C Forecast of the Development of Macroeconomic Indicators

C.1 Economic Output

The recovery of the Czech economy is continuing, with the dominating economic growth factor in the fourth quarter of 2010 being the replenishment of inventories and growth of net exports.

The Czech economy stepped out of the recession in the third quarter of 2009. The tendency toward accelerated growth appeared until the third quarter of 2010, when GDP grew QoQ by 0.9%. In the last quarter of last year, however, QoQ GDP growth slowed down to 0.3 % *(versus 1.0 %)*, which meant a YoY increase in real GDP[1] by 2.5 % *(versus 3.4%)*. The level of seasonally adjusted GDP continues to be around 1.6% below its previous peak from the third quarter of 2008. Real GDP grew by 2.3% *(versus 2.5%) over 2010*.

In the next period, one should expect a marked slowdown in inventory increases, whereas investments and household consumption will only be recovering slowly. Due to the influence of fiscal measures, it is expected that growth will slow to 1.9% *(versus 2.2 %)* in 2011, with the growth dynamic expected to return to 2010 levels and GDP to grow by 2.3% *(versus 2.7%)* in 2012.

A significant worsening of 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 fourth quarter of 2010, it grew YoY by only 0.9% (*versus 2.6%*). Real income only increased by 0.6% (*versus 1.1%*) for 2010. The income situation of Czech economic entities thus has improved more slowly than has the growth in economic output. RGDI should decrease in 2011 by 0.2% (*versus an increase of 1.5%*) and then rise by 2.3% (*versus 2.7%*) in 2012.

Real dynamics also are reflected in the development of **nominal GDP,** a key variable for fiscal forecasts. Growth by only 1.6% YoY (*versus 3.6%*) was reported in the fourth quarter of 2010. In 2010, GDP grew by 1.2% *(versus 1.9%);* we expect GDP to grow by 1.3% (*versus 3.1%*) in 2011 and by 5.0% (*versus 4.7%*) in 2012.

As regards the **income structure of GDP,** we expect to see stagnation in the profitability of the business sector. Gross operating surplus increased by 0.6% (*versus 3.0%*) YoY in the fourth quarter of 2010 and by 0.9% (*versus 1.6%*) for the whole of 2010. For 2011, stagnation (*versus growth of 2.8%*) can be expected. In 2012, we expect growth in the operating surplus by 5.2% (*versus 4.9%*).

Forecasts still reflect the high level of uncertainty ensuing especially from developments in the external environment. Impacts of revisions of past economic development data may also be relevant (see Graph C.1.2).

Expenditures on GDP

In the fourth quarter of 2010, household consumption fell by 1.3% QoQ. That means that the YoY growth in **real household expenditures on final consumption** reached 0.1% (*versus 1.8%*) in the fourth quarter of 2010. Growth for the whole of 2010 was 0.5% (*versus 1.0%*).

The deteriorating income situation of households, especially the decrease in wages in part of the public sector, continues to work against an increase in consumption. We expect household consumption growth dynamics to be at around 0.7% (*versus 1.0%*) for 2011. In 2012, consumption will be slowed down by an increase in the lower VAT rate from 10% to 14%, which is also why growth of about 1.9% (*versus 2.9%*) is expected.

Government expenditures on final consumption in the fourth quarter of 2010 fell in real terms by 1.3% (*versus 1.7%*). For the whole of 2010, government consumption increased in real terms by 0.3% (*versus 0.2%*).

In accordance with adopted stabilisation measures and an approved consolidation strategy, government institutions are expected to behave thriftily regarding both employment and purchases of goods and services. In 2011, government consumption should fall by 3.4% *(versus 3.5%)*. For 2012, we expect government expenditure on consumption to continue to fall by 2.5% (*versus 2.7%*).

The **gross fixed capital formation** in the fourth quarter of 2010 fell YoY by 2.3% (*versus growth of 6.8%*), while purchases of vehicles decreased by 7.9%. Investments in other machinery (except for vehicles) grew by 8.5%. Construction investments in other buildings (except for housing) fell by 2.4%. In contrast, investments in housing grew YoY by 8.2%. Fixed capital formation fell by 4.6% in 2010 (*versus stagnation*). The willingness of

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

foreign investors to make new investments or to reinvest profits from their business operations in the Czech Republic will depend on the situation 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 should have a positive effect.

Investment growth at the 0.7% level (*versus 0.8%*) should be restored in 2011, while growth of about 3.2% (*versus 3.6%*) is expected in 2012.

The contribution of **change in inventories** to year-on-year GDP growth in the fourth quarter of 2010 on seasonally adjusted data of 2.8 p.p. accounted for almost the full increase in GDP. For the whole of 2010 it amounted to 2.0 p.p. *(versus 1.5 p.p.)*. For 2011, we expect a contribution of 0.4 p.p *(versus 0.6 p.p.)* and for 2012 0.1 p.p. *(versus 0.0 p.p.).*

The contribution of **foreign trade** to YoY GDP growth on seasonally adjusted data reached 0.9 p.p. for the third quarter of 2010 and 1.0 p.p. (*versus* 0.4 p.p.) for the whole of 2010.

The external balance is positively influenced by the ongoing recovery in partner countries in connection with the current restriction of domestic demand. We expect foreign trade's contribution to be 1.8 p.p. (*versus 1.7 p.p.*) for 2011 and 1.1 p.p. (*versus 1.0 p.p.*) for 2012.

C.2 Prices of Goods and Services

Consumer prices

The **average inflation rate for 2010** reached 1.5%, which after 2003 and 2009 was the third lowest value since 1989.

During 2010, prices grew by 2.3%, to which administrative measures contributed 1.6 p.p., of which 1.1p.p. was due to the increase in the VAT rate by 1.0 p.p. and the increase in excise tax on fuels and alcoholic beverages.

At the beginning of 2011, YoY growth of CPI slowed down to 1.8% in February (by 0.4 p.p. less than the forecast). The whole bias in the estimate occurred in January, when the increase in hitherto regulated rent and rent freed from regulation as of 1 January 2011 together contributed 0.4 p.p. less than forecasted.

The influence of administrative measures on the development of consumer prices will be non-negligible even in 2011. We estimate it now at 0.8 p.p. *(versus 0.9 p.p.)* especially due to the lower than expected increase in regulated rent. Great uncertainty still prevails here, however. The growth of electricity prices as at 1 January 2011 by 4.8% fulfilled expectations. In addition to the mentioned rent prices, uncertainty remains concerning prices in the health sector, where the fee for hospital stays 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 output 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 especially relevant for 2011. Testifying to this are global food commodity prices and the sharp increase in the prices of agricultural producers (in February they increased by 29.7% YoY, of which animal products by 53.1%).

Based on the aforementioned factors collectively determining the development in consumer prices, we expect the **average inflation rate in 2011** to reach 2.1% (*versus 2.3%*) 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.

We are changing the forecast for consumer price growth in 2012 to a significantly greater degree. The most significant influence will be the gradual consolidation of VAT rates. As of 2012, the lower VAT rate should increase to 14%, contributing 1.2 p.p. The concurrent increase in the lower VAT rate and decrease in the basic VAT rate to a consolidated VAT rate of 17.5% as of January 2013 should negatively affect CPI by 0.2 p.p. At the same time, we are contemplating reflecting these changes in full in consumer prices, as the increase in the lower VAT rate concerns necessary commodities and the decrease in the basic VAT rate concerns goods and services where there is extremely fierce competition.

The overall extent of administrative influences in 2012 will contribute 2.3 p.p. (*versus 0.9 p.p.*) to inflation.

Further great uncertainties in the forecast for energy prices appeared immediately after the earthquake in Japan in March and the outage (three months at this point) of 7 blocks of nuclear power plants in Germany. The price of electricity on the German energy exchange jumped by 28% and on the Prague exchange by almost 10%. For now we are not considering these effects in the forecast; however, if these events will continue to influences the energy markets for a longer period of time, they will influence even the final prices for end consumers in 2012 (because of long-term contracts, domestic energy prices should not change in 2011). It is not possible to preclude the synergies leading to price increases in other (alternative) energy commodities.

Dampened consumer demand should not allow for a palpable acceleration of demand-driven price increases even in 2012. In light of the foregoing, we estimate 2012 average inflation rate of 3.2% (*versus 2.4 %)* with December price increase of 2.9% (*versus 2.5%*).

In 2013 and 2014, inflation should stay within the tolerance band for the Czech National Bank's inflation target.

Deflators

The aggregate price level in the economy has increased only moderately. The **gross domestic expenditure deflator**, which is a comprehensive indicator of domestic price development, grew by 0.7% (*versus 1.1%*) YoY in the fourth quarter of 2010. For the whole of 2010, the gross domestic expenditure deflator increased by 0.7% (*versus 0.8%*). It should increase by 1.5% *(versus 1.7%)* in 2011, especially due to the acceleration of consumer inflation, and by 2.8% (*versus 2.0%*) in 2012.

The value of the **implicit GDP deflator** fell by 1.3% (*versus 0.2% growth*) in the fourth quarter of 2010. Unlike the gross domestic expenditure deflator, it was driven downward due to the decline in terms of trade by 2.2% (*versus 0.9%)*. In 2010, the GDP deflator fell by 1.1% (*versus 0.6%)* in connection with worsening terms of trade by 2.2% (*versus a 1.8% decline). We* expect the deflator to fall by 0.5% (*versus a 1.8% rise*) in 2011 and then increase to 2.7% (*versus 1.9%*) in 2012.

C.3 Labour Market

Essentially, the labour market reflected only minimally the improving economic situation. In addition to cyclical development lagging behind the economic cycle as measured by output, the fourth quarter was also about administrative influences. Employment slowed down its YoY fall only thanks to the increase in the number of self-employed persons, and government cost-saving measures lead to the drop in the number of employees but also to extraordinarily low overall average wage growth or more precisely its fall in the public sector.

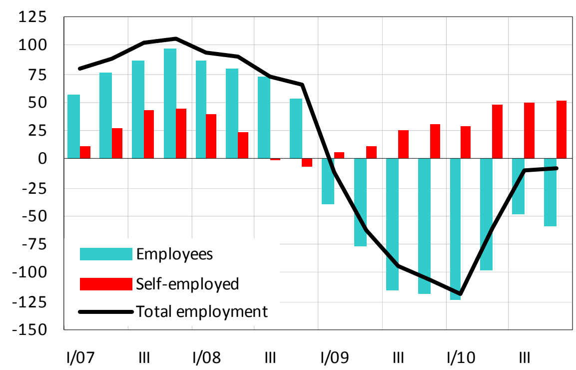
Employment

The YoY drop in employment according to the Labour Force Survey (LFS) continued in the fourth quarter of 2010 to 0.2% *(in line with the forecast)*. Seasonally adjusted employment stagnated QoQ after two quarters of growth.

There continued to be intensive YoY increase in the number of self-employed and entrepreneurs by 6.3% *(versus 5.6 %)* to 18% of total employment, with the number of self-employed increasing YoY by 8.3%. In overall employment, the self-employed now comprise almost 14%. The permanent growth in the number of self-employed is ceasing to be positive even from the point of view of growth of small business, as it is often not a case of people willingly setting up a new trade, but of continued pressure by employers, as using self-employed workers has certain tax advantages for them.

This situation is disadvantageous from the point of view of tax revenues, as with the falling numbers of employers and low growth of average wages the wage bill is increasing only minimally. If conditions do not change, this trend can be expected to continue.

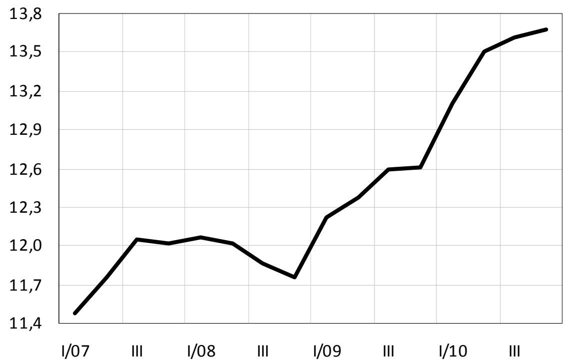
Graph C.3.1 **Structure of YoY Increase in Employment**
in thousands of persons



A partial improvement of domestic and external economic conditions led to a moderate YoY increase in employment in the secondary sector (by 1.1%) thanks to growth in the manufacturing industry. Due to layoffs, especially in public administration and education, the tertiary sector saw employment drop by 1%.

As employment lags behind economic recovery, employment as a whole fell 1.0% in 2010 (*in line with the forecast).* For 2011 and 2012, however, we are expecting growth far below one per cent. This should correspond to rational HR policy and gradual inclusion of spare capacities and rather restrictive policy in the state-run sector.

Graph C.3.2 **Share of self-employed in employment**
in %



Rate of economic activity (15–64 years) has remained at 70.4% YoY. The labour supply however continued to fall YoY in the fourth quarter of 2011 due to the decrease in the number of persons of productive age, which manifested itself in the current decrease of both employed and unemployed persons. Part of the dismissed people entitled to old-age pension opted for non-activity. An increase of old-age pensioners was recorded in both the statistics of the LFS and the statistics of the Czech Social Insurance Administration.

With regard to the above, higher economic activity due to a rise in employment can only be expected in later periods.

Unemployment

Registered unemployment during and at the end of 2010 displayed very non-standard progression. The assumption of the previous forecast that the enormous increase in registered applicants at the end of December 2010 would lead to a smaller increase in January 2011 was confirmed, as was the assumption of a slight divergence in development from the LFS.

The internationally comparable unemployment rate according to LFS reached 6.9% (*versus 7.1%*) in the fourth quarter of 2010. Its YoY decrease amounted to 0.6 p.p..

The unemployment rate according to the LFS attained an average of 7.3% for 2010 *(in line with the forecast)*. We are expecting a fall to 6.9% in 2011 *(versus 7.2%)* and to 6.5% in 2012 *(versus 6.8 %)*. The main reasons for the slightly more optimistic outlook in how employment will develop include new legislative adjustments, the improving structural characteristics of the labour market, 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 quarters and by 1.0% YoY in the fourth quarter; however, the average increase for the year was only 0.1% (*versus 0.5%*).

With the gradual economic recovery and the improving situation for companies, a moderate YoY increase in wages can be expected. However, cost-saving measures in the budget will surely have the opposite effect, however. Therefore, for 2011, we are expecting the wage bill to increase by only 2.1% *(versus 3.1%)* in connection with the decrease in both average wages and employment in a large part of the central government sector.

The wage bill, as the economic base for social security contributions and a substantial part of personal income tax, should reach CZK 1,272 billion (*versus CZK 1,290 billion*) in 2011.

YoY growth of **average wage** (CZSO, company-based method, recalculated numbers) was the lowest in ten years and was driven exclusively by the business sector – in the fourth quarter of 2010, it grew nominally YoY by 0.9% in the economy as a whole and by 21% in the business sector; in the non-business sector, the nominal decrease expanded to 3.9% (which resulted in a significant real YoY decrease by 5.9 %). Public administration and defence, due to the drop in both wages and employment, contributed the most to this hitherto unheard of YoY real decrease in average wage; in education, the average wage fell while the number of persons increased.

On the basis of data from previous periods, signals from the business sector and known plans and decision regarding public sector salaries for the forthcoming period, a very moderate growth of average nominal wages in the forthcoming period is expected. We are expecting somewhat slower growth by 2.6% for 2011 *(versus 2.9 %)* and then growth by 4.1% in 2012, this growth continuing to be pulled by the business sector.

The development of **unit labour costs** (ULC) was also related to a very cautious company HR and wage policy. The gradually growing demand for production was secured by companies with the technical minimum number of core workers by extending working hours or using cheaper agency employees. Although the increase in productivity was relatively decent, ULC grew YoY by only 0.9% in the fourth quarter and stagnated for the year thanks to the drop at the beginning of the year.

C.4 External Relations

(a balance of payments perspective)

With CZSO's new "national concept of foreign trade" data, the CNB published data on the balance of payments in the form of "national-concept balance of payments data" for the first time in balances of goods and services for 2009 and 2010 (previous years will be revised later}. There was a fundamental change in the methodology used to report balance of payments (see Box C.4.1), which made it practically impossible to compare previous forecasts with current data.

The external imbalance, expressed as a **ratio of the current account (CA) to GDP** attained -3.8% in 2010, deteriorating YoY by 0.6 p.p. This was caused in particular by a worsening of the balance of trade (by 0.8 p.p.); other items of the current account attained similar YoY results.

World trade continues to recover. After strong growth of the export markets[2] by 11.7% in 2010, we expect a more gradual growth in 2011 and 2012 (by 7.5% and 6.9%, respectively). After an increase in Czech export and import in 2010 by 18.5% and 20.7%, respectively, we also expect slower growth in the next two years in this area. We estimate the **balance of trade** at 0.7% of GDP in 2011 and 1.4% of GDP in 2012.

This estimate naturally carries with it major uncertainties. Both analysis of structure and tendencies in foreign trade for the previous period and the forecast for development are highly problematic due to the current state of the evidence base, where the available time series are not sufficiently consistent due to the influence of various methodologies and show highly divergent results. With regard to the oil price scenario, we expect prices of raw materials to grow gradually and the shortfall in the fuel balance (SITC 3) to increase both during 2011 and during 2012. The share of this balance in GDP in 2010 reached –3.7 %; we expect it to increase in size in 2011 and 2012 to approximately –4.4% and –4.1%, respectively.

The change in the methodology also makes it impossible to compare the forecast with current data in the area of balance of fservices. The surplus in the **balance of services** stagnated YoY at 1.8% of GDP in 2010. In the next two years, we expect it to improve gradually (especially in the travel industry) and grow to approx. 2.2% and 23% of GDP, respectively.

The deficit in the **balance of income** is showing only a weak tendency to grow. As the economic recession has subsided, the influx of direct foreign investment into the Czech Republic has started to increase especially in the form of reinvested earnings, and thus the outflow of dividends from these investments is also gradually growing. Conversely, the outflow of compensation to foreign employees is still falling. In 2010, the deficit in the balance of income reached –7.0% of GDP (*versus -7.2 %*). In coming years, we expect only small changes in the deficit of the balance of income: in 2011 we estimate its stagnation at –7.0 % of GDP (*versus an increase to –7.8%*) and for 2012 its increase to –7.3 % of GDP (*versus –9.1 %*).

Within this context, we expect the ratio of **current account** deficit to GDP to reach –4.0%. The forecast for 2012 is –3.4% of GDP. After the methodological changes in reporting data, the current account deficit is attaining higher values than before revision. However, we do not regard the risk of macroeconomic imbalance as significant.

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

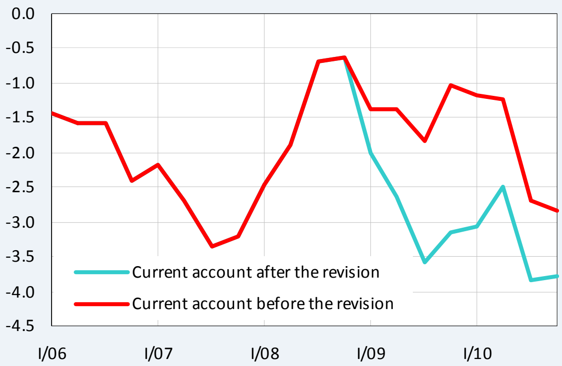
Box C.4.1: **Methodological changes in the balance of payments**

In March 2011, the methodology used to report data on foreign trade in goods and services changed in light of the transition to national concept of foreign trade data. The change chiefly entails the elimination of branding, i.e., the margin of non-residents registered in the Czech Republic only as VAT payers, compared to so-called cross-border statistics on foreign trade in goods and services, which is the new name for customs statistics. In addition to this, the methodology used to calculate direct trading costs was changed and a new procedure for grossing up services was put in place, which led to a decrease in turnover and an increase in the positive balance of net service revenues and expenditures.

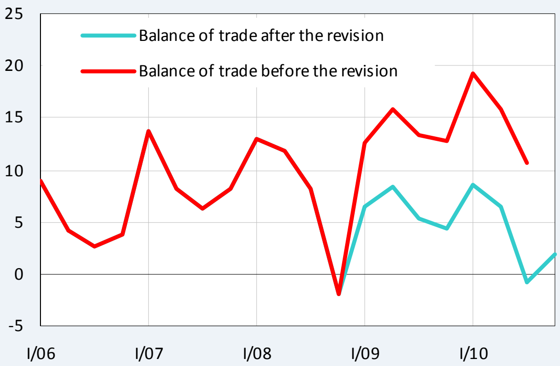
In the first phase, data from 2009 and 2010 were revised. In the framework of national foreign trade, the trade balance surplus for 2009 and 2010 decreased compared to previous data by CZK 99 billion and CZK 148 billion, respectively. The structure of the balance of goods and services changed substantially in favour of a surplus in the service balance (elimination of branding, new calculation of direct trading costs, and gross up of other services) and a decrease in the merchandise balance surplus. In 2009, after processing the results of the annual survey of enterprises with foreign participation, a higher deficit in the balance of income (by CZK 20.8 billion) was recorded in the item “dividends paid and reinvested earnings”. After this methodological change, the negative balance of the item “errors and omissions, foreign exchange gains/losses” of the balance of payments substantially decreased in both years.

Due to this change in methodology, the ratio of the balance of payments deficit to GDP changed substantially. For 2009, the ratio of the CA deficit to GDP worsened by approx. 2.1 p.p. to –3.2 % and for 2010 by 0.9 p.p. to –3.8 %.

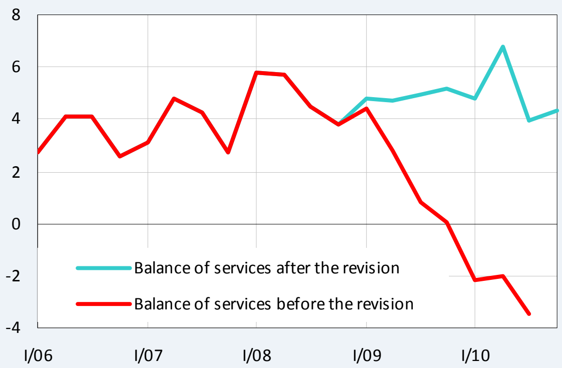
Graph Box.1: **Current account balance of payments**
In % of GDP



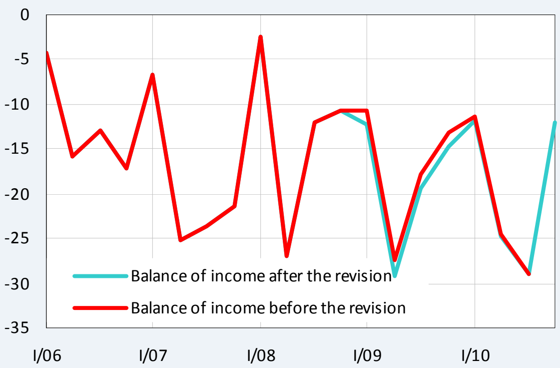
Graph Box.2: **Balance of trade**
in % of GDP



Graph Box.3: **Balance of services**
in % of GDP



Graph Box.4: **Balance of income**
in % of GDP



C.5 International Comparisons

Comparisons for the period to 2010 are based on Eurostat statistics. As of 2011, 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 2010 was CZK 17.43/PPS in comparison to the EU27 or CZK 16.31/EUR in comparison to the EA12.

In 2009, per capita GDP, using current **purchasing power parity** conversion, decreased in both the Czech Republic and other Central European economies as a result of the economic crisis. The only exception was Poland, which managed to avoid the recession. Especially hard hit by the recession were Baltic countries and Slovenia, where the economic level relative to the EA12 in fact fell. In 2010, when economic recovery was already underway, GDP grew in all Central European countries in comparison to the EA12.

In 2010, per capita GDP of the Czech Republic reached approx. PPS 20,000, which corresponds to 76% of EA12 economic output. Due to higher growth in the Czech Republic than in the EA12, the Czech economy's relative performance should continue improving in 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 calculating per capita GDP by means of the current **exchange rate** takes into account the market valuation of the currency and ensuing differences in price levels. This indicator amounted to approx. EUR 13,800, i.e., about 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 as early as this year.

The comparative price level of GDP reached 65% of the EA12 average in 2010. Depreciation of the real exchange rate in 2009 was reflected in a YoY decline in the price level by 4 p.p. This greatly helped to increase the competitiveness of the Czech economy. A much fiercer depreciation in the exchange rate was seen in Poland, where decline of the relative price level almost reached 12 p.p., thus helping Poland to avoid economic recession.

Already last year, the comparative GDP price level in the Czech Republic, led by productivity growth and growth in the Czech economy's competitiveness due to factors not related to price, grew by 1 p.p. and should continue to increase.