

C Forecast of the Development of Macroeconomic Indicators

C.1 Economic Output

The recovery of the Czech economy is continuing favourably, and the focus on growth is shifting from net exports to domestic demand. The dominant factor in the third quarter of 2010 was the replenishment of inventories.

From the fourth quarter of 2008 to the second quarter of 2009 the Czech economy was in recession, and in that period the seasonally adjusted real GDP decreased by 4.9% according to current CZSO estimates. A turning point came in the third quarter of 2009, and since then the Czech economy has shown a trend of accelerating growth.

GDP growth accelerated also in the third quarter of 2010 to 1.0% QoQ (*versus 0.7%*), which represented a YoY increase in real GDP¹ by 2.5% (*versus 2.4%*). Nevertheless, GDP (seasonally adjusted) is still 1.8% below its previous peak from the third quarter of 2008. The Czech economy also continued its recovery in the fourth quarter of 2010, when the maximum impact of the boom in solar investments (see Box C.1.1) became evident. We estimate growth at 1.0% QoQ (*versus 0.5%*), which represents year-on-year growth of 3.4% (*versus 2.5%*).

Improved external conditions should be reflected in continuation of favourable developments. GDP growth is estimated at 2.5% (*versus 2.2%*) for 2010. The government's austerity measures and the end of the solar boom should cause a moderate slowdown in economic growth in 2011 to 2.2% (*versus 2.0%*). Roughly halfway through the year, economic output should reach the pre-recession peak. Growth of 2.7% is estimated for 2012.

The worsening terms of trade led **real gross domestic income (RGDI)**, which reflects the income situation of the Czech economy, to grow more slowly than GDP. In the third quarter of 2010, it grew year on year by 0.7% (*versus 1.5%*). Real income could have increased by 1.1% (*as predicted*) for 2010. The income situation of Czech economic entities thus has improved more slowly than has the growth in economic output. RGDI should increase in 2011 by 1.5% (*versus 1.7%*) and in 2012 by 2.7%.

Real dynamics also are reflected in the development of **nominal GDP**, a key variable for fiscal forecasts. Growth by 2.3% YoY (*versus 2.6%*) was reported in the third quarter of 2010. We estimate GDP to have increased by 1.9% (*versus 1.7%*) in 2010, and we expect growth of 3.1% (*versus 3.4%*) for 2011 and 4.7% for 2012. The aggregate value of GDP for 2011 should reach CZK 3,806 billion, which is a value insignificantly lower than that from the October Forecast (CZK 3,812 billion).

As regards the **income structure of GDP**, we expect to see stagnation in the profitability of the business sector. Gross operating surplus increased by 1.2% (*versus 1.5%*) YoY in the third quarter of 2010 and by ca 1.6% (*versus 1.0%*) for the whole of 2010. For 2011, growth of 2.8% (*versus 3.2%*) can be assumed, i.e. with dynamics below the nominal GDP level. In 2012, we expect growth in the operating surplus by 4.9%.

Forecasts still reflect the high level of uncertainty ensuing especially from developments in the external environment. Impacts of data revisions of past economic development also may be relevant.

Expenditures on GDP

The initiation of recovery in QoQ growth of household consumption was delayed compared to GDP, occurring as late as the first quarter of 2010. In the third quarter of 2010, household consumption rose by only 0.1% QoQ. That means that the YoY growth in **real household expenditures on final consumption** reached 0.9% (*versus 1.7%*) in the third quarter of 2010. We estimate that growth for the whole of 2010 was 1.0% (*versus 1.5%*).

The deteriorating income situation of households continues to work against an increase in consumption. Budgetary measures to stabilise the balance of public finances, especially the decrease in wages in the public sector, will become evident in 2011. We expect household consumption growth dynamics to remain around 1.0% (*versus 1.5%*) for 2011, while growth of about 2.9% is expected in 2012.

Government expenditures on final consumption in the third quarter of 2010 fell in real terms by 0.5% (*versus a decrease of 1.0%*).

In accordance with adopted stabilisation measures and an approved consolidation strategy, government institutions are expected to behave thriftily regarding

¹ Data without seasonal adjustment are presented in the remaining text, unless stated otherwise.

both employment in the government sector and purchases of goods and services.

We anticipate that real government consumption fell by 0.2% (*versus an increase by 0.2%*) in 2010. Government consumption in 2011 should decrease by 3.5% (*versus 4.5%*). We expect government expenditures to continue to decrease in 2012 by 2.7%.

The volume of **gross fixed capital formation** in the third quarter of 2010 rose year on year by 1.7% (*versus stagnation*), while purchases of vehicles decreased by 30.1%. By contrast, investments in other machinery (except for vehicles) grew by 8.0%, construction investments in other buildings (except for housing) by 4.0%, and investments in housing by 3.2%.

The solar power plant construction boom was evident by the end of 2010 (see Box C.1.1) but will presumably subside in 2011. Fixed capital formation clearly stagnated in 2010 at the 2009 level (*versus a decline by 3.0%*).

The willingness of foreign investors to make new investments or to reinvest profits from their business operations in the Czech Republic will depend on the situations in their home countries. A gradual shift in

capacities that profited from cheap labour can be expected as well. The influence of infrastructure investments and contributions from EU funds will have a positive effect.

A growth dynamic at the 0.8% level (*versus 1.3%*) should be restored in 2011, while growth of about 3.6% is expected in 2012.

The contribution of **change in stocks** to year-on-year GDP growth in the third quarter of 2010 on seasonally adjusted data of 2.7 p.p. accounted for almost the full increase in GDP.

The contribution of **foreign trade** to year-on-year GDP growth on seasonally adjusted data reached -0.9 p.p. for the third quarter of 2010.

The external balance in 2010 was positively influenced by the ongoing recovery in partner countries, while the acceleration in domestic demand had the opposite effect. The increase in the exports volume by 14.5% (*versus 13.3%*) should ensure a foreign trade contribution to GDP growth of 0.4 p.p. (*versus 0.7 p.p.*). We expect foreign trade's contribution of 1.7 p.p. (*versus 1.5 p.p.*) for 2011, once imports for photovoltaic plants have ceased, and 1.0 p.p. for 2012.

Box C.1.1: The influence of solar power plants construction on the Czech economy

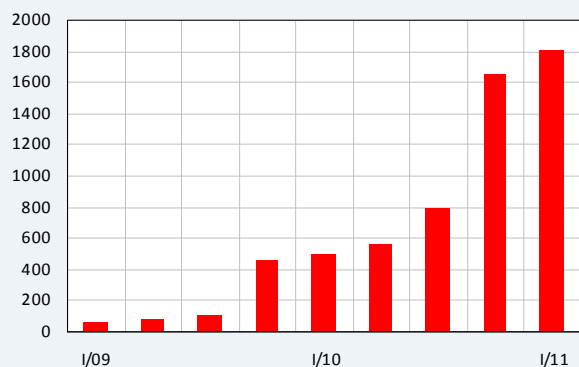
The Czech Republic has joined the EU initiative in support of energy production from renewable sources. Its aim is to reduce carbon dioxide emissions, excessive concentrations of which in the atmosphere purportedly contribute to climate changes, and to increase energy security. Support to the solar energy industry in the Czech Republic is based on Act No. 180/2005 Coll., on the Promotion of Electricity Production from Renewable Energy Sources and legal regulations thereto related. Contrary to the practice in other countries, solar energy in the Czech Republic is not supported directly from the state budget but by the end users of electrical energy. One component of the regulated electricity price, the contribution to renewable sources, is dedicated to covering the expenses for electricity production from such sources, which would not otherwise be economically competitive.

In 2009 and 2010, there was a major decrease in the prices of solar panels, which under the given inflexible support system led to an extreme increase in the profitability of investments into solar energy. Various investors seized upon this opportunity and solar investments grew to such a size as to affect macroeconomic development.

As at the end of 2008, the power capacity of solar plants in the Czech Republic was only 66 MW. By the end of 2009, it was already 464 MW, with the main part of the increase concentrated in the fourth quarter. The solar boom peaked in 2010, with the total capacity according to still-preliminary data reaching 1650 MW, which is almost comparable to the capacity of the Temelín nuclear power plant (2000 MW). The most substantial part of that investment was made during the last quarter of 2010, when capacity of ca 850 MW was installed.

Graph Box.1: Total output installed at the end of period

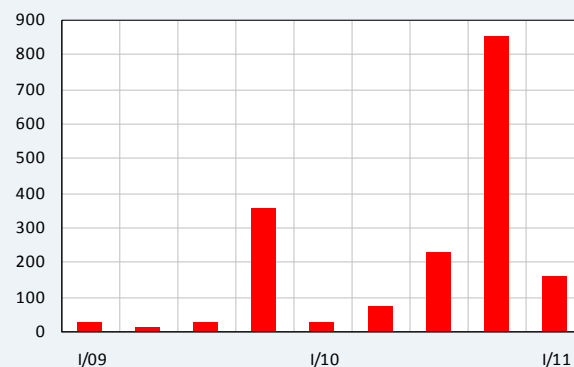
in MW



Source: Energy Regulatory Office

Graph Box.2: Newly installed output

in MW



Source: Energy Regulatory Office

The main effects of the very intensive investments can be observed in three areas: the influence on the balance of trade, the influence on gross capital formation and consequently on GDP development, and the influence of the related administrative measures on the development of electrical energy prices, especially in 2011. In the conclusion to this article, we present those measures undertaken with the aim to mitigate the negative impacts of the solar boom.

Foreign trade

Net exports of photosensitive semiconductor components, by which we approximate the foreign trade in solar panels, were at absolutely negligible levels up to 2008. In 2009, the outset of the solar boom caused a deficit of ca CZK 15 billion, which in 2010 increased to an estimated ca CZK 37 billion (1.0% of GDP). The photovoltaic trade balance thus decreased year on year by ca CZK 22 billion. (This estimate is not exhaustive, considering that other imported components are used in the process of installing solar power plants.)

The increase of solar panel imports thus became a main factor in reducing the positive trade balance in 2010. According to the national accounts, the foreign trade balance for goods in 2009 achieved a positive balance of CZK 165 billion, while in 2010 this is estimated to have deteriorated to ca CZK 128 billion. In YoY terms, the positive trade balance thus decreased by ca CZK 37 billion, approximately three-fifths of which was due to the higher deficit in the solar panels trade.

GDP and its uses

We used the following procedure to estimate the impact of new solar investments on GDP and its components. We determined the value of a newly installed unit of capacity with the estimated average price in 2009 and in 2010. In so doing we excluded the estimated value of land and fees for removing the land from agricultural use, which are not part of GDP. We estimated the value added to the investment on the territory of the Czech Republic as a percentage of the price. We modelled the changes in inventories as a function of the output installed in the following months.

The influence of solar investments on the YoY increase in GDP for 2010 is estimated at ca 0.2 p.p., considering the relatively low contribution of value added in the aggregate investment. Due to these investments, the formation of gross fixed capital in 2010 should be higher on the order of 6–7% (compared to roughly 2% in 2009). These effects were concentrated largely in the fourth quarter, when 850 MW of capacity was installed of the total 1186 MW installed during 2010. Considering that the solar boom came to an end at the close of 2010, there apparently occurred a reduction in inventories for solar investments to a macroeconomically insignificant value. The influence of the solar boom on employment can be considered negligible.

There remains open the difficult question whether the investments in solar panels pushed out other investments which could have been more beneficent for the future growth of the economy.

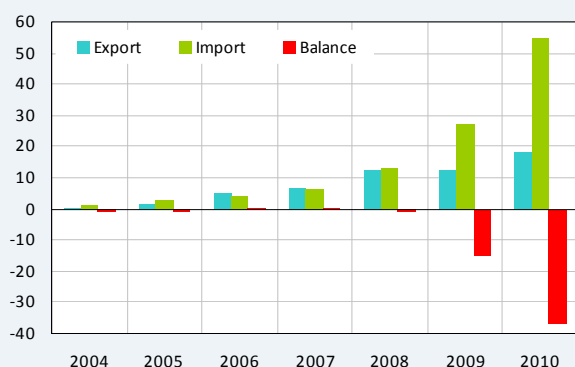
Newly installed solar power capacity should in 2011 increase the production of electric energy in the extent of at maximum 0.1 to 0.2 p.p. of GDP. This positive contribution will, however, be more than balanced by increased demands in managing the electricity transmission network and risks to its stability.

Consumer prices

Apart from the aforementioned macroeconomic impacts, there existed a risk that the expansion of solar power plants would be projected into electrical energy prices. The original estimates for household electrical energy prices to grow in 2011 by 12% were also our input for the previous Macroeconomic Forecast, at the closing date for which there were not yet known the measures for limiting the construction of solar power plants and mitigating the rise in electrical energy prices (see below). These will ensure that household electricity prices in 2011 will grow by only 4.6%, according to the statement of the Energy Regulatory Office (ERO).

Graph Box.3: Trade with solar panels

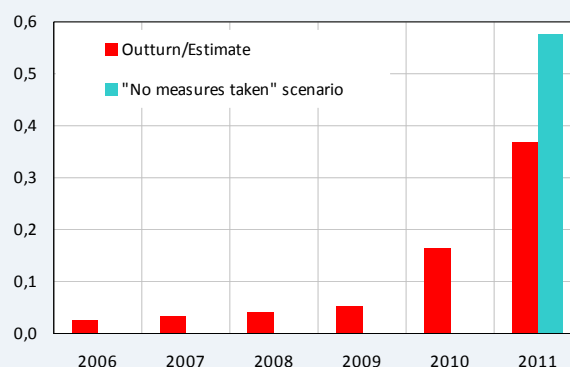
SITC 77 637, CZK bill., incl. the estimate for December 2010



Source: CZSO

Graf Box.4: Renewable sources subsidy

in CZK/kWh



Source: Energy Regulatory Office

Measures for limiting the construction of solar power plants and mitigating the rise of electric energy prices

The unprecedented increase in solar energy investments can be assessed as a failure of the rigid system of support, which did not react – and in fact could not even have reacted – to a significant change in its original conditions. The risks to stability of the energy grid and the rise in electricity prices, which would undermine the competitiveness of the Czech economy, led to the adoption of legislation resulting in the measures described in the following paragraphs.

The entitlement to support in the form of the electricity purchase price or green bonuses remains in place for solar power plants brought on line until the end of February 2011. Support for solar power plants connected in March 2011 and thereafter will apply only to plants with output up to 30 kWp located on rooftops or outer walls of buildings. However, support for solar plants put into operation in 2011 has been decreased to about half what it was in 2010. For example, the purchase prices for electricity from power plants put into production in 2010 were, depending on source output, CZK 12.4 or 12.5/kWh. For sources put into production in 2011, the purchase prices have been decreased to CZK 5.5 to 7.5/kWh depending on source output.

Moreover, a subsidy for electric energy distributors has been established to cover the additional costs connected with supporting electricity from renewable sources. The government has set a limit on funds from the state budget allocated for providing this subsidy, which is CZK 11.7 billion for 2011. The amount of the additional costs covered by the subsidy to the distributors from the state budget is determined by ERO. Should the limit on state budget funds not be sufficient to cover the distributors' additional costs, ERO will increase the price for distributing energy.

The funds for the aforementioned subsidy will be acquired primarily through three measures: (i) For 2011 to 2013, fees for solar power plants put into production in 2009 and 2010 are introduced. The mechanism for collecting these fees is similar to that used to extract VAT. The operators of solar power plants collect the fee while the payers are the electric energy distributors. The fee is set at 26% of the purchase price or 28% of the green bonus. This rate applies to the revenues of solar power plant operators. (ii) Formerly free acquisition of emission allowances for 2011 and 2012 is now subject to the gift tax. The rate is set at 32%. (iii) The fee for removing land from the agricultural use has been increased across the entire economy.

C.2 Prices of Goods and Services

Consumer prices

The **average inflation rate for 2010** reached 1.5% (*in line with the forecast*), which after 2003 and 2009 is the third lowest value since 1989.

YoY growth in consumer prices in the first half of 2010 registered low values given the negative contribution of the market growth in prices. In the second half of the year, YoY inflation remained level with the CNB inflation target or thereabouts, and the contribution of the market growth in prices reverted to positive values. December inflation was 2.3% YoY (*versus 2.2%*), of which administrative measures contributed 1.6 p.p. (*in line with the forecast*) and changes in tax adjustments (increasing both VAT rates by 1.0 p.p. and increasing excise taxes on fuels and alcoholic beverages) accounted for 1.1 p.p.

The acceleration of inflation in the last month of the year (the highest MoM December rise since 1996) to 2.3% YoY (*versus 2.2%*) was caused primarily by the quickly rising prices of food and fuels. The average price of Natural 95 petrol in December was the highest since September 2005, while the price of diesel was the highest since September 2008.

Although we expect administrative measures will have a considerable effect on the development of consumer prices in 2011, due to a lower increase in electricity prices it will be lower than we expected in the October Macroeconomic Forecast (see Box C.1.1). The expected growth in electricity prices in 2011 by 4.6% will yield a contribution of 0.2 p.p. Although we have not changed the estimate for growth in both regulated and newly deregulated rents from the October Macroeconomic Forecast, considerable uncertainty remains. In addition to the aforementioned electricity and rent prices, the increase in prices for water and sewerage (contribution of 0.1 p.p.), gas (contribution of 0.1 p.p.) and heat (contribution of 0.1 p.p.) in 2011 should contribute most to the rise in prices. Uncertainty remains concerning prices in the health sector, where the fee for hospital stay could increase (potential contribution of 0.1 p.p.) and co-payments for medicaments may change.

Inflation impulses should be mitigated by the persistent cyclical position of the Czech economy in the negative

production gap, by deteriorated labour market conditions and by the related moderate growth in wages and household consumption. Inflation is still evaluated as cost-push inflation. Identifying the risk of food prices growth proved to be justified and is also relevant for 2011.

Based on the aforementioned factors collectively determining the development in consumer prices, we expect the **average inflation rate in 2011** to reach 2.3% (*versus 2.2%*) with a December inflation of 2.5% YoY (*forecast unchanged*). The contribution of the market growth in prices is expected to be positive in 2011.

Growth in consumer prices in 2012 should not differ significantly from 2011. The average inflation rate should thus fluctuate around 2.4% with a prices increase of 2.5% during the year. The forecast is based on the current VAT rates.

Inflation should stay in the upper half of the tolerance band for the Czech National Bank's inflation target over the entire forecast horizon.

Deflators

The aggregate price level in the economy has increased only moderately. The **gross domestic expenditure deflator**, which is a comprehensive indicator of price development, grew by 1.4% (*versus a growth of 1.0%*) in the third quarter of 2010 as compared to the same period of last year.

For all of 2010, the gross domestic expenditure deflator should have reached 0.8% (*versus 0.7%*). It should rise by 1.7% (*versus 1.8%*) in 2011, due especially to the acceleration in consumer inflation, and by 2.0% in 2012.

The value of the **implicit GDP deflator** fell by 0.2% (*versus 0.2% growth*) in the third quarter of 2010. Unlike the gross domestic expenditure deflator, it was driven downward by the 2.4% decline (*versus a 1.2% decline*) in the terms of trade. For 2010, we expect a 0.6% decline (*versus a 0.5% decline*) in the deflator with worsening of the terms of trade by 1.8% (*versus a 1.5% decline*). We expect growth of 0.8% (*versus 1.3%*) for 2011 and 1.9% for 2012.

C.3 Labour Market

Employment

The economy's improving situation has already in some parameters begun to be seen on the labour market, whose cyclical development usually lags in comparison with the economic cycle as measured by output.

According to seasonally adjusted data from the Labour Force Survey (LFS), **employment** in the third quarter of 2010 rose by 0.5% QoQ, which was similar to the previous quarter.

There continued to be intensive YoY increase in the number of self-employed and entrepreneurs by 5.2% (*versus* 4.4%), and within that the number of self-employed rose by 7.9%. In a QoQ comparison their increase compared to the previous quarter was already more moderated (by 1.4%). The QoQ increase in employees was comparable to the previous quarter, slightly above 20,000.

The improvement of domestic and external economic conditions, along with an increase in demand, led to a slowing in the decline of employment in the secondary sector to 0.4% YoY, especially due to growing employment in the manufacturing industry (by 2.4%). The increase in the number of persons employed in the tertiary sector decelerated to 0.1%.

The labour supply fell in the third quarter YoY due to the decrease of employed and unemployed persons. Part of the dismissed people entitled to old-age pension opted for non-activity. An increase of pensioners was recorded in both statistics of the LFS and the Czech Social Insurance Administration. From the recorded number of pensioners it can be inferred that the option to retire in the regular and early terms has been already quite exhausted. Cautious personal policies in companies and the reported dismissals in state-run sector may thus in the following period lead rather to an increase of the unemployed.

The number of legally employed foreign citizens dropped year on year by 4.0% at the end of December, while the tendency of decrease in numbers of third world employees and moderate increase of EU/EEA citizens continued.

Rate of economic activity (15-64 years) has increased to 70.5% year on year due to changes in population structure, as has the ratio of workforce to population aged 15-64 (to 71,5%). Higher rate of economic activity

given by the rise of employment can be considered only for later periods.

Rate of employment (15-64 years) has, considering the aforementioned influences, risen YoY by 0.2 p.p. to 65.4%.

Due to a lag in employment progression compared to the recovery of economy we presume a decrease in employment of 1.0% (*versus* 1.2%) for the whole of 2010. The shock increase of unemployment in December 2010 should not manifest reciprocally in employment decrease, as the registered applicants may still use the institute of partial employment. For 2011 and 2012 however, we still consider growth of less than one percent, which should correspond to rational personal policy and gradual incorporation of free capacities at a moderate economic dynamics.

The pre-crisis peak of ratio of employment to population aged 15-64 should be attained during 2012, although the absolute extent of employment from 2008 shall not be exceeded until the 2014 outlook horizon.

Unemployment

Registered unemployment during 2010 displayed very non-standard progression. It reached its absolute peak in February, and then the data on the numbers of unemployed on seasonally adjusted data showed considerable decline. The decrease of the unemployed, however, stopped in September and the December unprecedented MoM increase in registered applicants (by 55 thousand) surpassed all previous expectations. This run on labour offices by the end of the year was, however, caused rather by the effort of the unemployed to retain more beneficial registration conditions before the coming into effect of the new Amendment of the Employment Act from 1 January 2011 than by a change of economical conditions.

In the fourth quarter the numbers of the long-term unemployed also increased. However, this did not manifest on the rise of their ratio to the sum of the registered unemployed due to the aforementioned facts; nevertheless, this ratio was higher than 30%.

Internationally comparable unemployment rate according to LFS reached 7.1% (*versus* 7.2%) in the third quarter of 2010. Due to a different definition of the term "unemployed" a departure from registered unemployment can be expected in the fourth quarter of 2010, as well as at least early 2011.

We presume that the LFS unemployment rate was not affected by the registration problem and reached an average of 7.3% (*versus 7.4%*) for the whole year. In the next period we expect a decline to 7.2% in 2011 (*forecast unchanged*) and 6.8% in 2012. The main reason for a slightly more optimistic development outlook are the improving structural characteristics of the labour market, new legislative adjustments and an expected improvement in the economic situation.

Wages

After a drop in the first quarter of 2010, the **wage bill** (NA, domestic concept) grew in the following two quarters; by 1.1% YoY in the third quarter (*versus 1.4%*). With gradual recovery of the economy, ongoing year-on-year growth can be expected. However, at the end of the year and in the first quarter of 2011 the paid severance pay may play a role (unless it is accrued).

We presume the 2010 wage bill to have increased by 0.5% (*estimate unchanged*). For 2011 a growth of 3.1% is

C.4 External Relations

(a balance of payments perspective)

The external imbalance, expressed as the **ratio of the current account balance to GDP**, reached -2.7% (*versus -1.1%*) in the third quarter of 2010 and worsened (-1.8%) against the same period in the previous year. A significant worsening of the income balance outweighed improvement in the trade balance and the transfers balance.

Upon the recession's abating, the foreign trade volume began to grow again. After more than a year of export market² decline – reaching its nadir in the second quarter of 2009 (YoY decline by 14.8%) – exports started growing from early 2010, and by a strong 15.5% (*versus 12.5%*) in the second quarter of 2010. Since the end of 2009, export performance, indicating the share of Czech goods in export markets, also had been improving, but surprisingly it declined in the third quarter of 2010 by 1.4% (*versus growth of 2.3%*), even though the real export of goods increased by 13.9% (*versus 15.2%*). The dynamic growth in nominal exports and imports was on the one hand influenced by the previous year's low comparison basis; on the other hand, volume of turnover reached roughly the level of pre-crisis years. Commodity imports for production and investment grew significantly, and in particular trade in engineering production. This

expected (*versus 3.4%*), while decreasing the wage bill in a large part of the central government sector by 10%. The wage bill, as economic base for social security contributions and substantial part of personal income tax, should reach CZK 1,290 billion (*versus CZK 1,292 billion*) in 2011.

Average gross monthly wage (CZSO, company-based method, recalculated numbers) grew nominally by 2.0% YoY (*versus 2.4%*) in the third quarter. Its growth was driven by the business sector (2.9%), there was a nominal decrease by 1.8% in the non-business sector, which resulted in a significant real decrease by 3.6%.

On the basis of data from previous periods, signals from the business sector, as well as decisions and intents regarding public sector salaries for the forthcoming period, a relatively moderate growth of average wages in the forthcoming period is expected, pulled by the business sector mainly. In 2010 thus growth of average wage should reach 2.6% (*versus 2.4%*), and in 2011 moderate acceleration to 2.9% (*versus 2.8%*).

was in no small part due to the contribution from the boom in importing equipment for photovoltaic power plants (see Box C.1.1). The balance also is strongly influenced by the delayed effect of the growing prices of mineral fuels on world markets. In the third quarter, the trade balance as a percentage of GDP improved by 1.7 p.p. in yearly terms.

In view of the oil price scenario, we assume further slow growth in prices of raw materials and an increase in the fuels balance deficit over 2011 and in 2012. Its ratio to GDP should be at some -3.7% (*unchanged*) in 2010 and increase to ca -4.1% (*versus -3.8% in 2011*) in 2011 and 2012. Taking into account the recovery in trade, we expect further growth of export markets. We estimate their growth at 12.4% (*versus 10.3%*) for 2010, with deceleration to 8.9% (*versus 6.6%*) in 2011 and to 7.1% in 2012. Export performance should grow as well.

The pace of imports growth outweighed that of exports during most of 2010, thus reducing the trade balance surplus. The surplus excluding fuels is expected not to have changed in 2010 compared to the previous year and to have reached 7.1% of GDP (*versus 7.2%*). We expect its growth to 8.0% of GDP in 2011 (*forecast unchanged*) and to 8.5% of GDP in 2012. Under these assumptions, the trade balance (by the payments balance methodology) should have reached 5.4% of GDP in 2010 (*versus 5.5%*). We then expect a surplus at 6.1% of GDP (*versus 6.3%*) in 2011 and at 6.8% in 2012.

² Weighted average growth in goods imports by the seven most important trade partner countries (Germany, Slovakia, Poland, Austria, France, United Kingdom and Italy).

The influence of foreign trade recovery, decrease in the growth pace of domestic demand, and a drastic decrease of imports for photovoltaics should outweigh the higher oil prices.

After a period of decline during the recession, foreign trade in services started to recover. This was the case especially for transport services, less so in tourism. The decline in the **balance of services** surplus was contributed to especially by rapid growth in the purchasing of foreign transport services. The shift in the services balance from the assets to the liabilities side, however, was connected especially to significantly higher import of so-called other services, contributing to the total volume of outflows by almost 60% (according to CNB statistics). The services balance worsened year on year from +1.1% to -0.7% of GDP³ during the third quarter of 2010. We presume that improving balances for transport and tourism will not outweigh the increased deficit in the other services item, and the overall services balance will therefore remain in deficit in the coming periods.

A reduction in the **income balance** deficit in the previous two years was due especially to strong decline in investment activity during the economic recession. As a result, the outflow of investment returns fell and the volume of remuneration paid to foreign employees also decreased. With gradual improvement in the world economic situation, we again look for gradual growth in factor incomes outflows in relation to return to the previous growth trend for foreign investment. The income deficit is estimated at -7.2% of GDP (*versus* -6.4%) for 2010. For 2011, we expect it to deepen to -7.8% of GDP (*versus* -7.1%) and in 2012 to -9.1% of GDP.

Within this context, we estimate that the ratio of the **current account** deficit to GDP reached -2.8% (*versus* -1.4%) in 2010. The forecast for 2011 is -2.5% of GDP (*versus* -1.1%) and for 2012 it is -2.9%. A deficit of this size is easily financed and we regard the risk of related macroeconomic imbalance to be minimal.

³ *Balance of services under the national accounts concept did not show such dramatic development. Its surplus only fell slightly from 1.2% of GDP in the third quarter of 2009 to 1.1% of GDP in the third quarter of 2010.*

C.5 International Comparisons

Comparisons for the period to 2009 are based on Eurostat statistics. Since 2010, our own calculations are used on the basis of real exchange rates.

Using the purchasing power parity method, comparisons of economic output for individual countries within the EU are made in PPS (purchasing power standards). PPS is an artificial currency unit expressing a quantity of goods that can be bought on average for one euro on EU27 territory after exchange rate conversion for countries that use currency units other than the euro. Using updated Eurostat data, purchasing power parity of the Czech Republic in 2009 was CZK 17.94/PPS (versus CZK 18.23/PPS) in comparison to the EU27 or CZK 16.79/EUR (versus CZK 16.98/EUR) in comparison to the EA12.

Economic recession hit the EA12 countries and most Central European countries with similar intensity. As a result, when adjusted on the basis of current **purchasing power parity**, the tendency toward economic convergence by the Czech Republic and other Central European countries (except for Poland, see chapter A.1) toward the EA12 average decelerated in 2009. Some countries (the Baltic states, Hungary, Slovenia) which have been hit by the crisis more than were the EA12 countries, even experienced decline in their relative economic levels.

In 2010, per capita GDP of the Czech Republic reached ca PPS 19,800. That corresponds to 75% of EA12 economic output. Due to higher growth in the Czech Republic than in the EA12, the Czech economy's relative performance should start improving again in the coming years. During the forecast horizon, it should surpass the economic level of Greece, which country's growth options are limited by the necessity for hard fiscal consolidation.

An alternative way of calculation by means of the current **exchange rate** takes into account the market valuation of the currency and ensuing differences in price levels. Per capita GDP of the Czech Republic, then, will apparently reach some EUR 13,900. That corresponds to just under half (49%) the EA12 level. Due to growth recovery and gradual appreciation of the exchange rate, the pre-crisis level of 2008 should be surpassed in 2011.

The comparative price level of GDP should have reached ca 65% of the EA12 average in 2010. Depreciation of the real exchange rate was reflected in a year-on-year decline in the price level by 3 p.p. in 2009. This movement helped to boost price competitiveness and made overcoming the difficult situation somewhat easier. A major depreciation in the exchange rate was seen in Poland, where decline of the relative price level reached an almost unbelievable 11 p.p. and thus helped Poland to avoid economic recession.

For the forecast horizon, gradual moderate increase in the comparative price level should be seen, led by productivity growth and growth in the Czech economy's competitiveness due to factors not related to price.