Ministry of Finance
Economic Policy Department

Macroeconomic Forecast

of the Czech Republic

April 2016

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List of Abbreviations

const.pr.	constant prices
CNB	Czech National Bank
CPI	consumer price index
curr.pr.	current prices
CZSO	Czech Statistical Office
EA12	euro zone consisting of the 12 original countries
EC	European Commission
ECB	European Central Bank
ESI	Economic Sentiment Indicator
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 **31 March 2016**.

Notes

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

Data from the previous forecast (January 2016) are indicated by italics. Data relating to the years 2018 and 2019 are an extrapolation scenario that indicates only the direction of possible developments, and as such are not commented upon in the following text.

Summary of and Risks to the Forecast

In the fourth quarter of 2015, YoY growth of the Czech economy was lower than we had estimated in the previous Forecast. Seasonally adjusted **real GDP did not change compared with the third quarter of 2015**, and it increased by 4.0% YoY. Considering the announced modification of seasonal adjustment by the CZSO that should occur together with the publication of data for the first quarter of 2016, however, the result of the fourth quarter of 2015 should be revised upwards (the first quarter of 2015 in the opposite direction, with no impact on growth for the whole year 2015).

Nevertheless, **the whole year 2015** can be **evaluated as extraordinarily successful**. Real GDP growth of 4.2% was the highest since 2007. GDP growth was driven exclusively by **domestic demand**, with gross fixed capital formation being its fastest growing component. Efforts for maximal use of EU funds from the programming period 2007–2013 manifested itself with strong YoY growth of investments in fixed capital of 7.5%. However, final consumption expenditure of the government (by 2.8%) and households (also by 2.8%) increased dynamically, too. In foreign trade, stable growth of the CR's main trading partners' economies and increased imports, which reflect the accelerated growth of domestic demand and high import content of Czech export, roughly offset each other. The economy was growing strongly in completely balanced macroeconomic environment.

Real gross value added (GVA) **increased by 0.3% QoQ** in the fourth quarter of 2015. While GVA in industry and construction moderately declined, it rose in most branches of services. Owing to the dynamic development in previous quarters, GVA rose by 3.6% YoY.

The inflation rate in 2015 reached only 0.3% and was thus the lowest since 2003 and the second lowest in the history of the independent Czech Republic. Low inflation is mainly caused by a deep decline in world prices of mineral fuels and generally low inflation on the global scale.

On the **labour market**, the economic upswing was reflected in favourable development of employment. Its YoY growth of 1.4% was the highest since 2008. In the fourth quarter of 2015, unemployment rate (LFS) decreased to 4.5% and was thus the second lowest in the EU, following Germany.

Surplus on the current account of the balance of payments reached 0.9% of GDP in 2015, and was the highest in the history of the independent Czech Republic.

When evaluating the high growth of the Czech economy in 2015, however, it is necessary to take into account that it was largely influenced by **one-off or temporary factors**. The most important of them was the impulse in the form of projects cofinanced from the EU funds in the programming period 2007–2013, which could only be used by the end of 2015.

Positive supply shock in the form of a deep decline in the CZK crude oil price also had considerably positive impact on growth. Low price of oil should also support the economy in this year, though to a much smaller extent than in 2015. The forecast of the oil price was revised downwards compared to the January Forecast.

On the other hand, there was a small deterioration of assumptions about the external environment, which had a visible impact on the growth of Czech export markets. Expected development of investment, in particular in the private sector, was also revised slightly downwards. The new forecast also reacts to the surprising slowdown of economic growth in the fourth quarter of 2015.

The result is a **minor correction of the forecast of real GDP growth in 2016** from 2.7% **to 2.5%**. The forecast **for 2017 remains unchanged at 2.6%**.

Regarding expected tax revenues, it can be stated that **the forecast of the most important tax bases**, i.e. the nominal wage bill, nominal consumption of households and net operating surplus, **did not change substantially**.

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

The slowdown in China's economic growth, which will most probably continue also in the future, represents a major risk for further development of the world trade. However, this factor should not be crucial for the Czech Republic, despite the fact that the interconnectedness of the Czech and the Chinese economy is higher than suggested by the data on their mutual foreign trade, due to their involvement in global supply chains. Continuation of **increased volatility and uncertainty on the financial markets**, to which negative data on the development of the second biggest world economy, in addition to an ongoing decrease in commodity prices (partially due to developments in China), has recently made a significant contribution, is also a risk. A specific problem in this connection is the question of information content of the Chinese official statistics.

Another unfavourable factor is **geopolitical risks**. Conflicts in the Middle East and Northern Africa caused a deep **migration crisis**, the economic impact of which on individual EU states cannot be estimated yet. Provided that the number of applicants for asylum in the Czech Republic does not increase, direct impacts on the Czech economy should be negligible. At present, the migration crisis represents a negative risk for the Czech Republic, particularly due to its possible impact

on the future form of the EU (keeping the current Schengen Area arrangements). A risk with a potentially important impact on the Czech Republic is also the planned June **referendum on staying of the United Kingdom in the EU**. Last but not least, economic growth in some countries of the EU, and indirectly (through foreign trade) also in the Czech Republic, could be affected negatively should **terrorist attacks intensify**.

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

A positive risk for economic growth is, on the contrary, a possibility of **the continuation of the current low prices of commodities**.

Table: Main Macroeconomic Indicators

		2011	2012	2013	2014	2015 Prelim.	2016 Current forecast	2017	2015	2016 Previous forecast	2017
Gross domestic product	*bill. CZK*	4 023	4 042	4 077	4 261	4 472	4 629	4 812	4 495	4 657	4 831
Gross domestic product	*growth in %, const.pr.*	2.0	-0.9	-0.5	2.0	4.2	2.5	2.6	4.6	2.7	2.6
Consumption of households	*growth in %, const.pr.*	0.3	-1.5	0.7	1.5	2.8	3.1	2.7	2.9	3.1	2.6
Consumption of government	*growth in %, const.pr.*	-3.0	-1.8	2.3	1.8	2.8	2.1	1.6	3.2	2.1	1.5
Gross fixed capital formation	*growth in %, const.pr.*	1.1	-3.2	-2.7	2.0	7.3	0.6	3.0	8.3	1.5	3.3
Net exports	*contr. to real GDP growth, p.p.*	1.9	1.3	0.0	-0.2	-0.2	0.2	0.2	-0.4	0.5	0.3
Change in inventories	*contr. to real GDP growth, p.p.*	0.2	-0.2	-0.6	0.6	0.7	0.1	0.0	1.0	0.0	0.0
GDP deflator	*growth in %*	-0.2	1.4	1.4	2.5	0.7	1.0	1.3	0.8	0.8	1.1
Average inflation rate	*%*	1.9	3.3	1.4	0.4	0.3	0.6	1.4	0.3	0.5	1.6
Employment *(LFS)*	*growth in %*	0.4	0.4	1.0	0.8	1.4	0.5	0.1	1.3	0.3	0.1
Unemployment rate *(LFS)*	*average in %*	6.7	7.0	7.0	6.1	5.1	4.4	4.3	5.1	4.7	4.6
Wage bill *(domestic concept)*	*growth in %, curr.pr.*	2.2	2.5	0.4	1.9	4.0	4.5	4.6	4.1	4.5	4.6
Current account balance	*% of GDP*	-2.1	-1.6	-0.5	0.2	0.9	1.1	1.0	1.2	1.2	0.6
General government balance	*% of GDP*	-2.7	-3.9	-1.3	-1.9	-0.4	-0.6	.	-1.1	.	.
<u>Assumptions:</u>											
Exchange rate CZK/EUR		24.6	25.1	26.0	27.5	27.3	27.0	26.9	27.3	27.0	26.7
Long-term interest rates	*% p.a.*	3.7	2.8	2.1	1.6	0.6	0.6	0.8	0.6	0.7	1.0
Crude oil Brent	*USD/barrel*	111	112	109	99	52	41	47	52	44	54
GDP in Eurozone (EA-12)	*growth in %, const.pr.*	1.6	-0.9	-0.3	0.9	1.6	1.3	1.5	1.4	1.5	1.6

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

GDP growth should be driven by domestic demand

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

Legend: Net exports, Final consumption, Gross capital formation, Gross domestic product
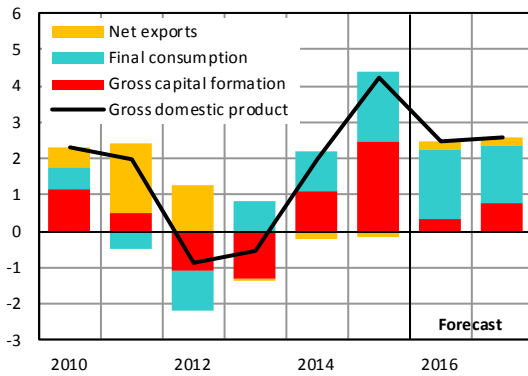
Source: CZSO, own calculations

GDP should grow without major fluctuations

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

Legend: Net taxes on products, GVA, GDP
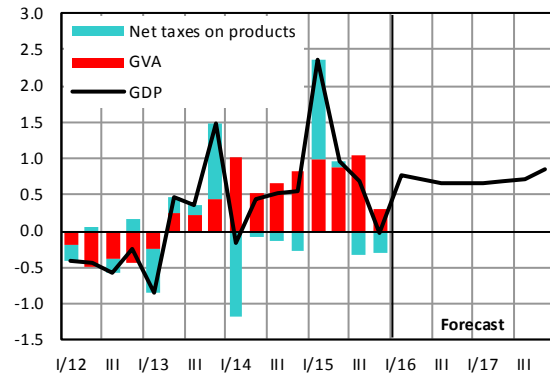
Source: CZSO, own calculations

Inflation should exceed 1% at the end of 2016

decomposition of YoY growth of CPI, contributions in pp

Legend: Market increase, Administrative measures, CPI
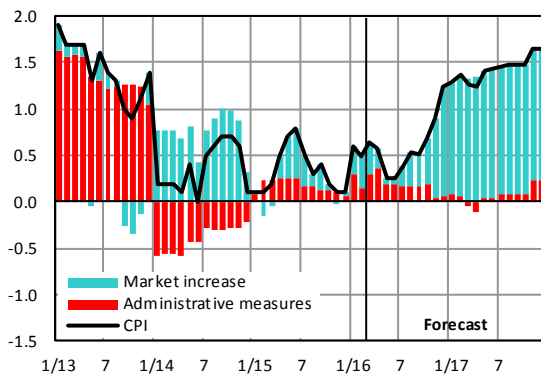
Source: CZSO, own calculations

Unemployment should continue to decline

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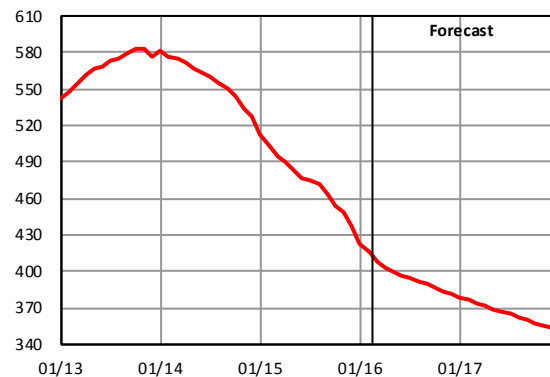
Source: Ministry of Labour and Social Affairs, own calculations

Growth rate of the real wage should remain high

average gross monthly wage, YoY growth rate, in %

Legend: nominal, real
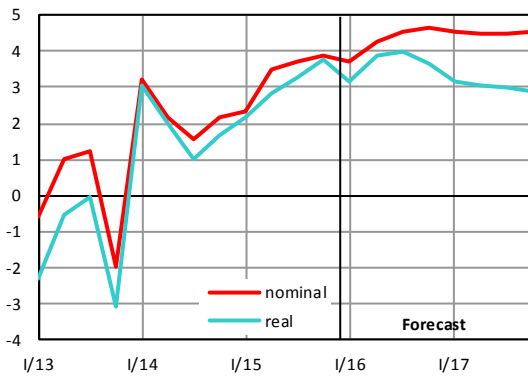
Source: CZSO, own calculations

Current account should remain in moderate surplus

in % of GDP (yearly moving sums)

Legend: Incomes, Goods and services, Current account
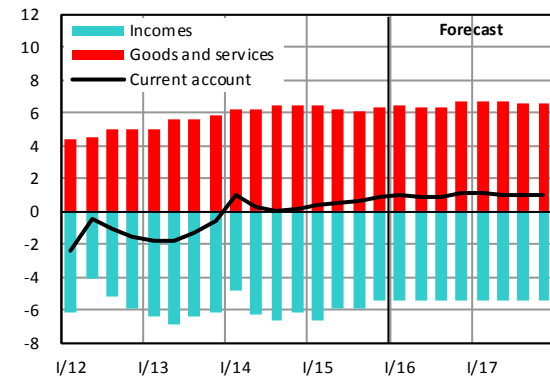
Source: CNB, CZSO, own calculations

A   Forecast Assumptions

A.1   External Environment

The growth rate of the global economy continues to hover at a level only slightly exceeding 3%; developments in individual regions remain diverse. However, the outlook has deteriorated slightly compared to the last forecast, in particular in the case of developed economies whose economic growth is slowing down. Some large emerging economies (Russia, Brazil) that are going through a deep recession remain the problem segment of the global economy.

The economic situation in China remains unclear and opaque. The Chinese economy, which – according to international organisations – makes the highest contribution to global growth, is still showing relatively high, though very slowly decreasing, growth rates of real GDP. However, this official data is not confirmed by other statistics and information.

Continuing YoY decline in nominal imports, which reached 11.2% in the fourth quarter of 2015, largely reflects decreasing domestic consumption and a fall in business activity of domestic producers. Producer prices were also decreasing at the beginning of this year, although the rate of their decrease slowed down slightly. Further reduction in minimal requirements on the reserves of commercial banks gives evidence of efforts of the People's Bank of China to support economic growth. The devaluation of the yuan exchange rate in January increased nervousness on the financial markets and contributed to further sales of shares; in January, the Shanghai Composite Stock Market Index dropped nearly by 23% MoM. Unfavourable developments of the entrepreneurs' confidence indicators or the Purchasing Managers Index (PMI) in industry also give evidence of the deteriorating situation. A lack of reliable information on the Chinese economy further strengthens the uncertainty of investors that can extend to other global financial markets.

Geopolitical risks further increased, especially in the Middle East. In March 2016, the EU prolonged individual and sector sanction measures against Russia, amid persisting tensions in Eastern Ukraine. The sanctions and mainly a decline in commodity prices are considerably contributing to the Russian recession and weakening of the rouble. However, neither Russia nor Ukraine represents an important export market for the Czech Republic.

A.1.1   USA
Growth rate of the US economy slowed down further in the fourth quarter of 2015, with GDP increasing by 0.3% QoQ (*versus 0.7%*). Growth was driven by domestic demand, with household consumption being the principal driver of growth, though its rate of growth slowed down as well. However, net exports slightly weighed on GDP growth, as strong domestic currency, together with slowing economic growth of important export markets, resulted in a moderate decrease in exports.

Considering the risks related to global economic development and turbulence on financial markets, the Fed left interest rates at 0.25–0.50% at its March meeting. Growth rate of the price level is accelerating slowly; the average inflation rate reached 1.0% in February 2016. However, the Fed expects that the inflation rate will approach the 2% target as late as in the medium-term horizon as the effects of low prices of energies and imports fade and the situation on the labour market improves further.

We expect that economic growth will slow down slightly, with household consumption remaining the main driver of the economy. In the short term, it will still be supported by low energy prices, and by a good labour market situation in the long-term horizon. Unemployment rate reached only 4.9% in February 2016; growth of wages in several states contributed to the overall increase in wages in January 2016. However, exports will weigh on economic growth; nevertheless, a decreasing industrial production is largely influenced by a deteriorated situation in the energy sector. In this connection, the deteriorated global outlook and eventual further appreciation of the US dollar represent the main risks. Turbulence on the financial markets and November 2016 presidential elections further increase investment uncertainty.

In 2015, as well as in 2014, the economy grew by 2.4% (*versus 2.5%*). For the years 2016 and 2017, we expect the rate of economic growth to reach 2.2% (*versus 2.6%*) and 2.5% (*versus 2.6%*), respectively.

A.1.2   EU
Economic recovery in the European Union still remains fragile and weak. In the fourth quarter of 2015, just like in the previous quarter, QoQ growth of GDP reached 0.4% (*versus 0.3%*) in the EU28 and 0.3% (*versus 0.2%*) in the EA12. In a YoY comparison, GDP in the EU28 increased by 1.8% (*versus 1.7%*), while GDP of the EA12 increased by 1.6% (*versus 1.4%*). The developments in individual countries remain considerably differentiated. In many countries, structural problems of economies, loss of competitiveness, low growth rate of investment or high debts of the public and private sectors are still weighing on the recovery.

Economic growth in the euro area should be supported by a further easing of monetary policy. At its March meeting, the ECB decided to cut the main refinancing rate by 5 basis points to 0.00%, interest rate on the marginal lending facility also by 5 basis points to 0.25%, and interest rate on the deposit facility by 10 basis points to −0.40%. At the same time, the monthly volume of assets purchased under the Asset Purchase Programme was increased by EUR 20 billion (to EUR 80 billion). Investment grade euro-denominated bonds issued by non-bank corporations established in the euro area were newly included in this programme. Moreover, certain conditions for the purchase of securities issued by selected international or supranational institutions located in the euro area were softened. Last but not least, the ECB will perform a series of four longer-term refinancing operations through which banks will be able to borrow liquidity for four years from the ECB (with an interest rate that can be as low as the rate on the deposit facility, depending on the credit activity of banks in the reference period). The aim of the further easing of monetary conditions is to increase credit activity and ensure that inflation, through an increase in investment and consumption, returns to the target (inflation below, but close to, 2%). Despite the ECB's efforts, however, YoY growth of HICP in the EA12 reached −0.2% in February 2016, in particular due to a decrease in crude oil and energy prices.

In connection with the economic recovery, the labour market situation is also gradually improving. Unemployment rate in the EU28 and the EA12 has been slowly decreasing since mid-2013. In January 2016, it reached 8.9% (YoY decrease of 0.9 pp) in the EU28 and 10.3% (YoY 1.0 pp less) in the EA12. However, enormous differences still persist among individual economies. The worst situation is still in Greece, where the unemployment rate stood at 24.0% in December 2015. Of the EU28 countries for which data for January 2016 was available as of the cut-off date, the unemployment rate was the highest in Spain (20.5%), Croatia (16.4%) and Cyprus (15.3%); on the other hand, the lowest rate was recorded in Germany (4.3%) and the Czech Republic (4.5%).

Economic activity should continue to grow at a similar pace. Expenditure on private consumption, which will be supported by improving labour market situation and low energy prices, will probably remain the main growth driver. On the other hand, the worsened global outlook or high debts of some economies are factors that will weigh on economic growth. Since the beginning of 2016, indicators of entrepreneurs' and consumers' confidence have also deteriorated. The chance of more turbulence on the financial markets poses a risk and so does the possibility the United Kingdom leaves the EU. In 2015, GDP of the EA12 increased by 1.6% (*versus 1.4%*). In the following years, the economy should grow at a slightly lower pace of 1.3% (*versus 1.5%*) in 2016 and 1.5% (*versus 1.6%*) in 2017.

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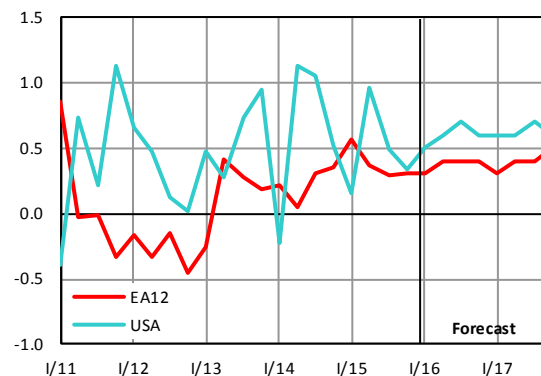
Source: Eurostat, own calculations

GDP of **Germany** increased again by only 0.3% QoQ (*versus 0.4%*) in the fourth quarter of 2015; growth of the German economy thus remains relatively weak. Gross fixed capital formation and expenditure of the general government on consumption made the highest contribution to growth. The increase in gross fixed capital formation was driven especially by construction investment (supported by the efforts to solve the impact of immigration). Growth of investment in machinery and equipment was due to increased government investment; on the contrary, private investment was decreasing slightly in this category. Costs related to the massive inflow of applicants for asylum contributed considerably to the increase in the general government consumption. Wage growth, low interest rates and a decrease in energy prices contributed to private consumption growth; its growth, however, slowed down. The contribution of net exports weighed on economic growth as a decrease in the growth rate of exports exceeded a decrease in the growth rate of imports.

Graph A.1.2: Ifo and Czech Industrial Production
2005=100 (Ifo), YoY growth of the seasonally adjusted industrial production index in the Czech manufacturing sector, in %
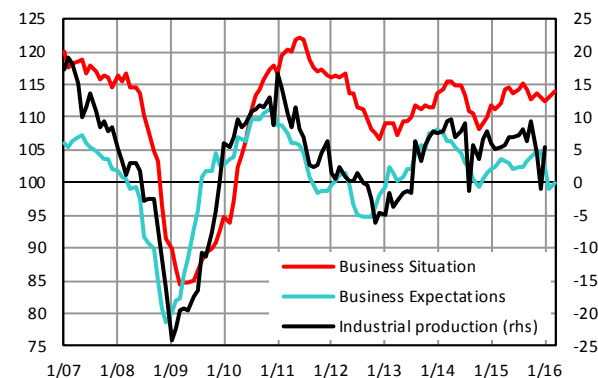
Source: CESifo, CZSO

The labour market situation is still developing favourably. Growth rate of real wages is gradually increasing and unemployment rate is continually declining. However, the impact of the arrival of migrants has not yet manifested itself on the labour market. The Ifo (business expectations component) and manufacturing PMI (Purchasing Managers' Index) indicators have deteriorated considerably since the beginning of 2016; however, the Purchasing Managers' Index in services was improving during the first quarter of 2016. The development of the consumer confidence index (GfK) remains encouraging for the time being.

The main growth driver should still remain domestic demand. Consumption expenditure of households will be supported by low oil prices, the ECB's expansionary monetary policy and favourable financial conditions. The increase in consumption expenditure of the general government will be caused in particular by the massive inflow of migrants whose successful integration in the labour market will be crucial in the long-term horizon. Growth of exports will be influenced unfavourably by the dynamics of foreign demand in developed and emerging economies, and foreign trade will thus weigh on economic growth in the short-run. In 2015, GDP increased by 1.7% (*versus 1.5%*). For 2016 we expect growth of 1.4% (*versus 1.8%*), for 2017 we forecast a moderate acceleration of growth to 1.8% (*versus 1.9%*).

In the fourth quarter of 2015, the **French** economy recorded, as in the previous quarter, QoQ growth of GDP of 0.3% (*versus 0.2%*). The dominant growth driver was a change in inventories; investment in fixed capital and government consumption also recorded a positive contribution. Household consumption, which decreased slightly in QoQ comparison, was influenced negatively by the terrorist attacks in November 2015. However, in particular net exports weighed on the economic growth when the growth of exports failed to exceed the dynamic growth of imports. Business climate has been slightly improving since the beginning of 2015; the situation in services, which were affected by the November terrorist attacks, should also stabilize in the short-term horizon. Low competitiveness of French companies and the situation on the labour market where unemployment rate still exceeds 10% will weigh on economic growth. We expect that domestic demand will still remain the main driver of economic growth. Exports should be supported by important new orders in aeronautics and shipbuilding and a weak exchange rate of the euro. In 2015, GDP grew by 1.2% (*versus 1.1%*). For 2016 we expect growth of 1.3% (*unchanged*), for 2017 we forecast a slight acceleration to 1.4% (*versus 1.5%*).

Poland was among the most quickly growing countries in the EU also in the fourth quarter of 2015 when its GDP increased by 1.1% QoQ (*versus 0.8%*). Growth was driven by domestic demand, in particular by expenditure on private consumption and investment. We assume that the further economic development will continue to be relatively stable. Economic growth will be driven by household consumption, which will be supported by an increase in family benefits, a good situation on the labour market and low interest rates. In connection with finished drawdown of the EU funds from the programming period 2007–2013, however, investment growth should slow down. Investment uncertainty is str6engthened by fears regarding increased tax burden of firms and sector tax on banks that was introduced in February 2016. In 2015, GDP increased by 3.6% (*versus 3.5%*). We assume the economy to grow by 3.4% in 2016 as well as in 2017 (*unchanged in both years*).

The **Slovak** economy continues to grow at a very solid pace. GDP increased by 1.0% (*versus 0.8%*) QoQ in the fourth quarter of 2015, i.e. at the same rate as in the previous two quarters. Growth was driven by domestic demand, in particular by investment of both the private and public sectors. Investment grew by 19.4% YoY, to which efforts to quickly draw down the EU funds from the programming period 2007–2013 contributed considerably. A slight decrease in the price level and improving labour market situation contribute to growth of household consumption. Unemployment rate decreased by 2 pp YoY in January 2016 to 10.4% and growth of real wages accelerated to 4.6% in the fourth quarter of 2015. The expected decline in investment of the government sector should be partially offset by planned investment in the car industry, in particular the construction of a new factory of the British car producer Jaguar Land Rover. Private investment will be supported by low interest rates, and private consumption by growing wages and a decrease in VAT for selected types of foodstuffs. In 2015, GDP grew by 3.6% (*versus 3.4%*). We expect growth of 3.3% (*versus 3.2%*) in 2016, the same as in 2017 (*unchanged*).

A.1.3 Commodity Prices
The global as well as the Czech economy is influenced by a decline in the prices of primary commodities.

We estimate that the price of Brent crude oil averaged USD 35/barrel (*versus USD 38/barrel*) in the first quarter of 2016, marking the lowest value since the first quarter of 2004. As of the cut-off date of the Forecast, Brent crude oil traded near USD 40/barrel.

Mismatches between supply and demand, which result in an increase in inventories, are still reflected in very low crude oil prices. This led to a further decrease in the market price (of the estimated USD 9/barrel QoQ in the first quarter of 2016). Some important producer countries responded to low oil prices by agreeing on freezing their output at the level of January 2016. Shale oil extraction in the USA also decreased. However, this sector shows considerable resilience because

the break-even price decreases. On the other hand, oil from Iran gets on the market following the lifting of sanctions.

Graph A.1.3: Koruna Price of Brent Crude Oil

YoY change in %
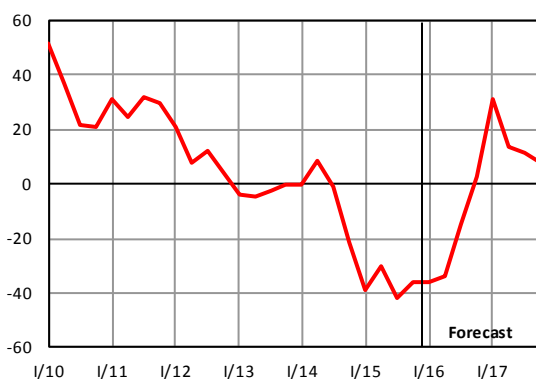
Source: CNB, U. S. Energy Information Admin., own calculations

In line with the situation on the financial derivatives markets (a positive slope of the futures price curve), we assume a gradual increase in the Brent crude oil price. In 2016, it should average USD 41/barrel (*versus USD 44/barrel*). In 2017, we assume the price to grow to USD 47/barrel (*versus USD 54/barrel*).

An extremely deep YoY decline in the CZK crude oil price by more than a third (see Graph A.1.3) provided an extraordinary growth stimulus to the Czech economy in 2015 of approximately 0.9 pp. In 2016, this situation should gradually dissipate and the CZK crude oil price should return to YoY growth in the fourth quarter of 2016.

Table A.1.1: Gross Domestic Product – yearly

YoY real growth rate, in %

	2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
World	**3.1**	**0.0**	**5.4**	**4.2**	**3.4**	**3.3**	**3.4**	**3.1**	**3.4**	**3.7**
USA	**-0.3**	**-2.8**	**2.5**	**1.6**	**2.2**	**1.5**	**2.4**	**2.4**	**2.2**	**2.5**
China	**9.6**	**9.2**	**10.6**	**9.5**	**7.7**	**7.7**	**7.3**	**6.9**	**6.4**	**6.2**
EU28	**0.5**	**-4.4**	**2.1**	**1.8**	**-0.5**	**0.2**	**1.4**	**1.9**	**1.7**	**1.9**
EA12	**0.4**	**-4.4**	**2.1**	**1.6**	**-0.9**	**-0.3**	**0.9**	**1.6**	**1.3**	**1.5**
Germany	**1.1**	**-5.6**	**4.1**	**3.7**	**0.4**	**0.3**	**1.6**	**1.7**	**1.4**	**1.8**
France	**0.2**	**-2.9**	**2.0**	**2.1**	**0.2**	**0.7**	**0.2**	**1.2**	**1.3**	**1.4**
United Kingdom	**-0.5**	**-4.2**	**1.5**	**2.0**	**1.2**	**2.2**	**2.9**	**2.2**	**1.9**	**2.1**
Austria	**1.5**	**-3.8**	**1.9**	**2.8**	**0.8**	**0.3**	**0.4**	**0.9**	**1.2**	**1.5**
Hungary	**0.8**	**-6.6**	**0.7**	**1.8**	**-1.7**	**1.9**	**3.7**	**2.9**	**2.8**	**2.3**
Poland	**3.9**	**2.6**	**3.7**	**5.0**	**1.6**	**1.3**	**3.3**	**3.6**	**3.4**	**3.4**
Slovakia	**5.7**	**-5.5**	**5.1**	**2.8**	**1.5**	**1.4**	**2.5**	**3.6**	**3.3**	**3.3**
Czech Republic	**2.7**	**-4.8**	**2.3**	**2.0**	**-0.9**	**-0.5**	**2.0**	**4.2**	**2.5**	**2.6**

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

Graph A.1.4: Gross Domestic Product

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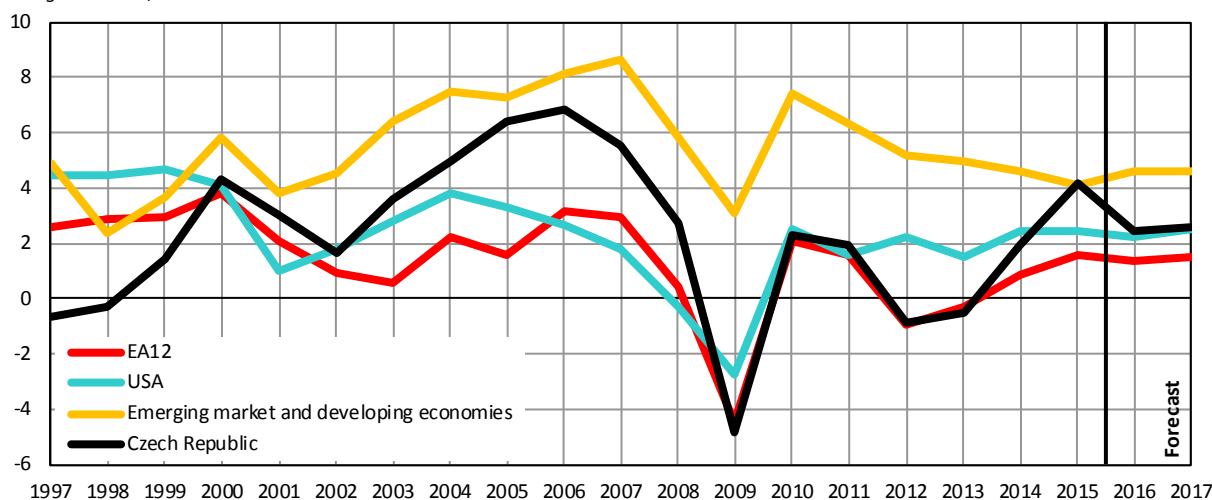
Note: Emerging market and developing economies comprising 154 countries (according to the IMF's classification)
Source: Eurostat, IMF, own calculations

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

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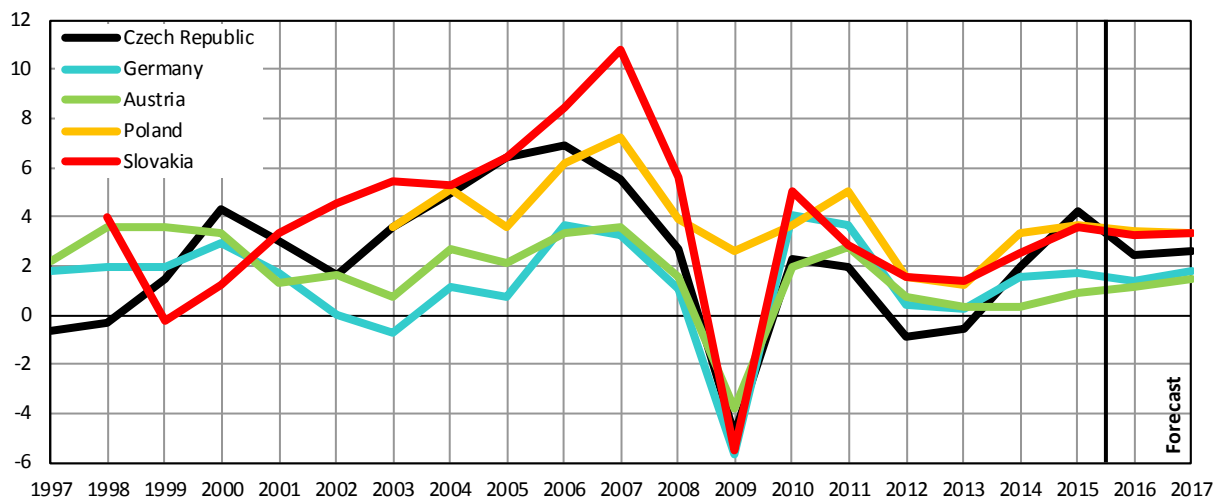
Source: Eurostat, own calculations

Table A.1.2: Gross Domestic Product – quarterly

real growth rate, in %, seasonally adjusted data

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
USA	*QoQ*	**0.2**	**1.0**	**0.5**	**0.3**	**0.5**	**0.6**	**0.7**	**0.6**
	YoY	2.9	2.7	2.1	2.0	2.3	2.0	2.2	2.4
China	*QoQ*	**1.3**	**1.9**	**1.8**	**1.6**	**1.4**	**1.5**	**1.5**	**1.5**
	YoY	6.8	6.9	6.9	6.8	6.9	6.4	6.1	6.0
EU28	*QoQ*	**0.6**	**0.5**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**
	YoY	1.7	1.9	1.9	1.8	1.6	1.7	1.8	1.9
EA12	*QoQ*	**0.6**	**0.4**	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**	**0.4**
	YoY	1.3	1.6	1.6	1.6	1.3	1.3	1.4	1.5
Germany	*QoQ*	**0.4**	**0.4**	**0.3**	**0.3**	**0.4**	**0.4**	**0.5**	**0.5**
	YoY	1.1	1.6	1.7	1.3	1.3	1.4	1.6	1.8
France	*QoQ*	**0.7**	**0.0**	**0.3**	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**
	YoY	0.9	1.1	1.1	1.4	1.0	1.3	1.3	1.4
United Kingdom	*QoQ*	**0.4**	**0.6**	**0.4**	**0.5**	**0.4**	**0.5**	**0.6**	**0.5**
	YoY	2.6	2.4	2.1	1.9	1.9	1.8	2.0	2.0
Austria	*QoQ*	**0.7**	**0.3**	**0.0**	**0.2**	**0.3**	**0.4**	**0.5**	**0.4**
	YoY	0.3	0.9	0.9	1.2	0.8	0.9	1.4	1.6
Hungary	*QoQ*	**0.8**	**0.5**	**0.6**	**1.0**	**0.5**	**0.4**	**0.4**	**0.5**
	YoY	3.3	2.7	2.6	3.0	2.7	2.6	2.3	1.8
Poland	*QoQ*	**1.0**	**0.6**	**0.9**	**1.1**	**0.8**	**0.8**	**0.9**	**0.8**
	YoY	3.7	3.4	3.6	3.7	3.5	3.7	3.7	3.3
Slovakia	*QoQ*	**0.9**	**1.0**	**1.0**	**1.0**	**0.6**	**0.7**	**0.8**	**0.7**
	YoY	3.1	3.5	3.8	4.0	3.7	3.4	3.2	2.8
Czech Republic	*QoQ*	**2.4**	**1.0**	**0.7**	**0.0**	**0.8**	**0.7**	**0.7**	**0.7**
	YoY	3.9	4.5	4.6	4.0	2.4	2.2	2.1	2.8

Source: Eurostat, NBS China, own calculations

Graph A.1.6: Gross Domestic Product – Czech Republic and the neighbouring states
Q3 2008=100, seasonally adjusted data, constant prices
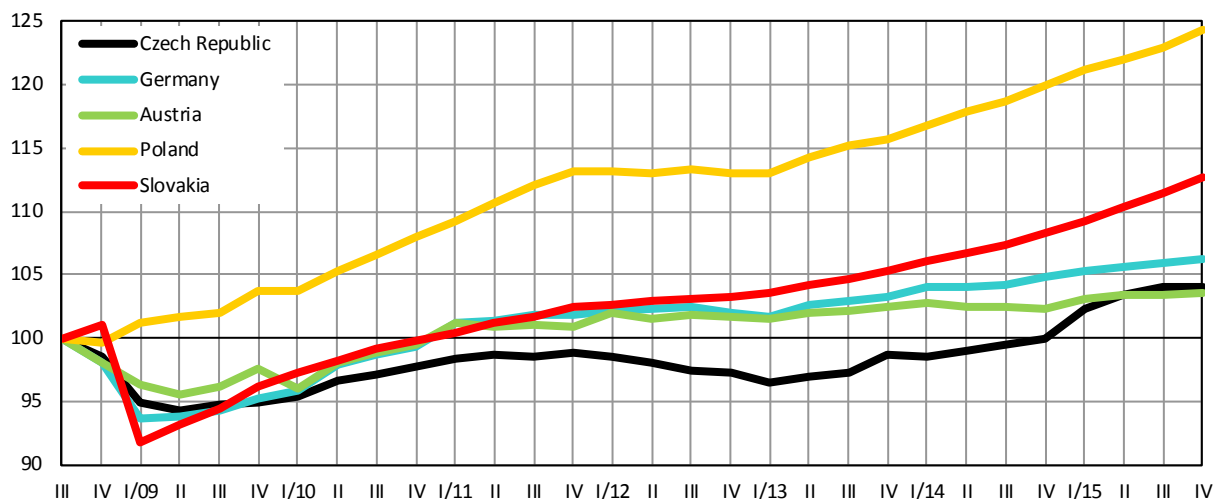
Source: Eurostat, own calculations

Table A.1.3: Prices of Selected Commodities – yearly
spot prices

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
										Forecast	*Forecast*
Crude oil Brent	*USD/barrel*	**96.9**	**61.5**	**79.6**	**111.3**	**111.6**	**108.6**	**99.0**	**52.4**	**41**	**47**
	growth in %	34.0	-36.5	29.3	39.9	0.3	-2.6	-8.8	-47.1	-21.9	16.0
Crude oil Brent index *(in CZK)*	*2005=100*	**106.7**	**76.1**	**100.0**	**129.5**	**143.8**	**139.9**	**134.6**	**85.1**	**66**	**76**
	growth in %	11.1	-28.6	31.4	29.5	11.0	-2.7	-3.8	-36.8	-22.2	15.3
Wheat	*USD/t*	**287.0**	**190.1**	**194.5**	**280.0**	**276.1**	**265.8**	**242.5**	**185.6**	**.**	**.**
	growth in %	26.5	-33.7	2.3	44.0	-1.4	-3.8	-8.8	-23.5	.	.
Wheat price index *(in CZK)*	*2005=100*	**130.8**	**98.5**	**100.0**	**133.6**	**146.4**	**140.6**	**135.7**	**123.7**	**.**	**.**
	growth in %	6.2	-24.7	1.5	33.6	9.6	-4.0	-3.5	-8.8	.	.

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

Table A.1.4: Prices of Selected Commodities – quarterly
spot prices

		2015				2016			
		Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
						Estimate	*Forecast*	*Forecast*	*Forecast*
Crude oil Brent	*USD/barrel*	**54.0**	**61.7**	**50.4**	**43.6**	**35**	**41**	**43**	**45**
	growth in %	-50.1	-43.8	-50.5	-43.0	-35.9	-33.2	-15.2	3.5
Crude oil Brent index *(in CZK)*	*2005=100*	**87.3**	**100.7**	**81.5**	**70.9**	**56**	**67**	**69**	**73**
	growth in %	-38.8	-30.4	-41.7	-36.3	-35.9	-33.7	-15.1	2.9
Wheat price	*USD/t*	**205.0**	**196.3**	**178.8**	**162.3**	**.**	**.**	**.**	**.**
	growth in %	-17.6	-28.4	-21.0	-26.4	.	.	.	.
Wheat price index *(in CZK)*	*2005=100*	**136.1**	**131.6**	**118.6**	**108.4**	**.**	**.**	**.**	**.**
	growth in %	0.9	-11.4	-7.0	-17.7	.	.	.	.

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

Graph A.1.7: Dollar Prices of Oil

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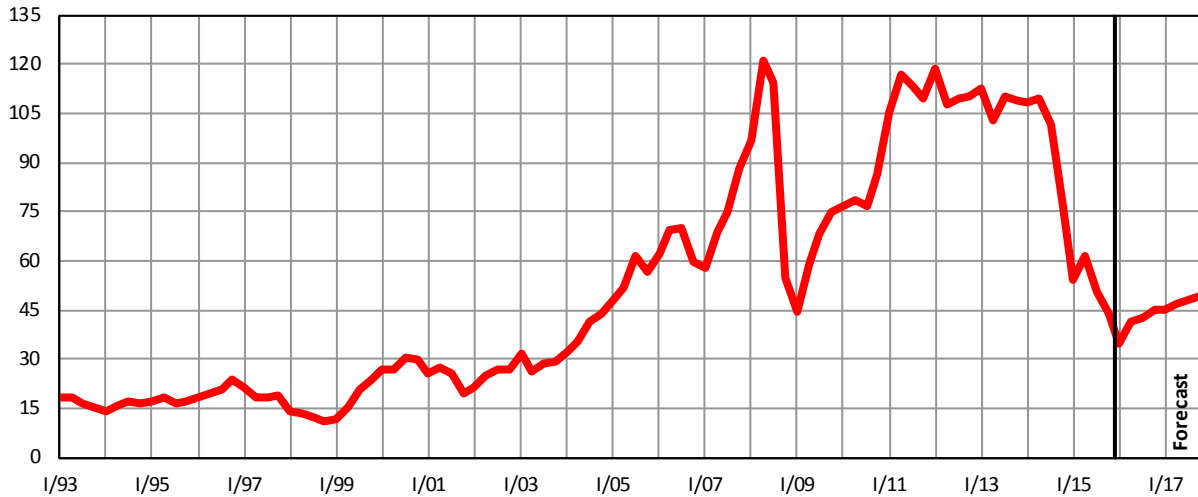
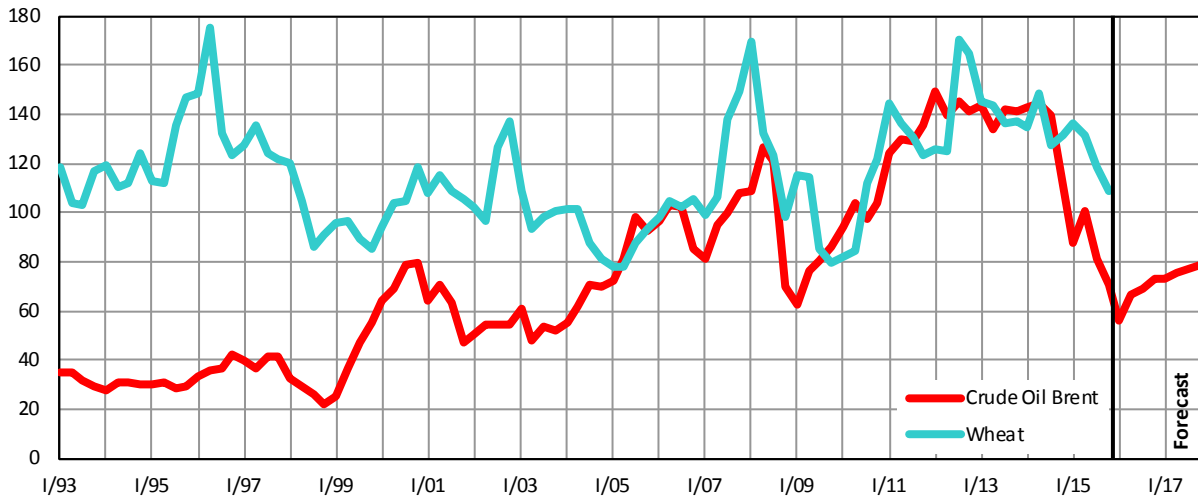Source: U. S. Energy Information Administration, own calculations

Graph A.1.8: Koruna Indices of Prices of Selected Commodities

index 2010=100

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

A.2 Fiscal Policy

On the basis of up-to-date data of the CZSO, the general government sector deficit reached record low CZK 18.7 billion in 2015, which corresponds to 0.4% of GDP. This is the lowest deficit – in nominal as well as relative terms – within the whole time series (i.e. since 1995). In a YoY comparison, the deficit decreased by 1.5 pp.

Compared with the previous forecast, the outturn is 0.7 pp better than estimated. Surplus of the local government sector (more than CZK 24 billion) was significantly bigger, approximately half due to unspent capital expenditure of the capital of Prague (provisional budget at the beginning of the year, delays in the purchase of land and longer tenders). Further improvement of the balance was given by a one-off revenue of the Deposit Insurance Fund amounting to ca 0.1% of GDP, in relation to bankruptcy procedures and completed lawsuits. Other units of the general government developed in line with expectations.

In YoY terms, one can highlight a very favourable collection of taxes and social and health care contributions. Social contributions outperformed the 2015 budget and – on accrual basis – even outpaced the growth of the corresponding macroeconomic base, i.e. the total wage bill.

Revenues from indirect taxes increased by more than 9%, owing to the collection of value added tax as well as excises. Having fallen markedly in 2014 as a result of the limited time validity of tobacco stamps, excise taxes returned to their normal level determined by real consumption of tobacco products. In the case of VAT, the original estimate was significantly exceeded in spite of the introduction of the second reduced rate on drugs, books and essential infant nutrition at the start of the year. Direct taxes recorded a solid increase (by ca 4.3%), too. However, discretionary measures such as the reintroduction of the basic discount for working pensioners or support to multiple-child families weighed on their dynamics. In total, revenues from taxes and social security contributions increased by more than CZK 95 billion, thus creating enough room for covering expenditure requirements.

Beyond the aforementioned, the drawdown of EU money (the use of money by the final recipient) was the highest since the accession of the Czech Republic to the EU. On the revenue side, there was an increase in subsidies from the EU (higher receivables against the EU) of more than 84% (on accrual basis). This was enabled by a high absorption rate towards the end of the previous financial perspective 2007–2013, as the money from this perspective could have been used to finance projects only by the end of 2015.

On the expenditure side, financing of EU projects manifested itself by total investment expenditure reaching a record high level within the whole time series since 1995. Owing to this factor, there was an acceleration of robust investment activity, which had a significant pro-growth effect on GDP. Gross fixed capital formation of the general government was also influenced by the financial lease of JAS-39 Gripen fighter jets.

Another positive development stemmed from a record fall (by almost CZK 8 billion) in interest expenses of the general government, which was mainly due to favourable development of the state debt and the situation on financial markets (relatively low yields across the yield curve of Czech government bonds).

The increase in general government consumption of 4.8% reflected not only current expenditure related to the drawdown from the old financial perspective, but also the growth of wages and salaries. Last but not least, the gift tax returns on emission allowances amounting to approximately CZK 4.5 billion weighed on capital transfer expenditure in 2015. In cash terms, a tax return lowers the collection of a property tax. On accrual basis (ESA 2010 methodology), however, it is recorded as a capital transfer.

In 2016, the deficit is expected to increase moderately to CZK 27.5 billion (0.6% of GDP). In structural terms, the balance should reach –0.6% of GDP. Budget position of the general government should thus remain around the EU's medium-term objective also in 2016.

Due to favourable economic developments and improved collection resulting from the measures against tax evasion, especially electronic VAT reporting, the estimate for 2016 assumes a favourable development of tax revenues and revenues from social security contributions.

Change in the structure of investment should have a negative impact on the deficit. We expect that the EU cofinanced investment expenditure will be lower after the termination of the old programming period, as the start of drawdown from the new financial perspective 2014–2020 is expected to be only gradual. This decline, however, should be partly offset by investment financed entirely from national sources, which fully impact the general government balance.

Government consumption, which is expected to increase by 3.4%, will grow at a slower pace than in 2015. The reason is a lower dynamics of the wage bill and intermediate consumption amid the transition to the new financial perspective 2014–2020.

Owing to a stable development of the state debt, the government sector debt reached 41.1% of GDP in 2015, thus being one of the lowest in the EU. In relative terms, we expect the indebtedness to stagnate in 2016.

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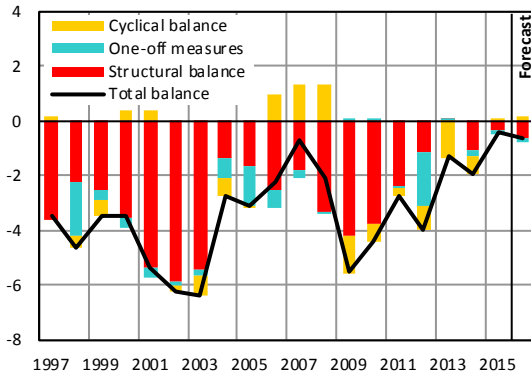
Source: CZSO, own calculations

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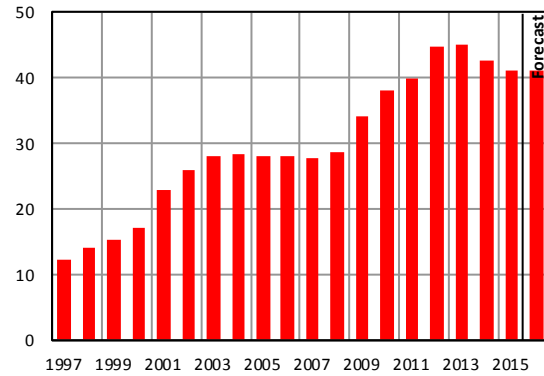
Source: CZSO, own calculations

Table A.2.1: Net Lending/Borrowing and Debt

		2007	2008	2009	2010	2011	2012	2013	2014	2015 Prelim.	2016 Forecast
General government balance [1]	% GDP	**-0.7**	**-2.1**	**-5.5**	**-4.4**	**-2.7**	**-3.9**	**-1.3**	**-1.9**	**-0.4**	**-0.6**
	bill. CZK	-27	-85	-216	-175	-110	-160	-51	-83	-19	-28
Cyclical balance	% GDP	**1.4**	**1.3**	**-1.4**	**-0.7**	**-0.3**	**-0.8**	**-1.3**	**-0.7**	**0.0**	**0.1**
Cyclically adjusted balance	% GDP	**-2.1**	**-3.4**	**-4.2**	**-3.7**	**-2.5**	**-3.1**	**0.1**	**-1.3**	**-0.4**	**-0.7**
One-off measures [2]	% GDP	**-0.3**	**-0.1**	**0.0**	**0.0**	**-0.1**	**-2.0**	**0.0**	**-0.3**	**-0.1**	**-0.1**
Structural balance	% GDP	**-1.8**	**-3.3**	**-4.2**	**-3.7**	**-2.4**	**-1.1**	**0.1**	**-1.0**	**-0.3**	**-0.6**
Fiscal effort [3]	percent. points	**0.7**	**-1.5**	**-0.9**	**0.5**	**1.4**	**1.2**	**1.2**	**-1.1**	**0.7**	**-0.3**
Interest expenditure	% GDP	**1.1**	**1.0**	**1.2**	**1.3**	**1.3**	**1.4**	**1.3**	**1.3**	**1.1**	**1.0**
Primary balance	% GDP	**0.4**	**-1.1**	**-4.3**	**-3.1**	**-1.4**	**-2.5**	**0.1**	**-0.6**	**0.7**	**0.4**
Cyclically adjusted primary balance	% GDP	**-1.0**	**-2.4**	**-2.9**	**-2.4**	**-1.2**	**-1.7**	**1.4**	**0.0**	**0.6**	**0.3**
General government debt	% GDP	**27.8**	**28.7**	**34.1**	**38.2**	**39.9**	**44.7**	**45.1**	**42.7**	**41.1**	**41.1**
	bill. CZK	1 066	1 151	1 336	1 509	1 606	1 805	1 840	1 819	1 836	1 900
Change in debt-to-GDP ratio	percent. points	-0.1	0.9	5.4	4.1	1.8	4.7	0.5	-2.4	-1.6	0.0

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

For a long time, monetary policy can be characterised as 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 the koruna to strengthen below 27 CZK/EUR. Since the second half of 2015, the CNB has been intervening on the foreign exchange market in order to defend its exchange rate commitment, with the total volume of interventions reaching approximately EUR 11.1 billion between July 2015 and January 2016 (see Graph A.3.1). The CNB can intervene against pressures for the koruna appreciation basically without limits.

Graph A.3.1: FX Interventions of the CNB and the Exchange Rate
monthly volume of foreign exchange interventions in EUR billion, CZK/EUR exchange rate
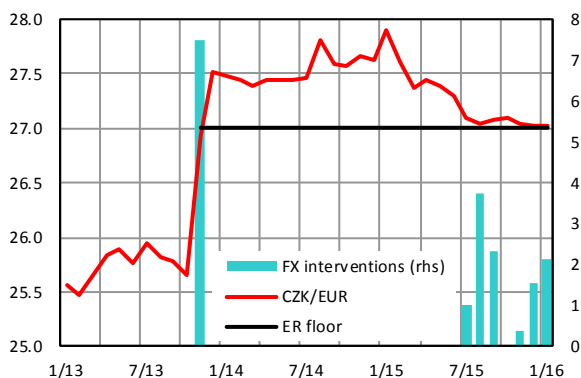
Source: CNB

A.3.2 Financial Sector and Interest Rates

In the first quarter of 2016, the **3M** (3-month) **PRIBOR** interbank market rate averaged 0.3% (*consistent with the forecast*). With respect to the expected development of monetary policy rates, the 3M PRIBOR should remain at this level also throughout the years 2016 and 2017.

Graph A.3.2: Interest Rates
in % p.a.
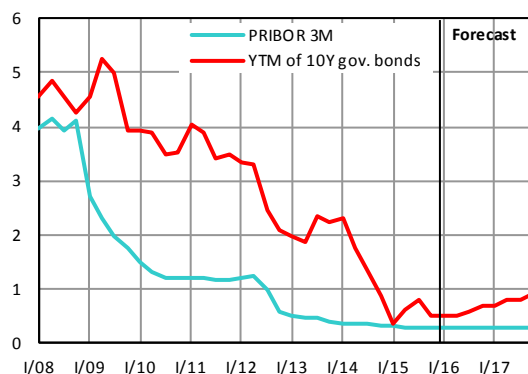
Source: CNB, own calculations

With respect to the practically zero reference interest rates of the CNB and very weak inflationary pressures, long-term interest rates continue to be at extremely low values. We estimate that **the yield to maturity on 10-year government bonds** for convergence purposes remained at 0.5% (*versus 0.6%*) in the first quarter of 2016 and that it should reach 0.6% (*versus 0.7%*) on average for the whole year 2016. Yields on bonds with shorter maturities have been in the negative territory for a longer time. With respect to the expected development of inflation and further easing of the ECB's monetary policy (see Chapter A.1), we forecast only a slight increase in long-term interest rates to 0.8% in 2017 (*versus 1.0%*).

The latest bank lending survey, whose results were published in January 2016, showed that credit standards eased further for consumer loans and loans to non-financial corporations and did not change for housing loans to households. For the first quarter of 2016, banks expected further easing of credit standards for consumer loans to households and for loans to non-financial corporations, and no change for housing loans to households.

Graph A.3.3: Loans
YoY growth rate, in %
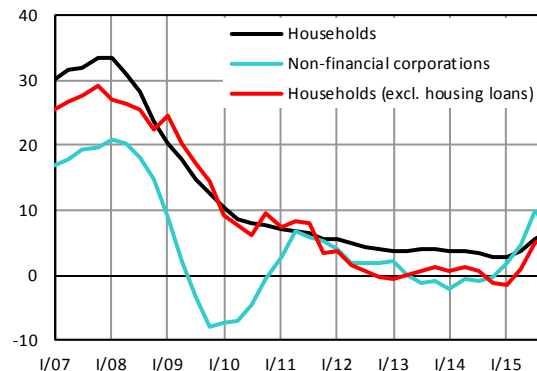
Source: CNB, own calculations

Growth of loans to households, the dynamics of which is mostly influenced by housing loans (in volume terms, housing loans are the most important loan category – see Graph A.3.6), remains below the long-term average, even in spite of a pronounced increase in the dynamics. Since mid-2015, consumer loans have been showing considerable growth (in the fourth quarter of 2015, growth of 8.6% YoY), which is due, however, to a merger of a bank with a non-banking entity and the related changes in the banking and monetary statistics. So-called "other loans", which include e.g. loans to sole traders, have been growing only slightly (by 2.5% in the fourth quarter of 2015). Even in spite of some slowdown, the growth of loans to non-financial corporations has remained quite high in recent months (consistent with the economic cycle) – it was 7.8% YoY in the fourth quarter of 2015.

The share of non-performing loans in total loans has been slowly decreasing in line with improving state of the real economy. In the fourth quarter of 2015, the share stood at 4.2% for households (0.3 pp less QoQ, 0.6 pp less YoY) and at 5.6% for non-financial corporations (0.1 pp less QoQ and 1.2 pp less YoY).

Graph A.3.4: Non-performing Loans
ratio of non-performing to total loans, in %
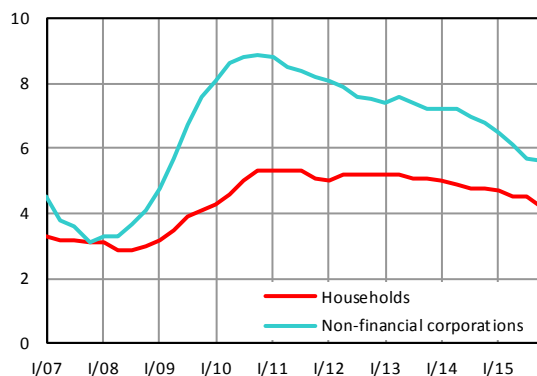
Source: CNB, own calculations

Growth of household deposits remains moderate. The growth of household disposable income, which is still relatively low (though accelerating), in combination with the relatively high confidence of households in future economic developments, are probably reflected here. Growth of deposits of non-financial corporations has accelerated further.

Graph A.3.5: Deposits
YoY growth rate, in %
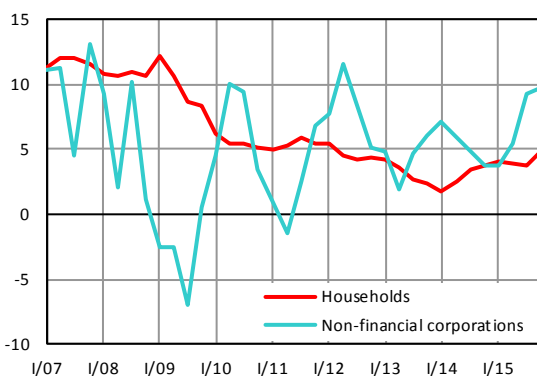
Source: CNB, own calculations

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. With the exception of a temporary depreciation at the beginning of 2015, the exchange rate was very stable, showing only small fluctuations. At the end of the second quarter of 2015, however, the koruna exchange rate started strengthening in connection with favourable developments of the economy, approaching the value of 27 CZK/EUR near which it remained during the second half of 2015 and the first quarter of 2016.

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

The estimated development of the CZK/USD exchange rate is implied by the USD/EUR exchange rate, for which we have made a technical assumption of stability at the level of 1.10 USD/EUR (*unchanged*).

Table A.3.1: Interest Rates – yearly

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Repo 2W rate CNB (*end of period*)	in % p.a.	2.25	1.00	0.75	0.75	0.05	0.05	0.05	0.05	.	.
Main refinancing rate ECB (*end of period*)	in % p.a.	2.50	1.00	1.00	1.00	0.75	0.25	0.05	0.05	.	.
Federal funds rate (*end of period*)	in % p.a.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50	.	.
PRIBOR 3M	in % p.a.	4.04	2.19	1.31	1.19	1.00	0.46	0.36	0.31	0.3	0.3
YTM of 10Y government bonds	in % p.a.	4.55	4.67	3.71	3.71	2.80	2.11	1.58	0.58	0.6	0.8

Source: CNB, ECB, Fed, own calculations

Table A.3.2: Interest Rates – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Repo 2W rate CNB *(end of period)*	*in % p.a.*	0.05	0.05	0.05	0.05	0.05	.	.	.
Main refinancing rate ECB *(end of period)*	*in % p.a.*	0.05	0.05	0.05	0.05	0.00	.	.	.
Federal funds rate *(end of period)*	*in % p.a.*	0.25	0.25	0.25	0.50	0.50	.	.	.
PRIBOR 3M	*in % p.a.*	0.33	0.31	0.31	0.29	0.29	0.3	0.3	0.3
YTM of 10Y government bonds	*in % p.a.*	0.37	0.62	0.80	0.51	0.5	0.5	0.6	0.7

Source: CNB, ECB, Fed, own calculations

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

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

Source: CNB, ECB, own calculations

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

		2014				2015			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Households – MFI *(CR, unless stated otherwise)*									
– interest rates on loans	*in % p.a.*	5.73	5.62	5.52	5.40	5.28	5.18	5.11	4.97
– loans	*growth in %*	3.9	3.8	3.6	2.7	2.9	3.9	5.6	6.9
– loans without housing loans	*growth in %*	0.6	1.2	0.6	-1.2	-1.4	1.0	4.9	6.1
– interest rates on deposits	*in % p.a.*	0.92	0.87	0.81	0.77	0.72	0.66	0.62	0.59
– deposits	*growth in %*	1.8	2.6	3.4	3.7	4.0	3.9	3.8	4.8
– share of non-performing loans	*in %*	5.0	4.9	4.8	4.8	4.7	4.5	4.5	4.2
– loans to deposits ratio	*in %*	65	65	66	65	65	65	66	66
– loans to deposits ratio (Eurozone)	*in %*	83	82	82	81	81	81	81	81
Non-financial firms – MFI *(CR, unless stated otherwise)*									
– interest rates on loans	*in % p.a.*	3.06	3.04	2.98	2.93	2.88	2.80	2.72	2.67
– loans	*growth in %*	-1.9	-0.6	-0.9	-0.1	2.0	4.8	9.8	7.8
– interest rates on deposits	*in % p.a.*	0.34	0.32	0.26	0.24	0.22	0.20	0.17	0.15
– deposits	*growth in %*	7.1	5.9	4.9	3.8	3.8	5.4	9.2	9.7
– share of non-performing loans	*in %*	7.2	7.2	7.0	6.8	6.5	6.1	5.7	5.6
– loans to deposits ratio	*in %*	112	111	111	107	113	115	113	111
– loans to deposits ratio (Eurozone)	*in %*	242	247	239	230	217	216	210	202

Source: CNB, ECB, own calculations

Graph A.3.6: Ratio of Bank Loans to Households to GDP
yearly moving sums, in %
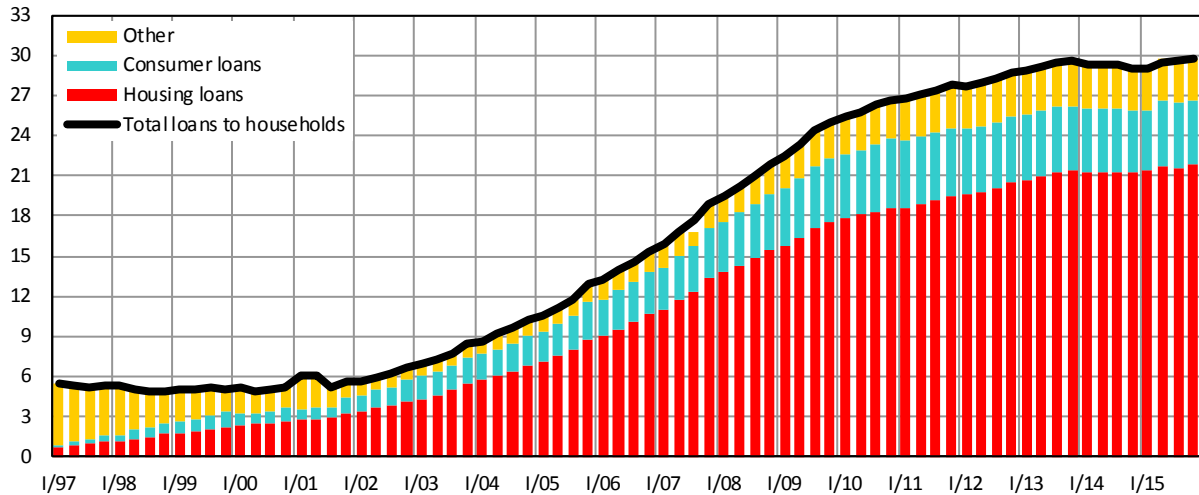
Source: CNB, CZSO, own calculations

Table A.3.5: Exchange Rates – yearly

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
							Estimate	Forecast	Forecast	Outlook	Outlook
Nominal exchange rates:											
CZK / EUR	average	25.29	24.59	25.14	25.98	27.53	27.28	27.0	26.9	26.2	25.6
	appreciation in %	4.6	2.8	-2.2	-3.2	-5.6	0.9	0.9	0.6	2.4	2.5
CZK / USD	average	19.11	17.69	19.59	19.57	20.75	24.65	24.6	24.4	23.8	23.3
	appreciation in %	-0.3	8.0	-9.7	0.1	-5.7	-15.8	0.3	0.6	2.4	2.5
NEER	average of 2010=100	100.0	103.1	99.5	97.3	92.5	92.5	94	95	97	99
	appreciation in %	2.1	3.1	-3.5	-2.2	-4.9	-0.1	1.4	0.9	2.6	2.2
Real exchange rate to EA12[1]	average of 2010=100	100.0	101.6	99.5	96.3	92.4	92.8	93	94	97	100
	appreciation in %	2.4	1.6	-2.0	-3.2	-4.0	0.4	0.7	0.8	2.9	3.0
REER	average of 2010=100	100.0	102.1	99.2	96.9	91.8	91	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	1.2	2.1	-2.8	-2.3	-5.2	-0.6	.	.	.	.

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

Table A.3.6: Exchange Rates – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
Nominal exchange rates:									
CZK / EUR	average	27.62	27.38	27.07	27.06	27.04	27.0	27.0	27.0
	appreciation in %	-0.7	0.2	2.0	2.1	2.2	1.3	0.1	0.1
CZK / USD	average	24.55	24.79	24.53	24.71	24.54	24.6	24.6	24.6
	appreciation in %	-18.4	-19.2	-15.0	-10.5	0.0	0.9	-0.2	0.5
NEER	average of 2010=100	91.7	91.1	93.4	93.6	93.8	94	94	94
	appreciation in %	-1.4	-2.0	1.6	1.5	2.3	2.9	0.3	0.1
Real exchange rate to EA12[1]	average of 2010=100	91.7	92.7	93.6	93.0	94	94	93	93
	appreciation in %	-0.5	-0.4	1.0	1.4	2.2	1.1	-0.2	-0.2
REER	average of 2010=100	90.8	89.9	92.4	.	.	.	.	.
(Eurostat, CPI deflated, 42 countries)	appreciation in %	-2.3	-2.4	1.6	.	.	.	.	.

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

Graph A.3.7: Nominal Exchange Rates

quarterly averages, average 2010=100 (rhs)

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

Forecast
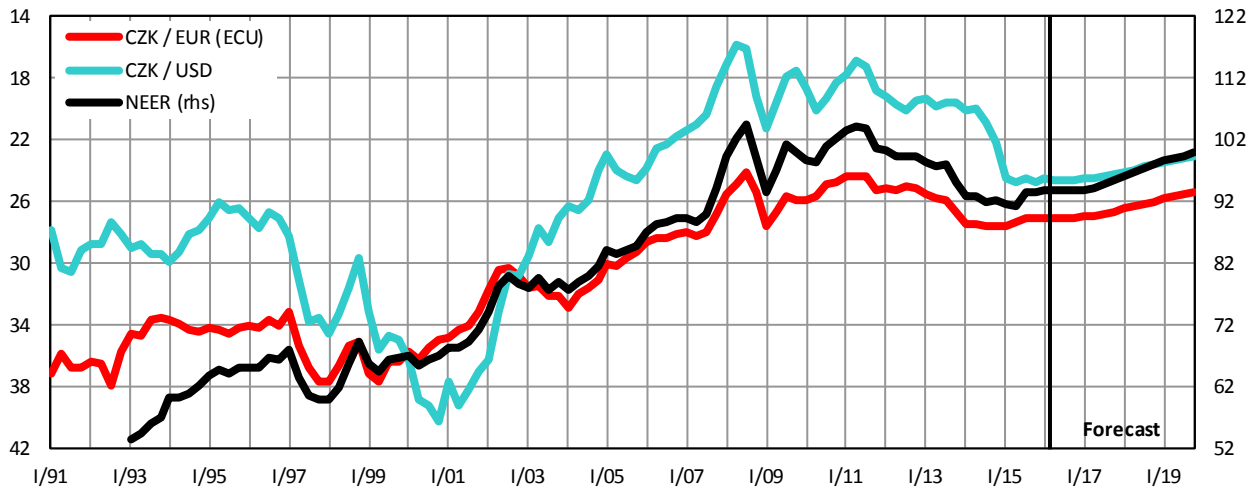
Source: CNB, own calculations

Graph A.3.8: Real Exchange Rate to EA12

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

Forecast
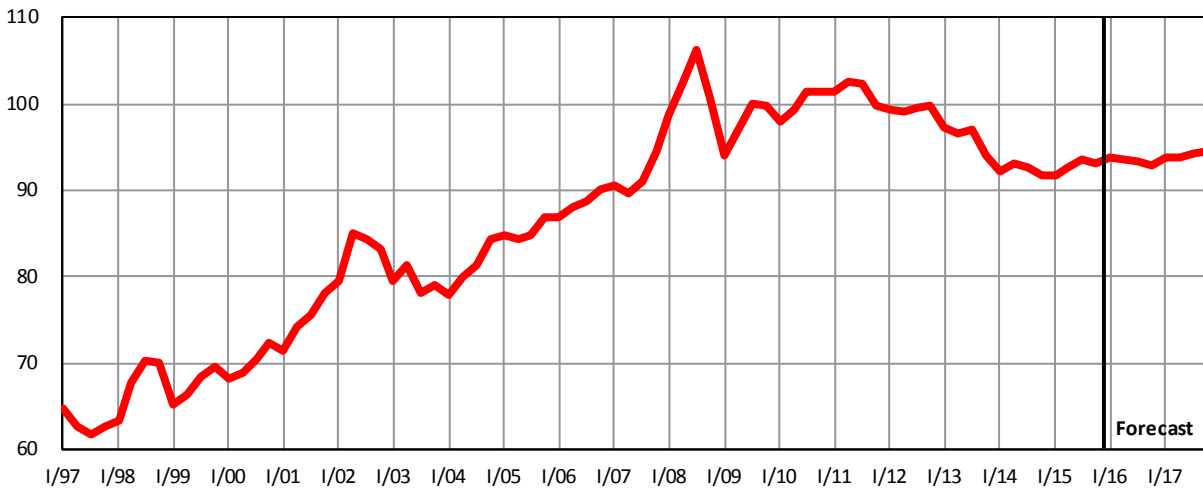
Source: CNB, Eurostat, own calculations

Graph A.3.9: 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
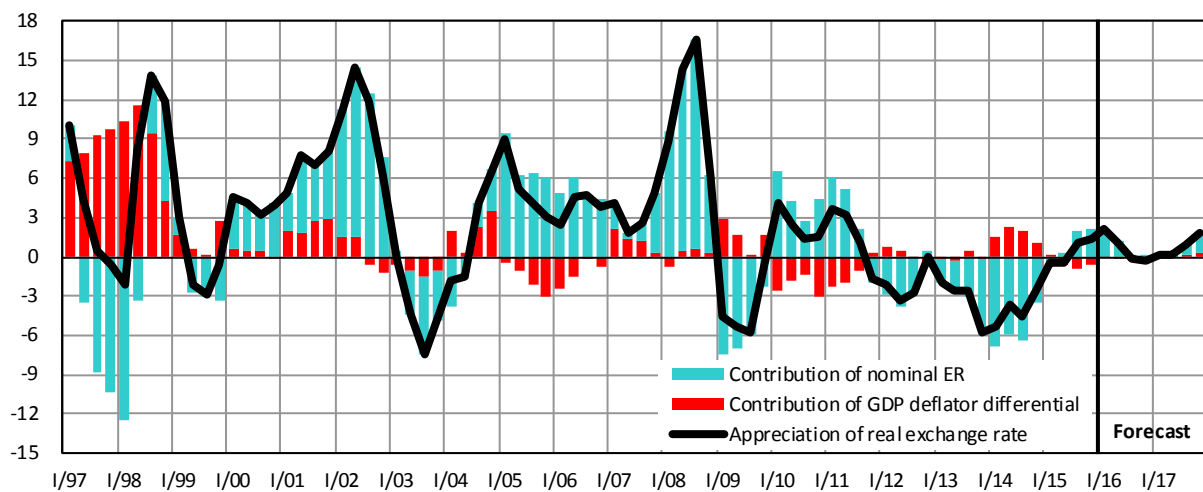
Source: CNB, Eurostat, own calculations

A.4 Structural Policies

A.4.1 Business Environment

The draft **Act on Public procurement**, which was approved by the Chamber of Deputies on 9 March 2016, 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 Act, 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

On 30 March 2016, the President of the Czech Republic signed **the Act on Fiscalization of Cash Payments** that should restrict the informal economy and improve tax administration. According to the new legal regulation, selected business entities will be obliged to carry out fiscalization of cash payments through a permanent electronic connection. Companies engaged in accommodation and food services will be included in the system in the first stage, and companies engaged in wholesale and retail trade three months later. The remaining entrepreneurial sectors (e.g. freelance professions, transport and agriculture) will join the system 16 months following its launching and selected craftsmen professions and production activities two months later. Motivation of the public to participate and control will be supported by a receipt lottery. The Act should come into effect on 1 December 2016.

On the same day the President also signed the **Act amending some acts in relation to the adoption of the Act on Fiscalization of Cash Payments**. In order to compensate the costs of introducing the fiscalization of cash payments, a single tax allowance of CZK 5,000 will be provided to personal income tax payers. At the same time, food services excluding the sale of drinks that contain alcohol will be transferred from the basic rate (21%) to the first reduced rate (15%) of VAT. The Act should come into effect on 1 December 2016.

By the Government Regulation on Reverse Charge, as at 1 February 2016 the regime of reverse charge was extended to VAT on the supplies of natural gas and electricity.

On 2 March 2016, the Chamber of Deputies approved **the amendment to the Income Tax Act** which will increase tax credits 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 into the Czech legal system the EU Directive regulating the payment of dividends and removes double economic taxation of profit. We expect that the amendment will come into effect in mid-2016.

A.4.3 Financial Markets

In order to strengthen the fight against tax evasion, on 3 February 2016 the government approved the draft **Act on Central Account Record-Keeping**, authorizing the CNB to establish and administer a central database of basic information on natural persons' and legal entities' accounts. The central account records will not include information on account balances, data history will be created as late as after starting operation and the data will be archived for 5 years. The Act is scheduled to come into effect on the fifteenth day following its announcement.

A.4.4 Education, Science and Research

The amendment to the School Act, approved by the Chamber of Deputies on 9 March 2016, introduces a compulsory year of pre-school education preceding the beginning of compulsory education that can be, however, replaced by home education. In the following years, four-year, three-year and two-year children will gradually be entitled to places in kindergartens. At the same time, the amendment regulates the system of entrance exams for the fields of secondary education completed with the leaving examination and the model of leaving examination. The amendment should come into effect on 1 September 2016; however, the aforementioned regulations only in later years.

A.4.5 Labour Market

On 17 February 2016, the government approved **the amendment to the Act on Pension Insurance**. Old-age pensions are indexed each year by growth of prices and a third of real wage growth. However, if growth of pensions does not reach 1.7%, the government will be able to increase incomes of pensioners with its regulation so that the average old-age pensions will grow by 1.7%. The amendment should come into effect on 1 August 2016.

A.5 Demographic Trends

At the end of 2015, 10.554 million people lived in the Czech Republic. Its population increased by 15.6 thous. persons during the year 2015. Net migration was positive (16.0 thousand persons) while natural increase was slightly negative (−0.4 thousand persons).

Out of the 34.9 thousand persons that moved to the Czech Republic from abroad (6.7 thousand less YoY), most were from Slovakia and Ukraine. The number of persons moving abroad was 18.9 thousand (1.0 thous. more YoY).

The number of births reached 110.8 thousand with a small YoY increase of 0.9 thousand. The number of deaths (111.2 thousand) was 5.5 thousand higher YoY, which was mainly a reflection of the development in the first quarter when the number of deaths increased by 4.9 thousand YoY.

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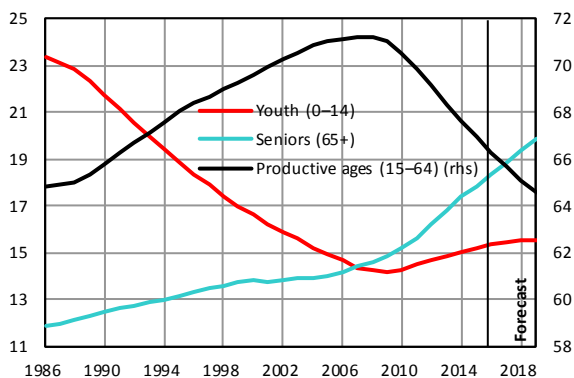
Source: CZSO, own calculations

There has been a long-run decline in the **population aged 15–64 years** (see Graph A.5.1). At the beginning of 2016 it should be, for the first time since 1994, below 7 million persons. In the years to come, the working-age population should continue to shrink by approximately 60–70 thousand people a year in absolute terms, which is a decrease of approximately 0.9% (see Graph A.5.2). The economic impact of this situation and its mitigation by an increase in the participation rate 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 due to the lengthening life

expectancy and demographic structure it should regularly increase by approximately 0.5 pp per year. The number of seniors in the population should exceed 2 million persons during the year 2017. From the perspective of the sustainability of the pension system, however, increases in the retirement age are adequate to match the lengthening of life expectancy in the next 20–25 years.

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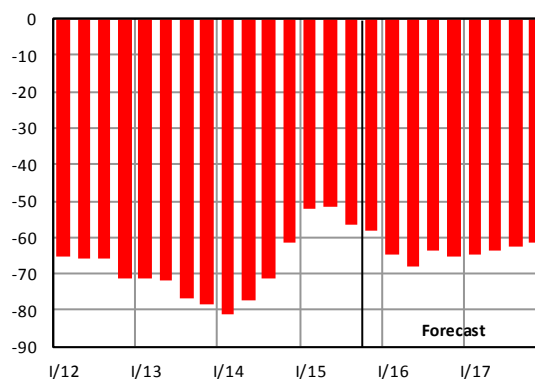
Source: CZSO, own calculations

The number of **old-age pensioners** in 2012–2014 more or less stagnated, which was a result of a high increase in their number following a parametric change in the system in 2011 (see Graph A.5.5). In 2015, growth of the number of pensioners resumed, being roughly in line with the demographic development and increasing statutory retirement age. At the end of 2015, the YoY increase was 22 thousand pensioners.

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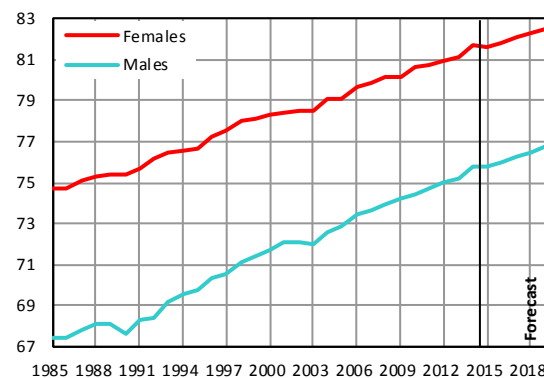
Source: CZSO

Table A.5.1: Demographics

in thousands of persons (unless stated otherwise)

	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Population (January 1)	**10 507**	**10 487**	**10 505**	**10 516**	**10 512**	**10 538**	**10 554**	**10 556**	**10 557**	**10 555**
growth in %	0.4	-0.2	0.2	0.1	0.0	0.2	0.1	0.0	0.0	0.0
Age structure (January 1):										
(0–14)	**1 494**	**1 522**	**1 541**	**1 560**	**1 577**	**1 601**	**1 622**	**1 632**	**1 638**	**1 641**
growth in %	1.0	1.8	1.3	1.2	1.1	1.5	1.3	0.6	0.4	0.2
(15–64)	**7 414**	**7 328**	**7 263**	**7 188**	**7 109**	**7 057**	**6 998**	**6 933**	**6 871**	**6 815**
growth in %	-0.2	-1.2	-0.9	-1.0	-1.1	-0.7	-0.8	-0.9	-0.9	-0.8
(65 and more)	**1 599**	**1 637**	**1 701**	**1 768**	**1 826**	**1 880**	**1 933**	**1 991**	**2 048**	**2 100**
growth in %	2.7	2.4	3.9	3.9	3.3	3.0	2.8	3.0	2.8	2.6
Old-age pensioners (January 1)[1]	**2 108**	**2260**	**2340**	**2341**	**2340**	**2355**	**2377**	**2 397**	**2 416**	**2 423**
growth in %	2.1	.	3.5	0.0	0.0	0.6	0.9	0.9	0.8	0.3
Old-age dependency ratios (January 1, in %):										
Demographic [2]	**21.6**	**22.3**	**23.4**	**24.6**	**25.7**	**26.6**	**27.6**	**28.7**	**29.8**	**30.8**
Under current legislation [3]	**36.6**	**37.4**	**37.8**	**38.3**	**38.8**	**39.3**	**39.5**	**40.0**	**40.5**	**40.8**
Effective [4]	**42.8**	**45.9**	**47.9**	**47.6**	**47.2**	**46.9**	**46.8**	**47.2**	**47.5**	**47.6**
Fertility rate	**1.493**	**1.427**	**1.452**	**1.456**	**1.528**	**1.570**	**1.45**	**1.46**	**1.46**	**1.46**
Population increase	**-20**	**19**	**11**	**-4**	**26**	**16**	**2**	**1**	**-1**	**-3**
Natural increase	**10**	**2**	**0**	**-2**	**4**	**0**	**-7**	**-9**	**-11**	**-13**
Live births	**117**	**109**	**109**	**107**	**110**	**111**	**100**	**98**	**97**	**95**
Deaths	**107**	**107**	**108**	**109**	**106**	**111**	**107**	**107**	**107**	**107**
Net migration	**16**	**17**	**10**	**-1**	**22**	**16**	**9**	**9**	**10**	**10**
Immigration	**31**	**23**	**30**	**30**	**42**	**35**	**.**	**.**	**.**	**.**
Emigration	**15**	**6**	**20**	**31**	**20**	**19**	**.**	**.**	**.**	**.**
Census difference	**-46**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

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

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

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

4) Effective dependency: ratio of old-age pensioners to working people.

Source: Czech Social Security Administration, CZSO, 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
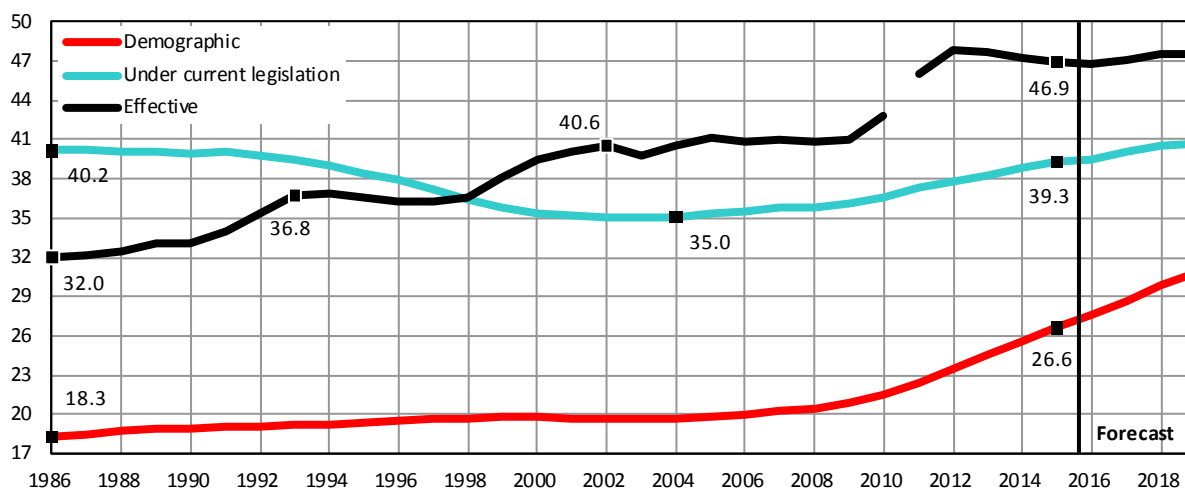
Source: CZSO, own calculations

Graph A.5.5: Old-Age Pensioners

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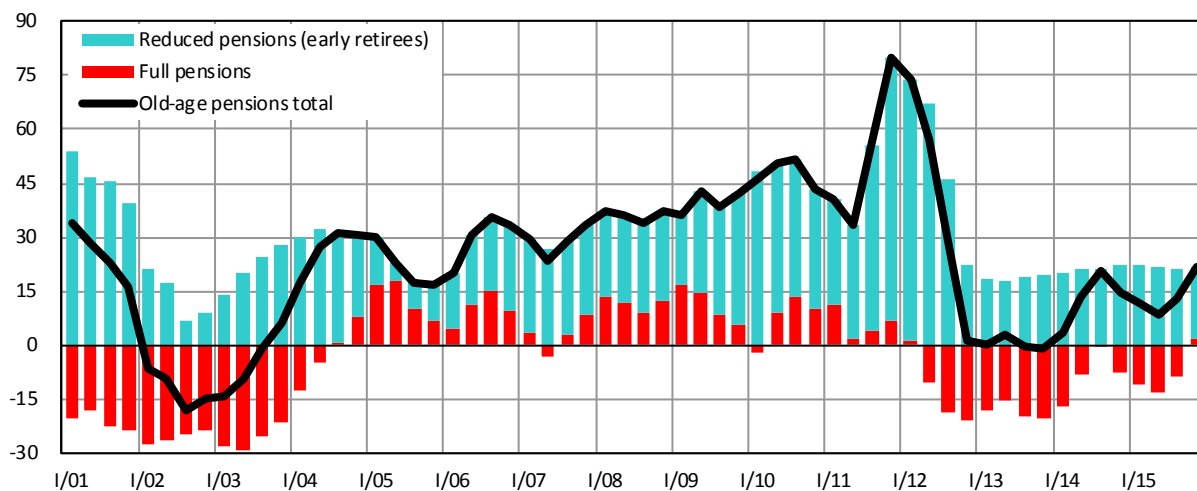
Note: Adjusted for the transfer of disability pensions to old-age pensions for people over 64 years in 2010.
Source: Czech Social Security Administration, CZSO, own calculations

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, probably closed during 2015 (see Graph B.1.1). Due to a considerable slowdown of GVA growth, the cyclical position of the economy barely changed (in a QoQ comparison) in the fourth quarter of 2015. According to our calculations, the positive output gap was 0.3% of potential product. This position of the economy can be evaluated positively, as it results in effective utilisation of production factors.

In the economy, the closing of the output gap can be best seen on the labour market. For example, it is confirmed with the unemployment rate (LFS), which is deeply 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 shows considerable increases in a YoY comparison. In the case of some professions, mismatches between demand and supply have been manifesting themselves more and more, which is contributing to an acceleration of wage growth.

In contrast, the closing of the output gap has not yet manifested itself in the price development. However, this is caused by a decrease in the prices of imported goods, in particular of fuels, whose impact on inflation is stronger than the impact of only weak (for the time being) demand pressures. Inflation thus continues to be very low.

With regard to the forecast slowdown of economic growth, widening of the positive output gap should be only gradual in the following period. However, any further stimulation of the economy by economic policies could sow the seeds of future macroeconomic imbalances.

Having overcome a long period of recessions, stagnation or only weak growth, the YoY growth of **potential product** is evidently accelerating. According to our calculations, it reached 2.0% in the fourth quarter of 2015, which we consider as a result approaching the real possibilities of the Czech economy.

The main driver of acceleration of potential growth is **total factor productivity.** The contribution of its trend component, derived by the Hodrick-Prescott filter, increased from a nearly zero value during the recession in 2012 to 1.4 pp in the fourth quarter of 2015.

Decrease or only modest growth of investment in 2008–2013 has also contributed to the slowdown of potential product growth. The current investment wave, supported by efforts for maximal possible drawdown of the EU funds, has led, for the time being, to an increase in the contribution of **capital stock** from 0.3 pp at the turn of 2013 and 2014 to 0.6 pp in the fourth quarter of 2015.

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 fourth 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 largely compensated by an increase in the **participation rate**. Its increase during the last four years is exceptional both in the historical context of the Czech economy and when compared to the European countries. Structural factors – an increase in the number of inhabitants in age groups with naturally high participation, labour market flexibility and an increase in the statutory and effective retirement age – are predominating here. The contribution of the participation rate to potential product growth was 0.4 pp in the fourth quarter of 2015.

From a long-run perspective, the regular **average working time** is shortening in the Czech Republic. As the economic cycle progresses, however, this factor is ceasing to manifest itself. In the fourth quarter of 2015, the number of hours usually worked had a zero impact on potential product growth 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
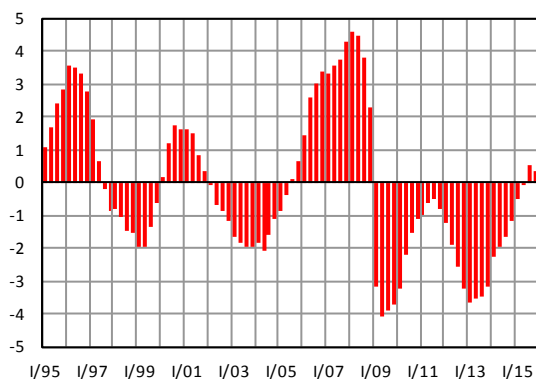
Source: CZSO, own calculations

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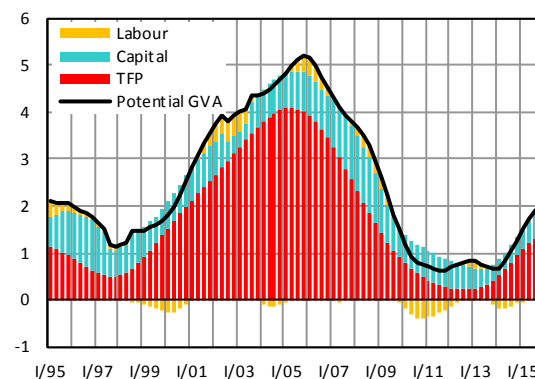
Source: CZSO, own calculations

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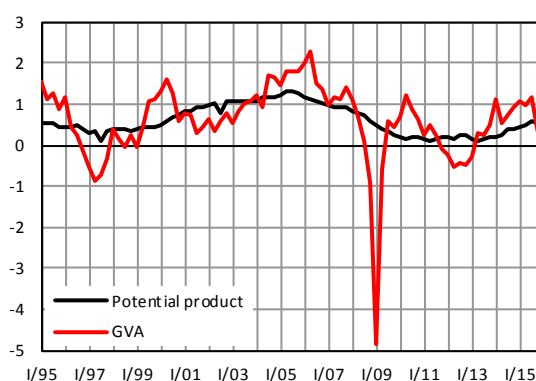
Source: CZSO, own calculations

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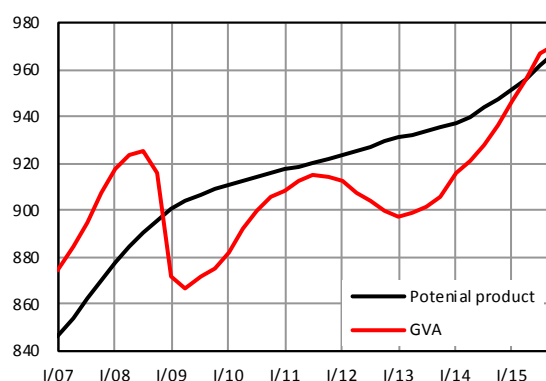
Source: CZSO, own calculations

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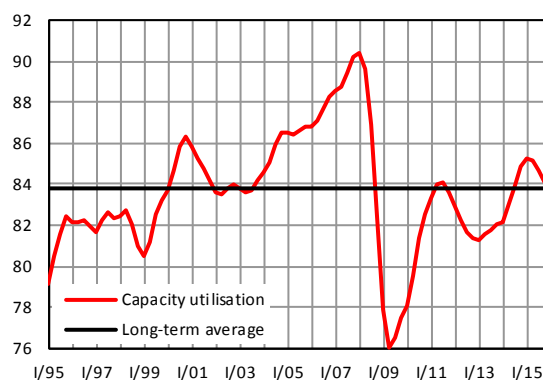
Source: CZSO

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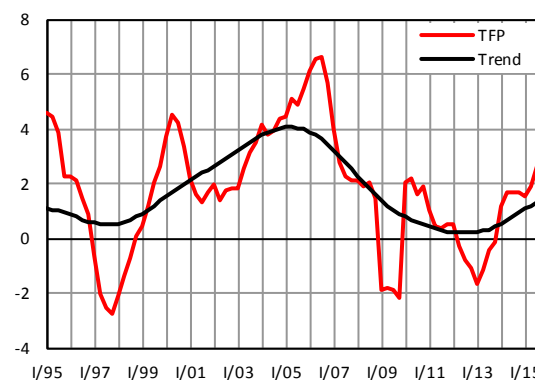
Source: CZSO, own calculations

Table B.1: Output Gap and Potential Product

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Output gap	%	2.6	3.8	3.8	-3.7	-2.0	-0.7	-2.2	-3.5	-1.8	0.1
Potential product [1]	growth in %	4.9	4.0	3.4	2.0	0.9	0.7	0.8	0.7	1.0	1.8
Contributions:											
− Trend TFP	perc. points	3.7	2.9	2.0	1.2	0.6	0.3	0.2	0.3	0.7	1.3
− Fixed assets	perc. points	0.9	1.1	1.2	0.8	0.6	0.6	0.5	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	0.0

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).

Following a modest decline at the end of 2015, the confidence indicator in industry increased in the first quarter of 2016, returning roughly to a level where it stood in the second and the third quarter of 2015. Therefore, the YoY growth rate of GVA in industry could have accelerated in the first quarter of 2016.

On the contrary, the confidence indicator in construction recorded a decline, signalling a slowdown in GVA growth in this sector. However, we cannot omit here the fact that the correlation between the development of confidence and GVA in this sector is very low, as is apparent from Graph B.2.2.

The consumer confidence indicator increased in the first quarter of 2016, implying that growth of household consumption could accelerate in mid-2016. This conclusion results from the fact that the development

of the consumer confidence indicator leads household consumption by 1–2 quarters.

Confidence in trade and services also continued to improve in the first quarter of 2016.

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

For the first quarter of 2016, the composite leading indicator signals rather stabilization of the relative cyclical component of GDP. For the following quarter, however, a further increase in the cyclical component is already forecast.

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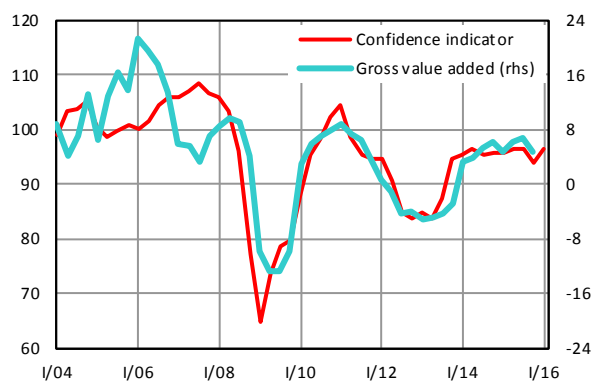
Source: CZSO

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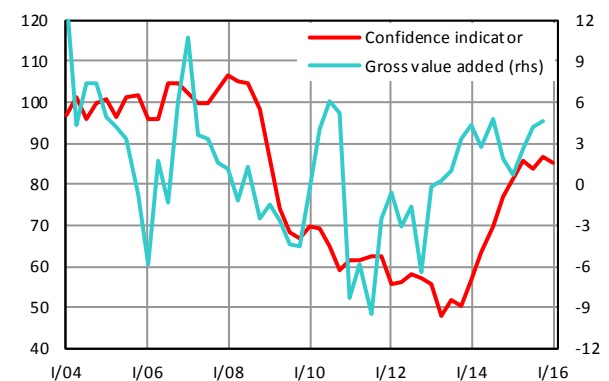
Source: CZSO

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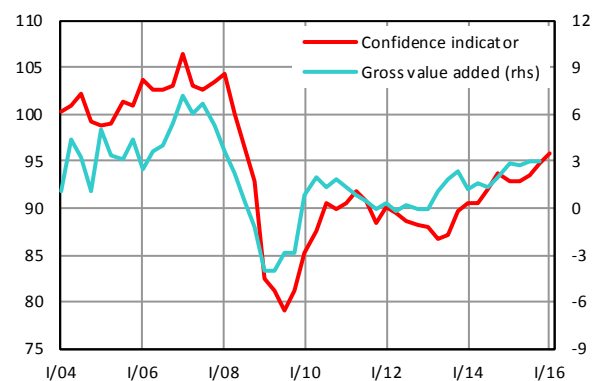
Source: CZSO, own calculations

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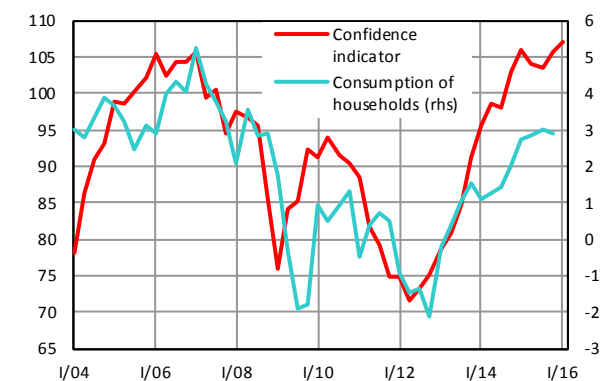
Source: CZSO

Graph B.2.5: Composite Confidence Indicator and GVA

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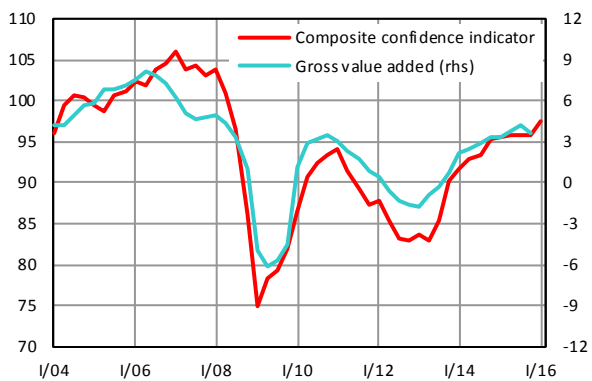
Source: CZSO

Graph B.2.6: Composite Leading Indicator

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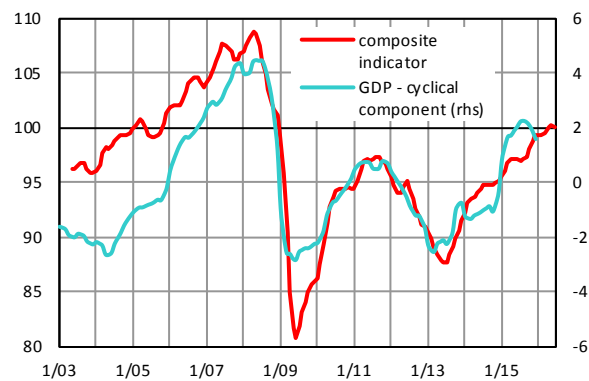
Note: Synchronized with cyclical component of GDP derived by statistical methods (Hodrick-Prescott filter)
Source: CZSO, own calculations

C Forecast of the Development of Macroeconomic Indicators

C.1 Economic Output

C.1.1 GDP in the Fourth Quarter of 2015

Economic performance measured by real GDP rose by 4.3% YoY (*versus 5.7%*) in the fourth quarter of 2015, while seasonally adjusted GDP stagnated in QoQ terms (*versus growth of 1.0%*). *Manufacturing* and the sections *trade, transportation, accommodation and food service* and *information and communication* contributed the most to the 0.3% QoQ growth of gross value added.

The YoY increase in GDP in the fourth quarter of 2015 reflected growing domestic and foreign demand. The main growth driver was again gross fixed capital formation. Unlike the previous quarters, however, inventories were already being depleted. In the second place, final consumption expenditure of both households and the government contributed to the increase in GDP. Growth rate of exports increased considerably, which was also reflected – together with the increasing domestic demand – in imports. In total, the balance of foreign trade in goods and services has increased GDP growth dynamics.

Growth of household consumption resulted from increasing disposable income and a YoY decrease in the savings rate amid increasing consumer confidence. Expenditure on durable goods was the most dynamically growing component of household consumption, implying that households are more certain regarding the increasing phase of economic cycle. Expenditure on semi-durable goods, services and mainly non-durable goods, which is less sensitive to economic fluctuations, also contributed to household consumption growth. Household consumption increased by 3.0% (*versus 3.2%*) in real terms. Government consumption grew by 1.9% (*versus 3.5%*) due to an increase in compensation of employees in the government sector and higher spending on goods and services.

Gross fixed capital formation was supported by growth of its main components, mainly investment in other machinery and equipment, other buildings and structures[1] and transport equipment. The decisive driver behind the growth of gross fixed capital formation was government sector investment, whose impact culminated thanks to the final implementation of projects cofinanced from the EU funds and the imputation of financial lease of the JAS-39 Gripen aircrafts. While the

government investment increased by more than 47% in the fourth quarter of 2015, growth of private investment was only 1.3%. In total, gross fixed capital formation increased by 8.5% YoY (*versus 14.6%*). Given the negative YoY contribution of inventories, gross capital formation rose more slowly than investment in fixed capital, specifically by 7.0% (*versus 15.5%*).

With an acceleration of growth of exports of goods and a slight slowdown of growth of exports of services, the YoY growth of exports of goods and services increased by 2.6 pp on the previous quarter to 8.0% (*versus 7.0%*). Imports of goods and services increased by 7.6% (*versus 8.2%*), which was in line with the continuing recovery of domestic demand.

A higher decrease in import prices compared to export prices resulted in improvement of the terms of trade of 0.6% (*versus 0.5%*). The trading gain resulting from foreign trade brought about a situation where real gross domestic income, which unlike GDP includes this factor, increased by 4.8% YoY (*versus 6.1%*).

Gross operating surplus grew by 3.0% (*versus 8.0%*), compensation of employees increased by 4.6% (*in line with the estimate*) and net taxes on production were up by 18.7% YoY (*versus 7.0%*). As a result, nominal GDP recorded growth of 4.9% (*versus 6.5%*).

C.1.2 Estimate for the First Quarter of 2016

We estimate that real GDP increased by 2.1% YoY (*versus 2.9%*) and by 0.8% QoQ (*versus 0.4%*). The forecast of QoQ growth of GDP was increased mainly in connection with the much lower than expected growth in the fourth quarter of 2015, which has an impact on the statistical base for comparison. The development of confidence indicators (see Chapter B.2) also gives evidence of a relatively dynamic QoQ growth of GDP in the first quarter of 2016.

We suppose that GDP growth was due mainly to the growth of household consumption and gross fixed capital formation. Due to increasing disposable income and high consumer confidence, final consumption expenditure of households and the government could have increased by 2.7% (*versus 2.4%*) and 2.4% (*unchanged*), respectively. According to our estimate, gross fixed capital formation increased by 3.1% (*versus 6.5%*) due to an acceleration of private investment growth; in contrast, ending of projects from the previous financial perspective of the EU weighed on investment growth.

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

Foreign trade may have weighed on GDP dynamics very slightly, in particular due to a decrease in the growth of exports resulting from a slowdown of foreign markets. We estimate that exports of goods and services grew by 5.0% (*versus 6.2%*) and imports, due to the slowdown of growth of exports and domestic demand, increased by 5.7% (*versus 6.3%*).

C.1.3 Forecast for the Years 2016 and 2017

In 2016, economic growth should be driven by domestic demand, mainly by final consumption expenditure. The contribution of net exports should be slightly positive. We expect real GDP to grow by 2.5% (*versus 2.7%*) in 2016 and by 2.6% (*unchanged*) in 2017.

Consumption of households will be supported by the growth of real disposable income, declining savings rate and consumers' optimistic expectations, as evidenced by the business cycle surveys. For 2016, we expect a gradual increase in the contribution of consumer loans to the resources for private consumption. Household consumption could thus increase by 3.1% (*unchanged*) in 2016, and its growth could slow down to 2.7% (*versus 2.6%*) in 2017.

We expect that government consumption will grow by 2.1% (*unchanged*) in 2016 and by 1.6% (*versus 1.5%*) in 2017. The main driver of government consumption growth in 2016 will be an increase in compensation of employees, partially related to the planned creation of up to 13 thousand new jobs (mainly in the regional school system, police and army). In contrast, the contribution of expenditure on goods and services should be lower than in 2015, as non-investment expenditure cofinanced from the EU funds from the programming period 2007–2013 fade.

In 2016, private investment and government sector investment will influence the growth of gross fixed capital formation in the opposite direction. In the case of private investment, we still expect a gradual acceleration of its growth, to which eased monetary conditions increasing the availability of external financial resources (growth of loans to non-financial corporations accelerated in the first three quarters of 2015

and, even in spite of its slight slowdown at the end of 2015, exceeded considerably the dynamics of previous years – see Chapter A.3) or the position of the economy in economic cycle should contribute. Compared to the January Forecast, however, we expect a slower growth of private investment in 2016 due to a weaker than estimated growth of gross operating surplus in 2015, further decrease in capacity utilization in manufacturing and a rise in external risks. Government sector investment, which grew dynamically mainly in the second half of 2015 in relation to the finalization of projects from the previous programming period 2007–2013, should considerably weigh on growth of total gross fixed capital formation in 2016. The reason is not only the expected gradual start of drawdown from the financial perspective 2014–2020, but also the impact of a high comparison base of 2015. Gross fixed capital formation could thus increase by 0.6% (*versus 1.5%*) in 2016. In 2017, its growth could accelerate to 3.0% (*versus 3.3%*), with a positive contribution of both private and government investment.

Gross capital formation should increase by 1.2% (*versus 1.3%*) in 2016, given a slightly positive contribution of change in inventories to GDP growth. For 2017, we expect growth of total gross capital formation of 2.8% (*versus 3.2%*). The forecast has been revised due to the change of the forecast of gross fixed capital formation growth.

We expect that exports of goods and services will grow by 5.5% (*versus 6.1%*) in 2016 and by 5.9% (*versus 6.0%*) in 2017. Lower growth dynamics compared to 2015 mainly reflects expected slowdown of the growth of export markets and export performance (see Chapter C.4). However, export growth should be supported – similarly as in 2015 – by the low crude oil price (a positive supply impulse not only for the domestic economy, but also for the economies of the CR's main trading partners). On the side of imports of goods and services, we expect the impact of the slower growth of exports and domestic demand. Hence, imports will probably grow by 5.6% (*versus 5.9%*) in 2016 and by 6.1% (*unchanged*) in 2017.

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

chained volumes, reference year 2010

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
							Prelim.	Forecast	Forecast	Outlook	Outlook
Gross domestic product	*bill. CZK 2010*	3 954	4 031	3 995	3 974	4 053	4 223	4 326	4 439	4 548	4 659
	growth in %	**2.3**	**2.0**	**-0.9**	**-0.5**	**2.0**	**4.2**	**2.5**	**2.6**	**2.4**	**2.4**
Private consumption expenditure [1]	*bill. CZK 2010*	1 947	1 952	1 924	1 938	1 966	2 021	2 085	2 142	2 192	2 242
	growth in %	**1.0**	**0.3**	**-1.5**	**0.7**	**1.5**	**2.8**	**3.1**	**2.7**	**2.4**	**2.3**
Government consumption exp.	*bill. CZK 2010*	810	786	772	790	804	826	844	857	870	881
	growth in %	**0.4**	**-3.0**	**-1.8**	**2.3**	**1.8**	**2.8**	**2.1**	**1.6**	**1.4**	**1.3**
Gross capital formation	*bill. CZK 2010*	1 074	1 094	1 050	997	1 041	1 144	1 157	1 190	1 223	1 257
	growth in %	**4.4**	**1.8**	**-4.1**	**-5.0**	**4.4**	**9.9**	**1.2**	**2.8**	**2.8**	**2.8**
− gross fixed capital formation	*bill. CZK 2010*	1 066	1 077	1 043	1 014	1 035	1 110	1 117	1 151	1 186	1 222
	growth in %	**1.3**	**1.1**	**-3.2**	**-2.7**	**2.0**	**7.3**	**0.6**	**3.0**	**3.1**	**3.1**
− change in stocks and valuables	*bill. CZK 2010*	8	16	7	-18	6	33	40	39	37	35
Exports of goods and services	*bill. CZK 2010*	2 616	2 860	2 983	2 984	3 248	3 476	3 667	3 882	4 113	4 361
	growth in %	**14.8**	**9.3**	**4.3**	**0.0**	**8.9**	**7.0**	**5.5**	**5.9**	**6.0**	**6.0**
Imports of goods and services	*bill. CZK 2010*	2 494	2 661	2 732	2 734	3 003	3 239	3 422	3 630	3 849	4 083
	growth in %	**14.9**	**6.7**	**2.7**	**0.1**	**9.8**	**7.9**	**5.6**	**6.1**	**6.1**	**6.1**
Gross domestic expenditure	*bill. CZK 2010*	3 831	3 832	3 746	3 726	3 812	3 991	4 086	4 189	4 285	4 379
	growth in %	**1.8**	**0.0**	**-2.3**	**-0.5**	**2.3**	**4.7**	**2.4**	**2.5**	**2.3**	**2.2**
Methodological discrepancy [2]	*bill. CZK 2010*	0	0	-1	-1	-4	-5	-4	-2	-1	1
Real gross domestic income	*bill. CZK 2010*	3 954	3 988	3 936	3 949	4 074	4 257	4 383	4 496	4 615	4 736
	growth in %	**1.0**	**0.9**	**-1.3**	**0.3**	**3.2**	**4.5**	**3.0**	**2.6**	**2.6**	**2.6**
Contributions to GDP growth [3]											
− gross domestic expenditure	*percent. points*	**1.7**	**0.0**	**-2.2**	**-0.5**	**2.2**	**4.4**	**2.2**	**2.4**	**2.1**	**2.1**
− consumption	*percent. points*	**0.6**	**-0.5**	**-1.1**	**0.8**	**1.1**	**1.9**	**1.9**	**1.6**	**1.4**	**1.3**
− household expenditure	*percent. points*	**0.5**	**0.1**	**-0.7**	**0.4**	**0.7**	**1.4**	**1.5**	**1.3**	**1.1**	**1.1**
− government expenditure	*percent. points*	**0.1**	**-0.6**	**-0.4**	**0.5**	**0.4**	**0.5**	**0.4**	**0.3**	**0.3**	**0.2**
− gross capital formation	*percent. points*	**1.2**	**0.5**	**-1.1**	**-1.3**	**1.1**	**2.5**	**0.3**	**0.7**	**0.7**	**0.7**
− gross fixed capital formation	*percent. points*	**0.4**	**0.3**	**-0.9**	**-0.7**	**0.5**	**1.8**	**0.2**	**0.8**	**0.8**	**0.8**
− change in stocks	*percent. points*	**0.8**	**0.2**	**-0.2**	**-0.6**	**0.6**	**0.7**	**0.1**	**0.0**	**0.0**	**0.0**
− foreign balance	*percent. points*	**0.5**	**1.9**	**1.3**	**0.0**	**-0.2**	**-0.2**	**0.2**	**0.2**	**0.3**	**0.4**
− external balance of goods	*percent. points*	**0.8**	**2.0**	**1.4**	**0.1**	**0.0**	**-0.7**	**0.2**	**0.2**	**0.3**	**0.3**
− external balance of services	*percent. points*	**-0.2**	**-0.1**	**-0.1**	**-0.1**	**-0.2**	**0.5**	**0.1**	**0.1**	**0.1**	**0.1**
Gross value added	*bill. CZK 2010*	3 583	3 654	3 622	3 603	3 702	3 836	.	.	.	.
	growth in %	**2.9**	**2.0**	**-0.9**	**-0.5**	**2.7**	**3.6**	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2010*	371	378	373	371	354	388	.	.	.	.

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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Prelim.	Prelim.	Prelim.	Prelim.	Estimate	Forecast	Forecast	Forecast
Gross domestic product	bill. CZK 2010	984	1 060	1 079	1 099	1 004	1 093	1 098	1 131
	growth in %	**4.0**	**4.5**	**4.1**	**4.3**	**2.1**	**3.1**	**1.8**	**2.9**
	growth in % [1]	**3.9**	**4.5**	**4.6**	**4.0**	**2.4**	**2.2**	**2.1**	**2.8**
	QoQ in % [1]	**2.4**	**1.0**	**0.7**	**0.0**	**0.8**	**0.7**	**0.7**	**0.7**
Private consumption expenditure [2]	bill. CZK 2010	475	503	516	527	488	521	531	544
	growth in %	**2.7**	**2.8**	**2.7**	**3.0**	**2.7**	**3.6**	**3.0**	**3.2**
Government consumption exp.	bill. CZK 2010	190	201	204	232	195	205	208	236
	growth in %	**2.3**	**2.5**	**4.5**	**1.9**	**2.4**	**2.1**	**2.1**	**2.0**
Gross capital formation	bill. CZK 2010	238	292	314	299	242	308	315	291
	growth in %	**12.6**	**11.7**	**9.0**	**7.0**	**1.8**	**5.5**	**0.1**	**-2.4**
– gross fixed capital formation	bill. CZK 2010	238	269	288	315	246	272	282	317
	growth in %	**3.5**	**8.6**	**8.0**	**8.5**	**3.1**	**1.3**	**-2.0**	**0.6**
– change in stocks and valuables	bill. CZK 2010	0	24	27	-17	-3	36	33	-26
Exports of goods and services	bill. CZK 2010	854	871	847	904	897	915	895	959
	growth in %	**7.4**	**7.2**	**5.4**	**8.0**	**5.0**	**5.1**	**5.6**	**6.2**
Imports of goods and services	bill. CZK 2010	774	806	800	859	818	856	849	899
	growth in %	**9.2**	**8.3**	**6.5**	**7.6**	**5.7**	**6.2**	**6.1**	**4.6**
Methodological discrepancy [3]	bill. CZK 2010	1	-1	-2	-2	0	-1	-2	-1
Real gross domestic income	bill. CZK 2010	993	1 066	1 088	1 110	1 022	1 107	1 111	1 143
	growth in %	**4.6**	**4.3**	**4.3**	**4.8**	**3.0**	**3.9**	**2.1**	**2.9**
Gross value added	bill. CZK 2010	900	964	976	995	.	.	.	.
	growth in %	**3.4**	**3.7**	**3.5**	**3.9**	.	.	.	.
	growth in % [1]	**3.3**	**3.7**	**4.2**	**3.6**	.	.	.	.
	QoQ in % [1]	**1.1**	**1.0**	**1.2**	**0.3**	.	.	.	.
Net taxes and subsidies on products	bill. CZK 2010	84	96	103	104	.	.	.	.

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

		2010	2011	2012	2013	2014	2015 Prelim.	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Gross domestic product	bill. CZK	**3 954**	**4 023**	**4 042**	**4 077**	**4 261**	**4 472**	**4 629**	**4 812**	**5 009**	**5 222**
	growth in %	0.8	1.7	0.5	0.9	4.5	5.0	3.5	4.0	4.1	4.2
Private consumption expenditure [1]	bill. CZK	**1 947**	**1 984**	**1 998**	**2 030**	**2 070**	**2 131**	**2 210**	**2 302**	**2 399**	**2 499**
	growth in %	1.5	1.9	0.7	1.6	2.0	2.9	3.7	4.2	4.2	4.2
Government consumption exp.	bill. CZK	**810**	**792**	**783**	**801**	**828**	**861**	**890**	**923**	**946**	**969**
	growth in %	-0.3	-2.2	-1.2	2.4	3.3	4.0	3.4	3.7	2.5	2.4
Gross capital formation	bill. CZK	**1 074**	**1 087**	**1 061**	**1 010**	**1 076**	**1 192**	**1 215**	**1 265**	**1 318**	**1 379**
	growth in %	3.3	1.2	-2.4	-4.9	6.6	10.8	1.9	4.1	4.2	4.6
−gross fixed capital formation	bill. CZK	**1 066**	**1 069**	**1 052**	**1 025**	**1 065**	**1 153**	**1 171**	**1 222**	**1 278**	**1 340**
	growth in %	0.2	0.3	-1.6	-2.6	4.0	8.2	1.5	4.4	4.6	4.8
−change in stocks and valuables	bill. CZK	**8**	**18**	**9**	**-15**	**10**	**39**	**44**	**43**	**40**	**39**
External balance	bill. CZK	**123**	**159**	**200**	**236**	**286**	**288**	**314**	**322**	**347**	**375**
−exports of goods and services	bill. CZK	**2 616**	**2 881**	**3 097**	**3 150**	**3 571**	**3 778**	**3 918**	**4 123**	**4 367**	**4 638**
	growth in %	13.4	10.1	7.5	1.7	13.4	5.8	3.7	5.2	5.9	6.2
−imports of goods and services	bill. CZK	**2 494**	**2 722**	**2 897**	**2 914**	**3 285**	**3 491**	**3 604**	**3 800**	**4 020**	**4 263**
	growth in %	15.8	9.1	6.5	0.6	12.7	6.3	3.3	5.4	5.8	6.0
Gross national income	bill. CZK	**3 656**	**3 718**	**3 788**	**3 831**	**3 927**	**4 128**	**4 296**	**4 468**	**4 650**	**4 838**
	growth in %	0.3	1.7	1.9	1.1	2.5	5.1	4.1	4.0	4.1	4.1
Primary income balance	bill. CZK	**-297**	**-305**	**-253**	**-246**	**-334**	**-344**	**-333**	**-344**	**-360**	**-384**

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

		2015 Q1 Prelim.	2015 Q2 Prelim.	2015 Q3 Prelim.	2015 Q4 Prelim.	2016 Q1 Estimate	2016 Q2 Forecast	2016 Q3 Forecast	2016 Q4 Forecast
Gross domestic product	bill. CZK	**1 035**	**1 121**	**1 142**	**1 174**	**1 070**	**1 167**	**1 172**	**1 219**
	growth in %	5.3	5.2	4.5	4.9	3.3	4.1	2.7	3.8
Private consumption expenditure [1]	bill. CZK	**499**	**532**	**545**	**555**	**515**	**553**	**564**	**579**
	growth in %	2.8	3.3	2.7	3.0	3.2	3.9	3.4	4.2
Government consumption exp.	bill. CZK	**193**	**208**	**211**	**250**	**200**	**215**	**218**	**257**
	growth in %	3.9	4.0	5.5	2.8	3.8	3.4	3.6	2.8
Gross capital formation	bill. CZK	**248**	**305**	**327**	**311**	**254**	**323**	**329**	**308**
	growth in %	14.6	13.1	9.4	7.2	2.4	5.8	0.6	-1.1
−gross fixed capital formation	bill. CZK	**248**	**280**	**299**	**327**	**257**	**286**	**296**	**333**
	growth in %	4.9	10.1	8.8	8.7	3.6	2.1	-1.0	1.7
−change in stocks and valuables	bill. CZK	**1**	**26**	**29**	**-16**	**-2**	**37**	**34**	**-25**
External balance	bill. CZK	**95**	**76**	**59**	**57**	**101**	**77**	**61**	**76**
−exports of goods and services	bill. CZK	**936**	**956**	**917**	**970**	**953**	**977**	**962**	**1 025**
	growth in %	7.4	7.2	3.3	5.3	1.8	2.2	5.0	5.7
−imports of goods and services	bill. CZK	**841**	**880**	**858**	**912**	**853**	**900**	**901**	**950**
	growth in %	8.4	8.6	4.1	4.3	1.4	2.3	5.1	4.1

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 %
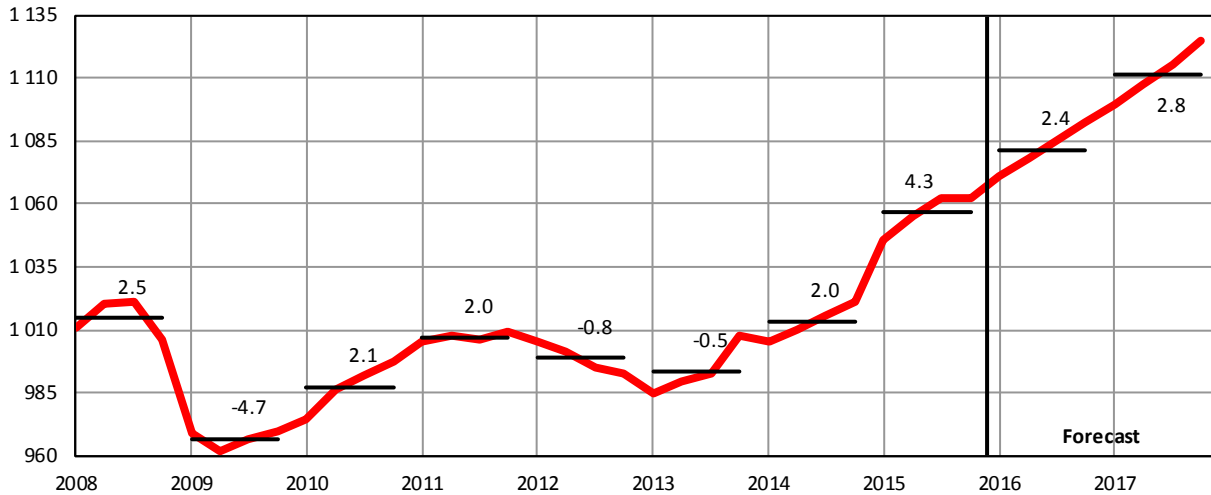
Source: CZSO, own calculations

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
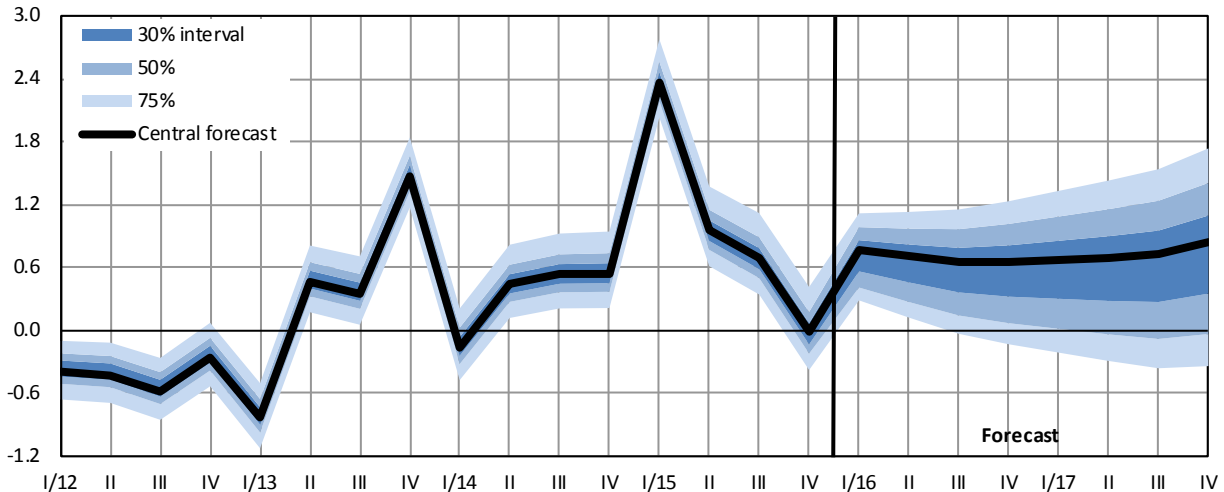
Source: CZSO, own calculations

Graph C.1.3: Resources of Gross Domestic Product

QoQ real growth rate of GDP in %, contributions of individual components in percentage points, seasonally adjusted
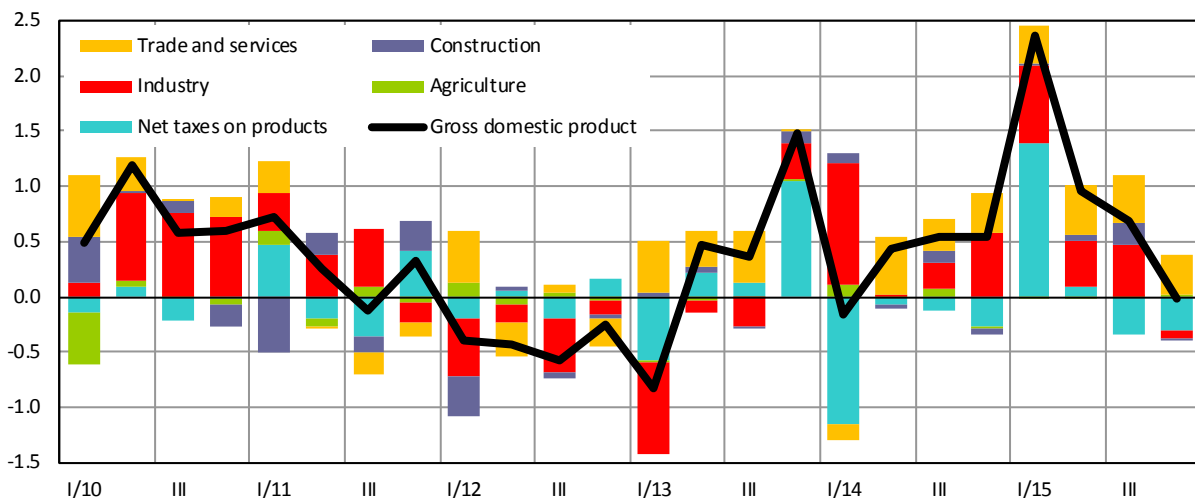
Source: CZSO, own calculations

Graph C.1.4: Gross Domestic Product by Type of Expenditure

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

Legend:
- Net exports
- Change in inventories
- Gross fixed capital formation
- Final consumption expenditure
- Gross domestic product
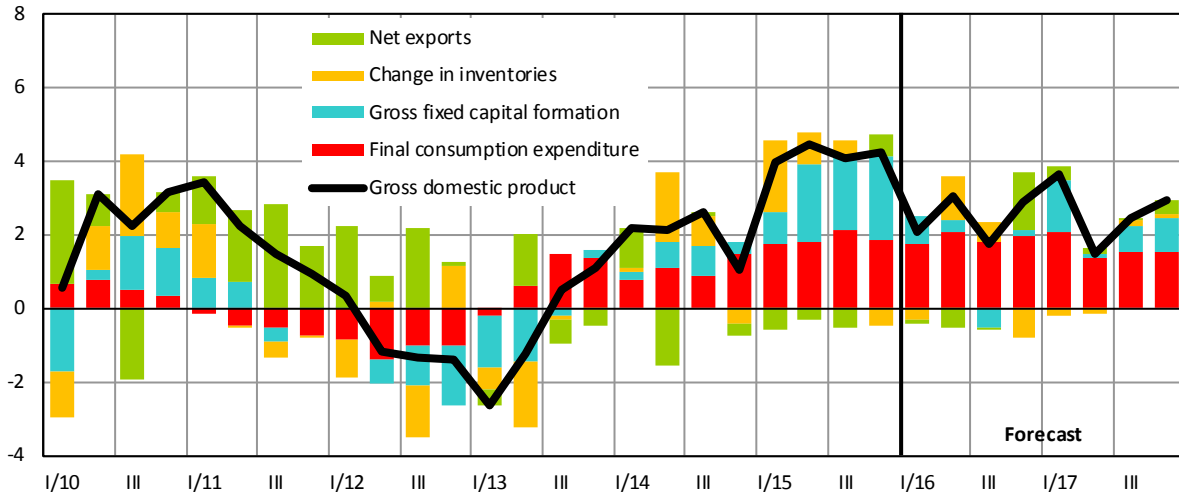
Source: CZSO, own calculations

Graph C.1.5: Consumption of Households

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

Legend:
- Services
- Non-durable goods
- Semi-durable goods
- Durable goods
- Consumption of households
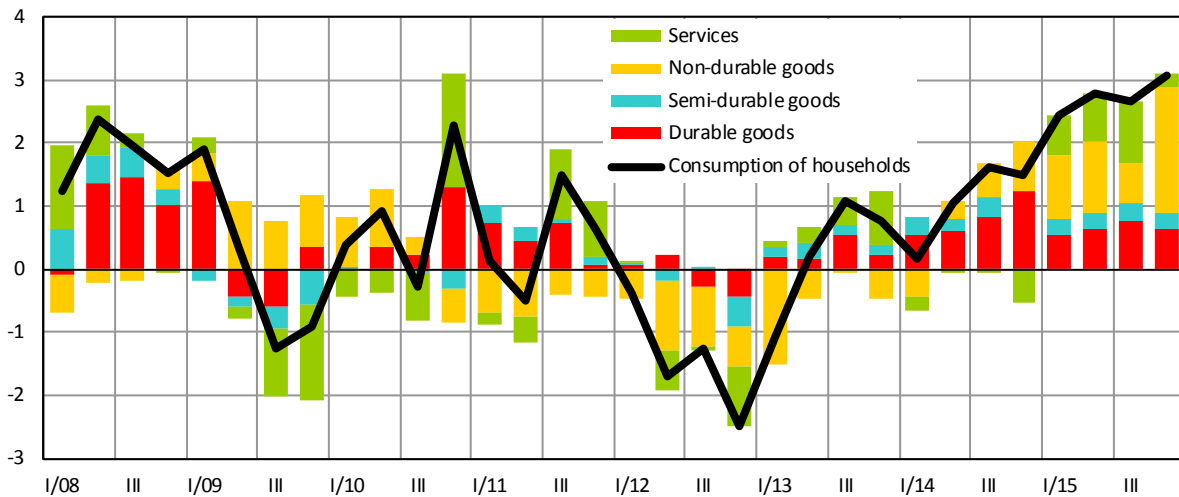
Source: CZSO, own calculations

Graph C.1.6: Gross Fixed Capital Formation

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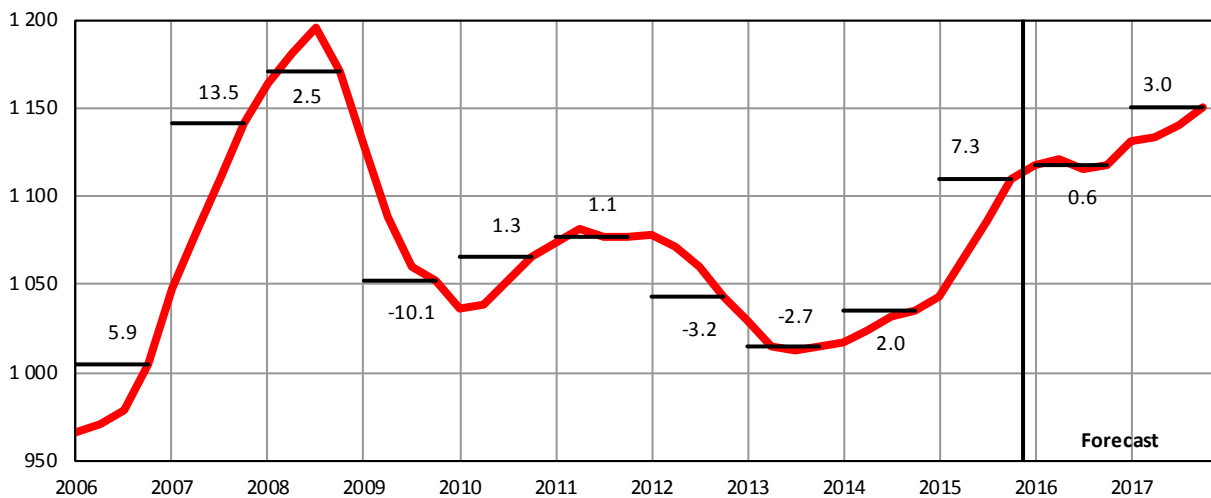
Source: CZSO, own calculations

Graph C.1.7: Gross Fixed Capital Formation by Type of Expenditure

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

Legend: Other; ICT, other machinery and equipment; Transport equipment; Other buildings and structures; Dwellings; Gross fixed capital formation
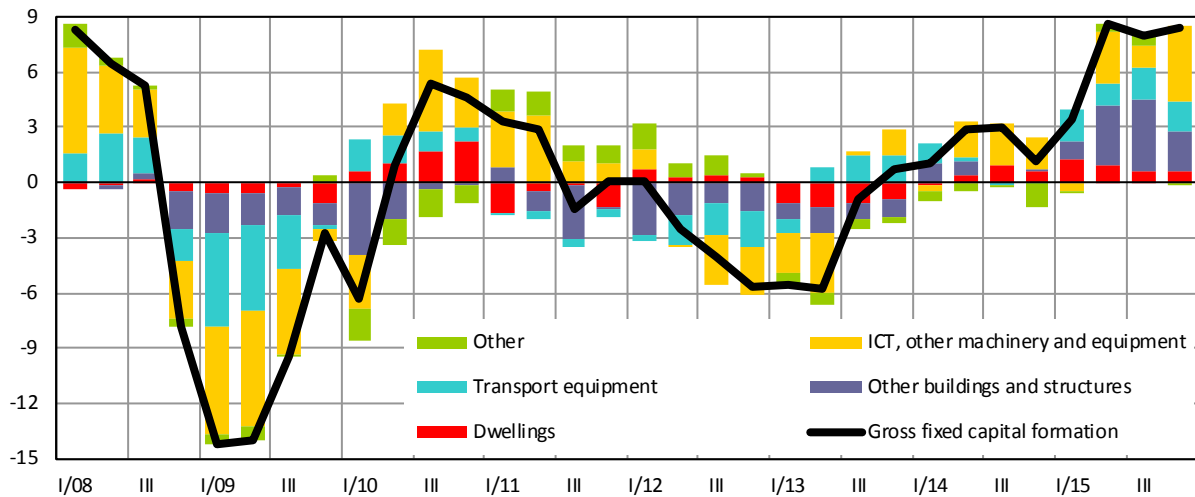
Source: CZSO, own calculations

Graph C.1.8: Gross Fixed Capital Formation by Sector

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

Legend: General government; Other private sector; Non-financial corporations; Gross fixed capital formation
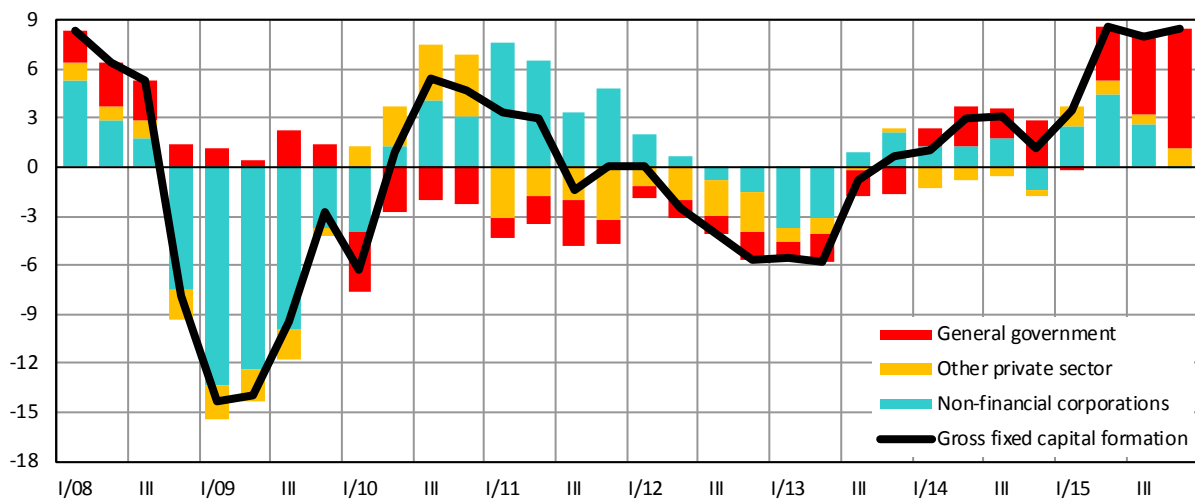
Source: CZSO, own calculations

Graph C.1.9: Nominal Gross Domestic Product

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

Legend: Balance of taxes and subsidies; Gross operating surplus; Compensation of employees; Gross domestic product; Forecast
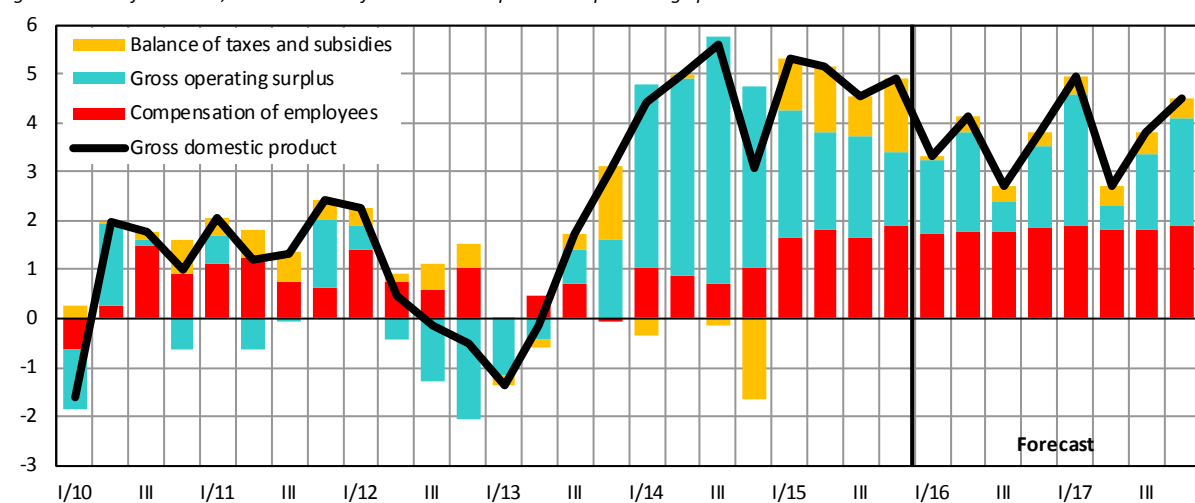
Source: CZSO, own calculations

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

		2010	2011	2012	2013	2014	2015 Prelim.	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
GDP	bill. CZK	**3 954**	**4 023**	**4 042**	**4 077**	**4 261**	**4 472**	**4 629**	**4 812**	**5 009**	**5 222**
	growth in %	0.8	1.7	0.5	0.9	4.5	5.0	3.5	4.0	4.1	4.2
Balance of taxes and subsidies	bill. CZK	**341**	**360**	**376**	**392**	**370**	**420**	**432**	**450**	**464**	**473**
	% of GDP	8.6	9.0	9.3	9.6	8.7	9.4	9.3	9.4	9.3	9.1
	growth in %	3.5	5.7	4.4	4.2	-5.7	13.6	2.8	4.4	2.9	2.0
– Taxes on production and imports	bill. CZK	**447**	**488**	**507**	**532**	**524**	**572**	.	.	.	.
	growth in %	4.0	9.0	4.1	4.8	-1.4	9.3	.	.	.	.
– Subsidies on production	bill. CZK	**107**	**127**	**131**	**140**	**154**	**153**	.	.	.	.
	growth in %	5.7	19.5	3.2	6.3	10.4	-1.1	.	.	.	.
Compensation of employees	bill. CZK	**1 589**	**1 626**	**1 663**	**1 675**	**1 712**	**1 787**	**1 867**	**1 953**	**2 043**	**2 138**
(domestic concept)	% of GDP	40.2	40.4	41.2	41.1	40.2	40.0	40.3	40.6	40.8	40.9
	growth in %	1.3	2.3	2.3	0.7	2.3	4.4	4.5	4.6	4.6	4.6
– Wages and salaries	bill. CZK	**1 209**	**1 236**	**1 268**	**1 273**	**1 298**	**1 350**	**1 410**	**1 475**	**1 543**	**1 615**
	growth in %	0.6	2.2	2.5	0.4	1.9	4.0	4.5	4.6	4.6	4.6
– Social security contributions	bill. CZK	**380**	**390**	**396**	**402**	**415**	**437**	**457**	**478**	**500**	**523**
	growth in %	3.7	2.5	1.6	1.4	3.3	5.4	4.5	4.6	4.6	4.6
Gross operating surplus	bill. CZK	**2 024**	**2 037**	**2 002**	**2 011**	**2 179**	**2 266**	**2 330**	**2 409**	**2 502**	**2 612**
	% of GDP	51.2	50.6	49.5	49.3	51.1	50.7	50.3	50.1	50.0	50.0
	growth in %	0.0	0.6	-1.7	0.4	8.4	4.0	2.8	3.4	3.9	4.4
– Consumption of capital	bill. CZK	**850**	**863**	**879**	**906**	**916**	**940**	**974**	**1 012**	**1 054**	**1 099**
	growth in %	1.0	1.6	1.9	3.0	1.1	2.6	3.7	3.8	4.2	4.2
– Net operating surplus	bill. CZK	**1 174**	**1 173**	**1 123**	**1 105**	**1 263**	**1 326**	**1 355**	**1 397**	**1 448**	**1 513**
	growth in %	-0.8	-0.1	-4.3	-1.6	14.3	5.0	2.2	3.1	3.7	4.5

Source: CZSO, own calculations

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

		2015				2016			
		Q1 Prelim.	Q2 Prelim.	Q3 Prelim.	Q4 Prelim.	Q1 Estimate	Q2 Forecast	Q3 Forecast	Q4 Forecast
GDP	bill. CZK	**1 035**	**1 121**	**1 142**	**1 174**	**1 070**	**1 167**	**1 172**	**1 219**
	growth in %	5.3	5.2	4.5	4.9	3.3	4.1	2.7	3.8
Balance of taxes and subsidies	bill. CZK	**88**	**110**	**116**	**106**	**89**	**114**	**120**	**109**
	growth in %	13.2	15.0	8.3	18.7	0.9	3.3	3.3	3.2
Compensation of employees	bill. CZK	**427**	**443**	**441**	**475**	**445**	**463**	**461**	**497**
(domestic concept)	growth in %	3.9	4.6	4.3	4.6	4.2	4.5	4.6	4.6
– Wages and salaries	bill. CZK	**320**	**334**	**335**	**360**	**334**	**349**	**350**	**377**
	growth in %	3.3	4.1	4.5	4.2	4.2	4.5	4.6	4.6
– Social security contributions	bill. CZK	**107**	**110**	**106**	**115**	**111**	**114**	**111**	**120**
	growth in %	5.9	6.1	3.6	5.9	4.2	4.5	4.6	4.6
Gross operating surplus	bill. CZK	**520**	**568**	**585**	**593**	**535**	**591**	**592**	**612**
	growth in %	5.2	3.9	4.0	3.0	3.0	4.0	1.1	3.3

Source: CZSO, own calculations

C.2 Prices

C.2.1 Consumer Prices

The Czech economy remains characterized by low inflation. Its causes lie in the external environment and include mainly a considerable decrease in the crude oil price and decreasing producer prices in the euro area. In contrast, domestic factors are considered to have a proinflationary effect.

Growth of consumer prices reached 0.5% YoY (*versus 0.3%*) in February 2016. The contribution of administrative measures was 0.2 pp and was mainly due to the contribution of regulated prices.

The reduction in YoY inflation due to a decrease in the crude oil price since the end of 2014 is also well apparent from the contributions of individual divisions of the consumer basket. Contribution of the division *transport* that has been negative since December 2014 reached −0.2 pp in February 2016, with fuels being cheaper by 11.1% YoY. The same contribution posted the division *food and non-alcoholic beverages*. The division *alcoholic beverages and tobacco* (0.3 pp) made the highest contribution to the growth of prices.

Since January 2016, the CZSO has used updated weights, which are based on household expenditure in 2014, to calculate the consumer price index. In absolute terms, the highest increase in weight was seen in the division *food and non-alcoholic beverages* (by 1.0 pp), while the weight of the division *housing* decreased the most (by 1.4 pp). The changes in weights have no significant implications for the forecast.

In 2016, the average inflation rate should reach a very low level, like in the last two years.

Out of administrative measures, another increase in the excise duty on tobacco products is likely to have affected consumer prices already in the first quarter of 2016 (contribution of 0.2 pp). In the second quarter of 2016, natural gas prices, which the CZSO reports as regulated, will decrease. At the end of the fourth quarter of 2016, we expect a decrease in VAT in food services from 21% to 15%, except for alcoholic beverages (see chapter A.4). Due to the timing of this measure, however, its expected contribution to MoM inflation at the time of its introduction (−0.2 to −0.1 pp) will not manifest itself more considerably in the average inflation rate of 2016. The introduction of the fiscalization of cash payments will probably have an opposite and similarly marginal effect on consumer prices. We expect the contribution of administrative measures to the YoY increase of consumer prices in December 2016 to reach 0.1 pp (*unchanged*).

In the first to the third quarter of 2016, the YoY inflation should remain low. Its more significant acceleration can be expected as late as in the fourth quarter of 2016 when YoY growth of the CZK crude oil price will probably become positive (see Chapter A.1.3). In addi-

tion to the crude oil price, the main factors of the price development in 2016 will likely have a nearly neutral (CZK/EUR exchange rate) or a proinflationary effect (growing demand in connection with a positive output gap, and rising unit labour costs).

In 2016, the average inflation rate should reach 0.6% (*versus 0.5%*), with a YoY increase in consumer prices of 1.2% (*versus 1.3%*) in December.

In 2017, inflation should increase further. At present, we do not envisage any significant factors that would have an antiinflationary effect in 2017. However, there would be an antiinflationary risk if the decreasing trend of the market price of electricity, which occurred at the beginning of 2016, strengthened. We expect that increasing price of crude oil, growth of domestic demand amid positive output gap, and an increase in unit labour costs will have a proinflationary effect. The impact of administrative measures should not be too considerable. In 2017, the average inflation rate should reach 1.4% (*versus 1.6%*), with a YoY increase in consumer prices of 1.7% (*unchanged*) in December. The main reason for a slight decrease in the forecast for the average inflation rate is a lower expected crude oil price.

C.2.2 Deflators

A comprehensive indicator of the price level is gross domestic product deflator, which is a resultant of gross domestic expenditure deflator and terms of trade. In the fourth quarter of 2015, its growth of 0.6% (*versus 0.8%*) was caused by an increase in the gross domestic expenditure deflator of 0.2% (*versus 0.4%*) and by an improvement of the terms of trade of 0.6% (*versus 0.5%*).

Lower crude oil prices influenced the development of price indexes. The deflator of household consumption stagnated, even though we had estimated it to decrease slightly, but the gross fixed capital formation deflator recorded a considerably lower growth. The deflator of government consumption also recorded a slightly lower growth than we forecast.

We expect GDP deflator to increase by 1.0% (*versus 0.8%*) in 2016 and by 1.3% in 2017 (*versus 1.1%*). Terms of trade should improve by 0.6% (*versus 0.3%*) in 2016, but stagnate (*versus a deterioration of 0.3%*) in 2017. Gross domestic expenditure deflator could increase by 0.7% (*unchanged*) in 2016 and by 1.5% (*unchanged*) in 2017 due to strengthening inflationary pressures. The main change in the forecast for 2016, i.e. the improvement of terms of trade, is based on a higher decrease in import prices mainly due to a lower than expected crude oil price and a decrease in import prices of non-fuel commodities. Higher growth of consumption deflator, in spite of lower prices of imported goods, reflects growing internal inflationary factors.

Table C.2.1: Prices – yearly

		2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Consumer Price Index											
average of a year	average 2005=100	114.9	117.1	121.0	122.7	123.2	123.6	124.3	126.1	128.3	130.7
	growth in %	**1.5**	**1.9**	**3.3**	**1.4**	**0.4**	**0.3**	**0.6**	**1.4**	**1.8**	**1.9**
December	average 2005=100	115.5	118.3	121.1	122.8	122.9	123.0	124.5	126.6	128.9	131.3
	growth in %	**2.3**	**2.4**	**2.4**	**1.4**	**0.1**	**0.1**	**1.2**	**1.7**	**1.8**	**1.9**
of which the contribution of											
– administrative measures [1]	percentage points	**1.6**	**1.2**	**2.2**	**1.0**	**-0.2**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**
– market increase	percentage points	**0.7**	**1.2**	**0.1**	**0.4**	**0.3**	**0.0**	**1.2**	**1.4**	**1.6**	**1.7**
HICP	average 2005=100	113.7	116.2	120.3	121.9	122.4	122.8	123.5	125.4	127.6	130.1
	growth in %	**1.2**	**2.1**	**3.5**	**1.4**	**0.4**	**0.3**	**0.6**	**1.5**	**1.8**	**1.9**
Offering prices of flats	average 2010=100	100.0	95.1	96.1	97.2	100.7	106.9	.	.	.	.
	growth in %	**-4.1**	**-4.9**	**1.1**	**1.1**	**3.6**	**6.2**	**.**	**.**	**.**	**.**
Deflators											
GDP	average 2010=100	100.0	99.8	101.2	102.6	105.1	105.9	107.0	108.4	110.2	112.1
	growth in %	**-1.5**	**-0.2**	**1.4**	**1.4**	**2.5**	**0.7**	**1.0**	**1.3**	**1.6**	**1.8**
Domestic final use	average 2010=100	100.0	100.8	102.6	103.1	104.3	104.9	105.6	107.2	108.8	110.7
	growth in %	**-0.2**	**0.8**	**1.7**	**0.5**	**1.1**	**0.6**	**0.7**	**1.5**	**1.5**	**1.7**
Consumption of households	average 2010=100	100.0	101.6	103.9	104.7	105.3	105.5	106.0	107.5	109.4	111.5
	growth in %	**0.5**	**1.6**	**2.2**	**0.9**	**0.5**	**0.1**	**0.5**	**1.4**	**1.8**	**1.9**
Consumption of government	average 2010=100	100.0	100.8	101.4	101.5	103.0	104.2	105.5	107.6	108.8	110.0
	growth in %	**-0.6**	**0.8**	**0.6**	**0.1**	**1.5**	**1.2**	**1.2**	**2.0**	**1.0**	**1.1**
Fixed capital formation	average 2010=100	100.0	99.2	100.9	101.0	102.9	103.9	104.8	106.2	107.8	109.7
	growth in %	**-1.1**	**-0.8**	**1.7**	**0.1**	**1.9**	**0.9**	**0.9**	**1.3**	**1.5**	**1.7**
Exports of goods and services	average 2010=100	100.0	100.7	103.8	105.6	110.0	108.7	106.9	106.2	106.2	106.4
	growth in %	**-1.2**	**0.7**	**3.1**	**1.7**	**4.1**	**-1.1**	**-1.7**	**-0.6**	**0.0**	**0.2**
Imports of goods and services	average 2010=100	100.0	102.3	106.1	106.6	109.4	107.8	105.3	104.7	104.4	104.4
	growth in %	**0.8**	**2.3**	**3.7**	**0.5**	**2.6**	**-1.5**	**-2.3**	**-0.6**	**-0.2**	**0.0**
Terms of trade	average 2010=100	100.0	98.5	97.9	99.0	100.5	100.9	101.5	101.4	101.7	101.9
	growth in %	**-2.0**	**-1.5**	**-0.6**	**1.2**	**1.5**	**0.4**	**0.6**	**0.0**	**0.2**	**0.2**

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

Table C.2.2: Prices – quarterly

		2015				2016			
		Q1	Q2	Q3	Q4	Q1 Estimate	Q2 Forecast	Q3 Forecast	Q4 Forecast
Consumer Price Index	average 2005=100	123.2	124.0	123.8	123.2	123.9	124.4	124.4	124.4
	growth in %	0.1	0.7	0.4	0.1	0.5	0.4	0.5	1.0
of which the contribution of									
– administrative measures [1]	percentage points	0.2	0.3	0.2	0.1	0.3	0.2	0.2	0.1
– market increase	percentage points	-0.1	0.4	0.2	0.0	0.3	0.1	0.3	0.9
HICP	average 2005=100	122.3	123.3	123.0	122.4	123.0	123.8	123.7	123.6
	growth in %	0.0	0.7	0.3	0.0	0.6	0.4	0.5	1.0
Offering prices of flats	average 2010=100	102.9	105.6	108.1	110.9	.	.	.	.
	growth in %	3.6	5.0	6.1	9.6	.	.	.	.
Deflators									
GDP	average 2010=100	105.2	105.8	105.8	106.8	106.5	106.8	106.8	107.7
	growth in %	1.3	0.7	0.4	0.6	1.2	1.0	0.9	0.9
Domestic final use	average 2010=100	104.0	104.9	104.7	105.6	104.7	105.4	105.4	106.7
	growth in %	0.9	0.9	0.3	0.2	0.7	0.5	0.7	1.0
Consumption of households	average 2010=100	105.0	105.7	105.7	105.4	105.5	106.0	106.1	106.4
	growth in %	0.1	0.5	0.0	0.0	0.4	0.3	0.4	0.9
Consumption of government	average 2010=100	101.3	103.7	103.3	107.8	102.7	105.0	104.8	108.7
	growth in %	1.6	1.5	1.0	0.9	1.4	1.3	1.4	0.8
Fixed capital formation	average 2010=100	103.9	104.0	103.9	103.7	104.4	104.8	104.9	104.9
	growth in %	1.4	1.4	0.8	0.3	0.5	0.8	1.0	1.1
Exports of goods and services	average 2010=100	109.7	109.7	108.2	107.3	106.3	106.7	107.6	106.9
	growth in %	0.0	0.0	-2.0	-2.5	-3.0	-2.7	-0.6	-0.4
Imports of goods and services	average 2010=100	108.6	109.1	107.3	106.2	104.2	105.2	106.2	105.7
	growth in %	-0.7	0.2	-2.2	-3.1	-4.1	-3.6	-1.0	-0.5
Terms of trade	average 2010=100	100.9	100.5	100.9	101.1	102.0	101.5	101.3	101.1
	growth in %	0.7	-0.2	0.2	0.6	1.1	1.0	0.4	0.1

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

Graph C.2.1: Consumer Prices

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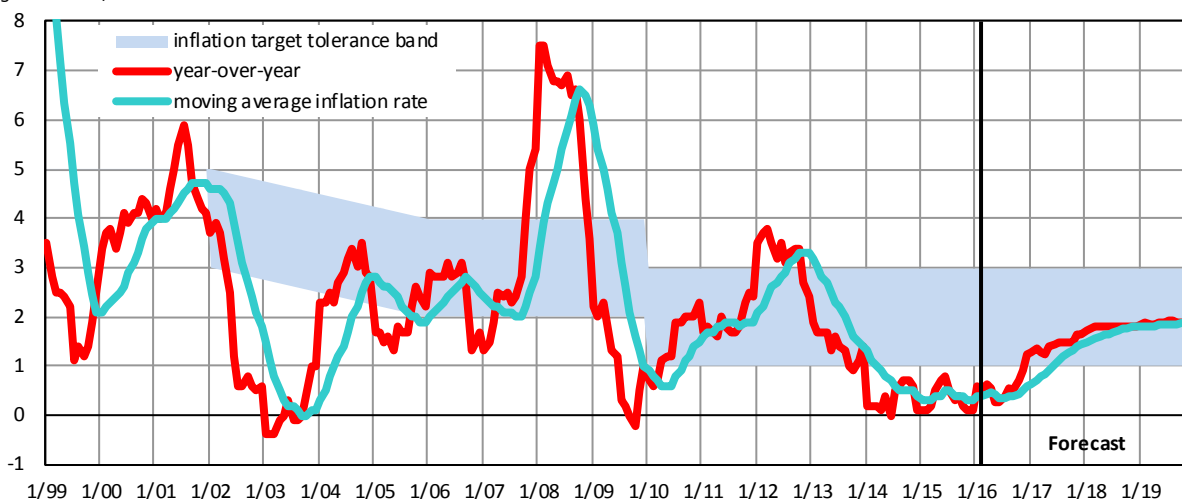
Note: For the years 2002–2005 the highlighted area represents target band for headline inflation, whereas from 2006 on it is the tolerance band of the CNB's point target for headline inflation.
Source: CNB, CZSO, own calculations

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

Legend:
- Other
- Transport
- Food (excluding VAT)
- Administrative measures
- CPI

Forecast
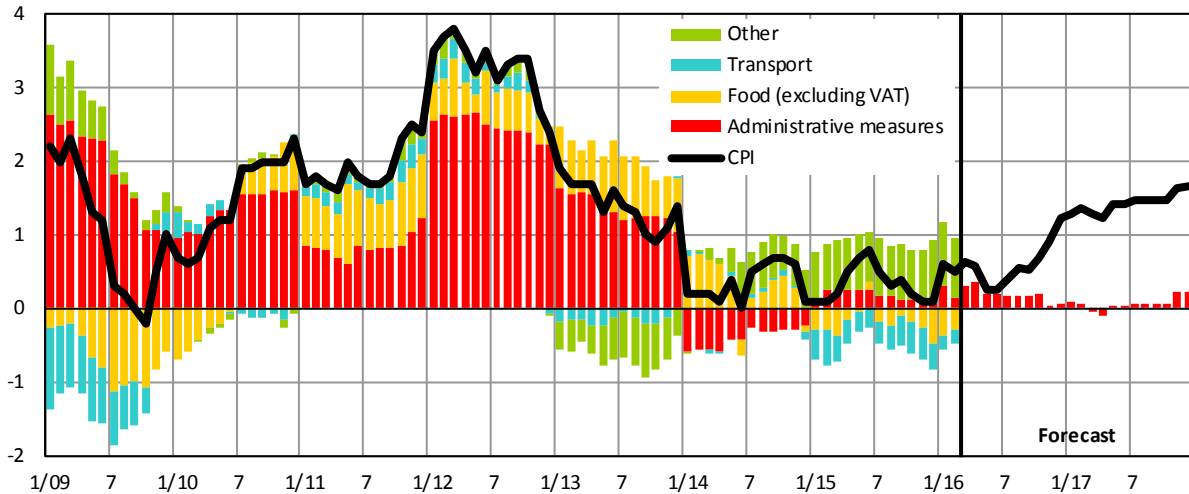
Source: CZSO, own calculations

Graph C.2.3: Indicators of Consumer Prices

YoY growth rate, in %

Legend:
- National CPI
- HICP
- Private consumption deflator

Forecast
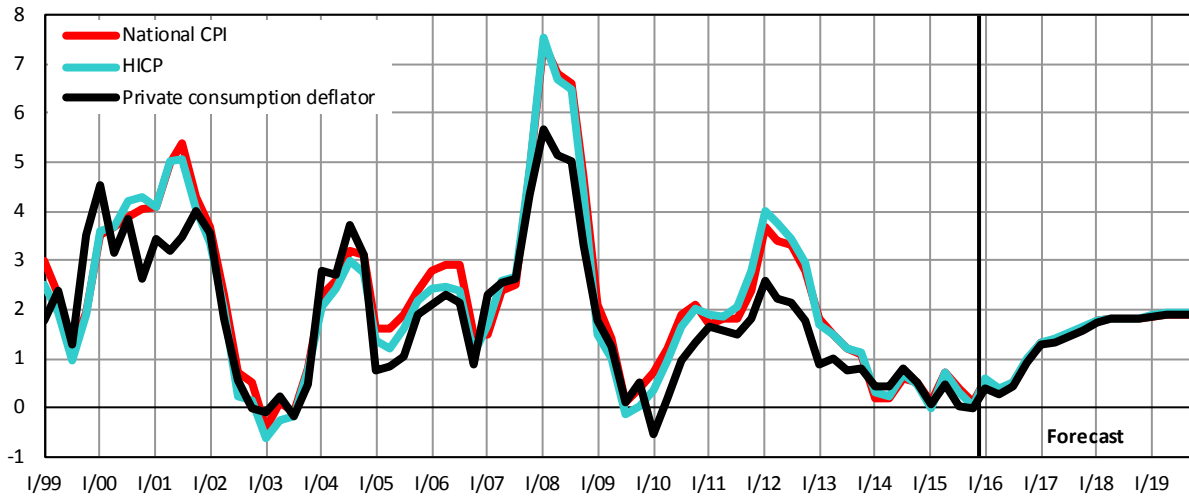
Source: CZSO, Eurostat, own calculations

Graph C.2.4: GDP Deflator

YoY growth rate, in %

Legend:
- GDP deflator
- Terms of trade
- Domestic final use deflator

Forecast
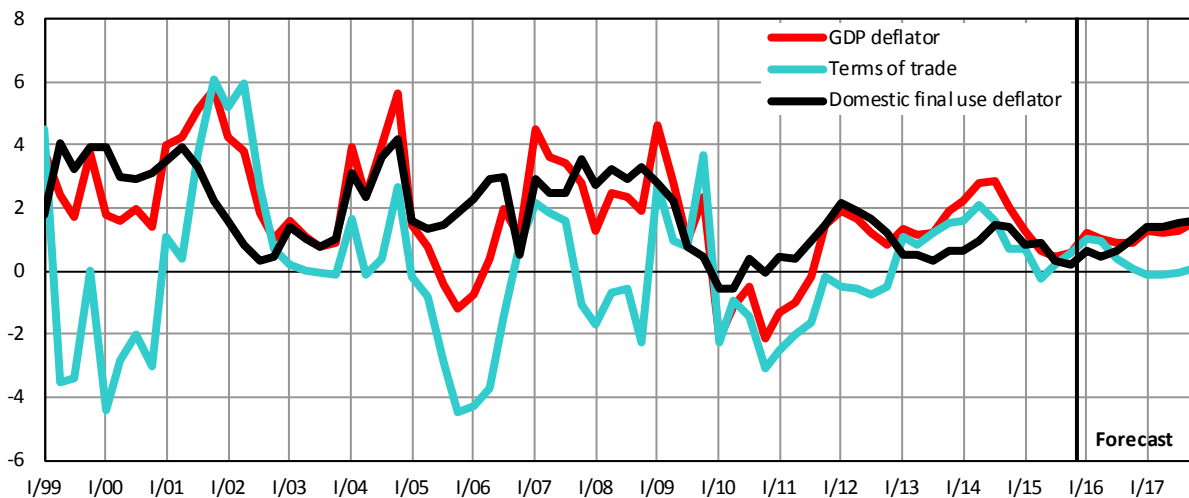
Source: CZSO, own calculations

Graph C.2.5: Terms of Trade

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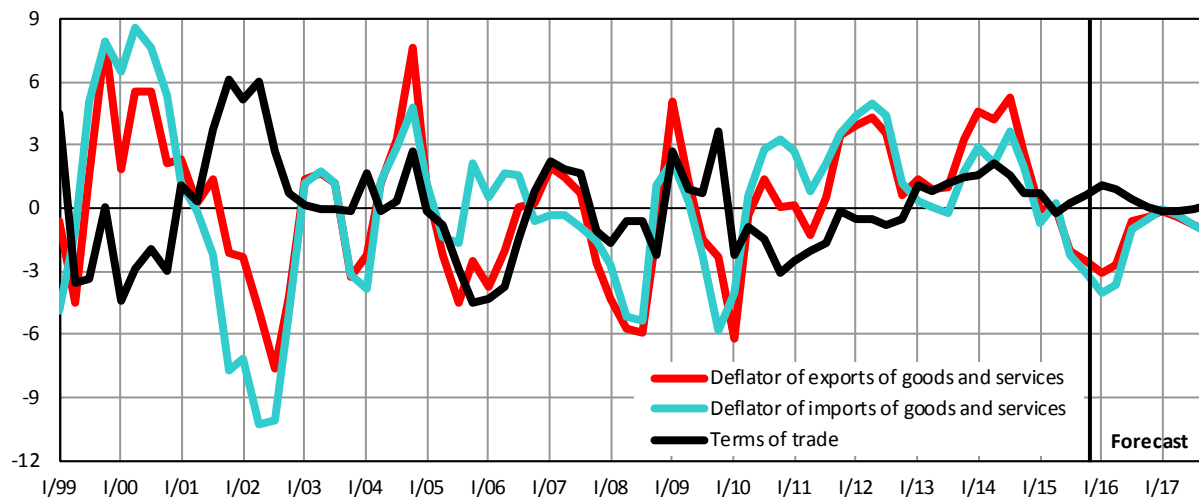
Source: CZSO, own calculations

C.3 Labour Market

The labour market situation in the fourth quarter of 2015 corresponded to the relatively strong economic growth. Considerable growth of employment, driven by the category of employees, continued. Employment rate increased to the historically highest value (70.8% for the age group 15–64 years). Both unemployment according to the LFS and registered unemployment continued to decrease and the number of vacancies exceeded 100 thousand. These factors determined the growth of the wage bill and the average wage.

C.3.1 Employment

Employment (LFS) grew by 1.2% YoY (*versus 0.9%*) in the fourth quarter of 2015. The number of employees increased by 2.1% (*versus 1.9%*), while the number of entrepreneurs fell by 3.1% (*versus 3.7%*), and thus continued to decrease. The shift from the category of self-employed persons to the category of employees is still apparent especially in technical professions. Considering the labour market situation, we can still expect further reductions in non-standard employment under the conditions of high demand for employees. Any interpretation, however, requires caution due to the uncertainty related to statistical reporting.

Graph C.3.1: Employees in Different Statistics
YoY growth rate, in %
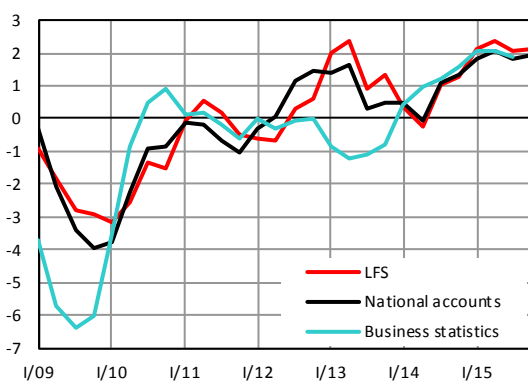
Source: CZSO

In terms of sectors, manufacturing and land transportation still contributed considerably to the growth of employment. The number of persons employed by job agencies also continued to grow.

For the forecast of employment, we assume employers will continue to prefer wage growth to a further more significant increase in the number of employed persons. This development will be largely caused by the ongoing rise in frictions – a shortage of employees in some professions, in particular in technical and craftsmen professions, is already apparent in a number of regions. These frictions are starting to appear also at the country level.

Given the higher than expected growth of employment in the fourth quarter of 2015, we are slightly increasing our forecast for the growth of employment in 2016 to

0.5% (*versus 0.3%*). For the following years we leave the forecast unchanged. We thus continue to expect only negligible growth of employment of 0.1%.

C.3.2 Unemployment

Continuing considerable economic growth had an impact on the speed of reduction in the number of unemployed persons registered at labour offices (by 88 thousand YoY) also according to the LFS statistics (by 68 thousand YoY). A more rapid decline in the unemployment rate in the future should be hampered by the regional mismatch between labour demand and supply.

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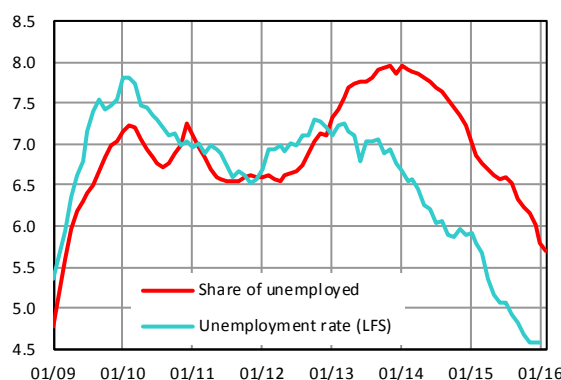
Source: CZSO, Ministry of Labour and Social Affairs, own calculations
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.

Taking into account the development in the fourth quarter of 2015, we expect that **unemployment rate** according to the LFS will average 4.4% (*versus 4.7%*) in 2016. In relation to the ongoing positive economic development, we expect the unemployment rate to continue declining, specifically to 4.3% (*versus 4.6%*) in 2017. However, increasing labour market frictions will weigh on further reduction in unemployment.

C.3.3 Economic Activity Rate

The **economic activity rate** (15–64 year-olds) grew by 0.1 pp YoY to 74.2% (*versus 74.3%*) in the fourth quarter of 2015. The participation rate should continue to grow further (see Graph C.3.6), with structural factors in the form of increasing weight of cohorts with a naturally high economic activity rate (especially of those aged 40–49) and increasing of the statutory retirement age playing a crucial role.

C.3.4 Wages

Improving situation of the private sector and the decreasing unemployment rate should continue to have a positive effect on wage growth. Low inflation is the only more significant factor weighing on nominal wage growth.

The wage bill (national accounts methodology, domestic concept) increased by 4.2% in the fourth quarter of 2015 (*versus 4.6%*). Considerable growth of the wage bill continued not only in manufacturing (6.2%), but also in most other sectors, except for agriculture. Wage increases in the budgetary sphere continued to manifest themselves in the growth of the wage bill in the section *Public administration, education, health and social work* (3.3%).

On the basis of data available on the state budget cash collection, we estimate that growth rate of the wage bill remained virtually unchanged in the first quarter of 2016, compared to the fourth quarter of 2015. A relatively low wage growth in industry in January 2016 also implies this development.

Graph C.3.3: Collection of Social Security Contributions and Total Wage Bill
YoY growth rate, in %
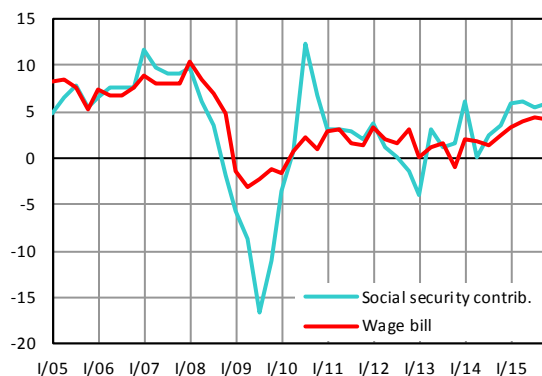
Note: Time series of the collection of social security contributions is influenced, among other factors, by a legislative change in 2009 and a payout of exceptional bonuses at the end of 2012.
Source: CZSO, Ministry of Finance

In a longer time horizon, a very low inflation rate will weigh on nominal growth of the wage bill; on the contrary, expected solid growth of real labour productivity should work in the direction of higher wages. Therefore, the growth of unit labour costs should not lead to a more considerable reduction in the price competitiveness of the Czech economy. The continuing decrease in unemployment rate will also exert pressure on wage growth, considering the already high frictions on the labour market, in particular the short-age of qualified employees in some professions and regions.

For these reasons, the wage bill should increase by 4.5% (*unchanged*) in 2016, with similar growth dynamics also in the following years. On the basis of the development of employment in the fourth quarter of 2015, we are – for the near term – increasing the contribution of the number of employees to the growth of the wage bill and reducing the contribution of wage per employee (national accounts methodology). The share of compensation of employees in GDP should hover close to the long-term average of around 40%, with a slight tendency of the share to grow.

Graph C.3.4: Nominal Monthly Wage
YoY growth rate, in %
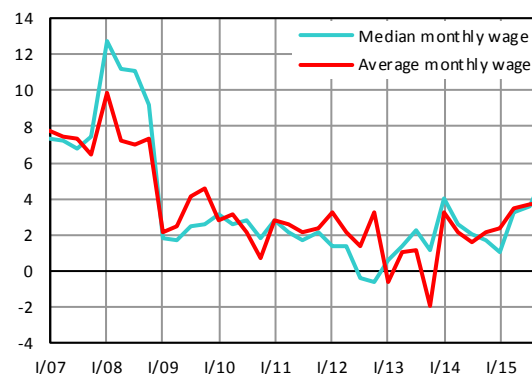
Source: CZSO

The average wage (business statistics, full-time equivalent) increased by 3.9% (*versus 4.0%*) in the fourth quarter of 2015, with the growth of wages in both the business and non-business spheres again contributing to this outcome. Some sectors saw a very strong growth of wages, in particular accommodation and food service (7.4%) and real estate activities (6.3%). Wages in manufacturing also continued to grow at a solid pace (by 3.7%). The highest growth of the median wage since 2008 (of 5.4%) is a positive signal for household consumption. For similar reasons as those relating to the wage bill and mentioned above, we expect the average wage to grow by 4.3% in 2016 (*unchanged*) and by 4.5% in 2017 (*unchanged*).

Table C.3.1: Labour Market – yearly

		2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast	2018 Outlook	2019 Outlook
Labour Force Survey											
Employment	av. in thous.persons	**4 885**	**4 872**	**4 890**	**4 937**	**4 974**	**5 042**	**5 068**	**5 074**	**5 077**	**5 079**
	growth in %	-1.0	0.4	0.4	1.0	0.8	1.4	0.5	0.1	0.1	0.1
− employees	av. in thous.persons	**4 019**	**3 993**	**3 990**	**4 055**	**4 079**	**4 168**	**4 214**	**4 223**	**4 227**	**4 230**
	growth in %	-2.1	0.0	-0.1	1.6	0.6	2.2	1.1	0.2	0.1	0.1
− enterpreneurs and self-employed	av. in thous.persons	**866**	**880**	**901**	**882**	**895**	**874**	**854**	**851**	**850**	**849**
	growth in %	4.7	2.0	2.4	-2.1	1.5	-2.3	-2.3	-0.4	-0.1	0.0
Unemployment	av. in thous.persons	**384**	**351**	**367**	**369**	**324**	**268**	**233**	**228**	**224**	**222**
Unemployment rate	average in per cent	**7.3**	**6.7**	**7.0**	**7.0**	**6.1**	**5.1**	**4.4**	**4.3**	**4.2**	**4.2**
Long-term unemployment [1]	av. in thous.persons	**160**	**144**	**161**	**163**	**141**	.	.	.	.	.
Labour force	av. in thous.persons	**5 269**	**5 223**	**5 257**	**5 306**	**5 298**	**5 310**	**5 301**	**5 302**	**5 301**	**5 301**
	growth in %	-0.3	-0.2	0.7	0.9	-0.2	0.2	-0.2	0.0	0.0	0.0
Population aged 15–64	av. in thous.persons	**7 399**	**7 295**	**7 229**	**7 154**	**7 081**	**7 027**	**6 961**	**6 898**	**6 840**	**6 787**
	growth in %	-0.4	-0.7	-0.9	-1.0	-1.0	-0.8	-0.9	-0.9	-0.8	-0.8
Employment/Pop. 15–64	average in per cent	**66.0**	**66.8**	**67.6**	**69.0**	**70.2**	**71.8**	**72.8**	**73.6**	**74.2**	**74.8**
Employment rate 15–64 [2]	average in per cent	**65.0**	**65.7**	**66.5**	**67.7**	**69.0**	**70.3**	**71.3**	**72.0**	**72.6**	**73.2**
Labour force/Pop. 15–64	average in per cent	**71.2**	**71.6**	**72.7**	**74.2**	**74.8**	**75.6**	**76.2**	**76.9**	**77.5**	**78.1**
Participation rate 15–64 [3]	average in per cent	**70.2**	**70.5**	**71.6**	**72.9**	**73.5**	**74.1**	**74.6**	**75.3**	**75.9**	**76.5**
Registered unemployment											
Unemployment	av. in thous.persons	**528.7**	**507.8**	**504.7**	**564.4**	**561.4**	**478.9**	**400**	**367**	**346**	**333**
Share of unemployed [4]	average in per cent	**7.0**	**6.7**	**6.8**	**7.7**	**7.7**	**6.6**	**5.5**	**5.1**	**4.8**	**4.7**
Wages and salaries											
Average monthly wage [5]											
− nominal	CZK	23 864	24 455	25 067	25 035	25 607	26 500	27 600	28 800	30 100	31 500
	growth in %	**2.2**	**2.5**	**2.5**	**-0.1**	**2.3**	**3.4**	**4.3**	**4.5**	**4.5**	**4.5**
− real	CZK 2005	20 769	20 884	20 717	20 403	20 785	21 400	22 200	22 900	23 500	24 100
	growth in %	**0.8**	**0.6**	**-0.8**	**-1.5**	**1.9**	**3.0**	**3.7**	**3.0**	**2.7**	**2.6**
Median monthly wage	CZK	20 294	20 743	20 828	21 110	21 650	22 372	.	.	.	.
	growth in %	**2.6**	**2.2**	**0.4**	**1.4**	**2.6**	**3.3**	.	.	.	.
Wage bill	growth in %	**0.6**	**2.2**	**2.5**	**0.4**	**1.9**	**4.0**	**4.5**	**4.6**	**4.6**	**4.6**
Labour productivity	growth in %	**3.4**	**2.2**	**-1.3**	**-0.8**	**1.4**	**3.0**	**1.9**	**2.5**	**2.4**	**2.4**
Unit labour costs [6]	growth in %	**0.0**	**0.6**	**3.1**	**0.6**	**0.1**	**-0.5**	**1.4**	**1.8**	**2.1**	**2.1**
Compens. of employees / GDP	%	**40.2**	**40.4**	**41.2**	**41.1**	**40.2**	**40.0**	**40.3**	**40.6**	**40.8**	**40.9**

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.
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

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
Labour Force Survey									
Employment	av. in thous. persons	**4 987**	**5 044**	**5 060**	**5 076**	**5 030**	**5 073**	**5 085**	**5 084**
	YoY growth in %	1.3	1.7	1.3	1.2	0.9	0.6	0.5	0.2
	QoQ growth in %	0.4	0.3	0.1	0.3	0.1	0.0	0.0	0.0
– employees	av. in thous. persons	**4 116**	**4 161**	**4 189**	**4 205**	**4 189**	**4 214**	**4 230**	**4 224**
	growth in %	2.1	2.4	2.0	2.1	1.8	1.3	1.0	0.5
– entrepreneurs and	av. in thous. persons	**871**	**883**	**872**	**871**	**842**	**859**	**855**	**860**
self-employed	growth in %	-2.4	-1.7	-2.1	-3.1	-3.4	-2.7	-1.9	-1.3
Unemployment	av. in thous.persons	**317**	**262**	**257**	**237**	**246**	**226**	**232**	**228**
Unemployment rate	average in per cent	**6.0**	**4.9**	**4.8**	**4.5**	**4.7**	**4.3**	**4.4**	**4.3**
Long-term unemployment [1]	av. in thous.persons	**145**	**122**	**125**	.	.	.	.	.
Labour force	av. in thous. persons	**5 304**	**5 306**	**5 318**	**5 313**	**5 277**	**5 300**	**5 317**	**5 312**
	growth in %	0.4	0.5	0.2	-0.2	-0.5	-0.1	0.0	0.0
Population aged 15–64	av. in thous. persons	**7 050**	**7 037**	**7 017**	**7 002**	**6 986**	**6 969**	**6 953**	**6 937**
	growth in %	-0.7	-0.7	-0.8	-0.8	-0.9	-1.0	-0.9	-0.9
Employment/Pop. 15–64	average in per cent	**70.7**	**71.7**	**72.1**	**72.5**	**72.0**	**72.8**	**73.1**	**73.3**
	increase over a year	1.4	1.7	1.5	1.4	1.3	1.1	1.0	0.8
Employment rate 15–64 [2]	average in per cent	**69.4**	**70.2**	**70.5**	**71.0**	**70.5**	**71.3**	**71.6**	**71.7**
	increase over a year	1.3	1.5	1.2	1.2	1.1	1.1	1.1	0.8
Labour force/Pop. 15–64	average in per cent	**75.2**	**75.4**	**75.8**	**75.9**	**75.5**	**76.0**	**76.5**	**76.6**
	increase over a year	0.9	0.9	0.7	0.5	0.3	0.6	0.7	0.7
Participation rate 15–64 [3]	average in per cent	**73.9**	**73.9**	**74.2**	**74.3**	**74.0**	**74.5**	**74.9**	**75.0**
	increase over a year	0.8	0.7	0.4	0.2	0.1	0.6	0.7	0.7
Registered unemployment									
Unemployment	av. in thous. persons	**546.0**	**481.9**	**451.2**	**436.4**	**458**	**398**	**372**	**371**
Share of unemployed [4]	average in per cent	**7.5**	**6.6**	**6.2**	**6.0**	**6.3**	**5.5**	**5.1**	**5.1**
Wages and salaries									
Average monthly wage [5]									
– nominal	CZK	25 335	26 300	26 100	28 200	26 300	27 400	27 200	29 500
	growth in %	**2.3**	**3.5**	**3.7**	**3.9**	**3.7**	**4.3**	**4.5**	**4.6**
– real	CZK 2005	20 564	21 200	21 000	22 900	21 200	22 000	21 900	23 700
	growth in %	**2.2**	**2.8**	**3.3**	**3.8**	**3.2**	**3.9**	**4.0**	**3.6**
Median monthly wage	CZK	21 214	22 230	22 300	23 745	.	.	.	.
	growth in %	**1.0**	**3.2**	**3.6**	**5.4**	.	.	.	.
Wage bill	growth in %	**3.3**	**4.1**	**4.5**	**4.2**	**4.2**	**4.5**	**4.6**	**4.6**

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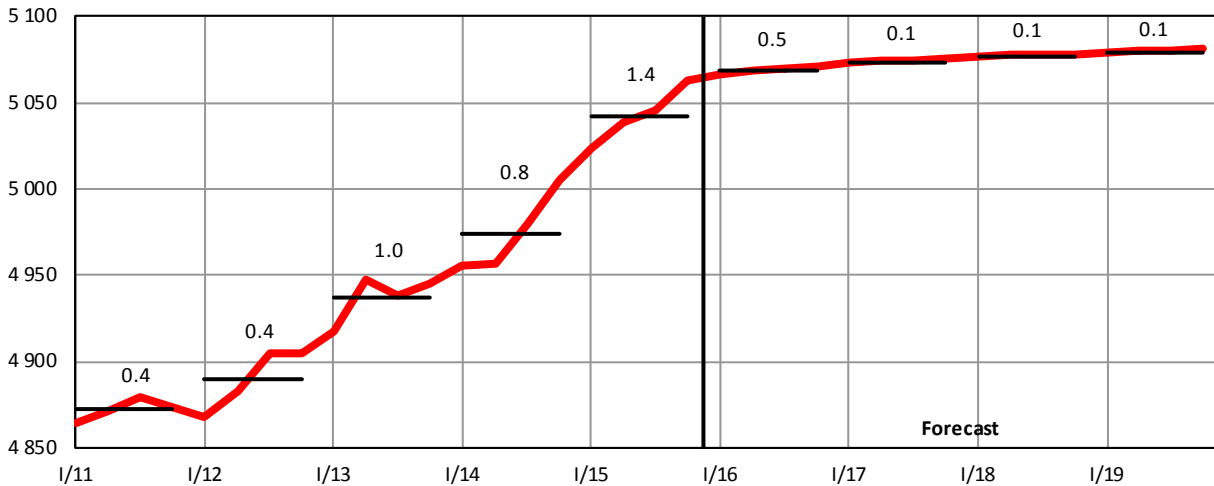
Source: CZSO, own calculations

Graph C.3.6: Ratio of Labour Force and Employment to Population Aged 15–64
in %
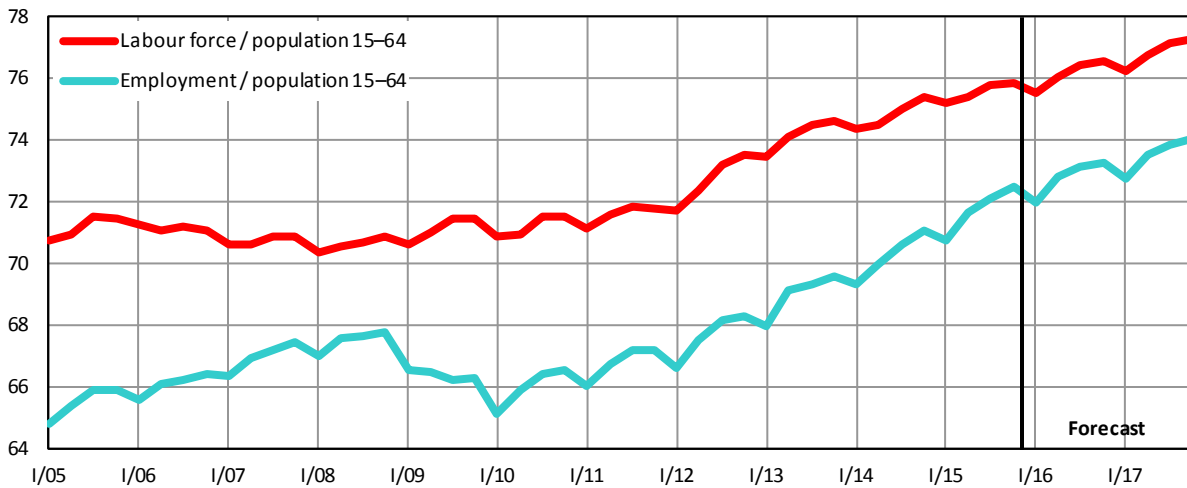
Source: CZSO, own calculations

Graph C.3.7: Unemployment
quarterly average, in thousands of persons, in % (rhs)
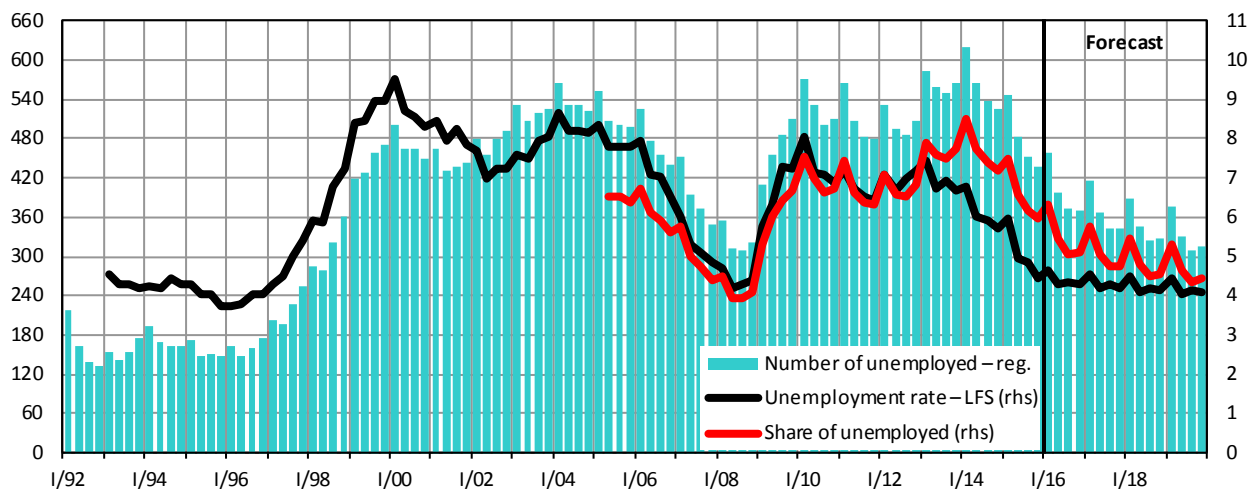
Note: Share of unemployed (Ministry of Labour and Social Affairs) is defined as a share of available job seekers aged 15 to 64 years in the population of the same age.
Source: CZSO, Ministry of Labour and Social Affairs, own calculations

Graph C.3.8: Economic Output and Unemployment
YoY real GDP growth rate in %, change in unemployment in thousands of persons
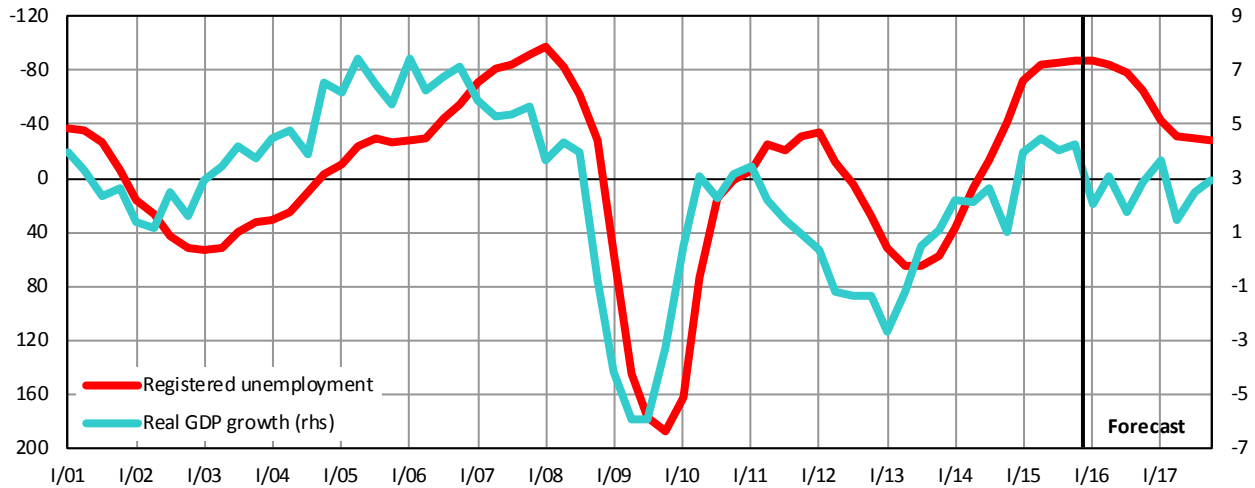
Source: CZSO, Ministry of Labour and Social Affairs, own calculations

Graph C.3.9: Wage Bill – nominal, domestic concept
YoY growth rate, in %

Source: CZSO, own calculations

Graph C.3.10: Gross Savings Rate of Households
in % of disposable income

Source: CZSO, own calculations

Table C.3.3: Income and Expenditures of Households – yearly

SNA methodology – national concept

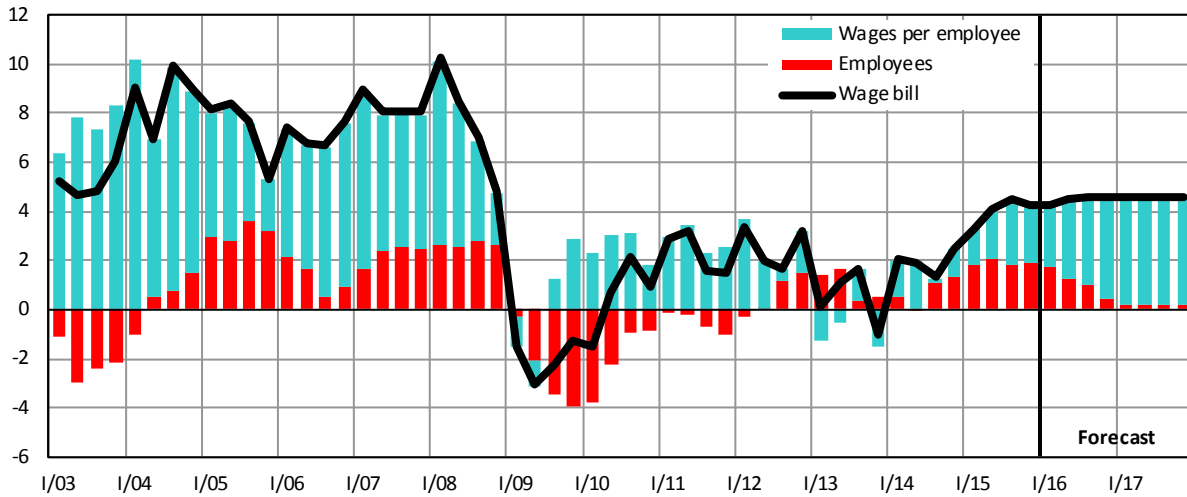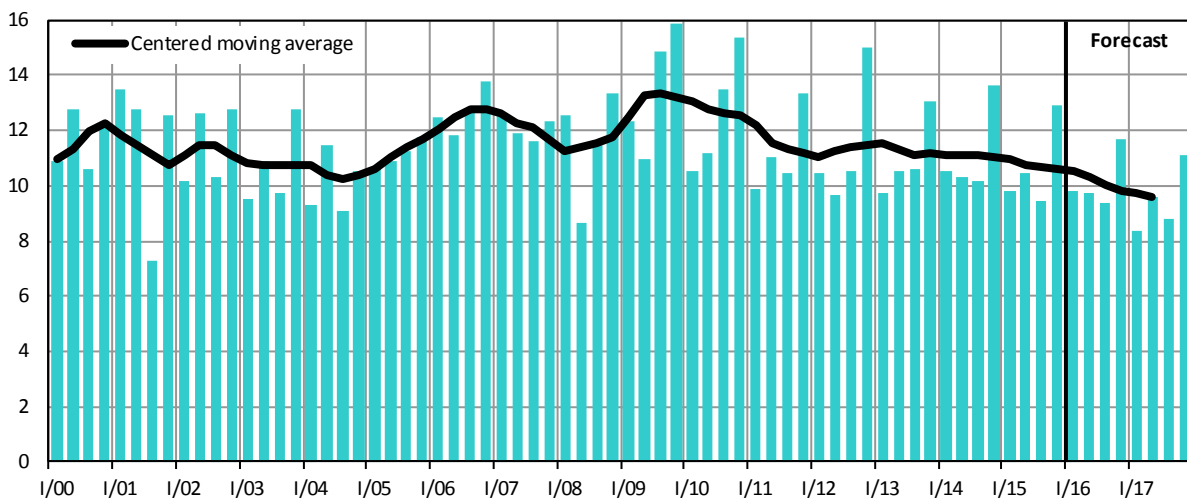|		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
										Forecast	*Forecast*
<u>Current income</u>											
Compensation of employees	*bill.CZK*	**1 593**	**1 553**	**1 585**	**1 626**	**1 668**	**1 690**	**1 737**	**1 818**	**1 898**	**1 982**
	growth in %	5.8	-2.5	2.0	2.6	2.6	1.3	2.8	4.7	4.4	4.5
Gross operating surplus	*bill.CZK*	**657**	**686**	**685**	**674**	**654**	**645**	**675**	**668**	**680**	**696**
and mixed income	*growth in %*	4.0	4.5	-0.2	-1.7	-2.9	-1.3	4.6	-1.0	1.7	2.4
Property income received	*bill.CZK*	**177**	**158**	**152**	**151**	**145**	**155**	**139**	**131**	**132**	**134**
	growth in %	9.8	-11.0	-3.5	-0.9	-3.7	7.0	-10.5	-5.5	0.5	1.2
Social benefits not-in-kind	*bill.CZK*	**493**	**535**	**542**	**553**	**566**	**563**	**577**	**591**	**605**	**619**
	growth in %	4.7	8.6	1.2	2.1	2.4	-0.6	2.4	2.6	2.3	2.3
Other current transfers received	*bill.CZK*	**143**	**141**	**140**	**139**	**151**	**147**	**148**	**170**	**175**	**181**
	growth in %	13.2	-1.4	-1.0	-0.5	8.6	-2.8	1.0	14.8	3.0	3.0
<u>Current expenditure</u>											
Property income paid	*bill.CZK*	**31**	**19**	**23**	**21**	**15**	**21**	**15**	**11**	**10**	**10**
	growth in %	11.2	-36.7	17.7	-8.5	-27.2	40.5	-29.5	-28.7	-3.0	-3.0
Curr. taxes on income and property	*bill.CZK*	**145**	**140**	**137**	**149**	**151**	**159**	**166**	**166**	**173**	**181**
	growth in %	-9.9	-3.0	-2.6	8.6	1.7	5.1	4.5	0.1	4.4	4.5
Social contributions	*bill.CZK*	**637**	**603**	**621**	**640**	**654**	**670**	**697**	**736**	**768**	**803**
	growth in %	3.3	-5.3	2.9	3.0	2.3	2.4	4.0	5.6	4.4	4.5
Other current transfers paid	*bill.CZK*	**146**	**143**	**141**	**147**	**154**	**140**	**139**	**153**	**153**	**153**
	growth in %	12.1	-1.6	-1.6	4.0	5.3	-9.3	-0.9	10.0	0.2	0.0
Gross disposable income	*bill.CZK*	**2 106**	**2 168**	**2 182**	**2 187**	**2 210**	**2 211**	**2 260**	**2 314**	**2 385**	**2 465**
	growth in %	7.4	3.0	0.7	0.2	1.0	0.0	2.2	2.4	3.1	3.3
Final consumption	*bill.CZK*	**1 887**	**1 891**	**1 920**	**1 957**	**1 971**	**2 001**	**2 042**	**2 102**	**2 179**	**2 271**
	growth in %	7.9	0.2	1.5	2.0	0.7	1.6	2.0	3.0	3.7	4.2
Change in share in pension funds	*bill.CZK*	**24**	**17**	**15**	**16**	**15**	**35**	**35**	**35**	**37**	**40**
Gross savings	*bill.CZK*	**243**	**295**	**278**	**246**	**254**	**244**	**254**	**248**	**243**	**234**
Capital transfers											
(income (-) / expenditure (+))	*bill.CZK*	**-25**	**-25**	**-29**	**-25**	**-21**	**-13**	**-32**	**-13**	**-21**	**-23**
Gross capital formation	*bill.CZK*	**219**	**212**	**230**	**198**	**183**	**181**	**180**	**188**	**193**	**197**
	growth in %	2.8	-3.1	8.8	-14.0	-7.8	-1.2	-0.3	4.3	2.8	2.3
Change in financial assets and liab.	*bill.CZK*	**47**	**106**	**75**	**71**	**91**	**75**	**104**	**71**	**69**	**58**
Real disposable income	*growth in %*	**2.5**	**2.1**	**0.1**	**-1.4**	**-1.1**	**-0.8**	**1.7**	**2.3**	**2.5**	**1.9**
Gross savings rate	*%*	**11.5**	**13.6**	**12.7**	**11.2**	**11.5**	**11.0**	**11.2**	**10.7**	**10.2**	**9.5**

Source: CZSO, own calculations

C.4 External Relations

The current account balance to GDP[2] ratio reached 0.9% (*versus 1.2%*) in the fourth quarter of 2015, which was a QoQ improvement of 0.3% of GDP. The current account remains in surplus.

However, the outturn for 2015 must be assessed in the context of data revision for the whole year 2014 and the first three quarters of 2015 which was carried out together with the publication of data for the fourth quarter and the whole year 2015.

The most important change in 2014 was a reduction in the surplus on the balance of goods of 0.5% of GDP to 5.2% of GDP. Due to the revision, the current account balance deteriorated by 0.4% of GDP to 0.2% of GDP. In 2015, the revision mainly affected data for the third quarter (on the basis of yearly moving sums). The surplus on the current account decreased by 0.6% of GDP to 0.7% of GDP, with the deficit on the primary income balance widening by 0.4% of GDP to –5.9% of GDP and the surplus on the balance of goods decreasing by 0.2% of GDP to 4.7% of GDP. Other revisions were not so important.

Growth of export markets[3] continued also in 2015, even though their slowdown to 4.6% (*versus 5.7%*) in the fourth quarter was bigger than estimated. Given the change in assumptions about GDP growth of our main trading partners and the development of import intensity, we expect a slower growth of export markets compared to the previous forecast. In 2016, export markets should thus increase by 4.7% (*versus 5.7%*), with their growth accelerating to 5.6% (*versus 5.8%*) in 2017.

The CZK/EUR exchange rate has been strengthening (in YoY terms) slightly since the second quarter of 2015 The effect of increased price competitiveness of Czech exporters resulting from the koruna depreciation has therefore already faded, thereby affecting also export performance, which indicates a change in the market share of Czech goods on foreign markets. Having risen by 4.1% in 2014, export performance was slowing down during 2015 and it even decreased in the third quarter (after the revision). In the fourth quarter of 2015, however, export performance posted a solid increase of 3.9% (*versus 1.7%*), which more than offset the aforementioned slowdown of growth of export markets. For the whole year 2015, export performance increased by 1.5% (*versus 1.4%*). Growth of export performance should continue to slow down, specifically to 1.2% (*versus 1.0%*) in 2016 and to 0.5% (*unchanged*) in 2017. Strengthening of the CZK/EUR exchange rate related to the expected leaving of the

regime of using the exchange rate as an additional monetary policy instrument in the first half of 2017 will weigh on growth of export performance in 2017.

Quarterly growth rates of foreign trade have a decreasing tendency since the beginning of 2014. In 2015, moreover, import growth rates exceeded export growth rates and the surplus on the balance of goods decreased by 0.4% of GDP YoY for the whole year 2015. With only slightly better terms of trade, this development was influenced by increasing domestic demand – in addition to consumption, also by strong growth of investment and here especially by investment activity of the government.

The dominant factor influencing terms of trade are low crude oil prices. Throughout 2015, however, deteriorating terms of trade for other important commodity groups, such as machinery and transport equipment, manufactured articles and chemicals and related products, largely weighed on the positive impact of crude oil prices. A deterioration of the terms of trade, taking place from April to August 2015, was only temporary. An improvement of the terms of trade into slightly positive values since September 2015 was again due to a decrease in crude oil and natural gas prices. We expect this effect to fade at the end of 2016, which implies risks for the subsequent development of the terms of trade. The deficit on the fuel balance (SITC 3) reached 2.6% of GDP in 2015 (*versus 2.5%*). In relation to the scenario of the crude oil price development we expect that the SITC 3 deficit will decrease further also in 2016, specifically to 2.0% of GDP (*versus 1.5%*). For 2017, we already expect YoY growth of the CZK crude oil price, and thus also a slight deepening of the deficit on the SITC 3 balance to 2.2% of GDP (*versus 1.9%*).

The balance of goods, which was influenced by a one-off factor (financial lease of JAS-39 Gripen aircrafts amounting to CZK 9.9 billion) in the fourth quarter of 2015, recorded a surplus of 4.7% of GDP (*versus 4.6%*) in 2015. With respect to the aforementioned (including the impact of the revision and the resulting different development in the structure of foreign trade), we are leaving the forecast of the surplus on the balance of goods at 5.1% of GDP in 2016. For 2017, we expect a slight decrease in the balance to 5.0% of GDP (*versus 4.9% of GDP*).

The trend of a decreasing surplus on the balance of services, persisting since 2012, not only stopped in the second quarter of 2015, but subsequently the positive balance started increasing again. Total surplus on the balance of services reached 1.7% of GDP (*versus 1.6%*) in 2015, improving by 0.4% of GDP YoY. With the continuing economic growth, growth rates of exports and imports of services are expected to be nearly identical and the surplus should thus remain at the current

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

values. In 2016 and 2017, the surplus on the balance of services should reach identically 1.7% of GDP (*versus 1.6% in both years*).

Higher surplus on the current account in 2015 (by 0.7% of GDP on the previous year) was due to an improvement of the deficit on the primary income balance of 0.7% of GDP and the already mentioned increase in the surplus on the balance of services; however, surplus on the balance of goods decreased by 0.4% of GDP. The deficit of primary incomes reached 5.4% of GDP in 2015 (*identical with the estimate*) and its improvement was caused by a lower outflow of income from foreign direct investment to foreign owners (in particular dividends) and by a gradually improving surplus of compensation of employees. In the long run, the deficit on this account shows a tendency to widen, even though there is a high volatility related to the cyclical development of the economy. Recently, pressures on wage growth and thereby also on the division into net profits of companies and compensation of employees have been strengthening. Therefore, we do not expect this account to deteriorate in 2016 and we forecast only a slight deepening of the deficit of primary incomes in 2017. This deficit could reach 5.4% of GDP (*versus 5.6%*) in 2016 and 5.5% of GDP (*versus 5.9%*) in 2017.

In the aforementioned context we expect that the current account will show a slight surplus that could reach 1.1% of GDP (*versus 1.2%*) in 2016. We expect only a slight decrease in the surplus to 1.0% of GDP (*versus 0.6%*) in 2017.

Table C.4.1: Balance of Payments – yearly

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
Goods and services	bill.CZK	85	147	119	157	201	237	275	286	312	320
	% GDP	**2.1**	**3.7**	**3.0**	**3.9**	**5.0**	**5.8**	**6.5**	**6.4**	**6.7**	**6.7**
−**goods**	bill.CZK	-4	65	40	75	124	167	220	211	234	239
	% GDP	**-0.1**	**1.7**	**1.0**	**1.9**	**3.1**	**4.1**	**5.2**	**4.7**	**5.1**	**5.0**
−**services**	bill.CZK	89	82	78	81	78	70	56	75	78	81
	% GDP	**2.2**	**2.1**	**2.0**	**2.0**	**1.9**	**1.7**	**1.3**	**1.7**	**1.7**	**1.7**
Primary income	bill.CZK	-148	-217	-250	-223	-238	-249	-261	-244	-250	-261
	% GDP	**-3.7**	**-5.5**	**-6.3**	**-5.6**	**-5.9**	**-6.1**	**-6.1**	**-5.4**	**-5.4**	**-5.4**
Secondary income	bill.CZK	-12	-19	-11	-18	-27	-10	-7	-1	-10	-10
	% GDP	**-0.3**	**-0.5**	**-0.3**	**-0.5**	**-0.7**	**-0.2**	**-0.2**	**0.0**	**-0.2**	**-0.2**
Current account	bill.CZK	-75	-89	-142	-85	-63	-22	7	41	52	49
	% GDP	**-1.9**	**-2.3**	**-3.6**	**-2.1**	**-1.6**	**-0.5**	**0.2**	**0.9**	**1.1**	**1.0**
Capital account	bill.CZK	26	51	38	13	53	82	32	106	26	34
	% GDP	**0.6**	**1.3**	**1.0**	**0.3**	**1.3**	**2.0**	**0.8**	**2.4**	**0.6**	**0.7**
Net lending/borrowing	bill.CZK	-49	-38	-104	-72	-10	61	40	148	79	84
	% GDP	**-1.2**	**-1.0**	**-2.6**	**-1.8**	**-0.3**	**1.5**	**0.9**	**3.3**	**1.7**	**1.7**
Financial account	bill.CZK	-43	-72	-122	-75	12	68	63	194	.	.
−**direct investments**	bill.CZK	-36	-38	-95	-47	-121	7	-80	27	.	.
−**portfolio investments**	bill.CZK	9	-159	-150	-6	-55	-93	90	-164	.	.
−**financial derivatives**	bill.CZK	3	1	5	4	-9	-5	-6	-5	.	.
−**other investments**	bill.CZK	-59	62	77	-9	116	-30	-14	-15	.	.
−**reserve assets**	bill.CZK	40	61	41	-17	80	188	73	351	.	.
International investment position	bill.CZK	-1 534	-1 726	-1 823	-1 823	-1 864	-1 695	-1 578	-1 396	.	.
	% GDP	**-38.2**	**-44.0**	**-46.1**	**-45.3**	**-46.1**	**-41.6**	**-37.0**	**-31.2**	**.**	**.**
Gross external debt	bill.CZK	1 862	1 956	2 164	2 312	2 434	2 733	2 946	3 132	.	.
	% GDP	**46.4**	**49.9**	**54.7**	**57.5**	**60.2**	**67.0**	**69.1**	**70.0**	**.**	**.**

Source: CNB, CZSO, own calculations

Table C.4.2: Balance of Payments – quarterly
moving sums of the latest 4 quarters

		2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Goods and services	bill.CZK	279	275	272	286	291	292	294	312
−goods	bill.CZK	225	216	207	211	215	215	217	234
−services	bill.CZK	54	59	66	75	76	77	77	78
Primary income	bill.CZK	-285	-256	-259	-244	-244	-246	-248	-250
Secondary income	bill.CZK	23	7	15	-1	-3	-5	-7	-10
Current account	bill.CZK	18	26	29	41	44	41	39	52
Capital account	bill.CZK	42	94	99	106	86	66	46	26
Net lending/borrowing	bill.CZK	59	119	128	148	130	107	85	79
Financial account	bill.CZK	84	158	163	194	.	.	.	.
−direct investments	bill.CZK	-58	-19	12	27	.	.	.	.
−portfolio investments	bill.CZK	121	75	-13	-164	.	.	.	.
−financial derivatives	bill.CZK	-4	1	-3	-5	.	.	.	.
−other investments	bill.CZK	-61	-34	-156	-15	.	.	.	.
−reserve assets	bill.CZK	86	135	322	351	.	.	.	.
International investment position	stock in bill.CZK	-1 388	-1 383	-1 468	-1 396	.	.	.	.
Gross external debt	stock in bill.CZK	2 958	2 971	3 194	3 132	.	.	.	.

Source: CNB, CZSO, own calculations
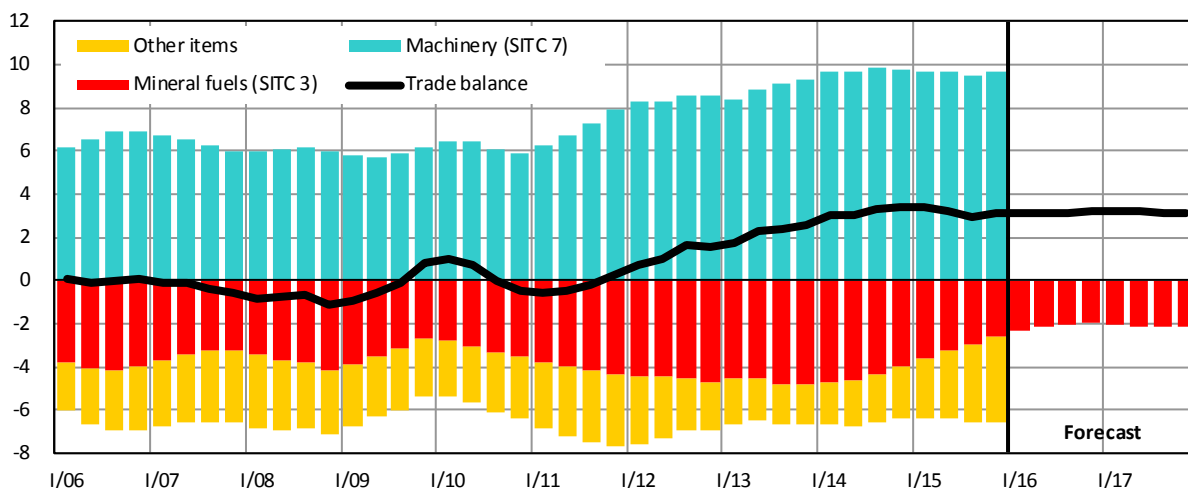
Graph C.4.1: Current Account
moving sums of the latest 4 quarters, in % of GDP, trade and service balances in BoP definitions
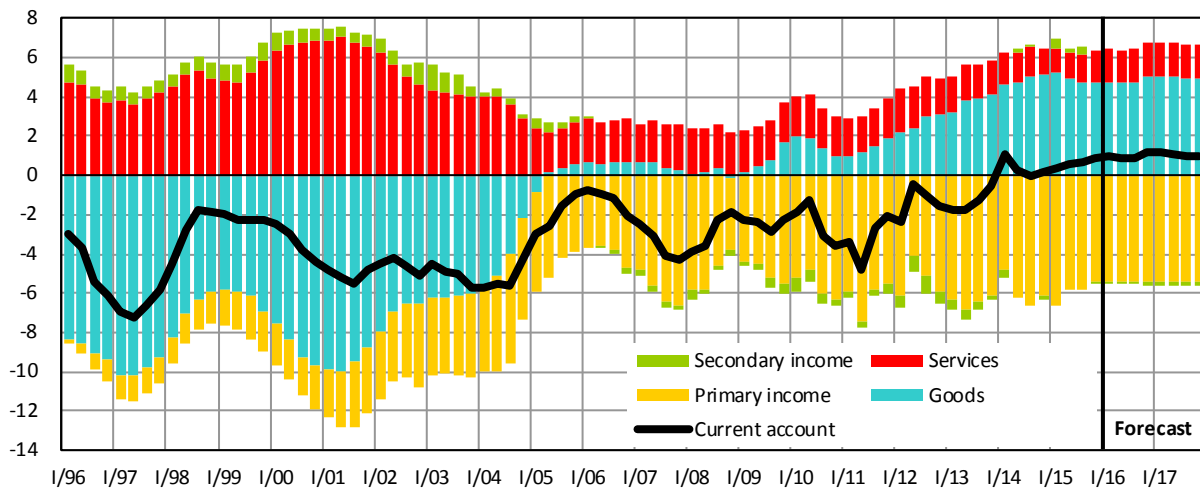
Source: CNB, CZSO, own calculations

Graph C.4.2: Balance of Trade (national concept)
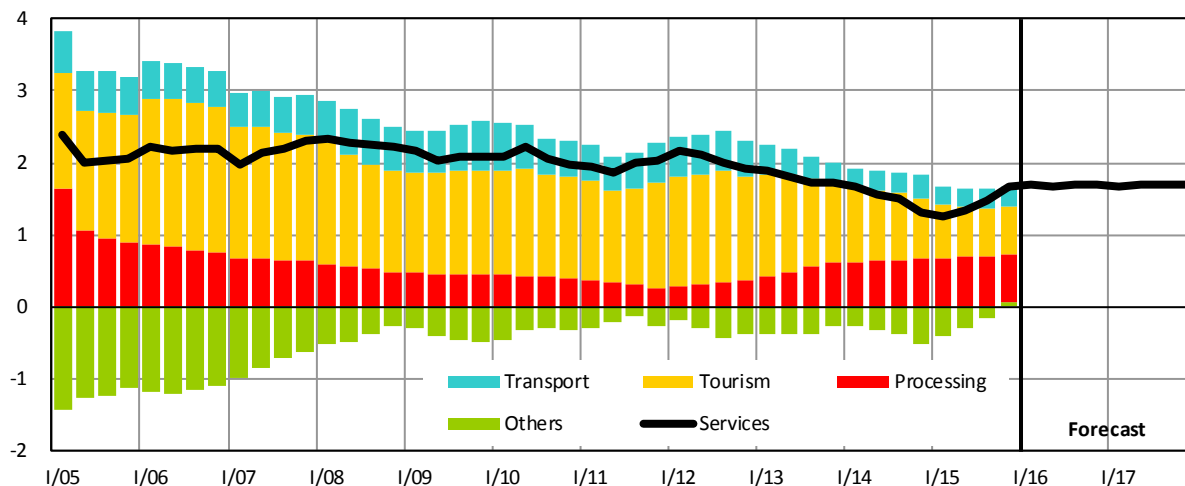*moving sums of the latest 4 quarters, in % of GDP, in cross-border definitions*

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. Trade balance in the national concept (unlike in the BoP methodology in Tables C.4.1 and C.4.2) does not include the import of JAS-39 Gripen fighter jets in the fourth quarter of 2015 amounting to CZK 9.9 bill., i.e. 0.2% of GDP.
Source: CZSO, own calculations
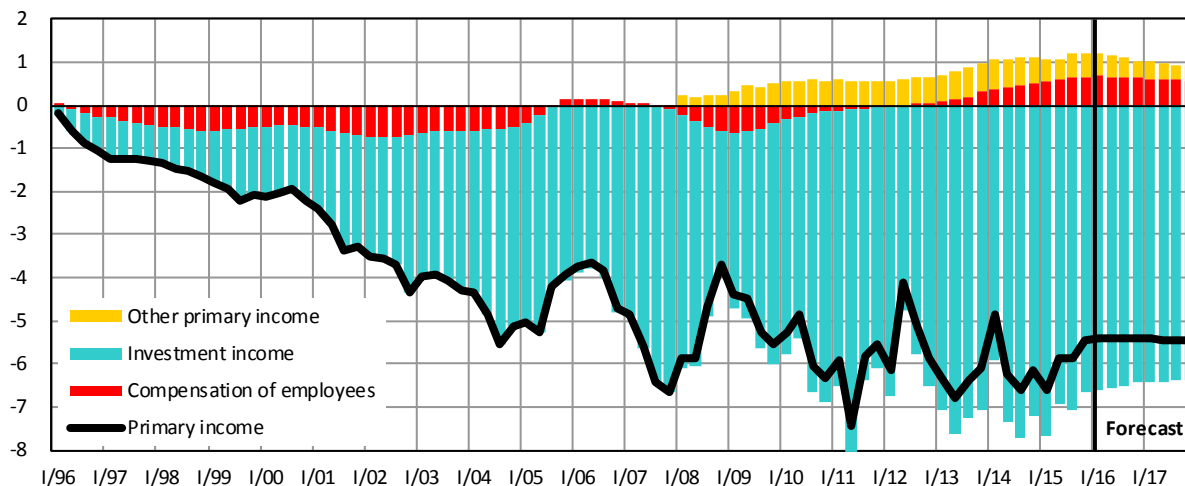
Graph C.4.3: Balance of Services
moving sums of the latest 4 quarters, in % of GDP

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

		2008	2009	2010	2011	2012	2013	2014	2015	2016 Forecast	2017 Forecast
GDP [1]	average of 2005=100	100.9	96.3	100.0	103.7	104.6	105.5	107.6	109.9	112	115
	growth in %	**1.8**	**-4.5**	**3.9**	**3.7**	**0.9**	**0.9**	**1.9**	**2.1**	**2.1**	**2.3**
Import intensity [2]	average of 2005=100	98.6	91.4	100.0	104.2	103.3	104.8	108.0	111.5	114	118
	growth in %	**0.0**	**-7.2**	**9.4**	**4.2**	**-0.9**	**1.5**	**3.0**	**3.3**	**2.5**	**3.1**
Export markets [3]	average of 2005=100	99.4	88.0	100.0	108.0	108.1	110.6	116.1	122.5	128	135
	growth in %	**1.7**	**-11.4**	**13.6**	**8.0**	**0.0**	**2.4**	**5.0**	**5.5**	**4.7**	**5.6**
Export performance	average of 2005=100	96.8	97.8	100.0	102.0	106.2	104.4	108.7	110.3	112	112
	growth in %	**2.4**	**1.0**	**2.3**	**2.0**	**4.1**	**-1.7**	**4.1**	**1.5**	**1.2**	**0.5**
Real exports	average of 2005=100	96.3	86.1	100.0	110.2	114.8	115.5	126.2	135.2	143	152
	growth in %	**4.2**	**-10.5**	**16.1**	**10.2**	**4.2**	**0.6**	**9.3**	**7.1**	**6.0**	**6.1**
1 / NEER	average of 2005=100	98.9	102.2	100.0	97.1	100.6	102.9	108.1	108.2	107	106
	growth in %	**-10.5**	**3.4**	**-2.2**	**-2.9**	**3.6**	**2.3**	**5.1**	**0.1**	**-1.5**	**-0.9**
Prices on foreign markets	average of 2005=100	102.4	99.3	100.0	103.8	103.5	102.7	101.7	100.1	100	100
	growth in %	**6.3**	**-3.1**	**0.8**	**3.8**	**-0.4**	**-0.7**	**-1.0**	**-1.6**	**-0.5**	**0.1**
Exports deflator	average of 2005=100	101.2	101.4	100.0	100.8	104.0	105.6	109.9	108.3	106	105
	growth in %	**-4.9**	**0.2**	**-1.4**	**0.8**	**3.2**	**1.5**	**4.1**	**-1.5**	**-2.0**	**-0.8**
Nominal exports	average of 2005=100	97.4	87.2	100.0	111.0	119.4	122.0	138.7	146.4	152	160
	growth in %	**-0.9**	**-10.5**	**14.7**	**11.0**	**7.5**	**2.2**	**13.7**	**5.6**	**3.9**	**5.2**

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

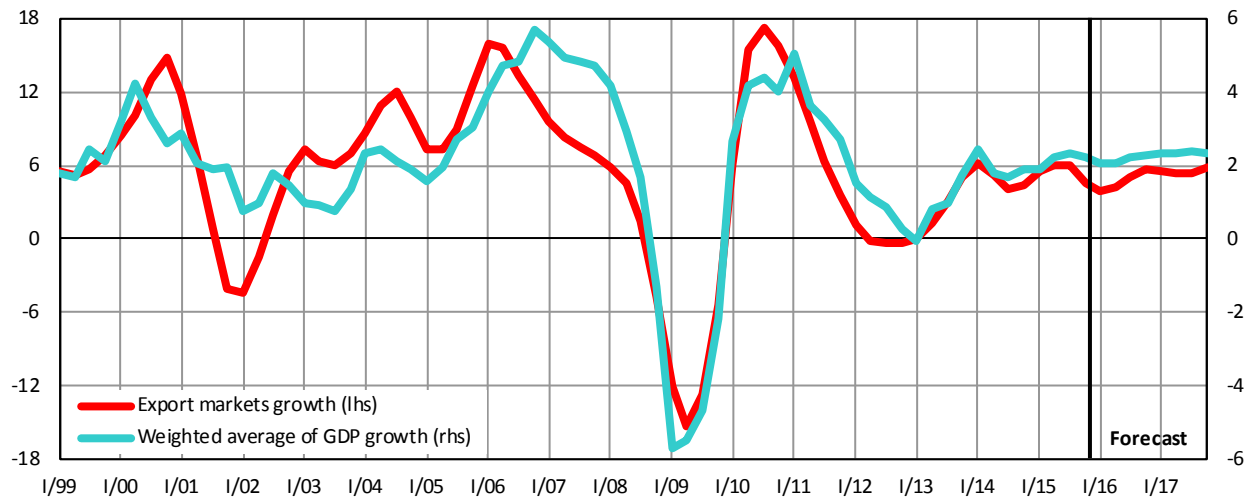**Table C.4.4: Decomposition of Exports of Goods – quarterly**

		2015				2016			
		Q1	Q2	Q3	Q4	Q1 Estimate	Q2 Forecast	Q3 Forecast	Q4 Forecast
GDP [1]	average of 2010=100	109.0	109.6	110.1	111	111	112	113	113
	growth in %	**1.9**	**2.2**	**2.3**	**2.2**	**2.0**	**2.0**	**2.2**	**2.3**
Import intensity [2]	average of 2010=100	110.9	111.6	111.9	112	113	114	115	116
	growth in %	**3.6**	**3.7**	**3.6**	**2.4**	**1.9**	**2.2**	**2.7**	**3.3**
Export markets [3]	average of 2010=100	120.9	122.3	123.2	124	126	128	129	131
	growth in %	**5.5**	**5.9**	**6.0**	**4.6**	**3.9**	**4.3**	**5.0**	**5.7**
Export performance	average of 2010=100	111.1	110.6	106.5	113	113	112	108	114
	growth in %	**2.0**	**0.7**	**-0.5**	**3.9**	**1.7**	**1.3**	**1.1**	**0.9**
Real exports	average of 2010=100	134.3	135.3	131.3	140	142	143	139	149
	growth in %	**7.6**	**6.7**	**5.5**	**8.7**	**5.7**	**5.6**	**6.1**	**6.6**
1 / NEER	average of 2010=100	109.1	109.8	107.1	107	107	107	107	107
	growth in %	**1.4**	**2.0**	**-1.6**	**-1.4**	**-2.4**	**-2.9**	**-0.5**	**-0.3**
Prices on foreign markets	average of 2010=100	100.3	99.7	100.5	100	99	99	100	100
	growth in %	**-1.7**	**-2.2**	**-0.8**	**-1.5**	**-1.2**	**-0.2**	**-0.2**	**-0.2**
Exports deflator	average of 2010=100	109.5	109.5	107.7	107	106	106	107	106
	growth in %	**-0.3**	**-0.2**	**-2.4**	**-3.0**	**-3.5**	**-3.2**	**-0.7**	**-0.5**
Nominal exports	average of 2010=100	147.1	148.1	141.3	149	150	151	149	158
	growth in %	**7.3**	**6.5**	**2.9**	**5.5**	**2.0**	**2.3**	**5.4**	**6.1**

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

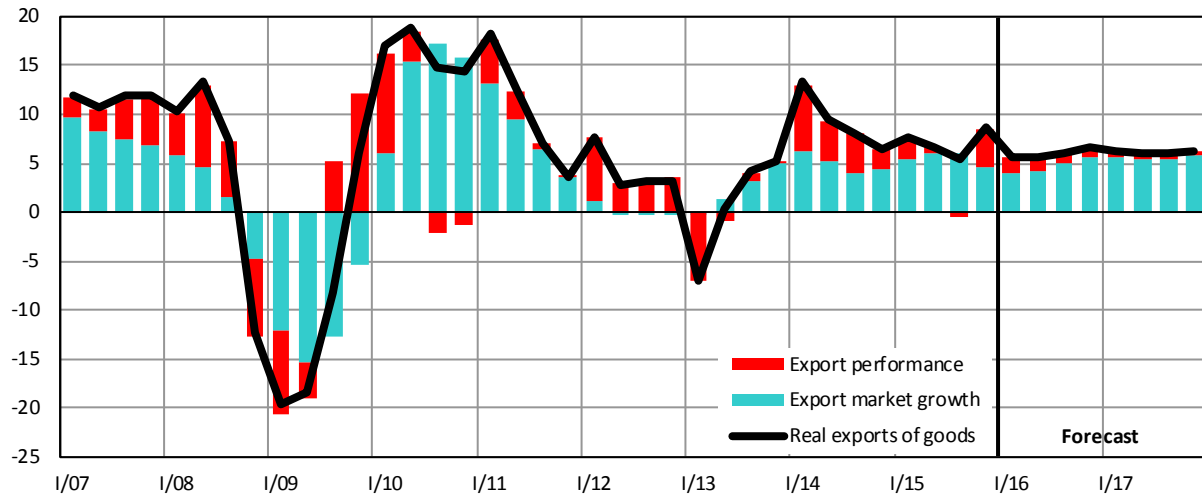**Graph C.4.5: GDP and Imports of Goods in Main Partner Countries**

YoY growth rate, in %

Source: Eurostat, own calculations

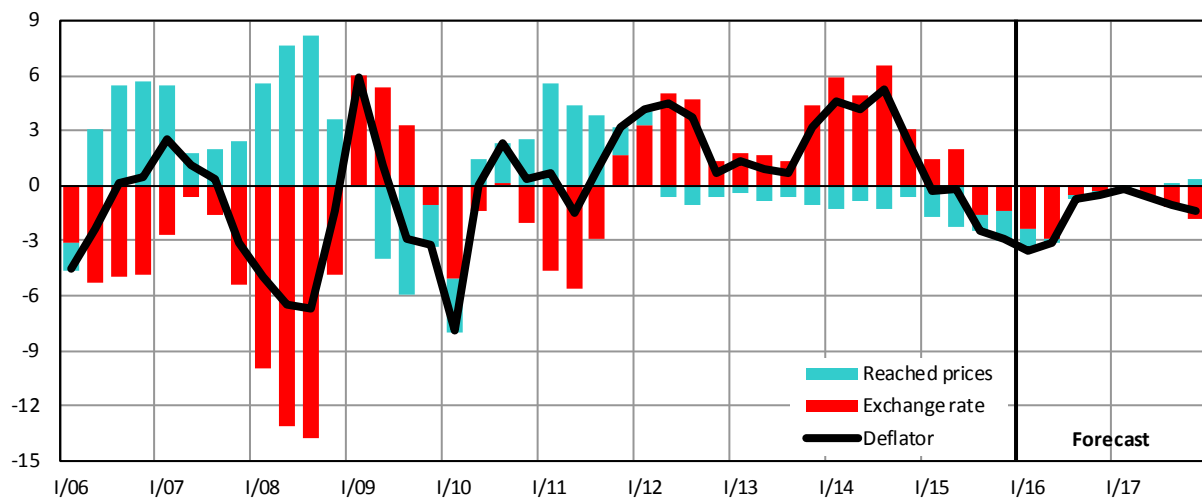**Graph C.4.6: Real Exports of Goods**

decomposition of YoY growth, in %

Source: CZSO, Eurostat, own calculations

Graph C.4.7: Deflator of Exports of Goods

decomposition of YoY growth, in %

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.

The level of GDP per capita converted by **current purchasing power parity** increased in all monitored countries in 2014. However, there was a slight decrease in relative economic level towards the EA12 countries in Greece and Croatia. In the Czech Republic, the purchasing power parity was 17.44 CZK/PPS compared to the EU28 and 16.91 CZK/EUR compared to the EA12. The economic level was circa 23,200 PPS, corresponding to 78% of the economic level in the EA12. In 2015–2017, the relative economic level of the Czech Republic should increase gradually up to 82% of the EA12 average in 2017, thanks to strong economic growth.

GDP per capita adjusted for the current **exchange rate** takes into account the market valuation of the currency and the ensuing differences in price levels. In the case of the Czech Republic, this indicator was approximately EUR 14,700 in 2014, i.e. 48% of the EA12 level. Higher economic growth in the Czech Republic, compared to the growth in the EA12, will result in a gradual increase in the relative level up to 51% of the EA12 average in 2017.

When comparing price levels, the **comparative price level of GDP** in the Czech Republic decreased by 3 pp in 2014, thus reaching 61% of the EA12 average. In 2015–2017, the comparative price level of GDP should stagnate at 62%, which will continue to help the competitiveness of the Czech economy.

Through the decomposition of GDP per capita into individual components[4] (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, its absolute level did not decrease in any of the monitored countries in 2008–2014. In the given period, however, a decrease in the relative level of labour productivity to the EA12 countries was seen in Greece and Slovenia, whereas increases in the relative level in Lithuania, Poland and Estonia exceeded 8 pp. In the Czech Republic, after a five-year period of stagnation, labour productivity was only 63% of the EA12 average in 2014.

In the case of the **labour market component**, which gives the number of hours worked per a working-age person, there is an opposite situation. From 2008 to 2014, the absolute level of this indicator decreased in all monitored countries, except for Poland and the Czech Republic. The highest slump – by 18% – was seen in Greece due to a 22% decrease in the number of hours worked. In contrast, relative level of the labour market component has long been exceeding the EA12 average in all countries with the exception of Slovakia; 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 11 pp in Slovakia and by 6 pp in Slovenia.

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

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

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

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

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

		2008	2009	2010	2011	2012	2013	2014	2015 Estimate	2016 Forecast	2017 Forecast
Czech Republic	PPS	21 100	20 200	20 600	21 600	21 700	22 200	23 200	24 400	25 300	26 300
	EA12=100	74	75	74	75	75	76	78	80	81	82
Slovenia	PPS	23 100	20 700	21 100	21 500	21 500	21 500	22 600	23 600	24 200	25 100
	EA12=100	81	77	75	75	74	74	76	77	78	79
Slovakia	PPS	18 500	17 300	18 600	19 000	19 700	20 200	21 100	22 100	23 100	24 200
	EA12=100	65	65	66	66	68	70	71	73	74	76
Portugal	PPS	20 400	19 700	20 500	20 300	20 500	20 600	21 400	22 100	22 800	23 700
	EA12=100	71	74	73	71	71	71	72	73	73	74
Lithuania	PPS	16 200	13 800	15 300	17 000	18 500	19 600	20 600	21 400	22 500	23 800
	EA12=100	57	51	55	59	64	67	69	70	72	74
Estonia	PPS	17 600	15 200	16 100	18 000	19 600	20 000	20 900	21 500	22 200	23 200
	EA12=100	62	57	58	63	68	69	70	70	71	72
Poland	PPS	14 100	14 400	15 700	16 800	17 600	17 900	18 600	19 500	20 400	21 400
	EA12=100	49	54	56	59	61	62	63	64	66	67
Greece	PPS	24 300	23 100	22 100	20 100	19 600	19 700	19 900	20 200	20 300	21 200
	EA12=100	85	86	79	70	68	68	67	66	65	66
Hungary	PPS	16 300	15 700	16 500	17 100	17 200	17 700	18 600	19 500	20 200	21 000
	EA12=100	57	59	59	59	59	61	63	64	65	66
Latvia	PPS	15 500	12 800	13 300	14 700	16 000	16 600	17 500	18 400	19 300	20 300
	EA12=100	54	48	47	51	55	57	59	60	62	64
Croatia	PPS	16 400	15 000	14 900	15 500	15 900	15 800	16 100	16 600	17 200	17 900
	EA12=100	58	56	53	54	55	55	54	55	55	56

Source: AMECO, CZSO, Eurostat, own calculations

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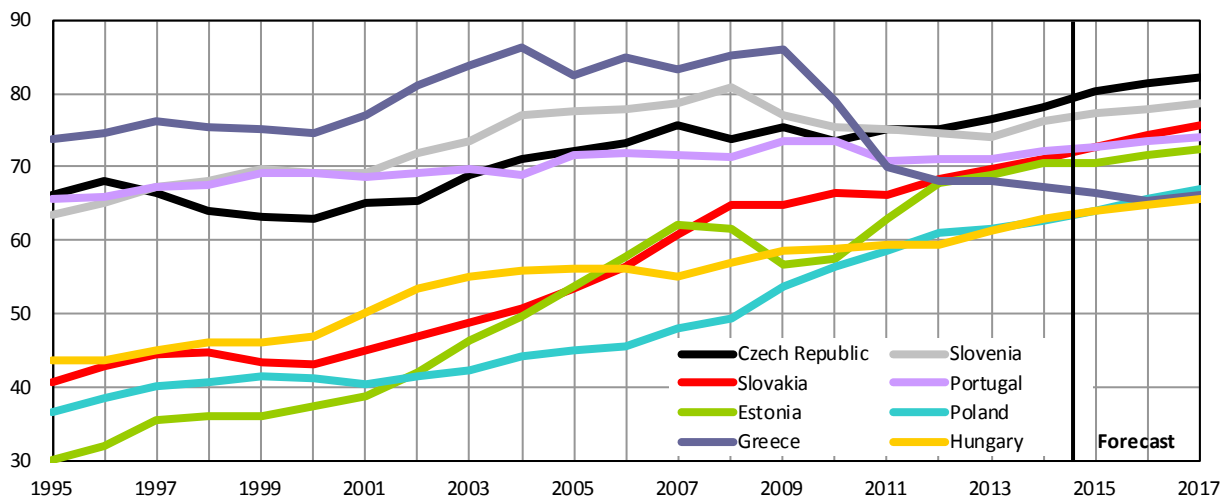
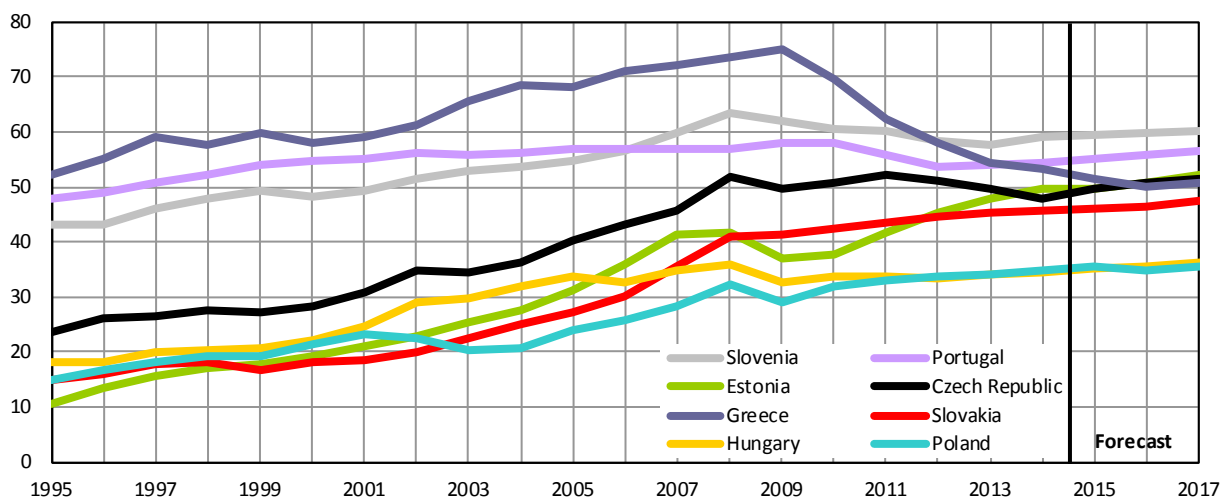*Source: AMECO, CZSO, Eurostat, own calculations*

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

		2008	2009	2010	2011	2012	2013	2014	2015 Estimate	2016 Forecast	2017 Forecast
Slovenia	EUR	18 800	17 700	17 700	18 000	17 500	17 400	18 100	18 700	19 200	19 800
	EA12=100	63	62	60	60	58	58	59	59	60	60
Comparative price level	EA12=100	**78**	**80**	**80**	**80**	**78**	**78**	**78**	**77**	**77**	**77**
Portugal	EUR	16 900	16 600	17 000	16 700	16 000	16 300	16 700	17 300	18 000	18 600
	EA12=100	57	58	58	56	53	54	54	55	56	56
Comparative price level	EA12=100	**80**	**79**	**79**	**79**	**75**	**76**	**76**	**76**	**76**	**76**
Estonia	EUR	12 300	10 600	11 000	12 500	13 600	14 400	15 200	15 600	16 300	17 200
	EA12=100	42	37	38	42	45	48	50	50	51	52
Comparative price level	EA12=100	**68**	**65**	**66**	**67**	**67**	**69**	**70**	**70**	**71**	**72**
Czech Republic	EUR	15 400	14 100	14 900	15 600	15 300	14 900	14 700	15 500	16 200	16 900
	EA12=100	52	49	51	52	51	49	48	50	51	51
Comparative price level	EA12=100	**70**	**66**	**69**	**69**	**68**	**65**	**61**	**62**	**62**	**62**
Greece	EUR	21 800	21 400	20 300	18 600	17 300	16 500	16 300	16 200	16 100	16 700
	EA12=100	74	75	69	62	58	55	53	52	50	51
Comparative price level	EA12=100	**86**	**87**	**88**	**89**	**85**	**80**	**79**	**78**	**77**	**76**
Slovakia	EUR	12 200	11 800	12 400	13 000	13 400	13 600	13 900	14 400	14 900	15 700
	EA12=100	41	41	42	44	45	45	46	46	47	48
Comparative price level	EA12=100	**63**	**64**	**64**	**66**	**66**	**65**	**64**	**63**	**63**	**63**
Lithuania	EUR	10 200	8 500	9 000	10 300	11 200	11 800	12 400	12 800	13 300	14 400
	EA12=100	34	30	31	34	37	39	41	41	41	44
Comparative price level	EA12=100	**61**	**58**	**56**	**58**	**58**	**58**	**58**	**58**	**57**	**59**
Latvia	EUR	11 200	8 700	8 500	9 800	10 800	11 300	11 800	12 300	12 900	13 700
	EA12=100	38	31	29	33	36	38	39	39	40	42
Comparative price level	EA12=100	**69**	**64**	**61**	**64**	**65**	**65**	**65**	**65**	**65**	**66**
Hungary	EUR	10 700	9 300	9 800	10 100	10 000	10 200	10 600	11 100	11 400	12 000
	EA12=100	36	33	34	34	33	34	35	35	35	36
Comparative price level	EA12=100	**63**	**56**	**57**	**57**	**56**	**55**	**55**	**55**	**55**	**55**
Poland	EUR	9 500	8 200	9 400	9 900	10 100	10 200	10 700	11 100	11 100	11 700
	EA12=100	32	29	32	33	34	34	35	35	35	35
Comparative price level	EA12=100	**65**	**54**	**57**	**56**	**55**	**55**	**56**	**55**	**53**	**53**
Croatia		11 200	10 500	10 500	10 400	10 300	10 200	10 200	10 400	10 700	11 100
		38	37	36	35	34	34	33	33	33	34
Comparative price level		**65**	**65**	**67**	**64**	**63**	**62**	**61**	**61**	**60**	**60**

Source: AMECO, CZSO, Eurostat, own calculations

Graph C.5.2: GDP per Capita – Using Current Exchange Rates
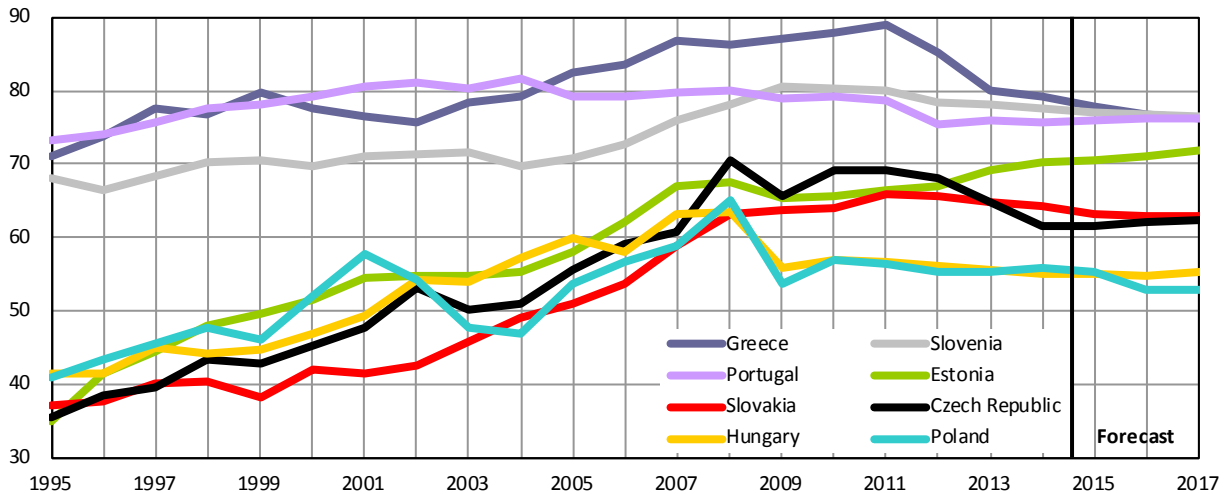*EA12=100*

Source: AMECO, CZSO, Eurostat, own calculations

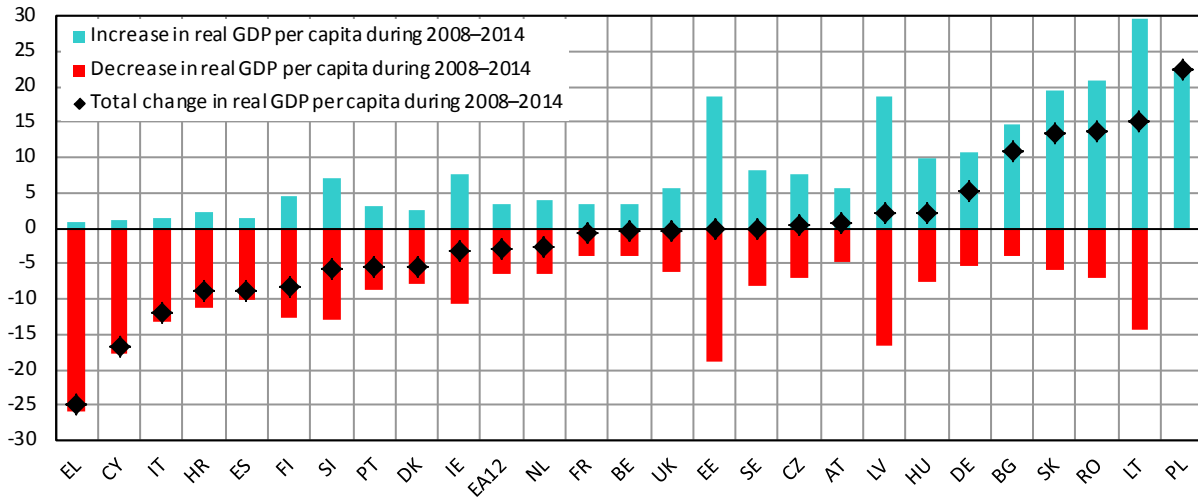**Graph C.5.3: Comparative Price Level of GDP per Capita**

EA12=100

Source: AMECO, CZSO, Eurostat, own calculations

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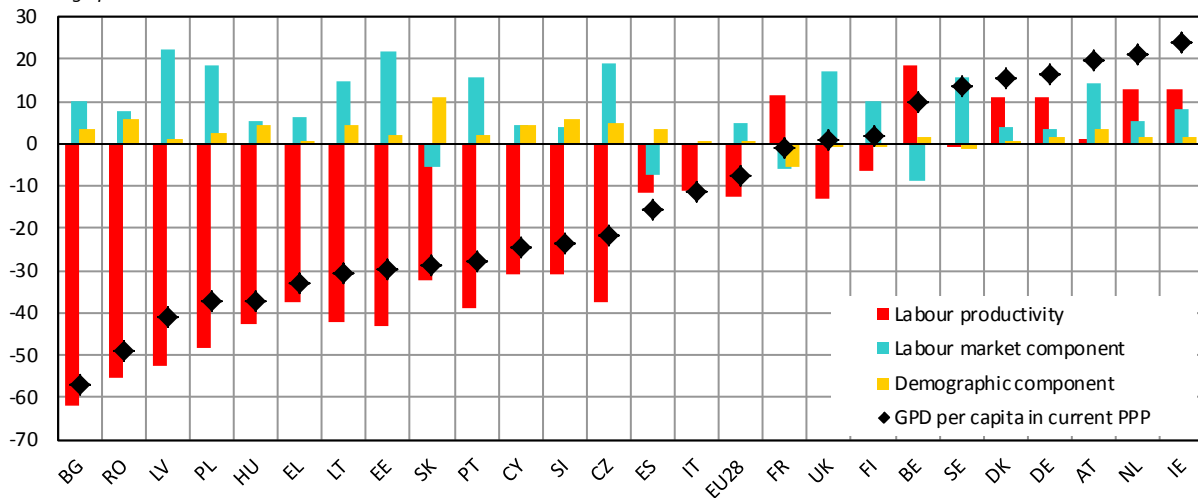
growth in %

Source: Eurostat, own calculations

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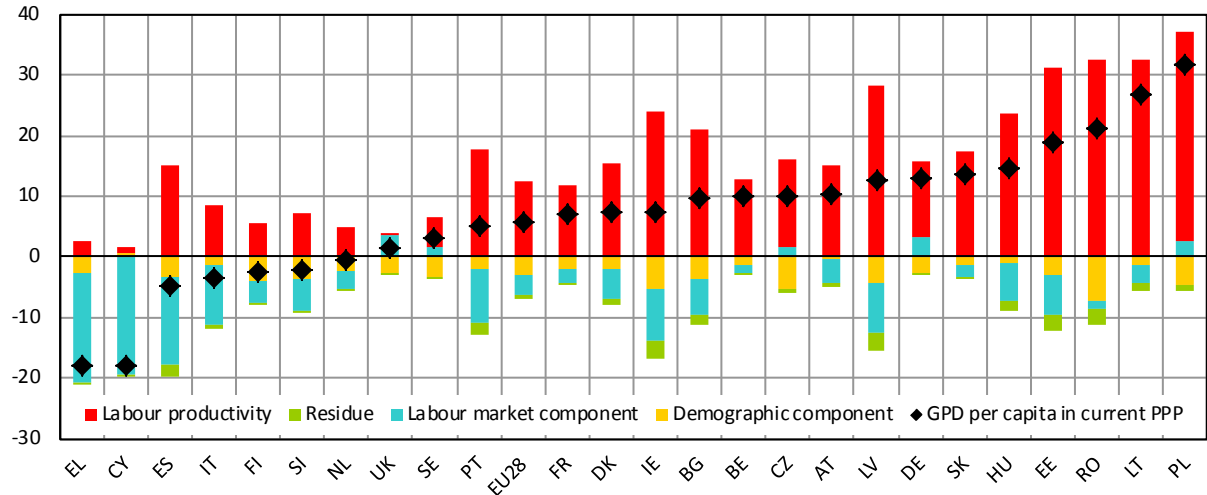
in percentage points

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

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

growth in %

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 15 institutions are continuously monitored from publicly available data sources. Of these, 9 institutions are domestic (CNB, Ministry of Labour and Social Affairs, domestic banks and investment companies) and others are foreign (European Commission, Organisation for Economic Co-operation and Development, IMF, etc.) The forecasts are summarised in Table D.1.

Table D.1: Summary of the Monitored Forecasts

| | | March 2016 | | | April 2016 |
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2016)	*growth in %, const.pr.*	2.2	2.8	2.5	2.5
Gross domestic product (2017)	*growth in %, const.pr.*	2.3	3.2	2.8	2.6
Average inflation rate (2016)	*%*	0.4	1.6	1.0	0.6
Average inflation rate (2017)	*%*	1.4	2.4	2.0	1.4
Average monthly wage (2016)	*growth in %*	3.5	4.7	4.0	4.3
Average monthly wage (2017)	*growth in %*	3.4	4.7	4.0	4.5
Current account / GDP (2016)	*%*	-0.4	2.0	1.0	1.1
Current account / GDP (2017)	*%*	-0.6	1.4	0.8	1.0

Source: forecasts of individual institutions, own calculations

According to the institutions' estimates, real GDP growth should reach 2.5% in 2016 and 2.8% in 2017. The MoF's forecast is in line with these estimates.

According to the institutions' estimates, the average inflation rate should be 1.0% in 2016 and 2.0% in 2017. The MoF's forecast, which already takes into account the current slump in the crude oil price, envisages considerably slower the return to the 2% target of the CNB.

According to the monitored institutions' forecasts, the nominal average wage should increase identically by

4.0% in 2016 and 2017. According to the MoF's forecast, the average wage growth should be marginally higher and reach 4.3% in 2016 and 4.5% in 2017.

In the opinion of the monitored institutions, the current account of the balance of payments should reach a slight surplus of 1.0% of GDP in 2016 and 0.8% of GDP in 2017. The MoF's forecast, which expects the surplus of the current account of 1.1% of GDP in 2016 and 1.0% of GDP in 2017, is in line with these forecasts.

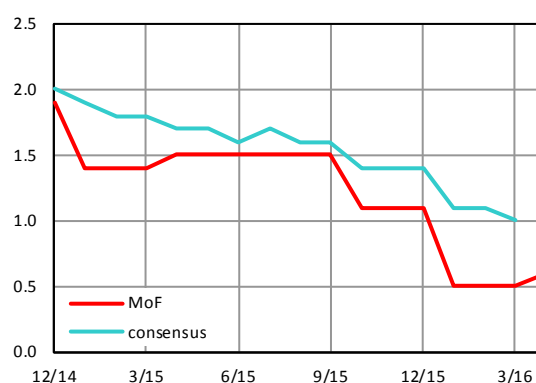**Graph D.1: Forecast of Real GDP Growth for 2016**
in %; the horizontal axis shows the month, in which the monitoring was conducted
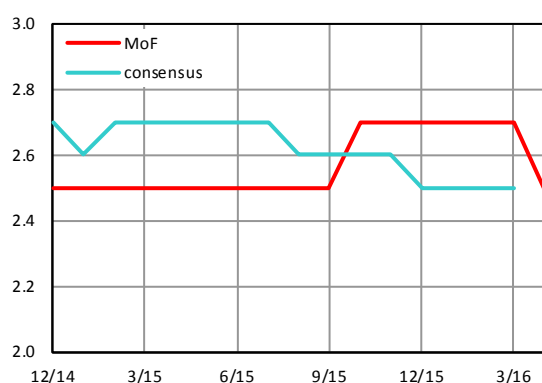
Source: forecasts of individual institutions, own calculations

Graph D.2: Forecast of Average Inflation Rate for 2016
in %; the horizontal axis shows the month, in which the monitoring was conducted

Source: forecasts of individual institutions, own calculations

E   Looking back at 2015

The macroeconomic framework of the State Budget (SB) for 2015 was based on the July 2014 Macroeconomic Forecast.

The text that follows compares the macroeconomic framework of the SB with the data for 2015 released by 31 March 2016. In the case of most indicators, however, this data cannot be considered final due to their future revisions.

Macroeconomic Forecast from July 2014 and the related macroeconomic framework of the SB were the last documents drawn up in the ESA 1995 national accounts methodology valid at that time. When assessing the macroeconomic framework, one should therefore take into account the exceptional revision of the time series that was related to the transition to the European System of National and Regional Accounts of 2010 (ESA 2010) and to other methodical changes. Moreover, there was also a transition from the fifth to

sixth edition of the Balance of Payments Manual, which involved major methodical changes influencing balance of payments data.

As for the national accounts and balance of payments, the macroeconomic framework of the SB is not comparable with current data for methodical reasons. For instance, the level of nominal GDP increased by approximately 6% over the whole time series after the revision. However, differences in YoY growth rates of most macroeconomic aggregates are relatively small in most cases.

It is possible to state that the State Budget was based on a conservative macroeconomic framework. Contrary to expectations, economic growth in 2015 was considerably faster, which resulted in a more favourable development of nearly all indicators relevant for the general government balance.

Table E.1: Macroeconomic Framework of the 2015 State Budget – Comparison with Actual Data

		2015 State Budget (July 2014)				Outcome (April 2016)				Difference (outcome - forecast)			
		2012	2013	2014	2015 Forecast	2012	2013	2014	2015 Prelim.	2012	2013	2014	2015
Gross domestic product	bill. CZK	3 846	3 884	4 061	4 216	4 042	4 077	4 261	4 472	196	193	200	256
Gross domestic product	growth in %, curr.pr.	0.6	1.0	4.6	3.8	0.5	0.9	4.5	5.0	-0.1	-0.1	-0.1	1.2
Gross domestic product	growth in %, const.pr.	-1.0	-0.9	2.7	2.5	-0.9	-0.5	2.0	4.2	0.1	0.4	-0.7	1.7
Consumption of households	growth in %, const.pr.	-2.1	0.1	1.6	1.4	-1.5	0.7	1.5	2.8	0.6	0.6	-0.1	1.4
Consumption of government	growth in %, const.pr.	-1.9	1.6	1.9	1.6	-1.8	2.3	1.8	2.8	0.1	0.7	-0.1	1.2
Gross fixed capital formation	growth in %, const.pr.	-4.5	-3.5	4.1	3.5	-3.2	-2.7	2.0	7.3	1.3	0.8	-2.1	3.8
Contr. of net exports to GDP growth	p.p., const.pr.	1.7	-0.3	0.6	0.5	1.3	0.0	-0.2	-0.2	-0.4	0.3	-0.8	-0.7
GDP deflator	growth in %	1.6	1.9	1.8	1.3	1.4	1.4	2.5	0.7	-0.2	-0.5	0.7	-0.6
Average inflation rate	%	3.3	1.4	0.6	1.7	3.3	1.4	0.4	0.3	.	.	-0.2	-1.4
Employment (LFS)	growth in %	0.4	1.0	0.5	0.2	0.4	1.0	0.8	1.4	.	.	0.3	1.2
Unemployment rate (LFS)	average in %	7.0	7.0	6.4	6.1	7.0	7.0	6.1	5.1	.	.	-0.3	-1.0
Wage bill (domestic concept)	growth in %, curr.pr.	1.8	-0.9	2.8	3.8	2.5	0.4	1.9	4.0	0.7	1.3	-0.9	0.2
Current account balance	% of GDP	-1.3	-1.4	0.4	0.0	-1.6	-0.5	0.2	0.9	-0.3	0.9	-0.2	0.9
<u>Assumptions:</u>													
Exchange rate CZK/EUR		25.1	26.0	27.4	27.4	25.1	26.0	27.5	27.3	.	.	0.1	-0.1
Long-term interest rates	% p.a.	2.8	2.1	1.9	2.4	2.8	2.1	1.6	0.6	.	.	-0.3	-1.8
Crude oil Brent	USD/barrel	112	109	108	104	112	109	99	52	.	.	-9	-52
GDP in Eurozone (EA-12)	growth in %, const.pr.	-0.6	-0.4	1.1	1.6	-0.9	-0.3	0.9	1.6	-0.3	0.1	-0.2	0.0

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

At the time the macroeconomic framework of the SB was drafted, the economy was in the phase of recovery after an 18-month recession. According to the data available at that time, real GDP increased by 0.8% in the first quarter of 2014, and by 2.9% in YoY terms. With growth of 5.6%, gross fixed capital formation was the most dynamic component of use.

However, the transition to the new methodology ESA 2010 and other additional information led to a de-

crease in intensity of economic recovery[5]. In addition, expectations that legislation restricting the validity of tobacco stamps for payment of the excise duty on cigarettes would be introduced in 2015 led to an increase in GDP volatility. This was reflected in lower than

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[5] According to up-to-date data, GDP decreased by 0.2% QoQ (2.2% YoY) in the first quarter of 2014. Gross fixed capital formation increased by only 1.1% YoY.

expected GDP growth in 2014, however, the results of the year 2015 were not affected.

Economic activity in the euro area was recovering in line with the assumption of the macroeconomic framework of the SB. However, many economies struggled with structural problems or high levels of private and public debt. The situation on the labour market gradually stabilized in the second half of 2015, but the high unemployment rate prevented a quicker recovery of domestic demand. Even in spite of an extreme easing of monetary policy and stabilization of the banking sector, the expected growth of investment did not occur, the development of investment activity reflected mixed expectations of the private sector.

An absolutely unexpected and completely crucial factor for both global and the Czech economy was a deep slump in the commodity markets. While the assumption of the macroeconomic framework of the SB expected a small decrease in the price of Brent crude oil to 102 USD/barrel in the fourth quarter of 2015, the actual spot reached only 43.6 USD/barrel. This development resulted in considerable economic problems of the countries producing crude oil. In the countries importing crude oil, including the Czech Republic, this development deepened disinflation processes and enabled considerable costs savings for companies and households.

Another important factor, which considerably influenced economic development in the Czech Republic, was the drawdown of the EU funds from the financial perspective 2007–2013. Efforts for their maximal use with the unavoidable deadline at the end of 2015 resulted in a huge investment wave, in particular in the case of investment of the government sector. The resulting growth of gross fixed capital formation of 7.3% considerably exceeded the estimate in the macroeconomic framework which expected growth of 3.5%.

Considerably lower inflation, much more favourable development of employment, an improvement of con-

sumer confidence and also slightly quicker than expected growth of wages accelerated the growth of household consumption to 2.8% instead of the expected 1.4%.

Instead of the expected +0.5 pp, the contribution of foreign trade to GDP growth reached −0.2 pp. The main cause of the deviation was a relatively strong growth of imports resulting from the dynamics of domestic demand. The impact of the weak koruna (in connection with using the exchange rate as the CNB's monetary policy instrument) on competitiveness of Czech exports during 2015 was fading and the effect on the import side caused by domestic demand started to predominate.

Slightly negative development of foreign trade in volume terms was more than offset by extremely low prices of imported fuels and inflow of money from the European funds. Thanks to that, a surplus on the current account of the balance of payments was reached for the second time in a row in 2015.

The average inflation rate reached only 0.3% in 2015, which was 1.4 pp less compared to the macroeconomic framework of the SB. The unexpectedly low inflation had its origin mainly outside the Czech economy. In 2015, the koruna prices of imported goods decreased by 1.9% on average. In contrast, demand pressures resulting from the domestic economy were not yet reflected in price growth.

The response of the labour market to the economic upswing in 2015 was extremely strong. Employment growth was 1.2 pp higher and unemployment rate (both indicators according to the LFS), on the contrary, 1.0 pp lower than we had originally expected.

Growth of the wage bill was slightly higher than expected (by 0.2 pp) due to a couple of factors that offset each other – higher growth of real labour productivity and lower average inflation rate.

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