C Forecast of the Development of Macroeconomic Indicators

For the first time, this forecast is based on data from the quarterly national accounts published by the CZSO after a revision of methodology from 9 December 2011. The methodology changed the level of values, and the reference year for real data also changed. The revision also affected the data concerning YoY growth. The impacts of the revision on the annual data up to 2010 were described in detail in the Macroeconomic Forecast from October 2011.

The differences in data for Q3 2011 and estimates for the year 2011 as a whole described below therefore incorporate not only a different course of economic events, but also the impacts of the stated revision.

C.1 Economic Output

Economic output still has not reached its level from before the recession at the turn of 2008 and 2009. In Q1 2011 seasonally adjusted real GDP was 1.3% lower against its historical peak of Q3 2008. After QoQ growth of 0.6% *(versus 0.9% before the revision*), in Q1 2011 the growth in economic output began to slow and was 0.2% (*versus 0.1%*) in Q2 2011. That probably was due to the influence of indirect effects of the debt crisis in the euro zone. In Q3 2011 a drop of 0.1% was recorded (*versus growth of 0.3% from the October forecast*). Thus, the present phase of the economic cycle can be described as stagnation.

Growth in industrial production and the outcome of the trade balance for November 2011 were slightly positive signals which could be reflected in very modestly positive QoQ growth for Q4. Thus, the economy may have been able to avoid a technical recession in 2011, defined as two consecutive QoQ declines in GDP. We estimate growth to slow to 1.8% (*versus 2.1%*) for the full year of 2011.

Future development is very uncertain. Economic growth will probably be choked off by pessimism, loss of confidence (see Chapter B.2) and apprehensions over the impact of the debt crisis in the euro zone, which will show up in more cautious microeconomic decision-making, and therefore in a drop in gross domestic expenditure. Also, the fiscal consolidation (see Chapter A.2) will have a negative effect on the growth dynamics.

For 2012, we expect stagnation more or less to continue. Growth should come in at ca 0.2% (*versus 1.0%*). Recovery could occur in 2013 to the level of 1.6%. There are significant downward risks (see Graph C.1.2), and especially in case the debt crisis in the euro zone escalates due to some unfavourable event.

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 Q3 2011 RGDI increased YoY by only 0.2% (*versus 1.2%*)[2]. The income situation among Czech economic entities is thus lagging behind the growth in output. For 2011 as a whole, RGDI probably grew by 0.5% (*versus 0.9%*). In 2012, it should decrease by 0.6% (*versus growth of 0.3%*) in step with stagnation in output and further deterioration in the terms of trade. For 2013, we expect growth of 1.2%.

The terms of trade sre also contributing to slower growth in **nominal GDP** (which is a key variable for fiscal forecasts) than originally expected. YoY growth of 1.1% was recorded for Q3 2011 (*versus 2.3%*). We expect nominal GDP to expand by 1.5% (*versus 2.1%*) for 2011 and by 2.2% for 2012 (*versus 2.8%*). In 2013, nominal GDP should increase by 2.4%.

Regarding the income structure of GDP, we are lowering our estimate for growth in the profitability of the business sector versus the October forecast. In Q3 2011 the gross operating surplus increased YoY by 0.5% (*versus 2.2%*). For 2011, that growth can be expected to reach 0.8% (*versus 1.5%*). In 2012, increase in the operating surplus could reach 1.0% (*versus 2.2%*). We expect it to rise to 2.1% in 2013.

Expenditures on GDP

In Seasonally adjusted **household consumption** decreased QoQ in Q2 2011 and dropped by 0.5% in Q3 2011. This means the YoY decline in real household expenditures on final consumption reached 0.4% in Q3 2011 (*versus 0.3%*). Households' consumption is pressed down by their unfavourable income situation, and especially the decrease in the wage bill in part of the public sector. For 2011, household consumption apparently dropped by ca 0.4% (*versus 0.6%*).

The estimate of growth in the real wage bill and disposable household income is slightly lowered. In the coming quarters, consumers' apprehensions over the debt crisis in the euro zone and the resulting economic turbulence will also have an anti-growth effect. In

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

2012, higher inflation will also have an impact due to the increase in the reduced VAT rate from 10% to 14%. We therefore expect consumption to decrease by 0.7% (*versus 0.5%*) in 2012. In 2013, slight growth of 0.7% could occur.

Government expenditure on final consumption fell by 3.0% in real terms (*versus 1.1%*) in Q3 2011. For 2011, government consumption apparently decreased by 2.3% (*versus 1.2%*).

In accordance with the adopted stabilisation measures and approved consolidation strategy, government institutions are expected to continue behaving thriftily regarding both employment and purchases of goods and services. For 2012, we expect government expenditures on consumption to continue to decline by 2.5% (*versus 0.5%*). We expect the drop to halt in 2013 and for government real consumption to increase by 0.1%.

Gross fixed capital formation in Q3 2011 decreased by 1.9% YoY (*versus growth of 1.5%*). Purchases of machinery (excluding vehicles) dropped by 2.3%, while investments into nonresidential buildings decreased by even 13.2%. In contrast, vehicles purchases increased by 23.3% and investments into housing, probably motivated by the anticipated VAT increase, rose by 0.9% YoY. We estimate the gross fixed capital formation to have declined by 0.3% (*versus 2.1%*) in 2011.

The future development of investments is extraordinarily uncertain. Pessimistic expectations and apprehensions about the impacts of the debt crisis in the euro zone will have an unquestionably negative effect. Another factor is the limitation on public investment expenditures.

On the other hand, the high capacities utilisation of successful exporting companies and under-investment is beginning to be felt. Net investment spending (after subtracting depreciation) was apparently 52% lower in 2011 versus the peak in 2008. New investments could also be stimulated by low interest rates and, once the current problems are overcome, also by the influx of financing from EU structural funds. The operation of these divergent factors should result roughly in stagnation. During 2012, we expect growth of 0.1% (*versus 1.4%*). For 2013, we look for growth dynamics to be renewed at the 2.1% level.

The contribution from the change in inventories to YoY growth of GDP in seasonally adjusted data stood at −1.4 p.p. in Q3 2011, and it was the most important factor decreasing the YoY dynamics of GDP. In interpreting this fact, however, it is important to recognise the extremely high comparison base from Q3 2010, when this contribution reached 3.2 p.p. and accounted for the entirety of GDP growth (see Graph C.1.7). The contribution to the QoQ change in GDP was approximately zero.

Due to the difficulty of predicting inventories development, the estimate incorporates their neutral effect on economic growth.

Foreign trade is the main positive factor for economic development. The slowdown of imports growth due to decline in domestic demand is considerably stronger versus the slowing in exports due to the lower foreign demand. This results in a significantly positive **contribution of foreign trade** to YoY GDP growth in the seasonally adjusted data. This reached 4.0 p.p. in Q3 2011. For 2011, foreign trade's contribution apparently reached ca 2.7 p.p. (*versus 1.7 p.p. – a considerable part of this difference is due to the aforementioned revision*), which was the highest value since 2005.

Unless a collapse occurs in the partner countries, we expect these trends to continue also through the time horizon of the forecast. The slowdown in demand for imported goods and services should continue to predominate over the weakening growth rate in export volume, albeit with a lesser intensity in comparison to the exceptional year 2011. In 2012, foreign trade's contribution should reach 1.0 p.p. (*unchanged*), and in 2013 it could be 0.8 p.p.

C.2 Prices

Consumer prices

The **average inflation rate in 2011** reached 1.9% (*in accordance with forecast*). The average inflation rate for goods (2.4%) exceeded the average inflation rate for services (1.1%) for the first time since data about this segmentation became available, i.e. since 2004.

The YoY growth of consumer prices, which remained in a relatively narrow range from 1.6% (in April) to 2.0% (in May) through the first three quarters of 2011, accelerated in Q4 and was 2.4% (*versus 2.6%*) in December 2011 with a contribution from administrative measures of 1.2 p.p. (*versus 1.1 p.p.*). The consumer basket segments contributing most to December's YoY growth were housing (1.0 p.p.) along with food and non-alcoholic beverages (0.9 p.p.). The prices of natural gas contributed one quarter of the YoY growth in prices in December, and increased by 22.2% during the year.

In the food and non-alcoholic beverages segment, the level of prices rose perceptibly in Q4. This development did not correspond to the decreasing price levels of agricultural producers that had begun already in June, and it very probably was caused by an anticipatory effect regarding the VAT rate increase which occurred on 1 January 2012.

The prices of fuels reached record levels in 2011: Natural 95 at the price of CZK 35.21/L in May, diesel at CZK 35.58/L in December.

In 2012, administrative measures will contribute approximately three quarters of inflation, consisting of the impacts from indirect taxes and changes in prices which the CZSO reports as regulated. The increase of the reduced VAT rate from 10% to 14% will add 1.1 p.p. to CPI. Concerning indirect taxes, the increase of excise taxes on cigarettes and tobacco will also affect the growth of the price level, with an impact of 0.1 p.p. In the group of goods and services with regulated prices, those related to housing will again contribute most to the YoY rise in CPI for December 2012 (natural gas and heat by 0.2 p.p. each; electricity, water and sewage fees, and regulated rent by 0.1 p.p. each). Administrative measures should contribute 2.1 p.p. (*versus 2.2 p.p.*) to the overall YoY growth in prices for December 2012.

Weak domestic demand can be seen as the main anti-inflation factor for 2012. Conversely, the CZK/EUR and CZK/USD exchange rates are pro-inflation factors, as we expect an average YoY weakening of the Czech koruna by 4.0% and 10.2% respectively. The **average inflation rate in 2012** should be 3.2% (*forecast unchanged*), with prices increasing by 2.3% (*versus 2.4%*) during the year. The YoY growth of prices should be roughly in the 3.5% range in Q1. We expect contributions from market growth in prices to the YoY inflation to be positive in 2012.

The forecast for **2013** is based on an assumption of VAT rates being unified at 17.5% as from 1 January 2013. The negative influence of the decrease in the basic VAT rate should exceed the positive influence of the higher reduced rate and the aggregate effect in CPI is estimated at −0.2 p.p. The average inflation rate should range around 1.5% with December inflation at 1.7%.

The outlook for 2014 and 2015 counts upon an average inflation rate close to the CNB's 2% target, which seems to be an element stabilising economic entities' inflation expectations in the medium term.

Deflators

The aggregate price level in the economy is rising only moderately. The **gross domestic expenditure (GDE) deflator**, which is a comprehensive indicator of domestic inflation, grew by 1.0% (*versus 1.1%*) in Q3 2011 YoY. In Q4 2011 its growth probably accelerated to 2.1% (*versus 1.7%*), especially due to higher consumer inflation (see above). For 2011, the deflator thus increased by ca 1.1% (*versus 1.2%*).

In early 2012, domestic prices will be affected by the impact of the VAT change and further weakening of the koruna exchange rate, which should especially affect prices of machinery investments. In 2012, the GDE deflator should increase by 2.7% YoY *(versus 2.5%)*. In 2013, when we expect a decrease in inflation both for household consumption and in other segments of GDP expenditure, the increment of GDE deflator should drop to 1.2%.

The value of the implicit GDP deflator fell by 0.1% *(versus growth of 0.3%)* in Q3 2011. In contrast to the GDE deflator, it was driven downward by the 1.5% *(versus 1.0%)* decline in the terms of trade. For 2011, we expect the deflator to drop by 0.2% *(versus holding steady)*. For 2012, we are raising the estimate to 1.9% *(versus 1.7%)* due to the higher expected GDE deflator. We expect the GDP deflator increment to be 0.8% for 2013.

C.3 Labour Market

Employment

According to the Labour Force Survey (LFS), **employment** rose YoY in Q3 2011 by 0.3% (*versus 0.1%*). The employee segment increased by 0.2% (*as forecast*), and the entrepreneurs and self-employed segment gained by 1.0% (*versus –0.1%*) due to the continuing increase of self-employed persons.

The YoY increase of employees in the secondary sector continued, and especially in the manufacturing industry, while employment in the tertiary sector and in construction continued to fall.

The **employment rate** (ages 15–64) increased YoY by 0.7 p.p. to 66.2% *(versus 65.9%)*. In view of the market's adaptation to population aging, its structure still shows growth in the higher age categories. This is most significantly apparent for 55–59 years of age, when it is especially due to more rapid increase in the retirement age for women.

The **economic activity rate** (ages 15–64) grew YoY by 0.4 p.p. to 70.9% *(as forecast)*. With a gradually diminishing number of residents in this age, and due to a higher willingness to work, the total labour supply thus decreased by just 0.2% YoY in Q3 2011.

Considering the better development in Q3 and expected decline of seasonally adjusted employment in Q4, we maintain the estimate for employment growth in 2011 at 0.4%.

For 2012, however, we expect a YoY decline in employment by 0.3% (*versus 0.2%*). This will be due to a delayed impact of stagnating GDP, the ensuing further reduction in the number of employees, and partially by the announced further reduction in the number of state administration employees. With the already presumed improvement of the economic situation, in 2013 we do not expect employment to continue to decrease.

Unemployment

Registered unemployment was visibly decreasing through the first three quarters of 2011 in raw and seasonally adjusted data. In Q4, however, the seasonally adjusted data already showed a slight increase. New legislative measures should contribute in coming months to decreasing the number of registered job seekers and in a slightly lower number of unemployed also under the LFS methodology.

The **unemployment rate** (according to LFS) reached 6.6% in Q3 2011 (*versus 6.9%*), declining YoY by 0.5 p.p. We presume that higher than expected decline was caused by more significant effort to obtain extra income by those formally unemployed and the economically inactive.

In the context of recent development in the economic situation and employment, we believe the average LFS unemployment rate for 2011 decreased to 6.7% (*versus 6.9%*). However, we expect unemployment to slightly increase in this and the next year – to 7.0% (*versus 6.9%*) in 2012 and 7.2% in 2013.

Wages

Also in Q3 2011 decrease of the average nominal wage in the state-administered sector pushed down total wages. The change in situation was also seen in slowing of the heretofore notable growth rate of wages in manufacturing.

The **wage bill** (national accounts, domestic concept) increased YoY by 0.7% (*versus 2.3%*) in Q3 2011. The CZSO's preliminary estimate, however, shows certain inconsistencies with other statistical data.

We estimate the wage bill rose by only 1.7% (*versus 2.3%*) in 2011. The lower growth forecast for 2012 of 2.0% (*versus 2.7%*) is caused by economic output being lower than originally expected and by the related drop in employment.

The **average nominal wage** (full-time equivalent) grew YoY by 2.4% (*versus 2.2%*) in Q3.

In the business sector, its YoY growth in comparison with the previous quarter slowed to 2.7%. We do not expect further rapid wage growth in the business sector, however, and especially not in industry, due to the rather pessimistic expectations for the economy.

In the non-business sector, where there is further decline in the number of employees, the average nominal wage rose by 1.1% after four quarters of decrease, while public administration and defence continued in their previous decline, albeit to a lesser degree.

We are not changing the estimate for 2.2% growth in the average wage for 2011. Based upon signals from the business sector and known intents and decisions regarding public sector salaries, the increase in average nominal wages is expected to abate in this period. In

2012, we therefore expect only 2.0% growth (*versus 2.7%*), which would mean a drop in the real average wage by 1.1% at the presumed inflation rate of 3.2%.

On the basis of signals from the business sector and known intents and decisions regarding public sector salaries for the forthcoming period, and contrary to the previous forecast, the increase in average nominal wages is expected to abate in this period. We anticipate growth by 2.2% (*versus 2.3%*) for 2011 and by only 2.7% (*versus 4.0%*) in 2012. Given the presumed inflation rate of 3.2%, this will mean a 0.5% decrease in real terms for the total average wage.

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, was −2.5% (*versus −3.4%*) in Q3 2011. That marked a YoY improvement of 0.6 p.p. Apart from the services balance (deterioration of 0.3 p.p.), all components of the current account improved: the trade balance by 0.4 p.p., income balance by 0.3 p.p., and balance of current transfers by 0.1 p.p.

Growth in world trade continued in 2011, albeit more slowly. After very strong growth of export markets[3] in 2010 by almost 12%, we expect their growth slowed to 7.1% (*versus 7.6%*) in 2011.

In 2012 and 2013, impacts of the European debt crisis on the real economies of partner countries should have the effect of slowing the growth of export markets to 2.4% (*versus 3.8%*) and 2.7%, respectively. We also expect a drop in export performance, which indicates the volume proportion of Czech goods on foreign markets, from estimated 5.2% growth (*versus 2.4%*) in 2011 to 0.4% (*versus 0.2%*) in 2012 and 0.7% in 2013.

Czech import and export achieved good results through the turbulence in the world economy. Although their growth dynamics were decreasing in comparison to 2010, the foreign trade turnover was reaching record values at the end of 2011. With a faster rate of export than import, the **trade balance** surplus increased, and we estimate it to have been 3.0% of GDP (*versus 1.8%*) in 2011. For 2012 and 2013, we expect a slowing in the rate of trade growth and, with the presumed excess of exports over imports, for the trade balance to rise to 3.3% of GDP (*versus 1.9%*) and 3.5% of GDP, respectively.

In view of the oil price scenario we assume the current high prices of raw materials will be maintained over the course of 2012 and 2013, thus increasing the fuels balance deficit (SITC 3). We estimate its share in GDP for 2011 at ca 4.6% (*versus 3.8%*), and for 2012 and 2013 we expect it to further increase to ca 5.4% (*versus 4.8%*) and 5.3%, respectively.

The **balance of services** surplus in Q3 2011 dropped in annual terms by 0.3 p.p. to 1.8% of GDP (*as forecast*). Since mid-2010 services revenues and expenditures both were increasing, although expenditures rose faster than revenues and thus the item's overall surplus was decreasing. A drop was especially apparent in transportation services. The tourism balance was rather languishing, and the balance of other services was improving slightly. We estimate the 2011 balance at 1.8% of GDP (*versus 1.9%*). In this year and next, the balance of services should end in a surplus of 1.7% of GDP (*versus 1.8%*) and 1.8% of GDP, respectively.

The deficit on the **income balance**, which includes the reinvested and repatriated profits of foreign investors, had only a weakly growing tendency. While the revenues were steady, expenditures were slightly increasing in connection with renewed growth in the volume of remuneration paid to foreign employees rather than due to an outflow of investment gains, which consist especially of reinvested profit. We estimate the deficit on the income balance for 2011 at 6.7% of GDP (*versus 7.1%*). We expect the indicated trend to continue in 2012 and 2013 and that the deficit on the income balance will reach 6.9% of GDP (*versus 7.3%*) and 7.3% of GDP, respectively.

Under the given circumstances, we estimate that the **current account** balance as a proportion of GDP reached −1.9% (*versus −3.1%*) in 2011. For the following years we expect stability on a similar level. The forecast for 2012 is −1.6% of GDP (*versus −3.3%*), and for 2013 it is −1.7% of GDP. A current account deficit in this amount poses no risks of macroeconomic imbalances.

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

C.5 International Comparisons

Comparisons for the period up to and including 2010 are based on Eurostat statistics. Since 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 18.47/PPS in comparison to the EU27 or CZK 17.53/EUR in comparison to the EA12.

Most countries are gradually recovering from the economic crisis of 2009 which had caused the absolute level of GDP per capita, adjusted by **current purchasing power parity**, to decrease in all monitored countries except for Poland. In 2010, the economic level continued to fall only in Greece, which was joined by Portugal a year later. In addition to decrease of the absolute level, the two countries also slipped in their relative economic levels versus the EA12 countries. In 2011, this even decreased by nearly 6 p.p. in Greece. By contrast, the Baltic states and Poland recorded increases in their relative economic levels compared to the EA12 of 2–4 p.p. in the same year.

In the Czech Republic, the economic level of GDP per capita as adjusted to current purchasing power parity was approximately 19,900 PPS in 2011, corresponding to 73% of economic output in the EA12. After the convergence period, when during 2000–2007 the real economic level in the Czech Republic in comparison to EA12 countries increased by 13 p.p., there has been since 2008 no change, or even slight divergence, due to the low growth in real GDP per capita.

An alternative way of calculating GDP per capita by means of the current **exchange rate** takes into account the market valuation of the currency and ensuing differences in price levels. In the case of the Czech Republic, this indicator was ca EUR 14,800 in 2011, i.e. approximately half the level of the EA12 (51%). However, due to the expected stagnation of the economy and presumed slight depreciation of the koruna in 2012, we do not expect the pre-crisis level from 2008 to be surpassed within the forecast horizon.

Examining 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 relative price level in 2012 should help to boost the competitiveness of the Czech economy.