

### 3. Convergence processes

#### 3.1. Nominal convergence

In the previous years, the Czech Republic did not have any problems with the fulfilment of the Maastricht nominal convergence criteria in relation to the average level of the economic and currency union in Europe, with the exception of the government sector finances. In the other parameters it mostly achieved results which were better than the other countries in the region which aspired to adopt the common currency. In 2008, however, the situation concerning the fulfilment of the convergence criteria worsened. Paradoxically, the fiscal limit was met for the third year in a row, but the country did not meet the limit for price growth. The Czech Republic was also successful in the convergence of interest rates for 2008. The fulfilment of the criterion for the stability of the exchange rate cannot be evaluated in the prescribed manner, because the Czech Republic is not a member of the ERM II (minimum two-year membership precedes the date of the adoption of the Euro).

#### Price stability criterion

- **The Maastricht limit** The convergence price criterion set by the Maastricht Treaty is conditional upon the achievement of a rate of inflation which does not exceed the average of the three EU countries with the lowest inflation rate increased by 1.5 percentage points.

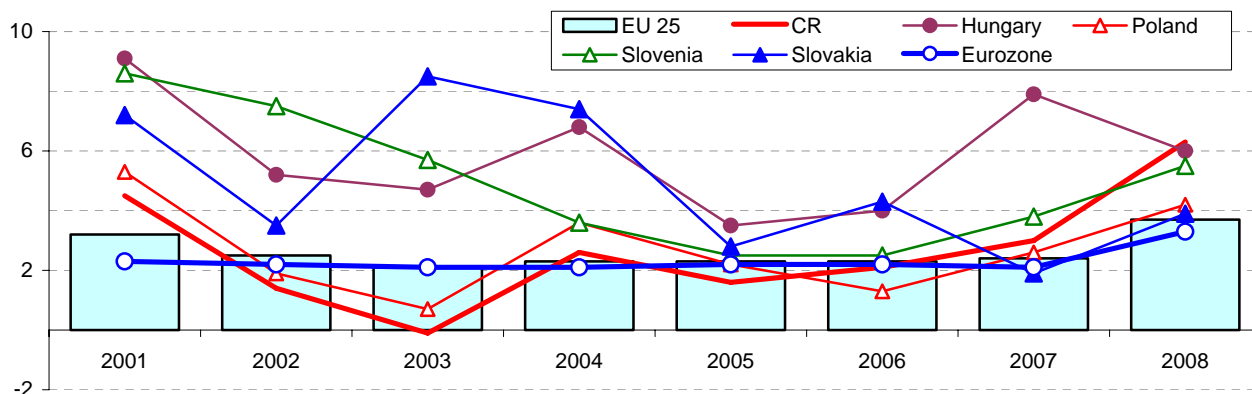
- **Consumer prices in Europe only rose more quickly in the Baltic states, Iceland, Bulgaria and Rumania than in the Czech Republic in 2008** In autumn 2007, the Czech economy was hit by a substantial inflationary episode, as a consequence of which the harmonised consumer price index also rose throughout most of 2008 (initially as a result of the influence of administrative changes and subsequently due to the rapid increase in the price of foodstuffs and fuel). According to the 2008 yearly data (the average price level of the last 12 months in comparison with the average for the previous 12 months), the inflation ascertained in this manner reached 6.3% (in 2007, the HICP amounted to 3%).

Despite the fact that the growth in consumer prices in 2008 was a Europe-wide phenomenon (Graph no. 3.1.1), the Czech Republic was one of the countries with the largest growth in consumer prices: in Europe, prices only rose more quickly in Latvia (+15.3%), Iceland (+12.8%), Lithuania, Estonia and Bulgaria (also double digit growth) and in Rumania.

- **The fulfilment of the Maastricht criterion in the price area was not possible in 2008** Given this situation, it was not possible for the Czech Republic to fulfil the convergence limit in the given year. The given rule allowed for only an increase of 4.1% in the HICP (the countries with the lowest inflation were the Netherlands, Portugal and Germany).

Of the most frequently compared countries in the region, only Slovakia was successful with an inflation rate which was just under the prescribed limit (Graph no. 3.1.1).

Graph no. 3.1.1 Consumer inflation in selected countries and groupings (the HICP, the average annual change in %, 2001 to 2008)



Source: Eurostat

**There was also significant upwards price movement in Europe**

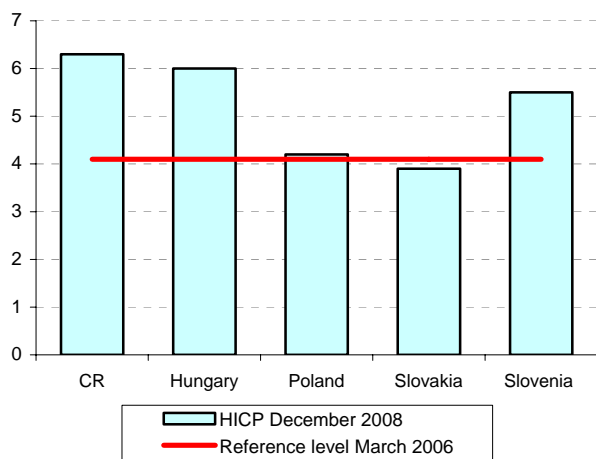
The price level mostly rose in Europe – in 2008, the countries of the EU 27 reported the greatest increase in prices according to the harmonised index of consumer prices since 1998 and the countries of the Eurozone even reported the highest growth from the period when they were listed as a grouping in the Eurostat time series. Whereas the prices in the EU 27 rose by 2.4% in 2007, this figure was 3.7% in 2008 (similarly it was 2.1% and 3.3% respectively in the Eurozone).

Despite the general growth in prices in 2008, the EU 27 remained under the convergence criterion with consumer inflation at the amount of 3.7% according to the HICP.

- The growth in the prices of foodstuffs was higher than the HICP average**

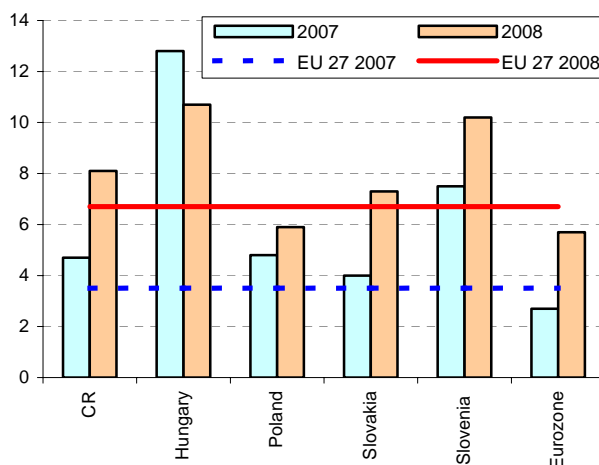
The structure of the harmonised index of consumer prices shows an interesting comparison of the growth rate for the prices of foodstuffs (Graph no. 3.1.3). Its dynamic was higher in the Czech Republic in 2007 and 2008 than the average tempo for the EU 27 and the Eurozone – whereas the prices of foodstuffs in the EU 27 increased in 2008 on average by 6.7% (in 2007, it was 3.5%), they increased in the Czech Republic by 8.1% (in 2007, it was 4.7%).

**Graph no. 3.1.2 The price stability convergence criterion (the HICP in %, selected countries, reference value December 2008)**



Source: Eurostat, own calculations

**Graph no. 3.1.3 Consumer inflation in the foodstuffs entry (the HICP in %)**



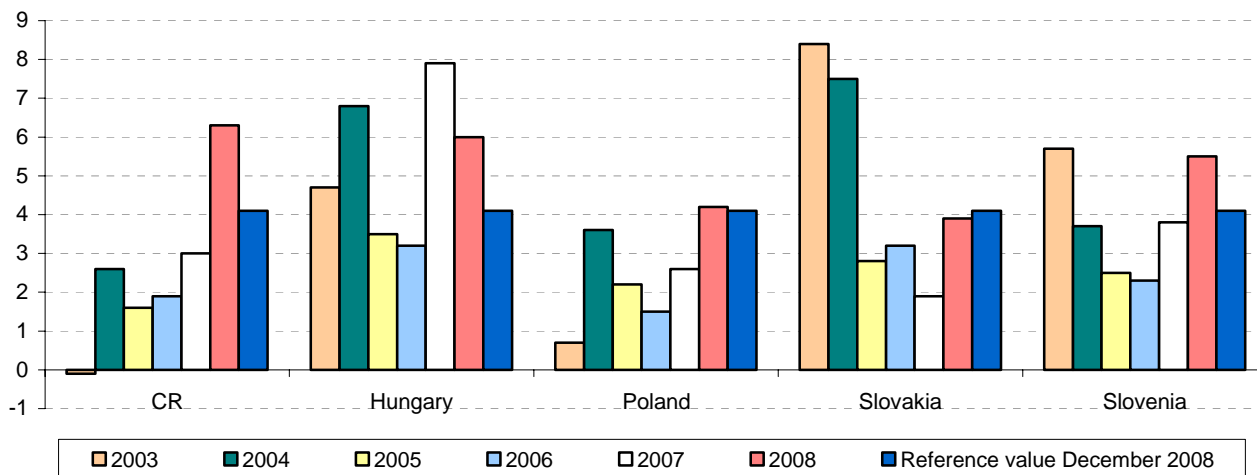
Source: Eurostat, own calculations

- The Czech Republic would not meet the price criterion even at the current time**

The calculation designating the pace of consumer inflation according to the HICP from the end of 2008 showed a relatively large difference between the prescribed value of the price criterion and the actual growth of the consumer prices in the Czech Republic.

If we apply the calculation to the last known values, i.e. in the period of working on this analysis of the data for February 2009, not even a fall in the consumer price growth rate (which is, however, lower than it would be possible to fundamentally expect with regard to the statistical comparative base) would enable the Czech Republic to fulfil this criterion as of the end of February 2009. The HICP has admittedly fallen from the December level of +6.3% to +5.2%, but at the same time the prescribed limit boundary also fell, because there was also a fall in prices in the European countries.

**Graph no. 3.1.4 The development of the harmonised index of consumer prices in selected countries**  
(the average annual change in %, reference value December 2008)



Source: Eurostat

### Fiscal criterion – public budget deficit and government sector debt

- ***The Czech Republic fulfilled the public budget deficit fiscal criterion with a relatively significant reserve ...***

The situation of the Czech Republic's public budget and its development in recent years has been covered in more detail in Chapter 2.2 on the macroeconomic balance.

As has already been mentioned, the Czech Republic reported significant improvements in the state of its public finances. It was one of a small number of countries which were not forced to support the stability of their banking systems in 2008, unlike other European countries and the USA. Even despite some necessary intervention, by means of which the significant fall in the rate of growth in association with the "imported" recession was addressed, the public budget deficit achieved a good result in relation to GDP in 2008 (1.5%).

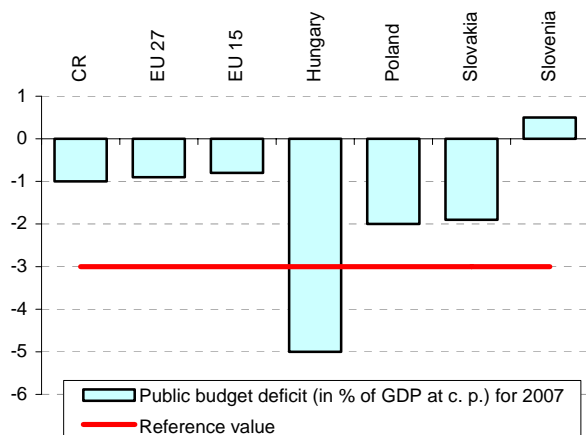
- ***... it has also long met the limit for the gross government sector debt without any problems***

The Czech Republic fulfilled the Maastricht fiscal criteria: the public budget deficit was relatively well under the three percent limit in relation to the nominal GDP. The Czech Republic has also definitely met the prescribed limit of 60% of the nominal GDP in the case of the gross consolidated government sector debt (in 2008, the amount of this debt amounted to 29.8% of GDP at current prices according to the sent notification).

- ***The sustainability of the public budgets in the medium and long term is not guaranteed***

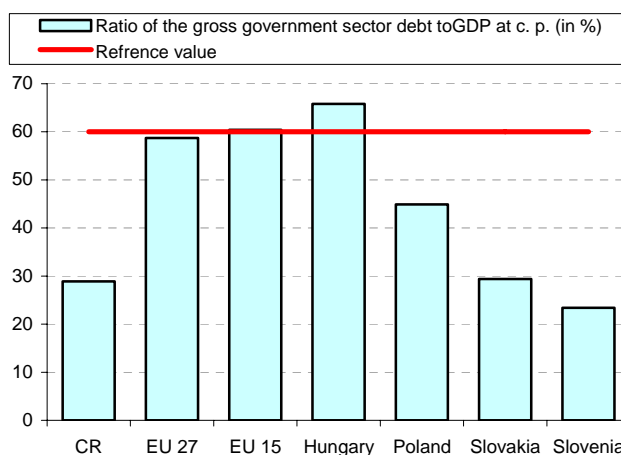
As far as the sustainability of the public budgets is concerned, no reform steps have yet been implemented in order to ensure that the shares of the state budget's mandatory payments in the overall state budget expenditure, which influence the result of the public budget finances to a significant extent (see Chapter 2.2 for more), do not escalate. The share of these expenses has currently been able to be maintained at approximately the same level – without any significant growth – by means of parametric changes.

**Graph no. 3.1.5 The fiscal stability convergence criterion – the public budget deficit (in % GDP at current prices)**



Source: Eurostat

**Graph no. 3.1.6 The fiscal stability convergence criterion – the gross government sector debt (in % of GDP at current prices)**



Source: Eurostat

### Interest rate convergence criterion

- **The interest rate criterion is based on the revenues from long-term state bonds**

The Maastricht convergence criterion according to the stability of interest rates designates that the average long-term nominal interest in the monitored country should not exceed the average interest rate calculated for the three countries which have achieved the best results in price stability by more than two percentage points in the period of one year before the investigation<sup>1</sup>.

- **The Czech Republic met the interest rate stability criterion in 2008**

The Czech Republic met the interest rate stability convergence criterion in 2008 (Graph no. 3.1.7), despite the fact that the interest rates on long-term government bonds in the Czech Republic have increased similarly to those in Europe as a whole since 1995 (Graph no. 3.1.9).

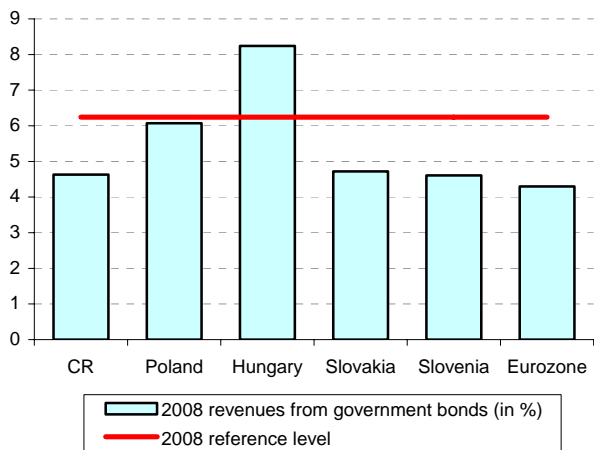
From among selected central European countries, the Czech Republic and Slovakia belong to the economies with the lowest interest rate levels. The revenues from state bonds for 2008 amounted to 4.63%, while the comparable security for the Eurozone was 4.3% on average.

For example, the interest rates on long-term state bonds in Hungary were 8.24% for the stated period which is a reflection of the poor state of the government sector (very high public budget deficits and government debt). Hungary was already the country with the highest interest rates from the stated sample of countries in 2003.

In 2008, long-term interest rates also rose significantly in Latvia, Lithuania and especially Estonia in clear reaction to their deviation from macroeconomic balance (in Estonia, there was an interest rate hike of more than 2 percentage points to 8.16%). The lowest interest rates in Europe were in Sweden (3.89%) and Germany (3.98%).

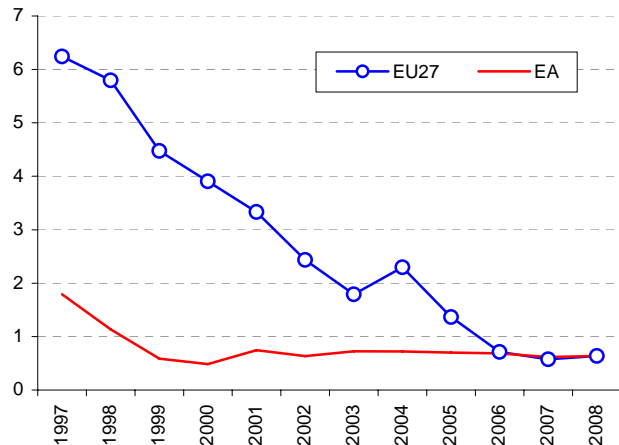
<sup>1</sup> The reference value is based on the interest rates for long-term state bonds or comparable securities, while taking into account the different definitions of the terms in the individual member countries.

**Graph no. 3.1.7 The interest rate stability convergence criterion – government bond revenues (in %)**



Source: Eurostat, own calculations

**Graph no. 3.1.8 Interest rate convergence in Europe (loans to companies due over 1 year, standard error)**



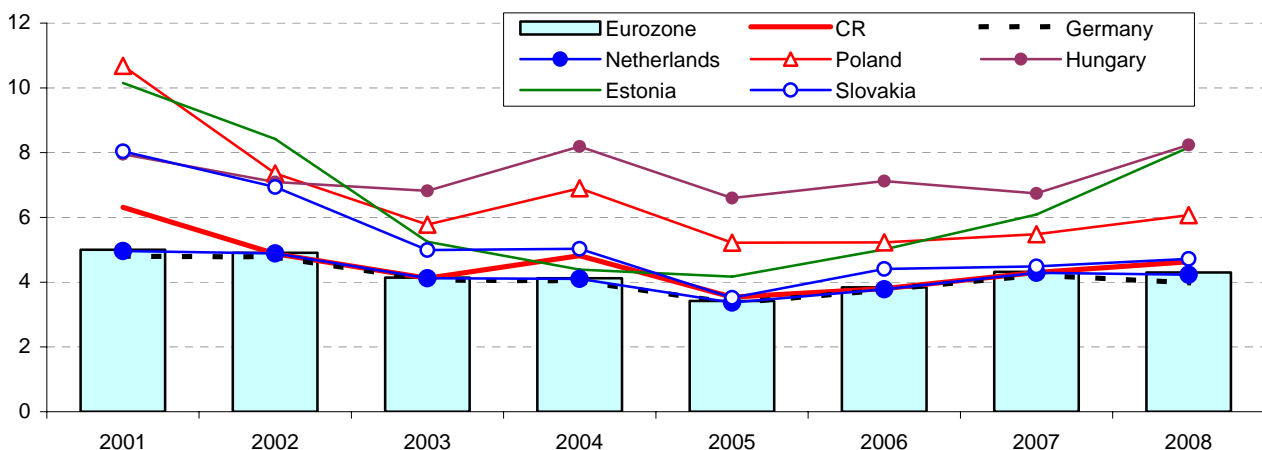
Source: Eurostat, own calculations

• **The convergence of the level of the long-term interest rates in the EU 27 and the Eurozone**

As is clear from Graph no. 3.1.8, Europe is experiencing the gradual convergence of interest rates from a long-term point of view (whereas the variation coefficient of the rates in the EU 27 was 60.1 in 1997, it was only 10.4 in 2008). In the Eurozone, the differentiation between the highest and the lowest values was essentially smaller, but it also reduced even further (in 1997, the value of the variation coefficient was 28.7, while it fell to 10.5 in 2008).

Graph no. 3.1.8 shows the gradual convergence of the interest rates with the help of the standard deviation (the interest rates for bank loans to companies with maturity in excess of one year have been chosen). It shows that the diffusiveness of the interest rates in the countries of the EU 27 and the countries of the Eurozone has been almost equal since 2006.

**Graph no. 3.1.9 The interest rate convergence criterion – revenues of government bonds (in %)**



Source: Eurostat

**Terms of trade stability criterion**

• **The Czech Republic has not yet entered in the ERM II system**

The evaluation of the currency stability convergence criterion is not possible for the Czech Republic, because the country is not yet a member of the ERM II (at least two-years membership in the system is necessary as “preparation” for the common currency). The asymmetrical nature of this criterion and also the possibility of the revaluation of the central parity would speak in favour of the development of the exchange rate of the Czech crown which has so far been noted and whose evaluation

indicates that the Czech Republic could meet the exchange rate stability criterion. The massive appreciation in relation to the Euro in the first seven months of 2008 was still within the limit zone of permitted strengthening.

- **The rapid appreciation of the crown in relation to the main currencies in the first half of 2008**

In 2008, the Czech crown initially underwent a period of very rapid appreciation, which lasted from the beginning of the year to approximately the middle of July; on 21.7., the Euro cost 22.97 CZK and at the beginning of January it was 26.36 CZK; the CZK/USD exchange rate similarly strengthened from 17.95 to 14.45 CZK as of 22.7.2008. In less than seven months, the crown thus strengthened by 12.9% against the Euro and 18.5% against the American dollar (some of the scenarios of the Czech National Bank and the Ministry of Finance involving the adoption of the Euro estimated the appreciation of the crown against the Euro at an average rate of 2% annually).

In reaction to the global financial crisis and the weakened degree of trust in the American dollar, investors also bet on the Czech crown when seeking an “island” of stability. At that time, the country’s economy was still relatively highly efficient in comparison with the nascent recession in the USA and its first signs in the Eurozone. The imbalances were weak. Despite that the tempo of the strengthening of the crown did not correspond to these favourable fundamentals and it damaged exports from the Czech Republic. The vocal intervention of the central bank and the subsequent development of the foreign exchange markets throughout the world reversed the growth trajectory of the crown exchange rate in the remainder of the year.

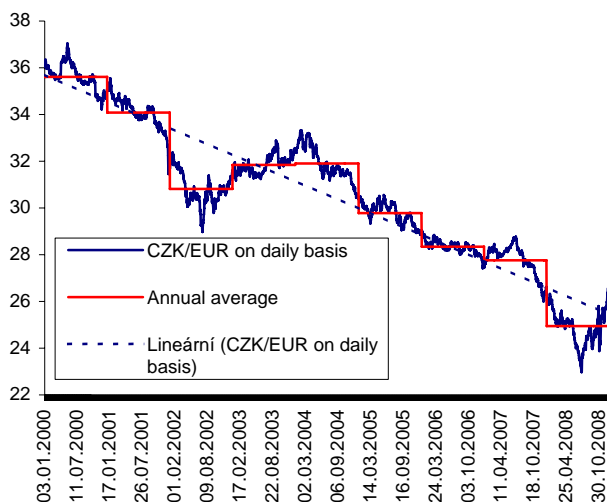
- **The fluctuation of the CZK/EUR in 2008 on the depreciation side at an amount which is higher than that allowed by the ERM II tolerance zone**

An evaluation using the ERM II system’s mechanisms – which is not possible in the case of the Czech Republic for the aforementioned reasons – can only be orientationally replaced by means of a simple revaluation according to the fluctuations of the current exchange rate to the annual average exchange rate to the Euro.

This shows that the weakest value of the exchange rate (from the beginning of January) was 5.7% under the average annual CZK/EUR exchange rate and that the strongest from July was 7.9% above the average.

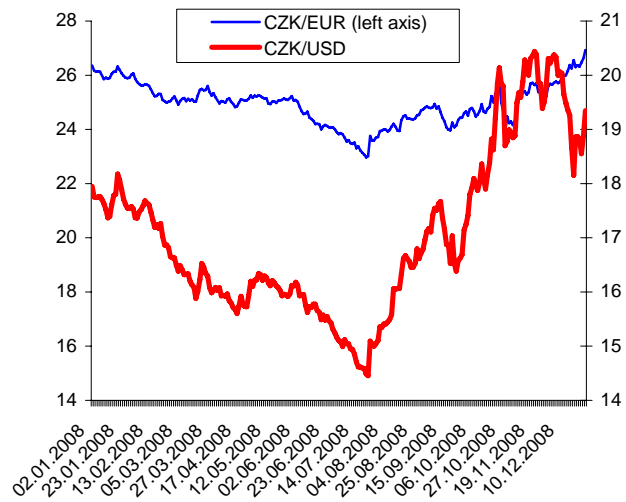
Given the values of the tolerance zone set by the ERM II system, the crown would therefore not have a problem in the revaluation zone, but it would in the devaluation zone (the limit would be exceeded).

**Graph no. 3.1.10 The daily CZK/EUR value and the average exchange rate**



Source: the Czech National Bank, the Czech Statistical Office

**Graph no. 3.1.11 The CZK/EUR and CZK/USD exchange rates in 2008**



Source: the Czech National Bank, the Czech Statistical Office