.0**	**1.7**	**2.1**	**2.8**	**3.2**	**3.7**
Median monthly wage	*CZK*	20 716	21 310	21 442	22 769	21 161	22 230	.	.
	growth in %	**3.6**	**2.1**	**0.9**	**2.6**	**2.1**	**4.3**	**.**	**.**
Wage bill	*growth in %*	**2.0**	**1.9**	**1.3**	**2.4**	**3.3**	**4.1**	**4.3**	**4.9**

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, own calculations

Graph C.3.4: Employment (LFS)
seasonally adjusted data, in thousands of persons, growth rates in %
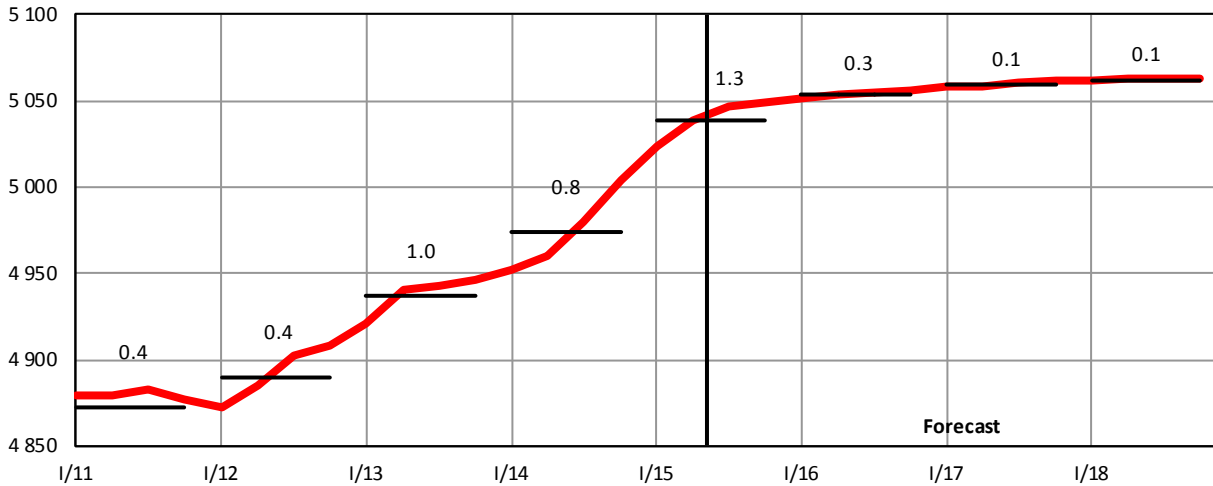
Source: CZSO, own calculations

Graph C.3.5: Ratio of Labour Force to Population Aged 15–64
in %
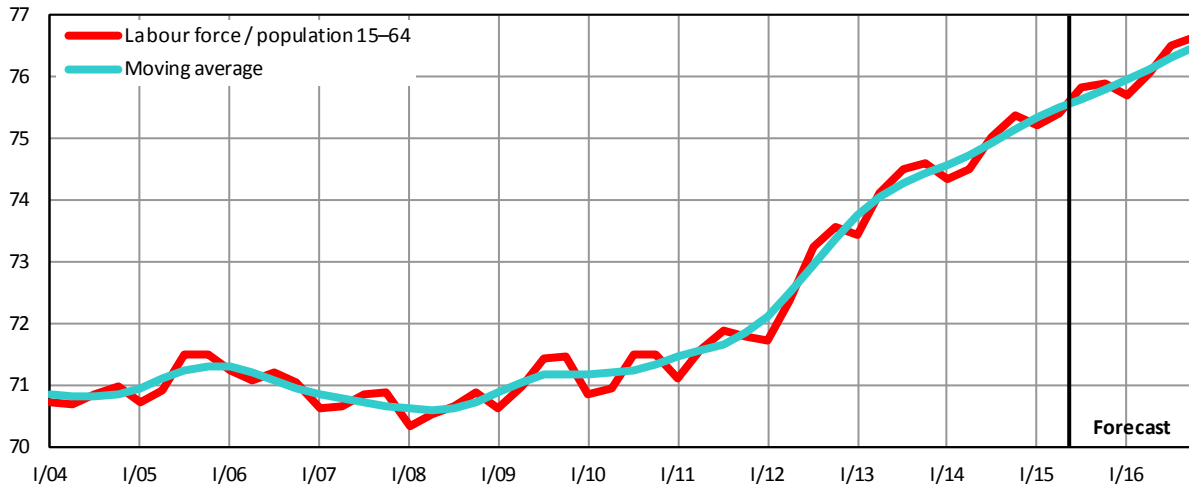
Source: CZSO, own calculations

Graph C.3.6: Unemployment
quarterly average, in thousands of persons, in % (rhs)
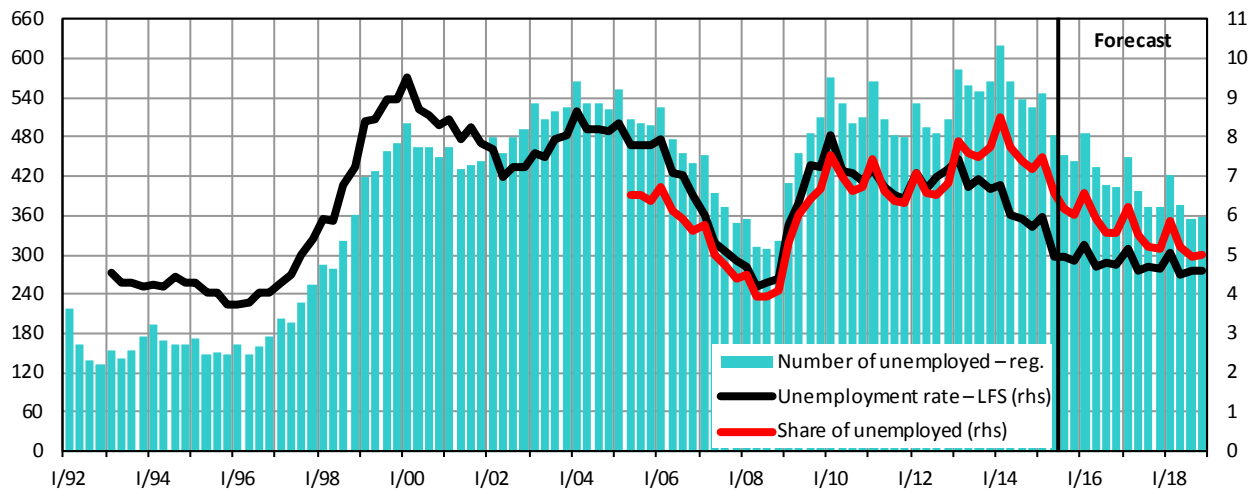
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.
Source: CZSO, Ministry of Labour and Social Affairs, own calculations

Graph C.3.7: Economic Output and Unemployment

YoY real GDP growth rate in %, change in unemployment in thousands of persons
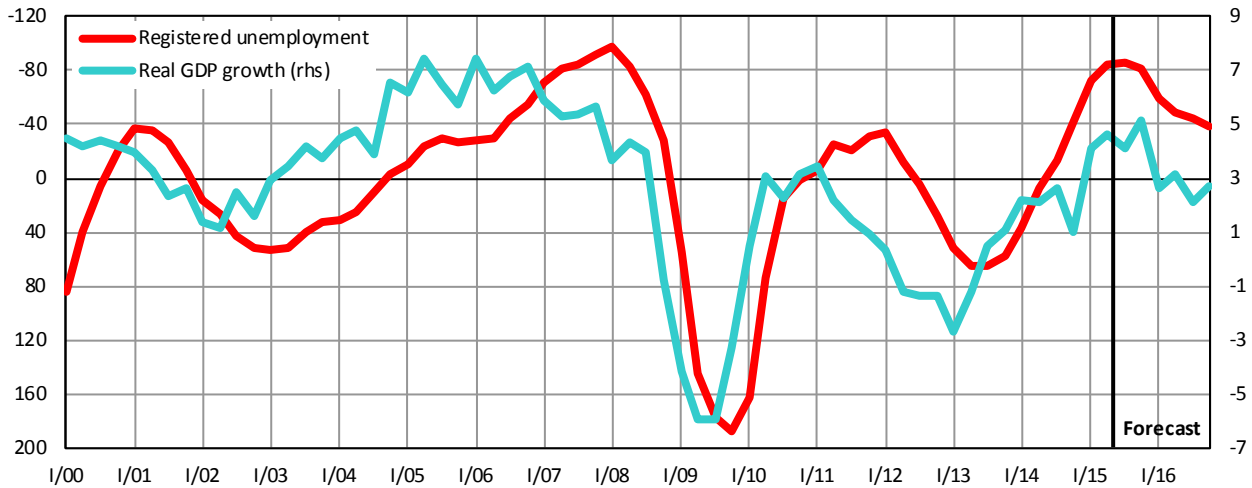
Source: CZSO, Ministry of Labour and Social Affairs, own calculations

Graph C.3.8: Wage Bill – nominal, domestic concept

YoY growth rate, in %

Source: CZSO, own calculations

Graph C.3.9: Gross Savings Rate of Households

in % of disposable income

Source: CZSO, own calculations

Table C.3.4: Income and Expenditures of Households – yearly

SNA methodology – national concept

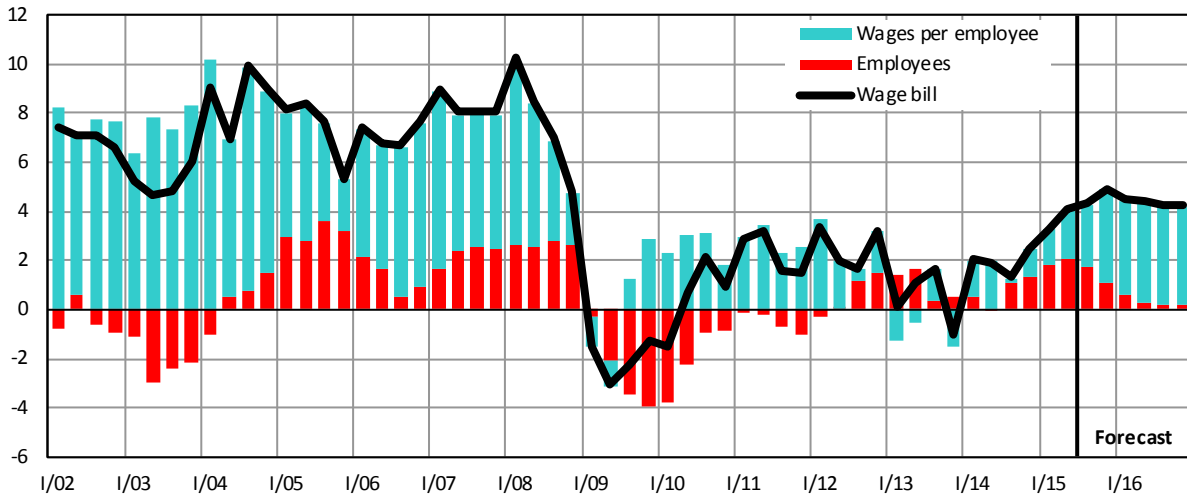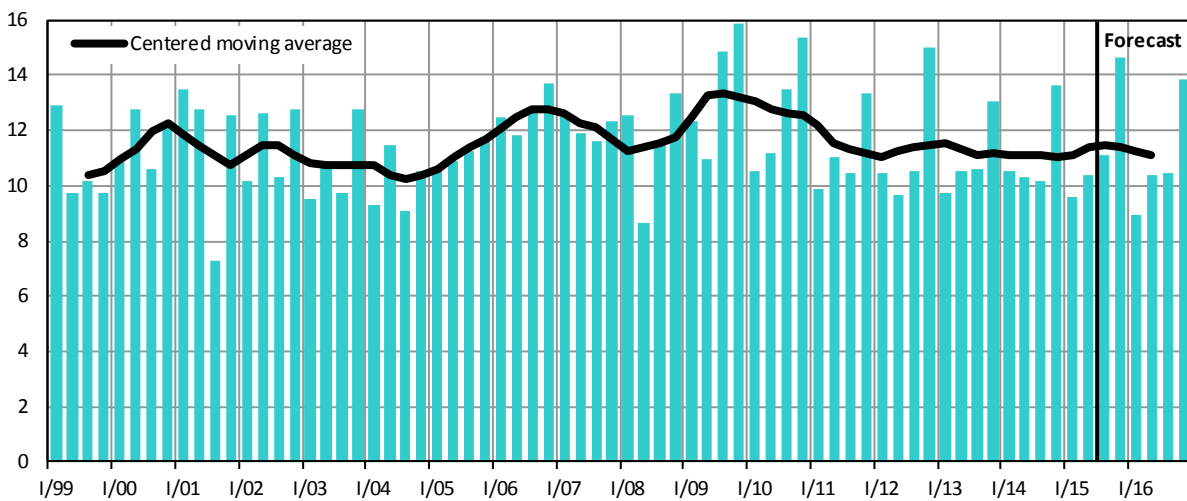|		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Current income											
Compensation of employees	bill.CZK	**1 505**	**1 593**	**1 553**	**1 585**	**1 626**	**1 668**	**1 690**	**1 737**	**1 819**	**1 895**
	growth in %	8.1	5.8	-2.5	2.0	2.6	2.6	1.3	2.8	4.7	4.2
Gross operating surplus	bill.CZK	**632**	**657**	**686**	**685**	**674**	**654**	**645**	**675**	**685**	**697**
and mixed income	growth in %	5.0	4.0	4.5	-0.2	-1.7	-2.9	-1.3	4.6	1.4	1.8
Property income received	bill.CZK	**162**	**177**	**158**	**152**	**151**	**145**	**155**	**139**	**132**	**132**
	growth in %	4.1	9.8	-11.0	-3.5	-0.9	-3.7	7.0	-10.5	-5.1	-0.2
Social benefits not-in-kind	bill.CZK	**471**	**493**	**535**	**542**	**553**	**566**	**563**	**577**	**595**	**607**
	growth in %	11.9	4.7	8.6	1.2	2.1	2.4	-0.6	2.4	3.2	2.1
Other current transfers received	bill.CZK	**126**	**143**	**141**	**140**	**139**	**151**	**147**	**148**	**159**	**163**
	growth in %	8.3	13.2	-1.4	-1.0	-0.5	8.6	-2.8	1.0	7.0	3.0
Current expenditure											
Property income paid	bill.CZK	**27**	**31**	**19**	**23**	**21**	**15**	**21**	**15**	**11**	**11**
	growth in %	25.2	11.2	-36.7	17.7	-8.5	-27.2	40.5	-29.5	-23.8	-3.0
Curr. taxes on income and property	bill.CZK	**161**	**145**	**140**	**137**	**149**	**151**	**159**	**166**	**166**	**173**
	growth in %	11.9	-9.9	-3.0	-2.6	8.6	1.7	5.1	4.5	-0.1	4.2
Social contributions	bill.CZK	**616**	**637**	**603**	**621**	**640**	**654**	**670**	**697**	**724**	**754**
	growth in %	9.5	3.3	-5.3	2.9	3.0	2.3	2.4	4.0	4.0	4.2
Other current transfers paid	bill.CZK	**130**	**146**	**143**	**141**	**147**	**154**	**140**	**139**	**145**	**145**
	growth in %	12.4	12.1	-1.6	-1.6	4.0	5.3	-9.3	-0.9	4.3	0.0
Gross disposable income	bill.CZK	**1 961**	**2 106**	**2 168**	**2 182**	**2 187**	**2 210**	**2 211**	**2 260**	**2 343**	**2 411**
	growth in %	6.4	7.4	3.0	0.7	0.2	1.0	0.0	2.2	3.7	2.9
Final consumption	bill.CZK	**1 749**	**1 887**	**1 891**	**1 920**	**1 957**	**1 971**	**2 001**	**2 042**	**2 108**	**2 184**
	growth in %	7.3	7.9	0.2	1.5	2.0	0.7	1.6	2.0	3.3	3.6
Change in share in pension funds	bill.CZK	**26**	**24**	**17**	**15**	**16**	**15**	**35**	**35**	**35**	**38**
Gross savings	bill.CZK	**238**	**243**	**295**	**278**	**246**	**254**	**244**	**254**	**270**	**265**
Capital transfers											
(income (-) / expenditure (+))	bill.CZK	**-34**	**-25**	**-25**	**-29**	**-25**	**-21**	**-13**	**-32**	**-21**	**-23**
Gross capital formation	bill.CZK	**213**	**219**	**212**	**230**	**198**	**183**	**181**	**180**	**186**	**193**
	growth in %	12.8	2.8	-3.1	8.8	-14.0	-7.8	-1.2	-0.3	3.5	3.5
Change in financial assets and liab.	bill.CZK	**58**	**47**	**106**	**75**	**71**	**91**	**75**	**104**	**103**	**94**
Real disposable income	growth in %	**3.4**	**2.5**	**2.1**	**0.1**	**-1.4**	**-1.1**	**-0.8**	**1.7**	**3.4**	**1.8**
Gross savings rate	%	**12.1**	**11.5**	**13.6**	**12.7**	**11.2**	**11.5**	**11.0**	**11.2**	**11.5**	**11.0**

Source: CZSO, own calculations

C.4 External Relations

The current account balance to GDP[3] ratio reached 1.5% (*versus 0.8%*) in the second quarter of 2015, which was a YoY improvement of 1.1 pp. This was due to a decrease in the deficit of the primary income balance of 0.9 pp, an increase in the surplus of the balance of goods of 0.5 pp and a deterioration of the balance of secondary incomes and the balance of services identically of 0.2 pp. The current account remains in surplus.

Export markets[4] increased by 4.7% on average in 2014. Their growth continued also in 2015, reaching 5.5% (*versus 6.2%*) in the second quarter of 2015. Export markets should grow at a similar rate also in the following years. They could increase by 5.6% (*versus 6.2%*) in 2015 and by 5.3% (*versus 5.4%*) in 2016.

A sharp weakening of the koruna after the CNB's foreign exchange interventions at the end of 2013 positively influenced the price competitiveness of Czech exporters in the following periods and considerably contributed to an increase in export performance, which indicates a change in the share of the volume of Czech goods on foreign markets. In 2014, export performance thus increased by 4.4% on average. However, the deteriorating terms of trade (due to slowed growth or a decrease in export prices and the growth of import prices of non-fuel commodities) and a considerable decrease in the growth rates of export performance during the first half of 2015 suggest that the effect of the weak koruna has already been used up. The growth of export performance slowed in the second quarter of 2015 to 0.8% (*versus 2.5%*), and we estimate them to increase by 1.2% (*versus 2.3%*) in 2015 and 1.0% (*versus 1.5%*) in 2016.

The growth rates of foreign trade have had a decreasing tendency since mid-2014. Since March 2015, monthly import growth exceeded export growth and the surplus of the trade balance has been stagnating or decreasing. The deteriorating terms of trade have also had an impact on this development. The terms of trade will continue to be influenced considerably by low crude oil prices. However, their positive impact on the overall prices of foreign trade has in recent periods been compensated by a deterioration of the terms of trade for other important commodity groups, such as machinery and transport equipment, consumer goods and semi-finished products. The deficit of the fuel balance (SITC 3) could reach 2.4% of GDP (*unchanged*) in 2015 and could slightly decrease to 2.1% of GDP (*versus 2.6%*) in 2016. This year's trade balance will be influenced by a one-off factor, namely by the financial

lease of the JAS-39 Gripen aircrafts in the fourth quarter amounting to CZK 10.5 billion.

With respect to the aforementioned information, we have revised the forecast for the surplus on the balance of goods downwards to 4.7% of GDP (*versus 5.4%*) in 2015 and to 4.6% of GDP (*versus 5.8%*) in 2016.

The trend of a decreasing surplus of the balance of services has persisted without interruption since the end of 2012. It relates to unfavourable dynamics of exports of services, which for most items increase more slowly than imports, mainly in the most important item of the balance of services, i.e. tourism. The growth of the deficit of the balance of so-called other business services and also financial services also had a considerable impact on the decrease in the total surplus in the second quarter of 2015. In total, the surplus on the balance of services reached 1.4% of GDP in the second quarter of 2015 (*versus 1.2%*). In spite of a YoY decrease in the surplus of the balance of services (of 0.2 pp of GDP), this outcome has meant the first QoQ improvement since the first quarter of 2012. For the following period, we expect that (in line with economic growth) there will be a gradual improvement of the sale of services abroad and that the surplus will not decrease any further. The surplus on the balance of services should reach 1.6% of GDP (*versus 1.1%*) in 2015 and 1.5% of GDP (*versus 1.0%*) in 2016.

A higher surplus of the current account in comparison with the previous forecast has mainly been influenced by the outcome of the primary income balance. In the long run, the trend of an increase in the deficit on this account prevails, but with high volatility. The deficit on the primary income balance decreased in the second quarter of 2015 by nearly CZK 30 billion YoY, mainly due to a lower outflow of dividends paid out to foreign direct investors. In total, the deficit of primary incomes reached 5.3% of GDP (*versus 6.5%*). For the future, we forecast a return to the trend of a growing deficit, which could reach 5.7% of GDP (*versus 6.5%*) in 2015 and further deepen slightly to 6.0% of GDP in 2016 (*versus 6.9%*).

In the aforementioned context we assume that the current account will show a slight surplus. It could reach 0.7% of GDP (*versus 0.5%*) in 2015 and then it could slightly decrease to 0.2% of GDP (*unchanged*) in 2016.

---

[3] All quarterly data stated in yearly moving sums.
[4] Weighted average of the growth of goods imports by the six most important trading partner countries (Germany, Slovakia, Poland, France, United Kingdom and Austria).

Table C.4.1: Balance of Payments – yearly

		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Goods and services	*bill.CZK*	98	85	147	119	157	201	237	295	280	287
	% GDP	**2.6**	**2.1**	**3.7**	**3.0**	**3.9**	**5.0**	**5.8**	**6.9**	**6.2**	**6.2**
−goods	*bill.CZK*	10	-4	65	40	75	124	167	239	209	216
	% GDP	**0.3**	**-0.1**	**1.7**	**1.0**	**1.9**	**3.1**	**4.1**	**5.6**	**4.7**	**4.6**
−services	*bill.CZK*	88	89	82	78	81	78	70	56	70	72
	% GDP	**2.3**	**2.2**	**2.1**	**2.0**	**2.0**	**1.9**	**1.7**	**1.3**	**1.6**	**1.5**
Primary income	*bill.CZK*	-255	-148	-217	-250	-223	-238	-249	-259	-255	-277
	% GDP	**-6.6**	**-3.7**	**-5.5**	**-6.3**	**-5.6**	**-5.9**	**-6.1**	**-6.1**	**-5.7**	**-6.0**
Secondary income	*bill.CZK*	-8	-12	-19	-11	-18	-27	-10	-10	8	0
	% GDP	**-0.2**	**-0.3**	**-0.5**	**-0.3**	**-0.5**	**-0.7**	**-0.2**	**-0.2**	**0.2**	**0.0**
Current account	*bill.CZK*	-164	-75	-89	-142	-85	-63	-22	26	33	10
	% GDP	**-4.3**	**-1.9**	**-2.3**	**-3.6**	**-2.1**	**-1.6**	**-0.5**	**0.6**	**0.7**	**0.2**
Capital account	*bill.CZK*	22	26	51	38	13	53	82	32	133	53
	% GDP	**0.6**	**0.6**	**1.3**	**1.0**	**0.3**	**1.3**	**2.0**	**0.8**	**3.0**	**1.2**
Net lending/borrowing	*bill.CZK*	-143	-49	-38	-104	-72	-10	61	58	166	64
	% GDP	**-3.7**	**-1.2**	**-1.0**	**-2.6**	**-1.8**	**-0.3**	**1.5**	**1.4**	**3.7**	**1.4**
Financial account	*bill.CZK*	-110	-43	-72	-122	-75	12	68	48	.	.
−direct investments	*bill.CZK*	-179	-36	-38	-95	-47	-121	7	-134	.	.
−portfolio investments	*bill.CZK*	57	9	-159	-150	-6	-55	-93	90	.	.
−financial derivatives	*bill.CZK*	-1	3	1	5	4	-9	-5	-6	.	.
−other investments	*bill.CZK*	-2	-59	62	77	-9	116	-30	24	.	.
−reserve assets	*bill.CZK*	16	40	61	41	-17	80	188	73	.	.
International investment position	*bill.CZK*	-1 418	-1 534	-1 726	-1 823	-1 823	-1 864	-1 695	-1 520	.	.
	% GDP	**-37.0**	**-38.2**	**-44.0**	**-46.1**	**-45.3**	**-46.1**	**-41.6**	**-35.7**	**.**	**.**
Gross external debt	*bill.CZK*	1 377	1 862	1 956	2 164	2 312	2 434	2 733	2 857	.	.
	% GDP	**35.9**	**46.4**	**49.9**	**54.7**	**57.5**	**60.2**	**67.0**	**67.0**	**.**	**.**

Source: CNB, CZSO, own calculations

Table C.4.2: Balance of Payments – quarterly

moving sums of the latest 4 quarters

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 Estimate	Q4 Forecast
Goods and services	*bill.CZK*	**265**	**271**	**288**	**295**	**295**	**296**	**296**	**280**
−goods	*bill.CZK*	**196**	**205**	**225**	**239**	**241**	**235**	**231**	**209**
−services	*bill.CZK*	**69**	**66**	**64**	**56**	**54**	**60**	**65**	**70**
Primary income	*bill.CZK*	**-206**	**-260**	**-276**	**-259**	**-279**	**-232**	**-255**	**-255**
Secondary income	*bill.CZK*	**-14**	**10**	**3**	**-10**	**19**	**3**	**6**	**8**
Current account	*bill.CZK*	**45**	**20**	**16**	**26**	**35**	**68**	**47**	**33**
Capital account	*bill.CZK*	**103**	**100**	**46**	**32**	**42**	**93**	**113**	**133**
Net lending/borrowing	*bill.CZK*	**148**	**120**	**62**	**58**	**77**	**161**	**161**	**166**
Financial account	*bill.CZK*	**104**	**107**	**46**	**48**	**83**	**155**	**.**	**.**
−direct investments	*bill.CZK*	**-33**	**-94**	**-126**	**-134**	**-97**	**-34**	**.**	**.**
−portfolio investments	*bill.CZK*	**-91**	**38**	**37**	**90**	**121**	**75**	**.**	**.**
−financial derivatives	*bill.CZK*	**-7**	**-6**	**-6**	**-6**	**-4**	**1**	**.**	**.**
−other investments	*bill.CZK*	**28**	**-78**	**-85**	**24**	**-23**	**-21**	**.**	**.**
−reserve assets	*bill.CZK*	**208**	**247**	**226**	**73**	**86**	**135**	**.**	**.**
International investment position	*stock in bill.CZK*	**-1 542**	**-1 550**	**-1 564**	**-1520**	**-1 307**	**-1 303**	**.**	**.**
Gross external debt	*stock in bill.CZK*	**2 688**	**2 763**	**2 810**	**2857**	**2 887**	**2 900**	**.**	**.**

Source: CNB, CZSO, own calculations

Graph C.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
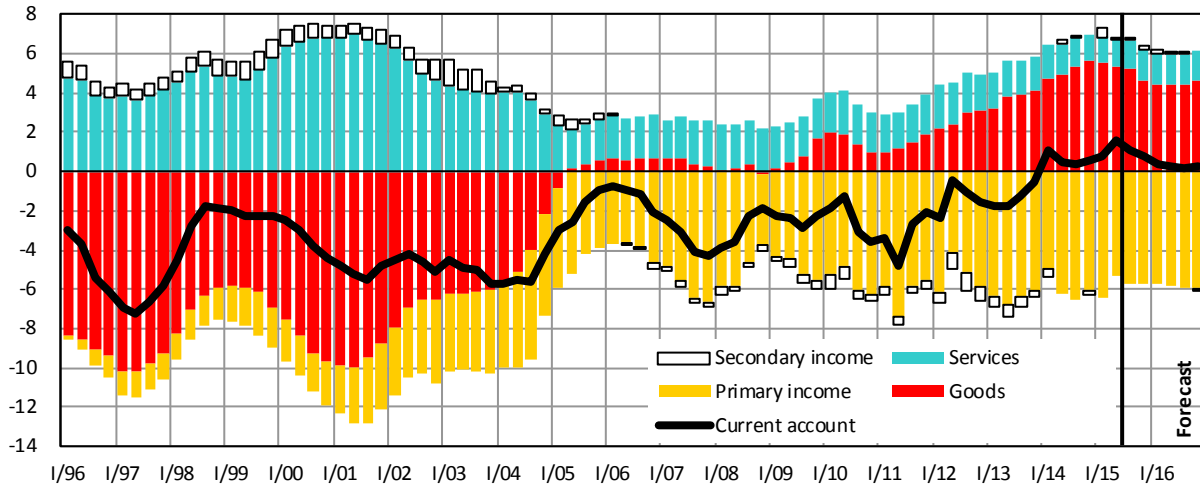
Source: CNB, CZSO, own calculations

Graph C.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
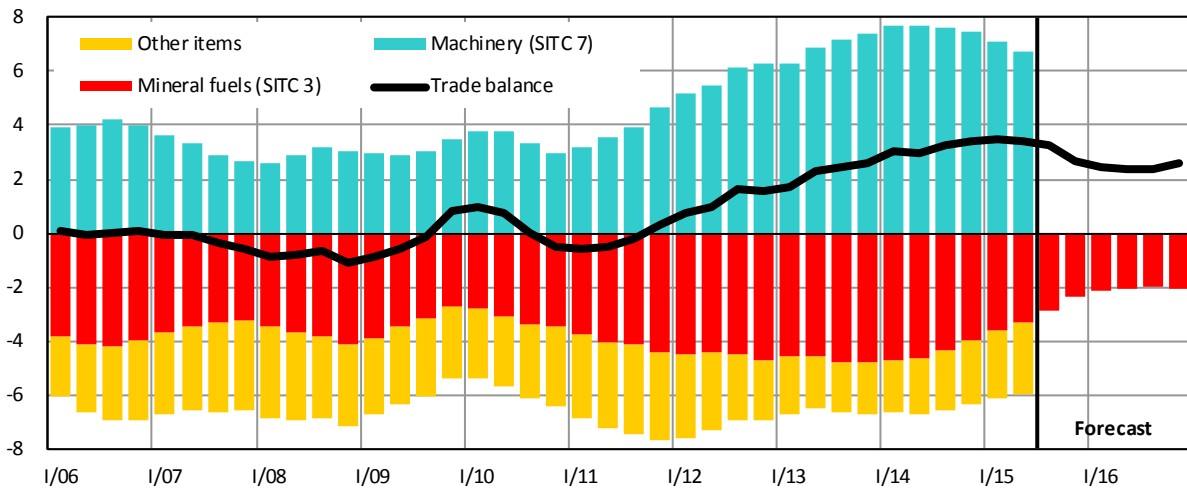
Note: The data in the chart show imports in cif methodology. For this reason, the chart is not comparable with Tables C.4.1 and C.4.2, where imports are in fob methodology.
Source: CZSO, own calculations

Graph C.4.3: Balance of Services

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

Legend: Transport, Tourism, Processing, Others, Services
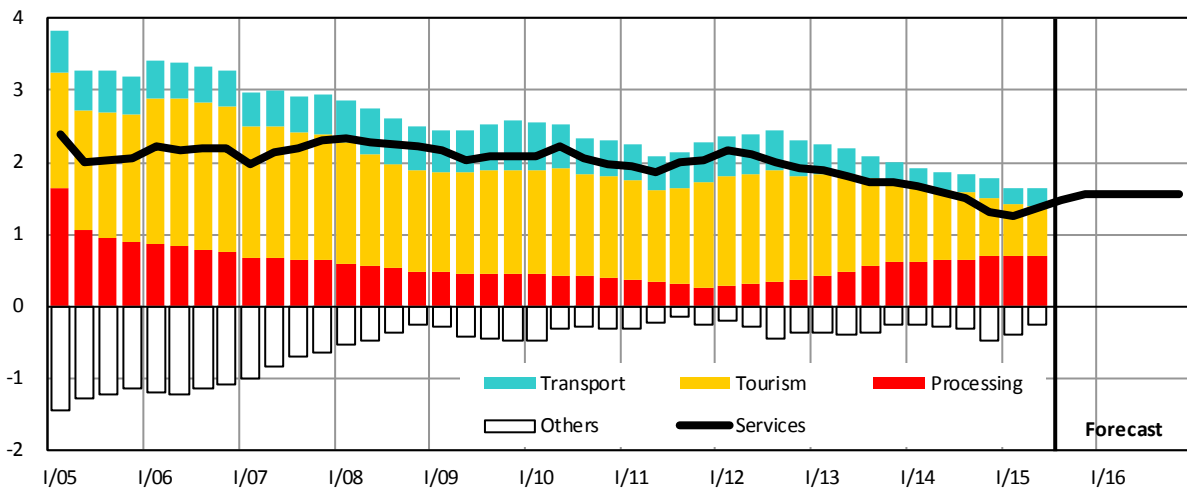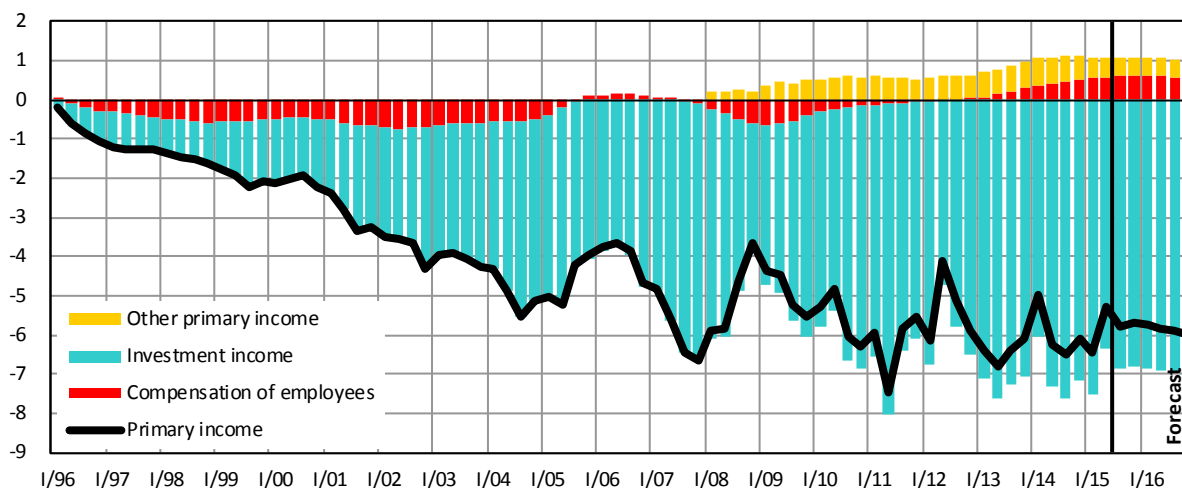
Source: CNB, CZSO, own calculations

Graph C.4.4: Balance of Primary Income

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

Source: CNB, CZSO, own calculations

Table C.4.3: Decomposition of Exports of Goods – yearly

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
										Forecast	*Forecast*
GDP [1]	*average of 2005=100*	99.1	100.9	96.3	100.0	103.6	104.6	105.5	107.5	110	112
	growth in %	**4.9**	**1.8**	**-4.5**	**3.8**	**3.6**	**0.9**	**0.9**	**2.0**	**2.1**	**2.3**
Import intensity [2]	*average of 2005=100*	98.6	98.6	91.4	100.0	104.3	103.4	104.8	107.6	111	115
	growth in %	**3.0**	**0.0**	**-7.3**	**9.4**	**4.3**	**-0.9**	**1.4**	**2.7**	**3.4**	**2.9**
Export markets [3]	*average of 2005=100*	97.7	99.4	88.0	100.0	108.1	108.1	110.5	115.7	122	129
	growth in %	**8.1**	**1.7**	**-11.5**	**13.6**	**8.1**	**0.0**	**2.2**	**4.7**	**5.6**	**5.3**
Export performance	*average of 2005=100*	94.5	96.8	97.8	100.0	101.9	106.2	104.5	109.1	110	112
	growth in %	**3.3**	**2.4**	**1.1**	**2.2**	**1.9**	**4.1**	**-1.6**	**4.4**	**1.2**	**1.0**
Real exports	*average of 2005=100*	92.4	96.3	86.1	100.0	110.2	114.8	115.5	126.2	135	144
	growth in %	**11.6**	**4.2**	**-10.5**	**16.1**	**10.2**	**4.2**	**0.6**	**9.3**	**6.9**	**6.4**
1 / NEER	*average of 2005=100*	110.5	98.9	102.2	100.0	97.1	100.6	102.9	108.1	109	109
	growth in %	**-2.6**	**-10.5**	**3.4**	**-2.2**	**-2.9**	**3.6**	**2.3**	**5.1**	**0.9**	**-0.3**
Prices on foreign markets	*average of 2005=100*	96.3	102.4	99.3	100.0	103.8	103.5	102.7	101.7	99	98
	growth in %	**2.9**	**6.3**	**-3.1**	**0.8**	**3.8**	**-0.4**	**-0.7**	**-1.0**	**-2.3**	**-0.9**
Exports deflator	*average of 2005=100*	106.4	101.2	101.4	100.0	100.8	104.0	105.6	109.9	108	107
	growth in %	**0.2**	**-4.9**	**0.2**	**-1.4**	**0.8**	**3.2**	**1.5**	**4.1**	**-1.4**	**-1.2**
Nominal exports	*average of 2005=100*	98.3	97.4	87.2	100.0	111.0	119.4	122.0	138.7	146	154
	growth in %	**11.8**	**-0.9**	**-10.5**	**14.7**	**11.0**	**7.5**	**2.2**	**13.7**	**5.4**	**5.1**

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, own calculations

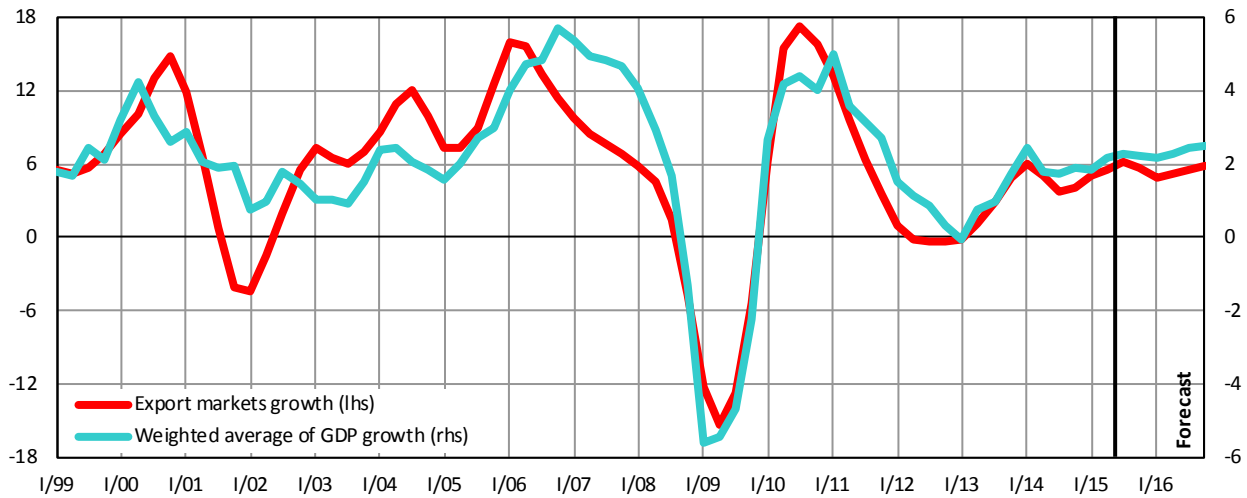**Table C.4.4: Decomposition of Exports of Goods – quarterly**

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Estimate*	Q4 *Forecast*
GDP [1]	*average of 2010=100*	107.0	107.2	107.6	108.3	108.9	109.5	110	111
	growth in %	**2.4**	**1.8**	**1.7**	**1.9**	**1.8**	**2.2**	**2.3**	**2.2**
Import intensity [2]	*average of 2010=100*	106.8	107.4	107.5	108.6	110.3	110.9	112	112
	growth in %	**3.5**	**3.2**	**1.9**	**2.1**	**3.2**	**3.3**	**3.8**	**3.4**
Export markets [3]	*average of 2010=100*	114.3	115.1	115.8	117.6	120.1	121.4	123	124
	growth in %	**6.0**	**5.0**	**3.7**	**4.0**	**5.1**	**5.5**	**6.1**	**5.7**
Export performance	*average of 2010=100*	109.2	110.2	107.5	109.4	111.6	111.1	108	111
	growth in %	**6.9**	**4.3**	**4.3**	**2.3**	**2.2**	**0.8**	**0.8**	**1.2**
Real exports	*average of 2010=100*	124.8	126.8	124.4	128.7	134.1	134.8	133	138
	growth in %	**13.4**	**9.5**	**8.2**	**6.5**	**7.4**	**6.3**	**7.0**	**6.9**
1 / NEER	*average of 2010=100*	107.6	107.6	108.8	108.4	109.1	109.8	108	109
	growth in %	**5.9**	**5.0**	**6.6**	**3.1**	**1.4**	**2.0**	**-0.3**	**0.3**
Prices on foreign markets	*average of 2010=100*	102.0	101.9	101.4	101.4	100.3	99.7	99	99
	growth in %	**-1.2**	**-0.8**	**-1.2**	**-0.7**	**-1.7**	**-2.2**	**-2.7**	**-2.5**
Exports deflator	*average of 2010=100*	109.8	109.7	110.4	109.9	109.5	109.5	107	107
	growth in %	**4.6**	**4.1**	**5.3**	**2.4**	**-0.3**	**-0.2**	**-3.0**	**-2.2**
Nominal exports	*average of 2010=100*	137.0	139.1	137.3	141.4	146.8	147.6	142	148
	growth in %	**18.5**	**14.0**	**13.8**	**9.0**	**7.1**	**6.1**	**3.7**	**4.5**

See notes to Table C.4.3.
Source: CNB, CZSO, Eurostat, own calculations

Graph C.4.5: GDP and Imports of Goods in Main Partner Countries
YoY growth rate, in %

Source: Eurostat, own calculations

Graph C.4.6: Real Exports of Goods

decomposition of YoY growth, in %

Legend:
- Export performance
- Export market growth
- Real exports of goods
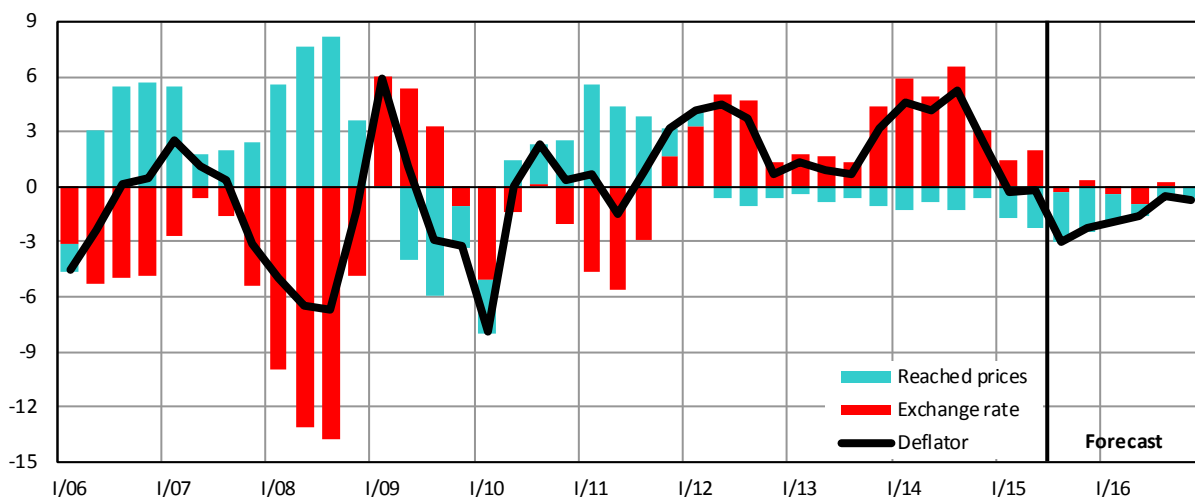
Forecast
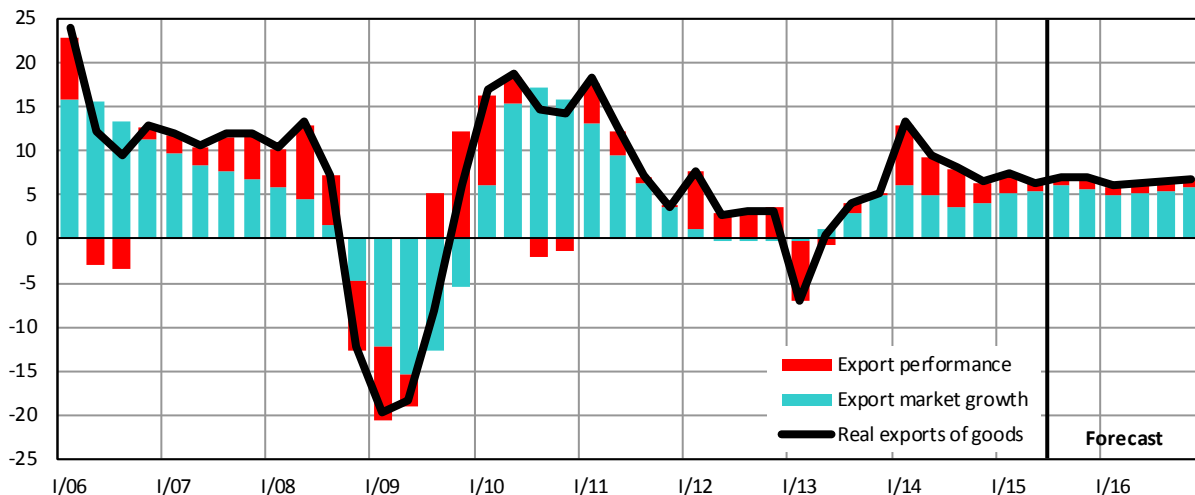
Source: CZSO, Eurostat, own calculations

Graph C.4.7: Deflator of Exports of Goods

decomposition of YoY growth, in %

Legend:
- Reached prices
- Exchange rate
- Deflator

Forecast

Source: CNB, CZSO, own calculations

C.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.

With the exception of Croatia, the level of GDP per capita converted by **current purchasing power parity** increased in all monitored countries in 2014. In this year, however, there was a slight decrease of the relative economic level towards the EA12 countries also in Greece. In the Czech Republic, the purchasing power parity was 17.65 CZK/PPS compared to the EU28 and 17.13 CZK/EUR compared to the EA12. The economic level was circa 22,900 PPS, corresponding to 77% of the economic level in the EA12. In 2015 and 2016, the relative economic level of the Czech Republic should increase, thanks to strong economic growth, to 80% or 81% of the EA12 average, respectively.

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 14,700 in 2014, i.e. 48% of the EA12 level. Higher economic growth, despite a slight deterioration of the terms of trade, will result in an increase in the relative level to 50% of the EA12 average in 2015 and 2016.

When comparing price levels, the **comparative price level of GDP** in the Czech Republic decreased by 3 pp in 2014, thus reaching 62% of the EA12 average. The low price level of 63% of the EA12 average in 2015 and 2016 should still 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 C.5.5 and C.5.6.

Labour productivity in the monitored countries has been increasing in the long run; however, its level is still relatively low compared to the EA12 average. Although the economic crisis slowed down labour productivity growth, in 2008–2014 its absolute level did not decrease in any of the monitored countries. In the given period, a decrease in the relative level of labour productivity to the EA12 countries, however, was seen in Greece and Slovenia, while the increase in the relative level exceeded 7 pp in Poland and Lithuania. In the Czech Republic, after a five-year period of stagnation, labour productivity was only 62% of the EA12 average in 2014.

In the case of the **labour market component**, which gives the number of hours worked per person in the working age, there is the opposite situation. From 2008 to 2014, the absolute level of this indicator decreased in all monitored countries, except for Poland and Czech Republic. The highest slump due to a decrease in the number of hours worked of 22% was seen in Greece, i.e. 17%. In contrast, with the exception of Slovakia, the relative level of the labour market component has long been exceeding the EA12 average in all countries – in Estonia and Latvia by more than 20 pp in 2014.

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 2008-2014, the sharpest decrease of 3.8 pp was recorded in the Czech Republic. Compared to the EA12 average, however, the demographic component is still higher in all monitored countries. In 2014, it exceeded the EA12 average by nearly 11 pp in Slovakia and by more than 6 pp in Slovenia.

---

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

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

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

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

Table C.5.1: GDP per Capita – Using Current Purchasing Power Parities

		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Czech Republic	PPS	**21 600**	**21 100**	**20 200**	**20 600**	**21 600**	**21 800**	**21 900**	**22 900**	**24 100**	**25 100**
	EA12=100	76	74	76	74	76	75	76	77	80	81
Slovenia	PPS	**22 500**	**23 100**	**20 700**	**21 100**	**21 500**	**21 600**	**21 700**	**22 600**	**23 300**	**24 200**
	EA12=100	79	81	77	76	75	75	75	76	77	78
Portugal	PPS	**20 500**	**20 400**	**19 700**	**20 600**	**20 300**	**20 100**	**20 900**	**21 400**	**22 100**	**23 000**
	EA12=100	72	72	74	74	71	70	72	72	73	74
Slovakia	PPS	**17 300**	**18 500**	**17 300**	**18 500**	**18 900**	**19 600**	**20 000**	**20 800**	**21 700**	**22 800**
	EA12=100	61	65	65	67	66	68	69	70	72	73
Lithuania	PPS	**15 600**	**16 200**	**13 800**	**15 300**	**17 000**	**18 300**	**19 400**	**20 200**	**21 100**	**22 100**
	EA12=100	55	57	52	55	60	64	67	68	70	71
Estonia	PPS	**17 700**	**17 600**	**15 200**	**16 100**	**18 000**	**19 200**	**19 800**	**20 300**	**21 100**	**22 100**
	EA12=100	62	62	57	58	63	66	68	69	70	71
Greece	PPS	**23 500**	**24 100**	**22 900**	**22 100**	**20 100**	**19 600**	**19 400**	**19 600**	**19 900**	**20 800**
	EA12=100	83	85	86	79	70	68	67	66	66	67
Hungary	PPS	**15 700**	**16 300**	**15 700**	**16 500**	**17 100**	**17 100**	**17 800**	**18 700**	**19 400**	**20 200**
	EA12=100	55	57	59	59	60	59	62	63	64	65
Poland	PPS	**13 700**	**14 100**	**14 400**	**15 600**	**16 600**	**17 400**	**17 900**	**18 600**	**19 400**	**20 400**
	EA12=100	48	50	54	56	58	60	62	63	64	65
Latvia	PPS	**15 400**	**15 500**	**12 800**	**13 300**	**14 700**	**15 800**	**16 600**	**17 300**	**18 000**	**19 000**
	EA12=100	54	55	48	48	51	55	58	58	60	61
Croatia	PPS	**15 800**	**16 400**	**15 000**	**14 900**	**15 500**	**16 000**	**16 100**	**16 100**	**16 300**	**16 800**
	EA12=100	56	58	56	53	54	56	56	54	54	54

Source: AMECO, CZSO, Eurostat, own calculations

Graph C.5.1: GDP per Capita – Using Current Purchasing Power Parities
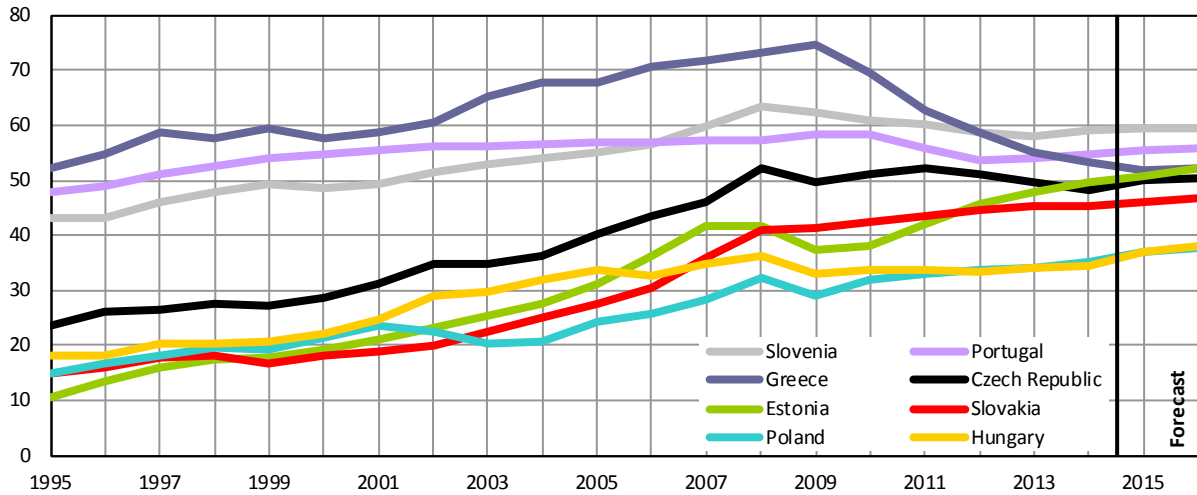
EA12=100
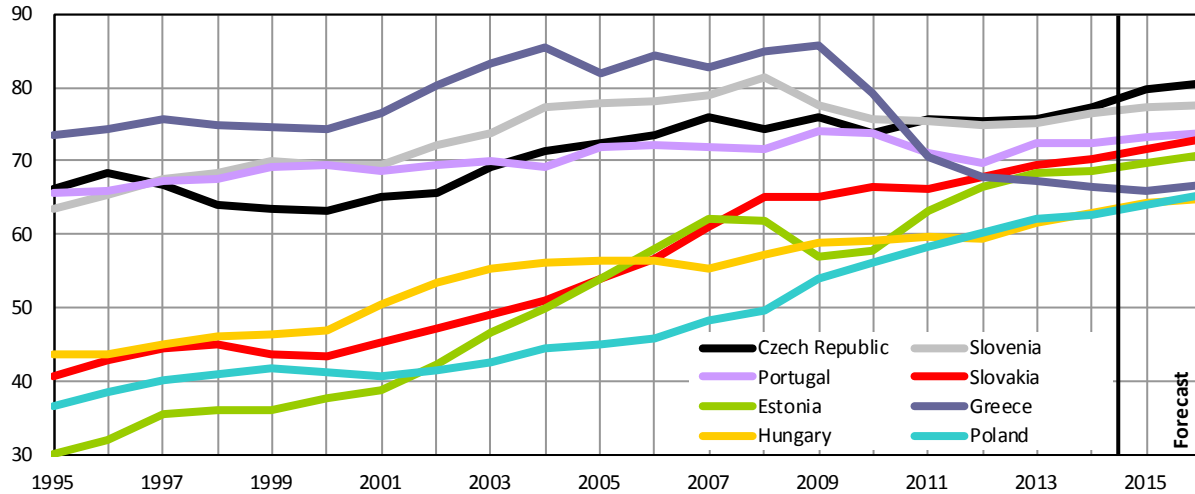
Source: AMECO, CZSO, Eurostat, own calculations

Table C.5.2: GDP per Capita – Using Current Exchange Rates

		2007	2008	2009	2010	2011	2012	2013	2014	2015 Forecast	2016 Forecast
Slovenia	*EUR*	17 400	18 800	17 700	17 700	18 000	17 500	17 400	18 100	18 500	19 100
	EA12=100	60	64	62	61	60	59	58	59	59	60
Comparative price level	*EA12=100*	**76**	**78**	**80**	**80**	**80**	**78**	**77**	**78**	**77**	**77**
Portugal	*EUR*	16 600	16 900	16 600	17 000	16 700	16 000	16 300	16 700	17 300	17 900
	EA12=100	57	57	58	58	56	54	54	55	55	56
Comparative price level	*EA12=100*	**80**	**80**	**79**	**79**	**79**	**77**	**75**	**75**	**76**	**76**
Greece	*EUR*	20 900	21 600	21 200	20 300	18 700	17 500	16 500	16 300	16 200	16 800
	EA12=100	72	73	75	70	63	59	55	53	52	52
Comparative price level	*EA12=100*	**87**	**86**	**87**	**88**	**89**	**86**	**82**	**80**	**79**	**78**
Estonia	*EUR*	12 100	12 300	10 600	11 000	12 500	13 600	14 400	15 200	15 800	16 800
	EA12=100	42	42	37	38	42	46	48	50	51	52
Comparative price level	*EA12=100*	**67**	**68**	**65**	**66**	**67**	**69**	**70**	**72**	**73**	**74**
Czech Republic	*EUR*	13 400	15 400	14 100	14 900	15 600	15 300	14 900	14 700	15 600	16 200
	EA12=100	46	52	50	51	52	51	50	48	50	50
Comparative price level	*EA12=100*	**61**	**70**	**66**	**69**	**69**	**68**	**65**	**62**	**63**	**63**
Slovakia	*EUR*	10 400	12 100	11 800	12 400	13 000	13 400	13 600	13 900	14 300	15 000
	EA12=100	36	41	41	42	44	45	45	45	46	47
Comparative price level	*EA12=100*	**59**	**63**	**64**	**64**	**66**	**66**	**65**	**65**	**64**	**64**
Lithuania	*EUR*	9 000	10 200	8 500	9 000	10 300	11 200	11 800	12 400	13 100	13 900
	EA12=100	31	35	30	31	35	37	39	41	42	43
Comparative price level	*EA12=100*	**56**	**61**	**58**	**56**	**58**	**59**	**58**	**60**	**60**	**61**
Latvia	*EUR*	10 300	11 200	8 700	8 500	9 800	10 800	11 300	11 900	12 400	13 100
	EA12=100	35	38	31	29	33	36	38	39	40	41
Comparative price level	*EA12=100*	**65**	**69**	**64**	**61**	**64**	**66**	**65**	**67**	**67**	**67**
Poland	*EUR*	8 200	9 500	8 200	9 300	9 800	10 000	10 300	10 700	11 500	12 100
	EA12=100	28	32	29	32	33	34	34	35	37	38
Comparative price level	*EA12=100*	**59**	**65**	**54**	**57**	**56**	**56**	**55**	**56**	**57**	**58**
Hungary	*EUR*	10 100	10 700	9 300	9 800	10 100	10 000	10 200	10 600	11 500	12 200
	EA12=100	35	36	33	34	34	33	34	35	37	38
Comparative price level	*EA12=100*	**63**	**63**	**56**	**57**	**57**	**56**	**55**	**55**	**57**	**59**
Croatia	*EUR*	10 200	11 200	10 500	10 500	10 400	10 300	10 200	10 200	10 300	10 600
	EA12=100	35	38	37	36	35	34	34	33	33	33
Comparative price level	*EA12=100*	**63**	**65**	**65**	**67**	**64**	**62**	**61**	**61**	**61**	**61**

Source: AMECO, CZSO, Eurostat, own calculations

Graph C.5.2: GDP per Capita – Using Current Exchange Rates

EA12=100

Legend: Slovenia, Portugal, Greece, Czech Republic, Estonia, Slovakia, Poland, Hungary

Forecast

Source: AMECO, CZSO, Eurostat, own calculations

Graph C.5.3: Comparative Price Level of GDP per Capita

EA12=100

Legend: Greece, Slovenia, Portugal, Estonia, Slovakia, Czech Republic, Poland, Hungary

Forecast
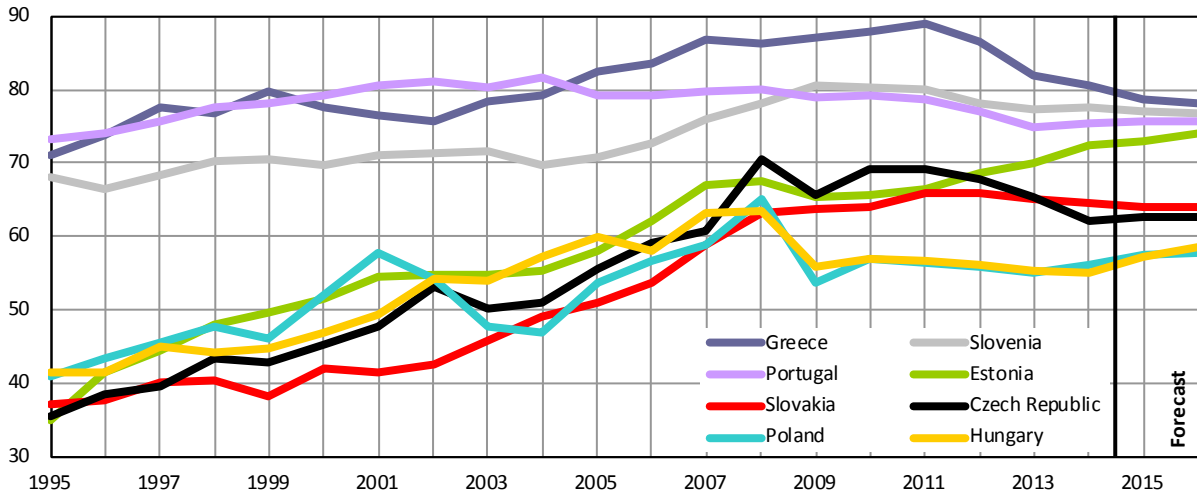
Source: AMECO, CZSO, Eurostat, own calculations

Graph C.5.4: Change in Real GDP per Capita during 2008–2014

growth in %

Legend:
- Increase in real GDP per capita during 2008–2014
- Decrease in real GDP per capita during 2008–2014
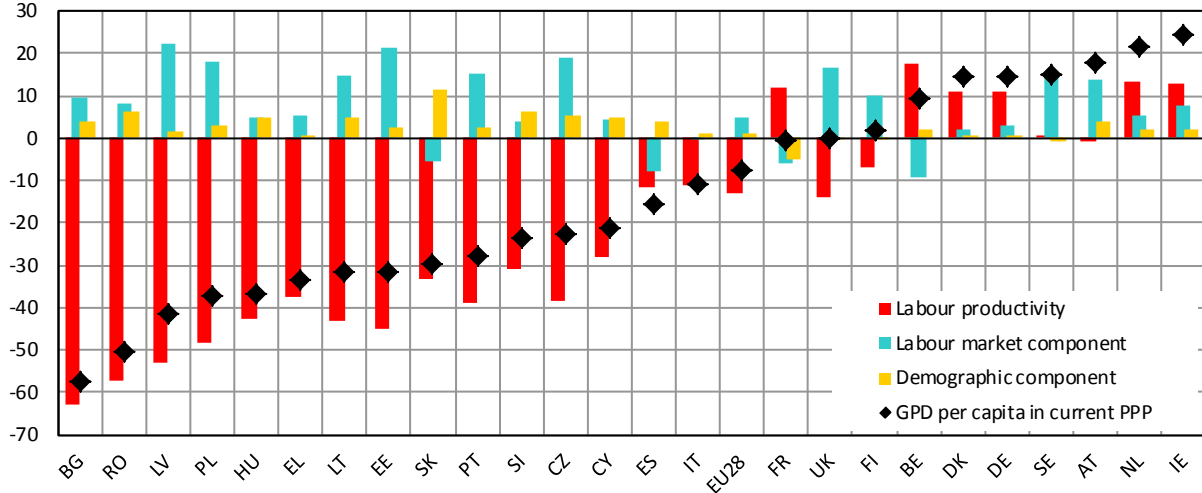- Total change in real GDP per capita during 2008–2014
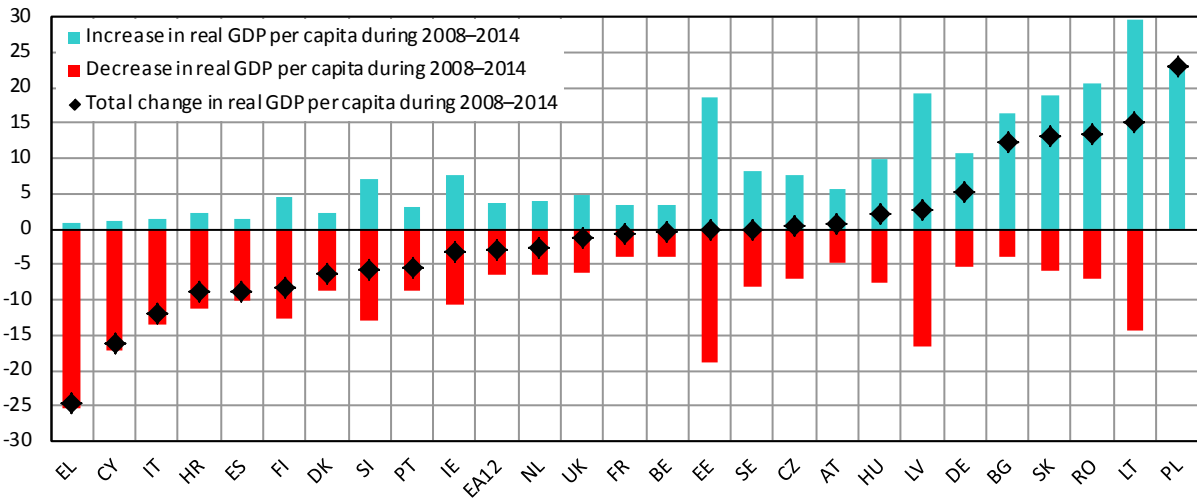
Source: Eurostat, own calculations

Graph C.5.5: Current PPP Adjusted GDP per Capita Level Relative to the EA12 Average in 2014

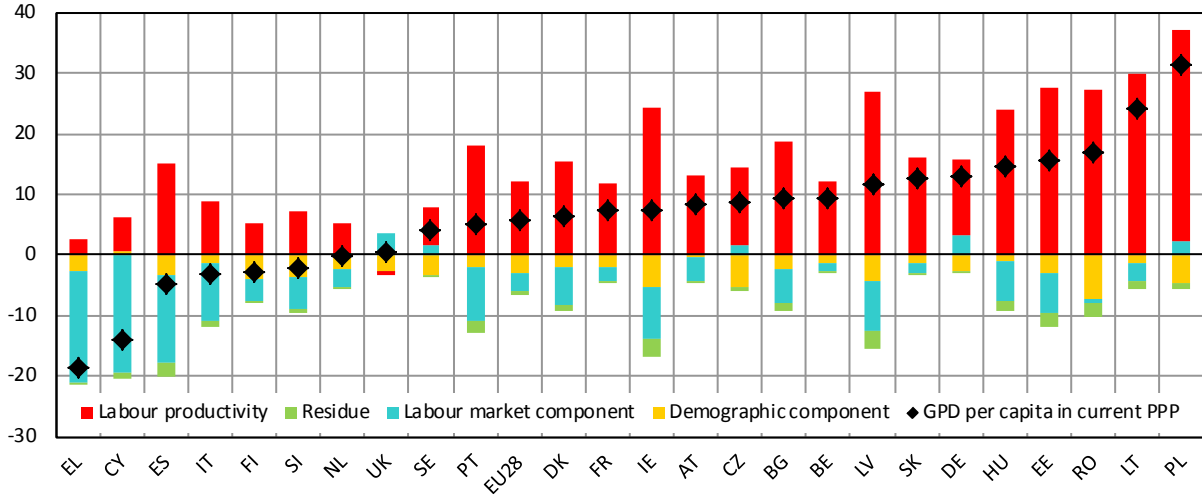*in percentage points*

Legend:
- ■ Labour productivity
- ■ Labour market component
- ■ Demographic component
- ◆ GPD per capita in current PPP

Source: Eurostat, own calculations

Graph C.5.6: Change in Current PPP Adjusted GDP per Capita during 2008–2014

growth in %

Legend:
- ■ Labour productivity
- ■ Residue
- ■ Labour market component
- ■ Demographic component
- ◆ GPD per capita in current PPP

Source: Eurostat, own calculations

D Monitoring of Other Institutions' Forecasts

The Ministry of Finance of the Czech Republic monitors the macroeconomic forecasts of other institutions engaged in forecasting the future development of the Czech economy. The forecasts of 14 institutions are continuously monitored from publicly available data sources. Of these, eight 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 D.1.

Table D.1: Consensus Forecast

		September 2015			October 2015
		min.	*max.*	*consensus*	*MoF forecast*
Gross domestic product (2015)	*growth in %, const.pr.*	**2.4**	**4.5**	**3.6**	**4.5**
Gross domestic product (2016)	*growth in %, const.pr.*	**2.4**	**3.0**	**2.6**	**2.7**
Average inflation rate (2015)	*%*	**0.2**	**0.6**	**0.4**	**0.4**
Average inflation rate (2016)	*%*	**1.2**	**1.9**	**1.6**	**1.1**
Average monthly wage (2015)	*growth in %*	**2.5**	**3.4**	**3.0**	**3.4**
Average monthly wage (2016)	*growth in %*	**3.6**	**4.3**	**3.9**	**4.1**
Current account / GDP (2015)	*%*	**-0.1**	**1.7**	**0.9**	**0.7**
Current account / GDP (2016)	*%*	**0.0**	**1.5**	**0.9**	**0.2**

Source: forecasts of individual institutions, own calculations

In 2015, the monitored institutions expect economic growth of around 3.6%. According to the MoF's forecast, which already takes into account the acceleration of the Czech economy in the second quarter of 2015, real GDP should increase by 4.5% in 2015. For 2016, the institutions expect economic growth to slow down to 2.6%; the MoF's forecast is in line with their opinion.

According to the institutions' estimates, the average inflation rate should be 0.4% in 2015 and 1.6% in 2016. The MoF expects a slightly lower inflation rate in 2016.

According to the monitored institutions' forecasts, the nominal average wage should increase by 3.0% in 2015 and by 3.9% in 2016. According to the MoF's forecast, the average wage growth should be slightly higher and reach 3.4% in 2015 and 4.1% in 2016.

In the opinion of the monitored institutions, the current account of the balance payments should reach a slight surplus in 2015 and 2016 of 0.9% of GDP. The MoF's forecast expects a negligibly lower surplus of 0.7% of GDP in 2015 and 0.2% of GDP in 2016.

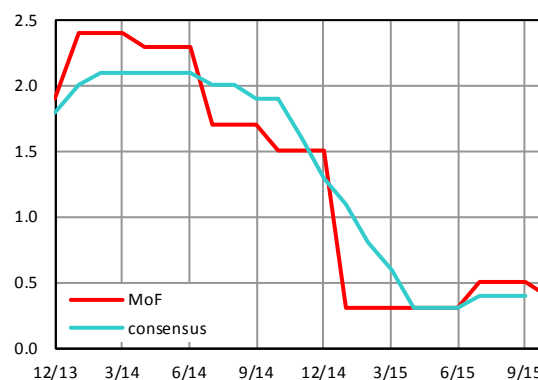**Graph D.1: Forecast of Real GDP Growth for 2015**
in %; the horizontal axis shows the month, in which the monitoring was conducted
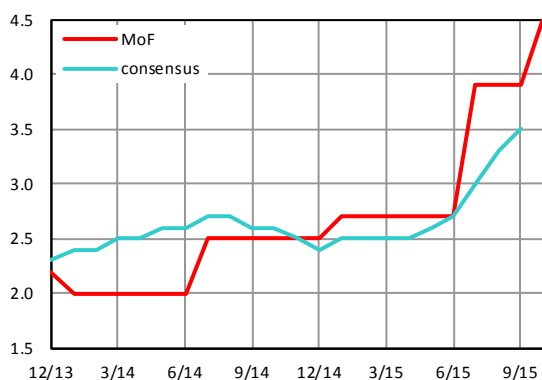
Source: forecasts of individual institutions, own calculations

Graph D.2: Forecast of Average Inflation Rate for 2015
in %; the horizontal axis shows the month, in which the monitoring was conducted

Source: forecasts of individual institutions, own calculations