C Forecast of the Development of Macroeconomic Indicators

Sources of tables and graphs: CZSO, Eurostat

C.1 Economic Output

Latest development of GDP

Surprisingly, seasonally adjusted GDP⁵ fell by 0.8% (*versus growth of 0.1%*) QoQ in Q1 2012. YoY, GDP decreased in Q1 2012 by 0.4% (*versus 0.1%*). On the expenditures side, the most significant factor in deviation between the forecast and reality was the greater YoY drop in household consumption. Other expenditure items were satisfactorily forecasted, taking into account their impact on GDP development.

Considering the development in Q4 2011, it would be necessary formally to evaluate the position of the economy based on the QoQ decline in GDP in Q1 2012 as a recession. The unfavourable data for Q1 are rather due to issues of accounting methodology, however, and a review of the development of gross value added (GVA) shows the situation to be ambiguous. Seasonally adjusted GVA fell by 0.6% QoQ in Q4 2011, while it grew by 0.2% in Q1 2012. It is not clear from these GVA dynamics that the Czech economy was in recession. The aforementioned also demonstrates that from the perspective of the resources side the relatively strong QoQ decrease in GDP in Q1 2012 was caused by the drop in taxes on products (the contribution of indirect taxes to GDP development was -0.8 p.p.). The situation is explained in greater detail in Box C.1.

Gross domestic expenditures recorded a YoY decrease in Q1 2012, due to a drop in household consumption by 2.8% (*versus 1.2%*) and decrease in government consumption by 0.2% (*versus 1.7%*) and in gross capital formation by 5.3% (*versus 3.6%*). Gross capital formation fell due to a lower YoY change in inventories and valuables. Gross fixed capital formation, on the other hand, grew by a slight 1.2% (*versus 1.5%*). The sharp YoY decline in change in inventories was clearly due also to the distortion described in Box C.1.

The forecast for foreign trade dynamics was more conservative with respect to the reality, as exports grew YoY by 7.3% (*versus 3.8%*) and imports increased YoY by 4.7% (*versus 1.8%*). As regards foreign trade's resulting positive impact on GDP, however, there is no substantial deviation.

Foreign trade contributed positively to GDP growth in Q1 2012 despite deterioration in the terms of trade. This deterioration was reflected in the YoY decline in real gross domestic income (RGDI) by 0.7% (*versus 0.9%*), representing a greater decrease than the YoY drop in GDP.

Nominal GDP grew YoY in Q1 2012 by 1.7% (*versus 2.0%*). The main cause for the deviation was the aforementioned significantly greater YoY decline in real household consumption. Despite the large YoY change in the household consumption deflator, household consumption recorded slight YoY growth in nominal terms.

With a view to the income structure of GDP, we would highlight the significant upward revision in growth rates of compensation to employees (and the associated wages and salaries) for 2011. This of course renders comparison of the forecast for Q1 2012 with actual data for the given period not meaningful. Gross operating surplus dynamics were considerably lower as compared to the dynamics of compensation to employees⁶ not only in Q1 2012 but also throughout 2011.

Forecast and outlook for GDP

The forecast for GDP and its expenditure components is influenced qualitatively by the same key factors as in the April forecast, i.e. by the high level of uncertainty regarding external developments relating to the Czech economy and the impacts of fiscal consolidation of public finances. However, we regard those risks connected with developments outside the economy as more intensive.

Due to further decline in gross domestic expenditures, GDP should diminish by 0.5% (*versus growth of 0.2%*) in 2012.

Considering gross domestic expenditures, we have adjusted especially the development of household consumption for 2012, which we expect will decline by 2.2% (*versus 0.4%*). The forecasted decrease in household consumption ensues from the expected real decline in wages in 2012 owing, on the one hand, to

⁵ Unless stated otherwise, data presented in the text are not seasonally adjusted.

The positive evaluation of the increased profitability of the business sector in Q4 2011 presented in the April forecast was negated by this revision.

moderate growth in nominal wages due to the continuing tense situation on the labour market and, on the other hand, to a rise in the price level due primarily to administrative measures, and in particular an increase in the reduced VAT rate. Due to the position within the economic cycle, we also expect a slight decrease in employment that will contribute to the decline in household consumption. It appears, too, that in uncertain conditions households will increase their level of savings. In principle, these are not new factors. In light of the household consumption in Q1 2012, however, we assess their negative impact to be stronger.

According to the fiscal consolidation strategy we expect a real drop in government consumption in 2012 by 2.8% (*versus 3.7%*).

Given low domestic demand, uncertain prospects of foreign demand and declining utilisation of production capacities, companies' needs to invest in physical capital are very limited. We expect that gross capital formation will drop noticeably by 0.3% (*versus growth of 0.8%*) in real terms in 2012. Gross fixed capital formation could therefore decrease by 1.0% (*versus 0.5%*). The low dynamics of internal resources for financing investment projects, which we may deduct from the development of the gross operating surplus,

and the very low contribution of government investments in view of the aforementioned fiscal consolidation may be presented as reasons for the low expected investment activity.

The negative impact of gross domestic expenditures will be mitigated by the positive contribution of foreign trade. In 2012, we expect only moderate growth in exports by 4.3% (*versus 3.2%*) and in imports by 2.8% (*versus 2.1%*). The marginal rise in the expected export and import growth rates results from their development in Q1 2012.

For 2013, we forecast a very slight recovery for gross domestic expenditures, owing especially to gross capital formation and household consumption. Expected GDP growth of 1.0% (*versus 1.3%*) will continue to be driven primarily by foreign trade. As from 2014, however, the main factor in GDP growth should be gross domestic expenditures.

We expect that nominal GDP will grow YoY in 2012 by 0.9% (*versus 2.1%*). The decrease in the expected nominal GDP growth rate is connected primarily with the stated decline in the outlook for household consumption dynamics. Our view regarding the GDP expenditure deflators remains fundamentally unchanged.

Box C.1: GDP and Gross Value Added – Important Consequences of Subtle Methodical Nuances

Both the professional and general public know that economic output and the course of the economic cycle are typically evaluated on the basis of real GDP, i.e. GDP adjusted for price impacts. It is less well known that the information value of this indicator has numerous limitations and that there exist other indicators of national accounting that in certain situations may provide complementary information, the use of which prevents misinterpretation of non-standard developments. Such a situation occurred in Q4 2011 and Q1 2012.

Let us begin with a detailed methodical explanation. The production approach to estimating GDP relies on measuring the production of individual entities, from which intermediate consumption is deducted. The result is gross value added (GVA). This indicator is measured in so-called base prices (i.e. exclusive of indirect taxes on products). To determine GDP, measured in purchase prices, it is therefore still necessary to add the so-called taxes on products to the GVA and subtract subsidies on products.

Taxes on products are comprised predominantly of VAT and excise taxes. Other taxes on products (e.g. real estate transfer tax, fees for permanent changes in use of agricultural and forest land, admissions and spa and recreation fees) are less significant in volume terms. Compared to taxes on products, subsidies on products are by an order of magnitude lower.

What happened at the turn of 2011 and 2012? Excise taxes on cigarettes were increased with effect from the start of 2012. Economic entities that tried to avoid a competitive disadvantage resulting from higher prices of goods with the raised tax rate responded by stockpiling duty stamps at the original excise tax rate. CZSO estimates this stockpiling at ca CZK 3.5 billion (excise taxes and VAT) in Q4 2011.

While the GVA was not encumbered by these transactions, GDP was "artificially" inflated in Q4 2011 by CZK 3.5 billion and subsequently decreased in the following quarter by the same amount. The overall impact on the QoQ decrease in

GDP can be quantified at ca CZK 7 billion in current prices in Q1 2012. This phenomenon thus explains the **overall QoQ decline** in GDP by 0.8%.

The following graphs show the development of taxes on products and the dynamics of GDP and GVA.

Graph 1: Taxes on products

chained volumes, reference year 2005, CZK bln., seasonally adjusted



Graph 2: GDP and GVA

real QoQ growth rates in %, seasonally adjusted



GVA fell in Q4 2011 by 0.6% and rose in Q1 2012 by 0.2%. The actual output of the Czech economy in Q1 2012 was therefore distinctly higher than in Q4 2011, which also corresponds to the course of the cycle in Germany (see Table A.1.2).

This phenomenon has implications also for Q2 2012. If the entire effect on GDP were removed by the "artificial" reduction of Q1, one can expect return to a "normal" level with "artificially" slightly higher QoQ GDP dynamics in Q2.

The entire issue can be summarised such that a mechanical interpretation of the standard indicators may lead to entirely erroneous conclusions.

C.2 Prices

Consumer prices

YoY growth in consumer prices slowed to 3.2% (*versus 3.6%*) in May. The contribution from administrative measures remained the main source of price growth at 2.7 p.p., of which 1.2 p.p. reflects the impact from a rise in indirect taxes.

Regulated prices of gas contributed 0.6 p.p. to YoY inflation and, for example, prices of electricity, heat, water and sewage combined, as well as prices for health care contributed 0.2 p.p. each.

With respect to the contributions of individual segments of the consumer basket to YoY inflation, housing (1.6 p.p.), food and non-alcoholic beverages (0.8 p.p.) and transportation (0.3 p.p.) contributed the most.

The transportation segment once again recorded record-level fuel prices, as the price of diesel fuel reached 37.08 CZK/l in March, and in April the price of Natural 95 petrol hit 37.62 CZK/l. A considerable drop in crude oil prices on world markets, however, led fuel prices to come down from record levels.

We continue to anticipate that this year administrative measures will contribute approximately three-quarters of the inflationary effect, consisting in the impacts of changes to indirect taxes and changes in prices which the CZSO reports as regulated. We do not expect in the remainder of this year more fundamental price adjustments in the group of goods and services with regulated prices. From that group, those goods and services related to housing will contribute most to the YOY rise in CPI for December 2012 (0.8 p.p.). Administrative measures should contribute 2.1 p.p. (no change) to YOY inflation for December 2012.

Very weak domestic demand will remain the main anti-inflationary factor through the rest of 2012. Conversely, the effect of the exchange rate should be a slight pro-inflationary factor. The **average inflation rate** in 2012 should reach 3.2% (*versus 3.3%*), with December YoY growth of 2.4% (*no change*). Contributions from market growth in prices to the YoY inflation should remain positive also in the remaining part of 2012.

Administrative measures will have a dominant influence on inflation also in **2013**. The intended

increase of both VAT rates by 1 p.p. to 15% and 21% from the beginning of 2013 will be reflected in a 0.7 p.p. contribution to CPI, a small part of which may already have an impact in Q4 2012. Nevertheless, at the start of 2013, individual entities in the supply chain may partially absorb this change into their margins. Concerning indirect taxes, we continue to expect growth in the excise taxes on cigarettes (impact 0.1 p.p.). Among regulated prices, one may once again expect the largest impact for CPI in the case of electricity prices. Nevertheless, that estimate is associated with considerable uncertainty, as can be said, too, about the estimate for solid waste collection prices. Like this year, administrative measures should be the source of approximately three-quarters of inflation in 2013, contributing ca 1.7 p.p. (versus 1.5 p.p.) to YoY inflation in December 2013.

In spite of considerable anticipated growth in unit labour costs for 2012 and 2013 (see table C.3.3), due to weak domestic demand and the persisting position of the Czech economy in negative output gap, room for price growth in 2013 is very limited. We estimate the average inflation rate in 2013 at 2.2% (*versus 2.3%*) and YoY growth in December at 2.4% (*versus 2.6%*). Through 2013 as a whole, YoY inflation should remain

C.3 Labour Market

In the context of economic stagnation, the situation on the labour market is, meanwhile, surprisingly good. Employment remains stable by QoQ and YoY comparison, the unemployment rate continues to decline, the labour participation rate is increasing at a record pace, and the wage bill and average salary grew unexpectedly rapidly in Q1 2012.

Employment

According to the Labour Force Survey (LFS⁷), **employment** grew by 0.1% in Q1 2012 (*versus a decline of 0.2%*) with dynamic growth in self-employment of 3.1%. In a QoQ comparison after seasonal adjustments, employment remained level, which may be considered a success in conditions of economic stagnation. In view of reports for planned layoffs in large industrial enterprises, however, the outlook is less optimistic.

The growing number of individuals formally self-employed is very likely the consequence of expanding the very unfavourable (from the view of within the tolerance band around CNB's 2% inflation target.

Deflators

The gross domestic expenditure (GDE) deflator, which is a comprehensive indicator of domestic inflation, grew by 2.4% (*versus 2.9%*) YoY in Q1 2012. Its development was very strongly influenced by increase in the reduced VAT rate. This is apparent from the development of the private consumption deflator, which in Q1 2012 grew YoY by 3.6%.

We anticipate the GDE deflator to rise in 2012 by 2.1% (*versus 2.4%*). In 2013, when we await further indirect taxes, the deflator should grow by 2.0% (*versus 1.8%*).

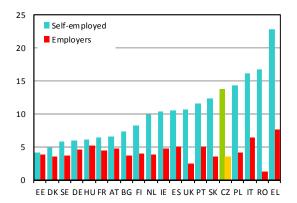
The implicit GDP deflator in Q1 2012 grew YoY by 2.1% (in line with the forecast). Higher growth of the GDE deflator relative to the rise in the implicit GDP deflator for Q1 2012 is due to worsening of the terms of trade by 0.4% (versus 1.1%).

We anticipate growth of the GDP deflator by 1.5% (*versus 2.0%*) in 2012 while in 2013 we predict it to rise by 1.1% (*versus 1.4%*). The lowering of the forecast ensues primarily from the anticipated worsening of trends relating to the terms of trade.

government budget) so-called "black-system". In a European context, the Czech Republic is among those countries with the highest ratios of self-employment to overall employment (see Graph C.3.1). Rather than attesting to the quality of the business environment, however, this indicates rather the opposite. In fact, countries which are on the top positions in international comparisons of business conditions (e.g. Doing Business) exhibit the lowest ratios of selfemployment. Greece, followed by other problematic countries with regard to the sustainability of their government sector deficits, stands unrivalled at the opposite end of the rankings. As in the Czech Republic, the apparently high ratio of self-employment may be ascribed primarily to cost optimisation efforts by means of evading taxes. In the Czech Republic, moreover, the speed at which this ratio is growing is extremely telling. Whilst from 2000 to 2008 it fluctuated in the range of 11-12%, it subsequently began to rise, and its YoY percentage point gain in Q1 2012 was 0.8 p.p. (to 14.6%), further indicating the conspicuous strengthening of this unfavourable trend.

Data from LFS are stated in the text, graphs and tables in a manner before recalculation according to the 2011 census.

Graph C.3.1: Entrepreneurs in Selected States share on total LFS employment in %, 2011 data



New legislation as from January 2012 introduced stronger financial sanctions on the "black system". The Ministry of Labour and Social Affairs increased the number of inspections for illegal employment. Nevertheless, its detection and proving is evidently considerably more difficult than in cases of illegally employing foreigners. Proposed changes in the tax allowances for the use of lump-sum cost estimates should bring a certain improvement in the situation.

The number of employees declined by 0.6% (*versus 0.8%*). This was most conspicuous in the construction industry, and it continued also in civil service.

As in the previous quarters, the **employment rate** (15–64 years) increased YoY by a strong 0.7 p.p. to 65.7%.

The **economic activity rate** (15–64 years) grew YoY in Q1 2012 by 0.7 p.p. to 70.8%, which is the largest YoY gain since Q3 2009. This outcome may be interpreted as increased interest among the population to engage in the employment process, most likely as a consequence of residents' needs to compensate for present or anticipated losses of real disposable income in a worsening economic situation.

The reason for moderating the forecast of declining employment in 2012 to 0.3% (*versus 0.5%*) is the positive outcome from Q1 and anticipated continuation of growth in self-employment. For 2013, we anticipate a decline of 0.2% (*versus growth of 0.1%*), which above all is a consequence of the worsening economic outlook for the coming months and the customary delayed reaction of the labour market.

Unemployment

Seasonally adjusted registered unemployment shows ambiguous progress. On MoM basis, it fell both in March and April, but grew moderately in May.

According to LFS, the **unemployment rate** in Q1 2012 reached 7.2% (*versus 7.0%*), which still signified a slight 0.1 p.p. decline YoY and increase QoQ (after seasonal adjustment) of 0.3 p.p.

The conflicting trends of the two statistics (LFS versus registered unemployment) may be attributed to the effect of labour market reform, and particularly to the considerably lower attractiveness for the unemployed to register in labour offices (for example, due to expansion of the public services system). Growth in problems also is manifested in a rise in the numbers of the long-term unemployed. One may infer from the QoQ increase in the rate of unemployment of individuals with the lowest level of education that the termination of contracts towards the end of the year applies predominantly to this category.

Corresponding to the previous forecast, we anticipate that the business cycle and employment trend will reflect growth in the unemployment rate (LFS) to 7.0% in 2012 and to 7.2% in 2013.

Wages

Growth in the wage bill and average wage was surprising in the context of the economy's performance. We do not, however, anticipate a continuation of such rapid growth, particularly taking into consideration data on collection of personal income tax from dependent labour, which in April and May recorded slowing growth. In the cases of both wage bill growth and the average wage, we are therefore inclined towards the explanation that one-off components of remuneration (bonuses, severance and others) which were paid only in the first quarter to a limited number of employees played a rather important role.

In spite of a drop in the number of employees, the wage bill (national accounts, domestic concept) in Q1 2012 grew YoY by 3.4% (*versus 1.4%*), with the most substantial contribution from the manufacturing industry.

Taking Q1 into consideration, we increase the wage bill growth forecast in 2012 to 1.9% (*versus 1.5%*). In 2013, the forecast slightly decreases the projection for a decrease in employment (but while maintaining workers with high qualifications and wages) to 2.5% (*versus 2.6%*).

When converting to full-time work equivalents as determined by means of statistical records, the average nominal wage in Q1 2012 grew YoY by 3.6% (versus 1.5%).

In the business sector, YoY growth amounted to 3.6%. A contributing cause of the aforementioned high growth in the average wage could be the laying off of more individuals in the lowest income bracket towards the end of 2011 (see above). In the business sector, and particularly in the industrial sector, we do not anticipate further wage growth due to the rather pessimistic anticipated economic developments and signalling of layoffs on the near horizon. The average nominal wage in the non-business sector grew YoY by 3.5% while there were further decreases in the numbers of workers. Due to continuing sweeping cost-cutting measures in public administration budgets, we anticipate the impact of wage growth on a comparative basis only in select professions (health care, education).

Although wage growth most likely affected only a portion of employees, from an overall perspective, it nevertheless results in significant growth in unit labour costs.

C.4 External Relations

(a balance of payments perspective)

The external imbalance, expressed as the ratio of the current account balance to GDP on an annual basis, reached -2.5% (*versus* -1.6%) in Q1 2012 and thus grew YoY by 1.3 p.p. The improvement was caused exclusively by the result of the trade balance (increase of 1.8 p.p.). Other current account items deteriorated slightly: balance of services by 0.2 p.p., income balance by 0.1 p.p. and balance of current transfers by 0.2 p.p.

Following all-round strong growth in 2010, growth in world trade slowed in 2011. This trend has continued in 2012, as the unfavourable situation connected with the debt crisis in certain euro zone countries has been reflected in the real economy of trading partner countries. We anticipate growth in export markets of 1.0% (versus 1.9%) for 2012. For 2013, we expect only a moderate recovery of the global economy, accompanied by growth in export markets by 2.4% (versus 2.8%). We also expect slower growth in export performance, which indicates the volume proportion of Czech goods on foreign markets, from 4.6% in 2011 to 3.1% (versus 1.2%) in 2012 and 0.8% (forecast unchanged) in 2013.

The forecast starts from the assumption that the hike in Q1 was a one-off phenomenon, to which the data revision contributed moderately, rather than a change in trend. On the basis of signals from the business sector and the known intentions and decisions regarding wages in the public sector, for the following period we anticipate moderate growth in the average nominal wage.

After the inclusion of revisions and Q1 results, for 2012 we anticipate growth of the average nominal wage by 2.4% (*versus 2.0%*), which should signify a real decline in the overall average wage by 0.7%. Due to lower inflation, growth in 2013 of 2.4% (*versus 2.6%*) should mean a real increase in the average wage by 0.2%.

Growth of foreign trade turnover has decelerated since Q2 2011, but still achieved solid results in Q1 2012. Exports increased by 10.4% and imports by 7.5% in the annual aggregate. The deceleration in demand from EU partner countries, exports to which grew by a belowaverage 8.8% (foreign trade statistics in a national residents methodology), was partially compensated by exports to other territories outside the EU, for which exports increased by a strong 19.4%. For the remainder of 2012, we expect that foreign trade growth will continue to slow down and that the trade surplus will increase by 3.5% of GDP (versus 3.0%) as exports lead imports. In 2013, in addition to the recovery of trade, the slump in domestic demand should come to an end and the ratio of the trade balance to GDP should reach 3.2% (versus 3.4%).

The deficit on the fuels balance (SITC 3) reached 4.8% of GDP in annual terms in Q1 2012. Considering the oil price development scenario, we expect the current high prices of raw materials to hold in 2012 and to drop only slightly in 2013. As a proportion of GDP, the fuels deficit should thus reach ca 5.2% in 2012 (*versus* 5.4%) as well as in 2013 (*versus* 5.3%).

The balance of services surplus decreased YoY by 0.2 p.p. to 1.7% of GDP (*versus 1.8%*) in Q1 2012 in annual terms. Services export and import growth rates

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

slowed, while during faster growth of services imports the surplus was diminishing. The balance improved only in the tourism industry, while the surplus for transportation services diminished. The balance of other services showed the worst development, crossing into deficit. For 2012 and 2013, we expect the balance of services surplus to remain at ca 1.7% of GDP (forecast unchanged for both years).

The deficit on the income balance, which includes the reinvested and repatriated profits of foreign investors, shows a continually weak growing tendency due to faster growth of costs than revenues. Outflow of

investment income, consisting predominantly of reinvested profit, is rising, while employee compensation has stagnated. We expect this trend to continue in 2012 and 2013. We estimate an incomes deficit of 7.5% of GDP (*versus 7.2%*) in 2012 and 7.6% of GDP (*versus 7.5%*) in 2013.

In the given circumstances, we estimate that the current account balance as a ratio to GDP will reach -2.2% (*versus* -2.4%) in 2012, while the forecast for 2013 is -2.6% (*versus* -2.3%). A current account deficit in this amount poses no risks of macroeconomic imbalances.

C.5 International Comparisons

Comparisons for the period up to and including 2011 are based on Eurostat statistics. From 2012, our own calculations are used on the basis of real exchange rates.

In 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 2011 was CZK 18.07/PPS in comparison to the EU27 or CZK 17.16/EUR in comparison to the EA12.

In 2009, the economic recession led to a decline in the absolute level of GDP per capita, adjusted by current purchasing power parity, in all monitored countries except for Poland. Since then, most countries have been gradually recovering, the only exception being Greece and Portugal, where the economic level has been falling since 2008 and 2011, respectively. In these two countries, the unfavourable development should continue in 2012 as well. In addition to the decrease in absolute level, Greece and Portugal also slipped in their relative economic levels vis-à-vis the EA12. The total decrease in Greece for the period 2009-2012 should come to 14 p.p. Slovenia has also recorded a drop in its relative economic level since 2009, though the dynamics of decline is gradually slowing. By contrast, the Baltic states have recorded the fastest increases in their economic levels compared to the EA12 average. In 2012, however, the pace of real convergence should slow considerably.

In 2011, the economic level of the Czech Republic expressed by GDP per capita as adjusted to current purchasing power parity was approximately 20,000 PPS, corresponding to 73% of the EA12's economic output. After a period of convergence, in

which during 2000–2007 the real economic level in the Czech Republic rose in comparison to EA12 countries by 13 p.p., there has been no change since 2009, or even slight divergence, due to the low growth in real GDP. Nevertheless, the Czech Republic again surpassed the economic level of Portugal in 2011 and this year it should surpass the level of Greece.

An alternative way of calculating GDP per capita by means of the current exchange rate takes into account the market value of the currency and ensuing differences in price levels. In the case of the Czech Republic, this indicator was ca EUR 14,700 in 2011, i.e. approximately half the level of the EA12 (51%). Due to expected stagnation of the economy and slight devaluation of the koruna in 2012, however, we expect a slight decline in both absolute and relative terms.

Looking at price levels, the comparative price level of GDP in the Czech Republic increased by 1 p.p. in 2011, thus reaching 70% of the EA12 average. An expected slight decrease of the price level in 2012, due to the weaker exchange rate, should help to boost the competitiveness of the Czech economy.