

# **ASSESSMENT OF THE FULFILMENT OF THE MAASTRICHT CONVERGENCE CRITERIA AND THE DEGREE OF ECONOMIC ALIGNMENT OF THE CZECH REPUBLIC WITH THE EURO AREA**

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## CONTENTS

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<b>1</b>	<b>Summary and Recommendations Regarding the Czech Republic’s Preparedness for Joining ERM II and the Euro Area</b> .....	<b>3</b>
1.1	Assessment of Fulfilment of the Convergence Criteria .....	3
1.2	Assessment of Economic Alignment Analyses.....	4
1.3	Conclusions and Recommendations.....	6
<b>2</b>	<b>Assessment of the Current and Expected Fulfilment of the Maastricht Convergence Criteria</b> .....	<b>7</b>
2.1	Criterion on Price Stability.....	7
2.2	Criterion on the Sustainability of Public Finance .....	8
2.3	Criterion on Exchange Rate Stability.....	10
2.4	Criterion on Long-term Interest Rates .....	13
<b>3</b>	<b>Assessment of the Czech Republic’s Current Economic Alignment with the Euro Area</b> .....	<b>15</b>
3.1	Cyclical and Structural Alignment.....	15
3.2	Adjustment Mechanisms .....	20

## TABLES

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Table 2.1:	Harmonised index of consumer prices.....	8
Table 2.2:	General government balance.....	9
Table 2.3:	Government debt.....	10
Table 2.4:	Yields to maturity of 10-year government bonds on the secondary market.....	13

## CHARTS

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Chart 2.1:	Nominal CZK/EUR exchange rate.....	12
Chart 3.1:	Real economic convergence of selected states towards the euro area in 2008 .....	16
Chart 3.2:	GDP growth in the Czech Republic and the euro area.....	17
Chart 3.3:	Exports to the euro area as a percentage of in total exports.....	19
Chart 3.4:	Long-term unemployment rate.....	21

# 1 SUMMARY AND RECOMMENDATIONS REGARDING THE CZECH REPUBLIC'S PREPAREDNESS FOR JOINING ERM II AND THE EURO AREA

Besides being required to harmonise their legislation with Articles 108 and 109 of the Treaty establishing the European Community and the Statute of the European System of Central Banks, EU Member States are required to achieve a high degree of sustainable convergence in order to join the euro area.

As regards European structures, this is measured by the fulfilment of four convergence criteria: a high degree of price stability, as apparent from the rate of inflation; sustainability of the government financial position, as measured by the government deficit and government debt; exchange rate stability, as measured by movements in the exchange rate within the normal fluctuation margins of the ERM II system for two years without devaluation; and durability of nominal convergence, as reflected in the long-term interest rate level.

The Czech Republic is obliged to take steps to be prepared to join the euro area as soon as possible. However, setting the date for joining the euro area is within the competence of the Member State and depends on its preparedness. Potential non-fulfilment of the convergence criteria has no direct consequences for the Czech Republic. The only exception is the criterion on the sustainability of public finance. If a country fails to meet this criterion it is subject to the excessive deficit procedure, which the Czech Republic was in from spring 2004 to June 2008. The procedure will probably be re-opened against the Czech Republic before the end of 2009.

## 1.1 Assessment of Fulfilment of the Convergence Criteria

The Czech Republic will be compliant with **the criterion on price stability** at the end of 2009 owing to sharp disinflation caused by the abatement of the mostly one-off inflation factors recorded in the past, and owing to the economic recession. The Czech Republic should see relatively subdued consumer price inflation in 2010–2012. In the medium term, moreover, upward pressures on the price criterion reference value are expected as the global economy recovers. Fulfilment of the price stability criterion should thus not be a major problem for the Czech Republic unless large unforeseeable shocks occur in the reference period.

The reduction of the CNB's inflation target for the national CPI to 2.0%, with a tolerance band of  $\pm 1.0$  p.p., from 1 January 2010 creates better conditions for fulfilling the criterion. It is desirable, however, that no substantial inflationary changes to indirect taxes or other administrative measures in the consumer price area hindering the fulfilment of the criterion be made during the reference period for the assessment of this criterion.

The Czech Republic is not compliant with **the criterion on the sustainability of the government financial position** at present, and given the current fiscal policy settings and expected macroeconomic developments it is not likely to fulfil it in the medium term either.

The general government deficit for 2009 is notified at 6.6 % of GDP. The government's fiscal strategy aims to reduce the deficit to 5.3% of GDP in 2010. Unless more measures are adopted, however, it will rise to 5.6% of GDP in 2011 and 5.5% of GDP in 2012 according to the Czech Ministry of Finance's forecast. This is well above the 3% reference value.

The Czech Republic has long been compliant with the government debt-to-GDP ratio criterion. Given its relatively low initial level of government debt, the Czech Republic currently has no problems fulfilling this criterion, although the rate of growth of the debt

started rising sharply 2009. A debt of 35.6% of GDP is expected for 2009, i.e. around 5 percentage points higher than in the previous six years, when the debt-to-GDP ratio fluctuated around 30%. Owing to the expected annual government sector deficits, the government debt level will increase sharply in the medium term, reaching almost 45% of GDP in 2012. Another risk going forward is the expected adverse effect of population ageing. Unless the necessary reforms of the pension and health care systems are implemented, a further increase in the debt-to-GDP ratio is to be expected in the long run.

Assessment of the fulfilment of **the criterion on exchange rate stability** will only be possible after the Czech currency joins ERM II and the central rate of the koruna against the euro is set. The koruna has been recording a long-term appreciation trend against the euro and its movements have so far been mostly subdued. The exceptions were the crisis-hit years 2008 and 2009, when the koruna's exchange rate recorded a cumulative (for the previous 24 months) appreciation and depreciation respectively of greater than 15%. Moreover, the second half of 2008 was an exception from previous appreciation trend, as the global crisis changed the sentiment of financial market investors, resulting in a correction of the koruna exchange rate. The size of depreciation between July 2008 and February 2009 indicates potential risks to the fulfilment of the exchange rate criterion. The sharp fluctuations in the exchange rate observed recently thus indicate that the exchange rate stability criterion can be difficult to fulfil in turbulent times. The appropriate timing of ERM II entry, which should be preceded by a calming of the global financial market situation and of investment sentiment towards the region, as well as consolidation of domestic public finances, will thus be of key importance for successful fulfilment of the exchange rate stability criterion going forward. The correct setting of the central rate of the koruna against the euro will also be very important.

The Czech Republic is currently compliant with **the criterion on long-term interest rates** and the forecast for the yields to maturity of 10-year government bonds likewise suggests no problems in this respect in the future.

## 1.2 Assessment of Economic Alignment Analyses

In previous years, thanks to high economic growth, the Czech economy was gradually catching up with the average economic level of the euro area and was also showing some signs of increasing alignment. However, developments in the past year were strongly affected by the global financial and economic crisis, which led to a sharp economic downturn. As a result of the crisis, the public finance outlook is deteriorating sharply. The interest rate differential and exchange rate volatility have increased and financial market integration has loosened. In 2009, the convergence trend of the domestic price level towards the euro area is likely to be interrupted temporarily and long-term unemployment will probably rise. One positive aspect as regards the flexibility of the Czech economy is a gradual partial improvement in the business environment. Conversely, problems persist in the institutional set-up on the labour market. The economic preparedness for euro adoption in the Czech Republic has worsened markedly from the previous year as a result of the economic crisis.

In the longer term, i.e. since 2003, when the Czech Republic's Euro-area Accession Strategy was adopted, there have been both favourable and unfavourable developments in terms of euro adoption and the flexibility of the Czech economy. Compared to 2003, real and nominal convergence has advanced. Public finance performance improved in 2004–2008, but the fiscal situation will worsen sharply again in 2009 and 2010 owing to the economic slowdown. In addition to cyclical factors, the fiscal deterioration will be due to expected growth in the structural public finance deficit. The correlation of economic activity with the euro area has increased recently, owing mainly to the global financial and economic crisis. Given the global

and exceptional character of this shock, the observed increase in correlation does not necessarily signal a long-term change in the Czech economy's alignment with the euro area. Since 2003, there has been no major structural improvement in the labour market either. Except for some positive changes in the business environment, the flexibility of the Czech economy has not increased.

In terms of its current preparedness to adopt the euro, the characteristics of the Czech economy can be divided into four groups.

The first group consists of **economic indicators that speak in favour of the Czech Republic adopting the euro**, which traditionally include the high degree of openness of the Czech economy, its close trade and ownership links with the euro area, and the achievement of long-term convergence of the inflation rate and nominal interest rates, even though the level and volatility of interest rate differentials vis-à-vis the euro area have increased recently.

The second group comprises **areas which, in terms of euro adoption in the Czech Republic, continue to pose a risk of macroeconomic costs, but which have shown signs of improvement in recent years**. The positive developments include fast real economic convergence in the Czech Republic, including further convergence of the price level towards that in the euro area, even though a difference in the price level and in the level of economic development persists and the distance from the euro area price level will increase again in 2009 (probably only temporarily). The correlation of economic activity between the Czech Republic and the euro area has recently increased, although this reflects the recent extreme global developments and is not likely to increase the probability of greater alignment of the business cycle going forward in normal global economic conditions. In terms of labour market flexibility, the positive developments also include an ability to make use of inflows of foreign labour at times of economic growth and, conversely, to reduce the number of foreign workers during the current economic downturn. Other favourable developments include a halt in growth in overall labour taxation and a rise in the ratio of the minimum wage to the average wage. Nominal wages in the Czech economy have been showing signs of flexibility in the past two years, but in real terms there has been no increase in wage flexibility so far. The business environment is also showing some gradual improvement.

The third group consists of **areas which have recently recorded adverse developments in terms of future euro adoption**. The public finance outlook has deteriorated sharply as a result of the economic slump and the budgetary measures adopted. The overall fiscal deficit will probably exceed 6% in 2009. The structural deficit will increase substantially, partly because of the anti-crisis fiscal measures. Despite measures subsequently adopted to stabilise public budgets, the rapid growth in debt servicing costs that started recently and, unfortunately, the traditionally ignored long-term ageing-related challenges pose a risk to the evolution and sustainability of public finance. A temporarily adverse factor in terms of future euro adoption and prior participation in ERM II is the persisting uncertainty on the financial markets, which – despite a gradual calming of the situation in 2009 – is manifesting itself in continued increased market volatility. In this context, the alignment of the exchange rate of the koruna with the euro and the alignment with the euro area of yields on individual financial market assets have decreased. The economic downturn will also lead to a rise in long-term unemployment next year. The existing structural problems on the labour market were exacerbated by a change in the social benefits area in 2007 which was not fully corrected by the subsequent reform.

The fourth group contains other **areas which are showing problems in terms of the economy's flexibility and ability to adjust to shocks and which, moreover, are not showing any significant improvements**. A persisting problem here is the low or unsuitable

skills of the long-term unemployed. The costs of terminating open-ended employment contracts, particularly after a short period of employment, remain very high by international comparison and are contributing to employment inflexibility.

### 1.3 Conclusions and Recommendations

The state of public finance in the deficit area is the main barrier to the fulfilment of the Maastricht convergence criteria. As the one-off inflationary effects that generated the temporary surge in inflation in 2008 have subsided, there has been a marked fall in inflation in 2009 to values allowing fulfilment of the price stability criterion. This is being aided by the CNB's new inflation target which takes effect in 2010. The criterion on long-term interest rates is being – and very probably will continue to be – fulfilled without any problems. The Czech Republic does not fulfil the exchange rate criterion because it does not participate in ERM II. The increased volatility of the koruna exchange rate in recent years resulting from the global financial crisis is an adverse factor in this respect. Fulfilment of the exchange rate criterion after the country potentially joins ERM II could thus be very difficult under these conditions.

In the area of economic alignment, the preparedness of the Czech Republic for euro adoption has worsened, mainly as a result of the economic crisis. In recent years, the Czech Republic has gradually been catching up with the euro area economic level, but the functioning and flexibility of the Czech economy are not showing any major improvement. Owing to a sharp rise in the public finance deficit in 2009, eliminating the structural deficit and ensuring long-term public finance sustainability are still a challenge. The past positive trend on the labour market was driven largely by cyclical factors. There has been no great structural improvement and problems persist in the institutional set-up. A gradual partial improvement is taking place in the business environment. The current recession can be viewed as a temporary adverse factor as regards future adoption of the euro, since it is worsening public finance and may generate increased exchange rate variability. The persisting major uncertainty on financial markets is not creating a favourable environment for joining ERM II, since ERM II is potentially vulnerable to changes in financial market sentiment and in short-term capital flows. Any adverse developments during the Czech koruna's stay in this mechanism could generate macroeconomic costs and reduce the Czech economy's alignment with the euro area.

In the current circumstances it is very unlikely that the Czech Republic will be able to fulfil all the Maastricht convergence criteria in the medium term. A general government deficit of above 3% will be the principal barrier to joining the monetary union. Maintaining and further increasing the degree of alignment of the Czech economy with the euro area in the next few years is equally uncertain. **In this situation, therefore, it is impossible to conclude that the Czech Republic has made sufficient progress in laying the groundwork for euro adoption to allow it to set a target date for entry into the euro area. Therefore, in line with the Czech Republic's Updated Euro-area Accession Strategy, the Ministry of Finance and the Czech National Bank recommend that the Czech government should not set the target date for the time being. The recommendation not to set a target date for euro area entry for the time being simultaneously implies a recommendation that the Czech Republic should not attempt to enter ERM II during 2010.**

## 2 ASSESSMENT OF THE CURRENT AND EXPECTED FULFILMENT OF THE MAASTRICHT CONVERGENCE CRITERIA

The degree of sustainable convergence, which is one of the prerequisites for euro adoption defined in the Treaty establishing the European Community, is assessed according to the Maastricht convergence criteria. These criteria include a criterion on price stability, a criterion on sustainability of the government financial position, a criterion on exchange rate stability and a criterion on long-term interest rates. The criteria are specified in more detail in protocols annexed to the Treaty, namely the Protocol on the Excessive Deficit Procedure and the Protocol on the Convergence Criteria referred to in Article 121 of the Treaty.

### 2.1 Criterion on Price Stability

#### Box 2.1: Definition of the criterion on price stability

##### Treaty provisions

The first indent of Article 121 (1) of the Treaty requires: “the achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability”.

Article 1 of the Protocol on the Convergence Criteria referred to in Article 121 of the Treaty stipulates that: “the criterion on price stability referred to in the first indent of Article 121 (1) of this Treaty shall mean that a Member State has a price performance that is sustainable and an average rate of inflation, observed over a period of one year before the examination, that does not exceed by more than 1½ percentage points that of, at most, the three best performing Member States in terms of price stability. Inflation shall be measured by means of the consumer price index on a comparable basis, taking into account differences in national definitions.”

##### Application of Treaty provisions in ECB and EC Convergence Reports

With regard to “an average rate of inflation, observed over a period of one year before the examination”, the inflation rate is calculated using the increase in the latest available 12-month average of the Harmonised Index of Consumer Prices (HICP) over the previous 12-month average.

The reference value relating to the values of “at most, the three best performing Member States in terms of price stability” is calculated in practice as the unweighted arithmetic average of the rate of inflation in the three countries with the lowest inflation rates, given that these rates are compatible with price stability.

##### Implementation of the price stability criterion – current practice

Both the Treaty and the Protocol in some areas leave scope for interpretation by the institutions that assess the fulfilment of the criteria. Therefore, when assessing the fulfilment of the criteria one should also take into account the specific way in which these institutions apply the criterion.

As experience from the Convergence Reports published since 2004 has shown, both the Commission and the ECB have in these reports used the three countries with the lowest non-negative inflation, even though they have differed somewhat in their specific interpretations of the phrase “best performing Member States in terms of price stability”.

Moreover, the negative verdict for Lithuania<sup>1</sup> in the May 2006 Convergence Reports indicated that a very strict assessment can be expected as regards sustainable fulfilment of the criterion. If the outlook for the coming months foresees inflation rising above the reference value, the conclusion may be that the country is failing to satisfy the criterion in a sustainable manner. A similar signal has been sent out in the relatively strict assessment of the risks to the sustainable fulfilment of this criterion by Slovakia in the ECB Convergence Report 2008, despite the fact that Slovakia ultimately entered the euro area in 2009.

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<sup>1</sup> Lithuania recorded a rise in inflation between 2004 and 2006. As a result, inflation in Lithuania exceeded the price stability criterion reference value by 0.1 percentage point in the spring 2006 assessment.

According to the calculation of the reference value for the three countries with the lowest non-negative inflation (see Table 2.1), the Czech Republic did not fulfil this criterion in 2007 and 2008. The main exogenous factors in 2008 were a surge in prices of food and energy (most notably oil) and a wave of administrative measures (an increase in the lower VAT rate from 5% to 9%, the introduction of environmental taxes and health care fees, and further increases in excise duties). 2009 has seen much lower energy and food prices compared to the previous year amid a global crisis which, together with a fall in the domestic economy, is manifesting itself in sharp disinflation. In the past two years, inflation has also been affected by higher exchange rate volatility. The Czech Republic should start to fulfil the price stability criterion again in September 2009.

**Table 2.1: Harmonised index of consumer prices**

(average for last 12 months vs. average for previous 12 months as of end of period, growth in %)

	2006	2007	2008	8/2009	2009	2010	2011	2012
<b>Average for 3 EU countries with lowest inflation</b>	1.4	1.3	2.6	0.2	0.1	0.7	1.2	1.2
<b>Reference value</b>	2.9	2.8	4.1	1.7	1.6	2.2	2.7	2.7
<b>Czech Republic</b>	2.1	3.0	6.3	2.2	0.6	1.2	1.6	1.8

Sources: Eurostat, European Commission – Economic Forecast (autumn 2009).<sup>2</sup> The forecast for the Czech Republic is taken from the October 2009 Macroeconomic Forecast of the Czech Ministry of Finance.

In 2010–2012, prices in the Czech Republic will still be affected, in addition to standard factors, by a significant contribution of administrative measures to consumer price inflation. However, the Czech Republic should fulfil the price stability criterion in 2010–2012 provided that there are no unexpected one-off shocks. Sustainable fulfilment of this criterion in the future period will be aided by the CNB’s new inflation target. It is desirable, however, that no substantial inflationary changes to indirect taxes or other administrative measures in the consumer price area be made during the reference period for the assessment of this criterion (i.e. the ERM II participation period). Such measures would hinder fulfilment of the criterion.

## 2.2 Criterion on the Sustainability of Public Finance<sup>3</sup>

### 2.2.1 Government deficit criterion

#### Box 2.2: Definition of the criterion on the sustainability of the government financial position

##### Treaty provisions

The second indent of Article 121(1) of the Treaty requires “the sustainability of the government financial position; this will be apparent from having achieved a government budgetary position without a deficit that is excessive, as determined in accordance with Article 104 of the Treaty”.

Article 2 of the Protocol on the Convergence Criteria referred to in Article 121 of the Treaty stipulates that this criterion “shall mean that at the time of the examination the Member State is not the subject of a Council Decision under Article 104(6) of this Treaty that an excessive deficit exists”.

<sup>2</sup> Owing to a shift in the deadline for submitting the Convergence Programmes of the individual countries for 2009, and in the light of the current economic situation, where only a modest recovery can be expected in 2011–2012, the reference value of the inflation criterion for 2012 was determined using the same data as for 2011.

<sup>3</sup> The criterion on the sustainability of public finance is satisfied only when both components of the fiscal criterion, i.e. the government deficit and government debt, are fulfilled in a sustainable manner.



Article 104 of the Treaty sets out the excessive deficit procedure. According to Article 104 (2) and (3), the European Commission prepares a report if a Member State does not fulfil the requirements for fiscal discipline, in particular if:

1. the ratio of the planned or actual government deficit to GDP exceeds a reference value (defined in the Protocol on the excessive deficit procedure as 3% of GDP), unless:

- either the ratio has declined substantially and continuously and reached a level that comes close to the reference value, or

- the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value.

2. the ratio of government debt to GDP exceeds a reference value (defined in the Protocol on the Excessive Deficit Procedure as 60% of GDP), unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The excessive deficit procedure against the Czech Republic was opened in 2004. On the commencement of the procedure by the ECOFIN Council, the Czech Republic was given a deadline of the end of 2008 to bring its government deficit below 3% of GDP in a credible and sustainable manner. The favourable fiscal result for 2007 led to the abrogation of the procedure in June 2008.

The government deficit criterion is not being fulfilled (see Table 2.2). In addition to the unresolved structural problems of Czech public finance, the government sector is now facing an unprecedented shortfall in tax revenues. This is due to the extraordinarily unfavourable economic situation and to legislative changes approved particularly on the revenue side of the public budgets. These changes were made, among other things, in an effort to soften the impacts of the economic crisis. The current stabilisation measures do not represent a long-term systematic solution for the general government deficit.

**Table 2.2: General government balance**

*(ESA 1995 methodology, in % of GDP)*

	2006	2007	2008	2009	2010	2011	2012
<b>Reference value</b>	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
<b>Czech Republic</b>	-2.6	-0.7	-2.0	-6.6	-5.3	-5.6	-5.5

Sources: CZSO, Government Deficit and Government Debt Notifications (October 2009), Fiscal Outlook of the Czech Ministry of Finance.

The medium-term state budget outlook for 2010–2012 foresees some stabilisation of the general government deficit, but the level of the deficit is unacceptable from the point of view of the sustainability of public finance. Although this shortfall was caused largely by the recession, it will be necessary in future to focus on greater budgetary discipline and the adoption of further measures to reduce the structural deficit, as the high general government deficit recorded each year is contributing fundamentally to the rising government debt-to-GDP ratio. Given the assumption that the Czech Republic will enter the excessive deficit procedure at the end of 2009, it can be expected that the European institutions will exert strong pressure for more consolidation of Czech public finance.

As regards the alignment of the Czech economy with the euro area economy and the sustainability of public finance, it is essential to address the structural problems of public finance. The medium-term budgetary objective for the Czech Republic under the Stability and Growth Pact is to achieve a structural general government deficit of 1% of GDP. The Czech Republic has committed to achieve this objective as soon as possible and by 2012 at the latest

(see the 2008 Convergence Programme of the Czech Republic). From the current perspective, however, this objective is not likely to be fulfilled in 2012. The structural deficit is expected to be around 5% of GDP in 2009 with a subsequent decrease to about 3% of GDP in 2010 and a modest deterioration in 2011 and 2012.

The adoption of a law to rectify some property injustices against churches and the potential one-off resolution of environmental obligations could also widen the deficit. The potential impacts on public finance will depend on the exact form of the relevant measures.

## 2.2.2 Government debt criterion

Given the low initial level of government debt, the Czech Republic has had no problem fulfilling this criterion so far (see Table 2.3). In the past few years, the government debt has stabilised around 30% of GDP, following a substantial increase (due mainly to government guarantees) in 2001–2003. The debt amount is affected to a large extent by the public budget deficit, the largest component of which is the state budget deficit, which is expected to grow sharply as from this year. The overall debt is not high compared to other countries, but it is growing much faster as a result of the crisis. Moreover, the rate of growth of the debt has been slowed considerably in recent years by high privatisation revenues. However, this effect is disappearing as the privatisation process comes to an end. It is therefore clear that the period of comfortable fulfilment of the government debt criterion is ending and that increased attention will have to be paid to the sustainability of fulfilment of this criterion in the future.

**Table 2.3: Government debt**

(ESA 1995 methodology, in % of GDP)

	2006	2007	2008	2009	2010	2011	2012
<b>Reference value</b>	60.0	60.0	60.0	60.0	60.0	60.0	60.0
<b>Czech Republic</b>	29.6	29.0	30.0	35.6	39.6	42.1	44.3

Sources: CZSO, Government Deficit and Government Debt Notifications (October 2009), Fiscal Outlook of the Czech Ministry of Finance.

Another risk is the adverse effect of population ageing. Unless the necessary reforms are implemented to mitigate the fiscal impacts of population ageing, in particular a pension system reform and health care reform, a further increase in the debt-to-GDP ratio is to be expected in the long term.

## 2.3 Criterion on Exchange Rate Stability

### Box 2.3: Definition of the criterion on exchange rate stability

#### Treaty provisions

The third indent of Article 121 (1) of the Treaty requires: “the observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the currency of any other Member State”.

Article 3 of the Protocol on the Convergence Criteria referred to in Article 121 (1) of the Treaty stipulates that: “the criterion on participation in the exchange-rate mechanism of the European Monetary System referred to in the third indent of Article 121 (1) of this Treaty shall mean that a Member State has respected the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System without severe tensions for at least the last two years before the examination. In particular, the Member State shall not have devalued its currency’s bilateral central rate against any other Member State’s currency on its own initiative for the same period.”

### **Application of Treaty provisions in ECB and EC Convergence Reports**

The Treaty refers to the criterion of participation in the European exchange-rate mechanism (ERM until December 1998 and ERM II since January 1999).

First, the ECB assesses whether the country has participated in ERM II “for at least the last two years before the examination”, as stated in the Treaty.

Second, as regards the definition of “normal fluctuation margins”, the ECB recalls the formal opinion that was put forward by the EMI Council in October 1994 and its statements in the November 1995 report entitled “Progress towards Convergence”.

The EMI Council’s opinion of October 1994 stated that “the wider band has helped to achieve a sustainable degree of exchange rate stability in the ERM”, that “the EMI Council considers it advisable to maintain the present arrangements”, and that “member countries should continue to aim at avoiding significant exchange rate fluctuations by gearing their policies to the achievement of price stability and the reduction of fiscal deficits, thereby contributing to the fulfilment of the requirements set out in Article 121 (1) of the Treaty and the relevant protocol”.

In the November 1995 report entitled “Progress towards Convergence” it was stated that “when the Treaty was conceived, the ‘normal fluctuation margins’ were  $\pm 2.25\%$  around bilateral central parities, whereas a  $\pm 6\%$  band was a derogation from the rule. In August 1993 the decision was taken to widen the fluctuation margins to  $\pm 15\%$ . The interpretation of the criterion, in particular of the concept of ‘normal fluctuation margins’ became less straightforward”. It was then also proposed that account would need to be taken of “the particular evolution of exchange rates in the European Monetary System (EMS) since 1993 in forming an ex post judgement”.

Against this background, in the assessment of exchange rate developments the emphasis is placed on exchange rates being close to the ERM II central rates.

Third, the issue of the presence of “severe tensions” or “strong pressures” on the exchange rate is addressed by examining the degree of deviation of exchange rates from the ERM II central rates against the euro. Other indicators, such as short-term interest rate differentials vis-à-vis the euro area and their evolution, are used as well. The role played by foreign exchange interventions is also considered.

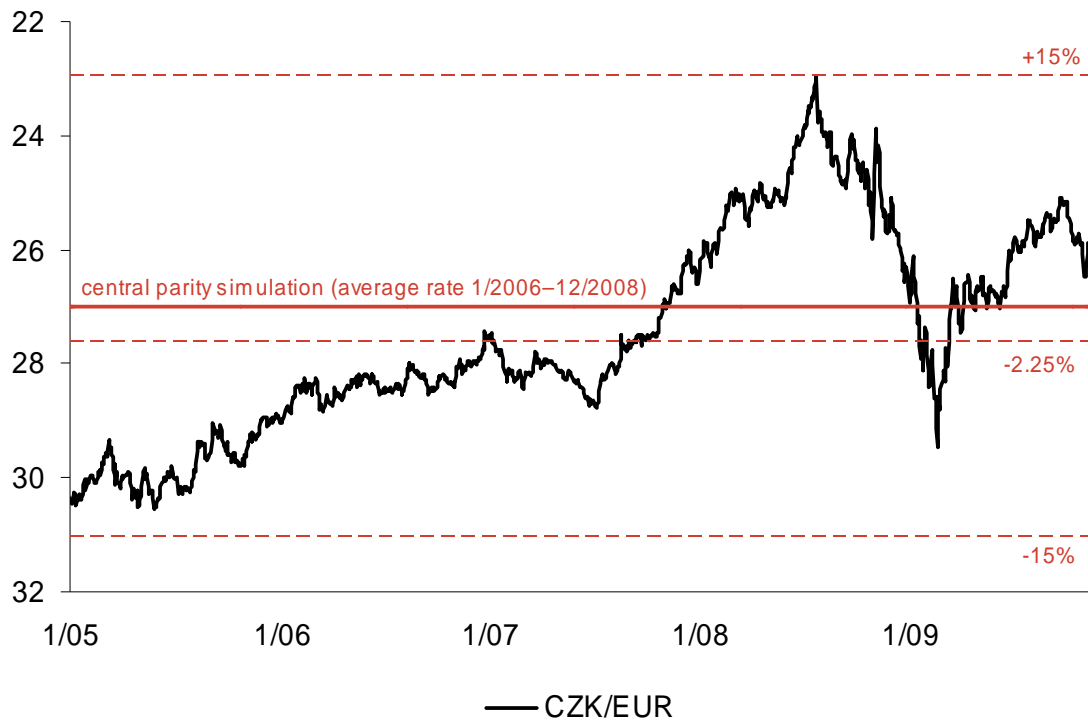
The example of the assessment of sustainability of fulfilment of the exchange rate stability criterion for Slovakia in the 2008 ECB Convergence Report recalls that some European authorities currently tend to take a stricter view in the interpretation of the convergence criteria and their fulfilment.

The admission of an EU Member State into the euro area is conditional on a successful, at least two-year stay of the national currency in ERM II. The Czech currency has not entered this system yet, hence it does not have a fixed central parity vis-à-vis the euro against which exchange rate fluctuations and thus also the fulfilment of this criterion can be monitored. The timing of ERM II entry and the appropriate selection of the central parity will be of key importance for fulfilment of the criterion.

With the aid of a hypothetical CZK/EUR central parity, set on the basis of the average daily rates for 2006–2008 (see Chart 2.1), it is theoretically possible to monitor whether the Czech Republic would have fulfilled the exchange rate stability criterion in the given time period.

The koruna’s exchange rate has been recording a long-term appreciation trend. However, this trend was interrupted roughly in the second half of 2008 and in early 2009 by a sizeable depreciation resulting chiefly from deteriorating sentiment about the Central European region. The koruna strengthened again between March and September 2009. The koruna’s exchange rate recorded a cumulative (for the previous 24 months) appreciation and depreciation respectively of greater than 15% during 2008 and 2009. A depreciation of 23% between July 2008 and February 2009 indicates potential risks to the fulfilment of the exchange rate criterion.

**Chart 2.1: Nominal CZK/EUR exchange rate**



Note: In the chart, an upward movement of the exchange rate means an appreciation of the koruna. The hypothetical central parity is simulated by the average exchange rate for 2006–2008.

Sources: CNB, Ministry of Finance calculations. Data up to 5 November 2009.

The minimum length of stay of an EU Member State in ERM II is set by the Treaty at two years. The Czech Republic's September 2003 Euro-area Accession Strategy and its August 2007 update state that the Government and the CNB agree on a stay in ERM II that does not greatly exceed the minimum required period. They also agree that the Czech Republic should enter the ERM II only after conditions have been established which enable it to introduce the euro at the time of the assessment of the exchange rate criterion and then to benefit from its introduction without experiencing any problems.<sup>4</sup>

The sharp fluctuations in the exchange rate observed recently indicate that the exchange rate stability criterion can be difficult to fulfil in turbulent times. The appropriate timing of ERM II entry, which should be preceded by a calming of the global financial market situation and of investment sentiment towards the region, as well as consolidation of domestic public finance, will thus be of key importance for successful fulfilment of the exchange rate stability criterion going forward. The correct setting of the central rate of the koruna against the euro will also be very important.

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<sup>4</sup> For details, see the joint documents of the Czech Government and the CNB: "The Czech Republic's Euro-area Accession Strategy" and "The Czech Republic's Updated Euro-area Accession Strategy" at [http://www.mfcr.cz/cps/rde/xchg/mfcr/hs.xml/eu\\_acc\\_stra.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/hs.xml/eu_acc_stra.html).

## 2.4 Criterion on Long-term Interest Rates

### Box 2.4: Definition of the criterion on long-term interest rates

#### Treaty provisions

The fourth indent of Article 121 (1) of the Treaty requires: “the durability of convergence achieved by the Member State and of its participation in the exchange-rate mechanism of the European Monetary System being reflected in the long-term interest-rate levels”.

Article 4 of the Protocol on the Convergence Criteria referred to in Article 121 of the Treaty stipulates that: “the criterion on the convergence of interest rates referred to in the fourth indent of Article 121 (1) of this Treaty shall mean that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions”.

#### Application of Treaty provisions in ECB and EC Convergence Reports

With regard to “an average nominal long-term interest rate” observed over “a period of one year before the examination”, the long-term average interest rate has been calculated as an arithmetic average over the latest 12 months for which HICP data were available.

The notion of “at most, the three best performing Member States in terms of price stability” which is used for the definition of the reference value has been applied by using the unweighted arithmetic average of the long-term interest rates of the three countries with the lowest non-negative inflation rates. Interest rates have been measured on the basis of harmonised long-term interest rates, which were developed for the purpose of assessing convergence, i.e. the yields to maturity of 10-year convergence government bonds.

Average 10-year government bond yields in the Czech Republic have shown a mostly upward trend in the past few years. However, the Maastricht criterion on long-term interest rates has been fulfilled throughout the period.

**Table 2.4: Yields to maturity of 10-year government bonds on the secondary market**  
(average for last 12 months vs. average for previous 12 months as of end of period, growth in %)

	2006	2007	2008	8/2009	2009	2010	2011	2012
<b>Average for 3 EU countries with lowest inflation</b>	4.2	4.4	4.2	4.2	4.1	4.7	5.2	5.2
<b>Reference value</b>	6.2	6.4	6.2	6.2	6.1	6.7	7.2	7.2
<b>Czech Republic</b>	3.8	4.3	4.6	4.7	4.9	4.3	4.3	4.3

Sources: European Commission, Ministry of Finance calculations.

Assuming that risk premia decrease and the spread between Czech and European government bonds closes, the yields to maturity are expected to decline slightly and then stabilise in 2010–2012. The evolution of the convergence criterion<sup>5</sup> in the future indicates a modest rise, mainly thanks to massive fiscal impulses in Western economies, which, despite a global decline in risk premia, are likely to lead to higher demanded yields owing to concerns about fiscal sustainability. Growth in global inflationary pressures connected with the economic and political measures adopted to support the financial sector and demand in the major world economies may act in the same direction. Given the long-term low-inflation nature of the

<sup>5</sup> No forecast for 2009–2012 is available for long-term interest rates for the countries with the lowest non-negative inflation rate, necessary to calculate the criterion. The projection of the reference value is thus based on the assumption that long-term interest rates will move in line with inflation, i.e. real interest rates will not change. The future reference value should therefore be viewed as only tentative.

Czech economy, no significant problems are expected in the medium term as regards the fulfilment of the long-term interest rate criterion in the Czech Republic.

### **3 ASSESSMENT OF THE CZECH REPUBLIC'S CURRENT ECONOMIC ALIGNMENT WITH THE EURO AREA**

This part summarises the results of a set of analyses directed at assessing the Czech economy's alignment with the euro area over and above the formal criteria, the fulfilment of which is assessed in the previous part. If the Czech economy is to reap the benefits associated with introducing the euro it will need to be able to operate without an independent monetary policy and without the option of exchange rate adjustment vis-à-vis its most important trading partners. This ability will be affected by the similarity of economic developments in the Czech economy with those in the euro area, since the degree of alignment will co-determine the appropriateness of the monetary conditions in the euro area to the current situation in the Czech Republic. The ability to adjust rapidly to economic shocks will also be an important factor. The Czech economy's alignment and its preparedness to adopt the euro can thus be assessed in terms of the long-term economic trends, the medium-term development of economic activity and the structural similarity of the Czech economy to the euro area economy, all of which affect the probability of asymmetric developments and the occurrence of asymmetric shocks, and in terms of the ability of the economy to absorb shocks and adjust flexibly to them.

The analyses are divided into two basic groups according to the type of question they try to answer. The section entitled "Cyclical and Structural Alignment" indicates the size of the risk of economic shocks whose impact on the Czech economy will differ from that on the euro area as a whole ("asymmetric shocks"). The section entitled "Adjustment Mechanisms" answers the question of to what extent the Czech economy is capable of absorbing the impacts of potential asymmetric shocks. The basic theoretical starting point for the underlying analyses is the theory of optimum currency areas. These analyses are aimed at assessing the evolution of the alignment indicators over time and in comparison with selected countries. The countries under comparison either are euro area members already (Austria, Germany, Portugal, Slovakia and Slovenia)<sup>6</sup> or aspire to such membership (Poland and Hungary). The individual studies were prepared using the statistical data and information available in June 2009. Some studies, chiefly in the fiscal policy area, were updated in November 2009. The conclusion as to whether the Czech economy is sufficiently prepared for adopting the single currency cannot be made in absolute terms, but can ensue from the aforementioned comparison with other countries and the assessment of developments over time. In general, it can be expected that the benefits of adopting the euro will grow with greater economic alignment and stronger adjustment mechanisms.

#### **3.1 Cyclical and Structural Alignment**

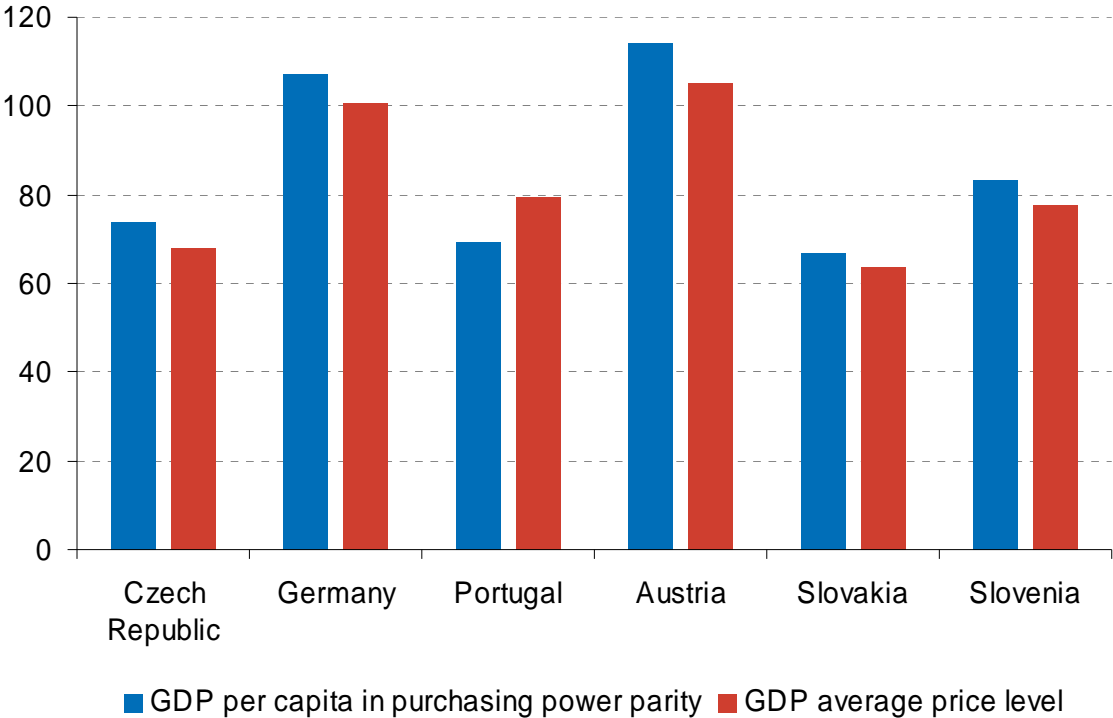
The costs arising from the loss of the Czech Republic's own monetary policy will be particularly pronounced if the Czech economy is not aligned with the euro area economy. The risks arising from the Czech Republic's accession to the euro area will decrease as the degree of alignment increases.

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<sup>6</sup> The selection of euro area countries included in the comparison comprises countries that are comparable in terms of economic level and countries with which the Czech economy has trading links. The values of the indicators for the euro area are defined at the EA-16 level.

**The degree of real economic convergence** is an important indicator of the Czech economy’s similarity to the euro area. A higher level of such convergence fosters greater similarity of long-run equilibrium development. Indirectly it can also foster a lower likelihood of misalignment in the shorter run. A higher degree of convergence in the economic level prior to ERM II entry and euro adoption should further increase the relative price level, which will decrease potential future pressures for growth of the price level and equilibrium appreciation of the real exchange rate. The process of convergence of the economic and price levels has accelerated over the past six years. In 2008, GDP per capita in the Czech Republic was almost 75% of the euro area average, which represents a slightly higher standard of living than in the least advanced euro area countries (see Chart 3.1). The price level in the Czech Republic increased considerably during 2008 owing to the sharp appreciation of the koruna, but was still below that corresponding to the observed performance of the economy. However, at 68% of the average price level of the euro area, the deviation was smaller than in the past. In 2009, though, due to a weaker exchange rate compared to the previous year, the distance from the euro area price level can be expected to increase again (probably only temporarily). The real exchange rate of the koruna (on an HICP basis) appreciated on average by 4.2% a year between 1998 and 2008, which is a significantly higher pace than in the euro area countries under comparison except Slovakia. Going forward, the equilibrium trend of real appreciation of the koruna against the euro can be expected to continue in line with the real convergence, according to the analyses at a rate of 1.3–3.5% a year. Persistence of this trend following euro area entry will initially engender a corresponding higher rate of inflation in the Czech Republic than that in the euro area and related lower domestic real interest rates (possibly even negative in the case of short-term money market rates). If this situation persists in the long term, there could be a risk of an overheating of the economy associated with adverse consequences for macroeconomic and financial stability.

**Chart 3.1: Real economic convergence of selected states towards the euro area in 2008**  
*(EA-16 average=100)*

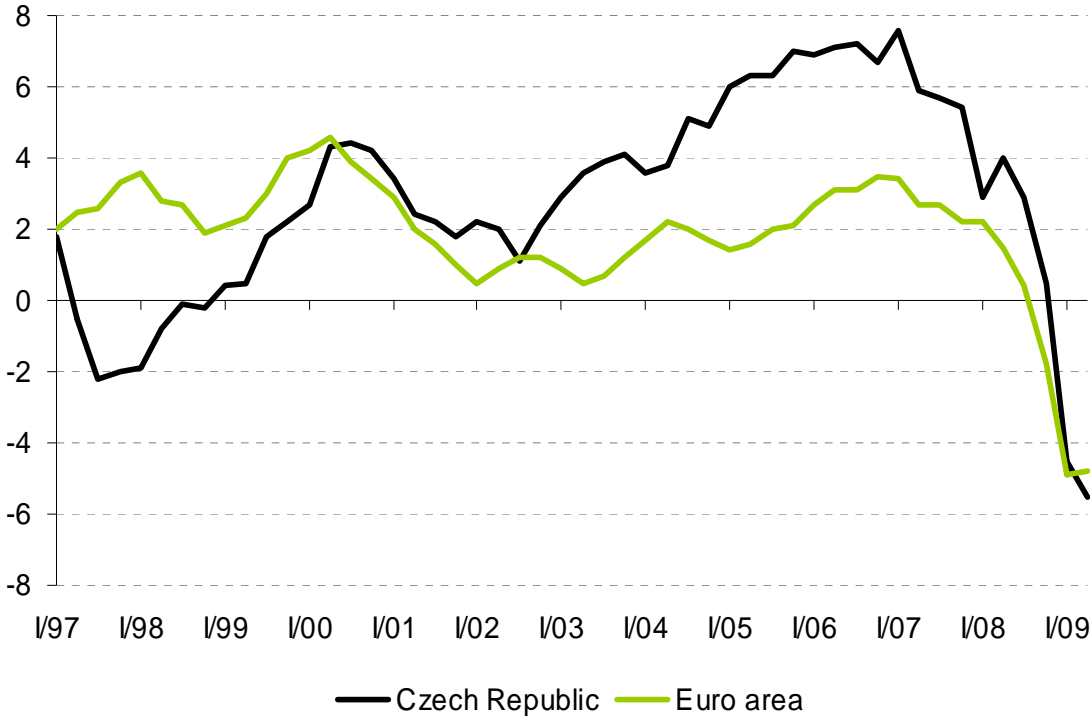


Sources: Eurostat, CNB calculations.



**Alignment of economic activity and similarity of economic shocks** will help the single monetary policy to have an effective and appropriate effect on the economy in the monetary union. The analyses indicate increased correlation of overall economic activity between the Czech Republic and the euro area recently; the same goes for activity in industry and export activity. According to the analyses, the Czech Republic’s export activity has recently been statistically significantly correlated with euro area exports. Compared to last year’s analyses, the correlation of Czech exports to the euro area with euro area GDP has increased as well. Similar developments were identified for most of the countries under review. However, the significant recent rise in the monitored correlations, including the supply shock correlation, should be taken very cautiously, since these indicators have recently been strongly affected by the global economic downturn, which has affected both the Czech economy and the euro area economy (see Chart 3.2). The resulting observed increased correlation is therefore not necessarily a good indicator of future developments.

**Chart 3.2: GDP growth in the Czech Republic and the euro area**  
*(in %, year-on-year, seasonally adjusted)*



Source: Eurostat. Data as of 5 November 2009.

Increased **drawing on resources from EU structural funds** could be a specific asymmetric factor that might impact on the Czech economy. This could act as a considerable economic stimulus, materialising primarily in increased investment activity. The actual drawdown of funds from EU structural funds and their economic use in the Czech Republic was slow until the end of 2008. However, data on the use of the structural funds for 2009 H1 indicate that the original difficulties with drawings have probably been overcome, so accelerated drawdown of funds for structural operations can be expected in the coming years (from the 2007–2013 allocation). This should be reflected in a rise in the inflow of EU funds. However, the economic stimulus from these flows will depend on the actual use of these funds by final beneficiaries. According to current estimates, only a slight positive economic stimulus from the inflow of EU funds is to be expected. The estimated amounts do not indicate any risk of a strong asymmetric shock.

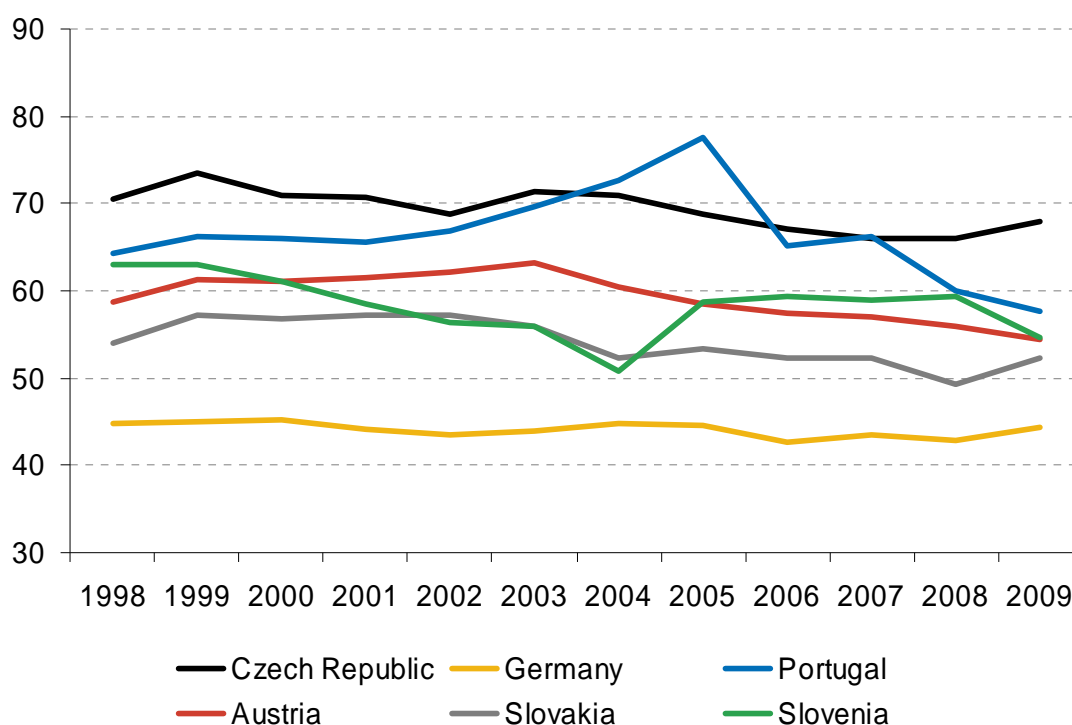
Similarity of the **structure of economic activity** with the euro area should decrease the risk of occurrence of asymmetric economic shocks. In terms of production structure, the Czech economy retains a specific feature in the form of a higher share of industry and a smaller share of certain services in GDP compared to the euro area. Of the other countries under review, Slovakia has a comparable economic structure. The above-average share of the car industry in the total output and value added of the Czech economy compared to the euro area is (as in Germany) a possible source of sector-specific shocks. This has been confirmed by recent developments.

Fast convergence of **nominal interest rates** in the immediate run-up to joining the euro area has acted as an asymmetric shock in some economies in the past. For a country planning to enter the monetary union, earlier gradual convergence is therefore an advantage. The difference between Czech and euro area interest rates was zero or negative for a long time (i.e. between 2002 and 2007). However, a modest positive interest rate differential opened up in mid-2008 and widened further during 2009 owing to the escalation of the global financial crisis, the significant fall in the ECB's key rates and the use of unconventional monetary policy instruments by the ECB. The interest rate differentials for three-month and five-year rates and the rates on ten-year government bonds increased, but remain lower than in Hungary and Poland. The heightened uncertainty and volatility of interest rate differentials also persist.

Another indicator of the possibility of sharing a single currency is long-term co-movement in the **exchange rates** of two currencies against a reference currency. Compared to the other currencies under review, the correlation between the rates of the Czech koruna and the euro against the dollar was relatively high until mid-2008, at about 0.8–0.9. The koruna's rapid appreciation in 2001–2002 and the short period following the outbreak of the financial crisis were the only major exceptions in this respect since 2000. Similar figures were recorded only by Slovakia, whereas Hungary, Poland and Slovenia (before ERM II entry) showed lower correlations. The fall of Lehman Brothers was followed by a deep fall (of several tens of per cent) in the correlations of the currencies of all the non-euro area countries under comparison. The decrease in the alignment of these currencies vis-à-vis the euro was affected by the surge in volatility in global financial markets and did not always reflect fundamentals only. The exchange rate volatility in these countries expected by the markets has recently been falling from the peaks observed in 2008 H2, but is still higher than before 2008.

The Czech economy's strong **trade and ownership links** with the euro area magnify the benefits arising from the elimination of potential fluctuations in the exchange rate. Following Slovakia's entry, the euro area is the partner for approximately 70% of Czech exports (see Chart 3.3), a level comparable to, or even higher than, in the other countries under review. The Czech economy's ownership links with the euro area on the direct investment inflow side are relatively strong and still growing. The Czech economy's strong economic integration with the euro area creates conditions for increasing economic alignment with this area. Another positive aspect from this perspective is the high intensity of intra-industry trade with the euro area, which is only slightly lower than in Austria and Germany.

**Chart 3.3: Exports to the euro area as a percentage of in total exports**  
(in %)



Sources: Eurostat, IMF, CNB calculations.

The analysis of the Czech **financial system**, and, within it, the banking sector, reveals that despite its smaller share in GDP and smaller depth of financial intermediation relative to the average for the euro area and its founding member countries, common features of the effect on the economy usually prevail, particularly in normal economic conditions. Nevertheless, the current global financial crisis and recession have shown that only a sufficiently capitalised banking sector which is independent of external financing and has high balance-sheet liquidity and which in the run-up to euro adoption focuses on the traditional business model of conservative banking intermediation mostly in the domestic currency, is highly resistant to shocks. In this situation, the reaction to asymmetric shocks arriving from global financial markets is much more effective as regards ensuring the functioning and effectiveness of the system. By contrast, banking sectors which were dependent on external funding and which – owing to over-optimistic expectations regarding early euro adoption – recorded large volumes of asset transactions in foreign currencies were hit hard by the negative external shock.

The ratios of client loans to total loans and GDP had been increasing over the past seven years as a result of dynamic growth in lending to households and corporations in the Czech Republic. On the one hand, this trend implied convergence towards the corresponding ratios in the euro area. On the other hand, the historical experience of some countries shows that strong growth in lending and rising household and corporate debt can lead to a higher loan default risk in an adverse economic situation. However, the recent recession-related slowdown in lending in the Czech Republic and greater prudence on the part of both banks and borrowers are suppressing any risk of overleveraging of the real sector.

Given their minimal exposure to toxic and other very risky assets, domestic financial institutions have not been hit significantly by the global financial crisis. However, some of them are exposed to the financial crisis to a limited extent through their investments in foreign bonds, shares, mutual fund units and, in some cases, real estate. However, the fall in the value

of their assets due to revaluation has had no fundamental effect on the functioning of the domestic financial system. It is thus reasonable to assume that the indirect effect of the crisis – acting via a worse financial situation of households and corporations and manifesting itself mainly in a probable increase in the loan default rate in the future period – will be dominant.

**The structure of the financial assets and liabilities of Czech non-financial corporations and households** still differs from that of euro area entities. The difference is particularly visible in a higher share of trade receivables in corporate assets and a higher share of currency and deposits in household assets. However, gradual convergence towards the euro area structure can be observed. The indebtedness of Czech corporations and households is currently significantly lower than in the euro area countries under review. In the past, the effect of money and financial market rates on client rates in the Czech Republic was roughly the same as in the euro area, but the economic crisis has led to slightly greater stickiness of client rates in the Czech Republic. The interest rate sensitivity of new loans to non-financial corporations is similar to that in the euro area. Households have a larger weight of long-term rate fixations in the case of loans for house purchase. The use of the euro in the financial transactions of non-financial corporations is gradually growing, reflecting the Czech economy's openness and foreign trade integration. However, the degree of spontaneous euroisation is still relatively low, although there is a difference between corporations and households. The expansion of foreign currency cash holdings and deposits of households in the Czech Republic is roughly comparable with the selected Central European countries, but foreign currency borrowing is negligible.

The degree of **integration of the Czech financial markets** (money, foreign exchange, bond and stock) with the euro area markets is similar to that in the new EU Member States under comparison. The integration of government bond and stock markets is also comparable to that of Austria and Portugal. The speed of elimination of shocks on the Czech financial markets had been increasing since 2002, but the speed of adjustment has recently declined somewhat (except on the government bond market) as a result of the global financial crisis. The financial crisis has loosened financial market integration in all the countries under comparison over the last two years. In contrast, the sensitivity of asset prices to global events has been developing unevenly across the individual countries following the outbreak of the financial crisis. In the Czech Republic it has increased somewhat in the foreign exchange and stock markets.

### 3.2 Adjustment Mechanisms

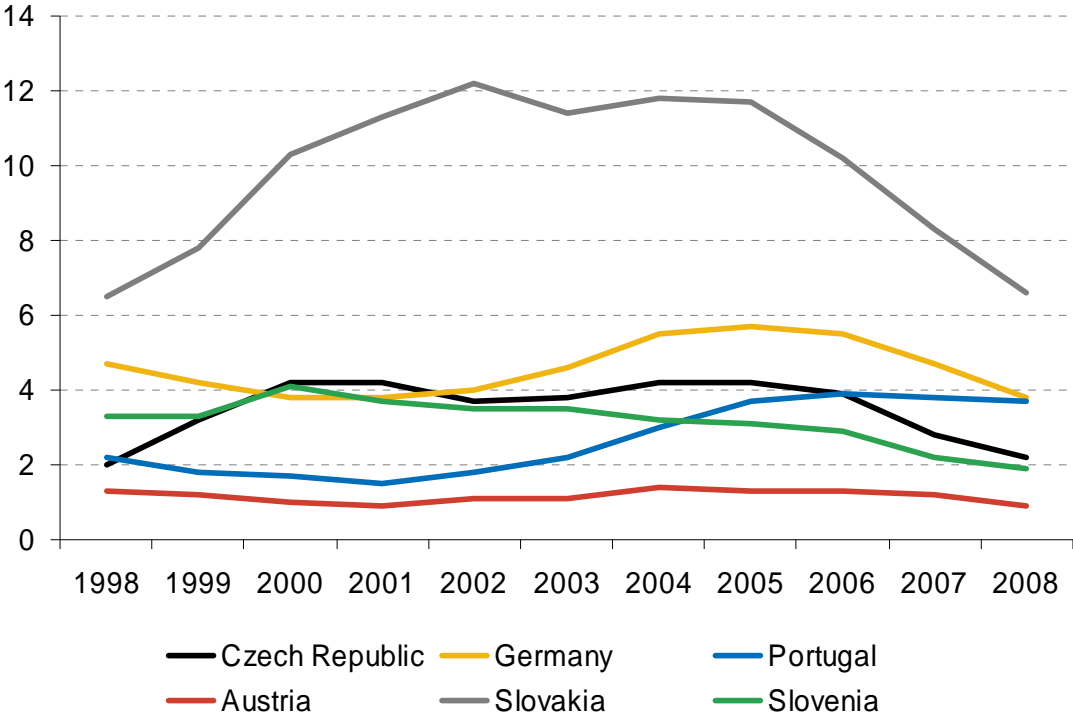
As regards the **public finance** of the Czech Republic, their ability to stabilise the economy subject to the European fiscal rules will be important. Under the Stability and Growth Pact, the Czech Republic committed itself to steering over the medium term towards a structural government deficit of no more than 1% of GDP by 2012. The closer the structural part of the public budget deficit is to zero, the more room there will be at a time of economic downturn for the functioning of automatic stabilisers and the potential implementation of discretionary measures. After improving in 2007, the structural deficit in the Czech Republic increased again in 2008 owing to measures adopted on the budget revenue side and to faster growth in some expenditures. The evolution of the structural deficit is also very negative in 2009, as a result of anti-crisis and other measures. Although the elimination of adverse structural effects should remain a high priority for the Czech Republic, fulfilment of this target represents a big challenge at present despite measures adopted in autumn 2009 to stabilise the public budgets. Owing the deficit budget outlook, growth in public debt is expected as well. The past downward trend in the ratio of public debt to GDP will thus be interrupted in the Czech Republic. Although the problem of public debt is less serious for the Czech Republic than for most of the countries under comparison, its ratio to GDP is likely to approach 40% as early as

2010. In the context of the current economic slowdown, the rise in mandatory debt service expenditure along with the expected effect of demographic changes on pension system and health care system expenditures poses a risk to the sustainability of public finance.

**Wage elasticity** can enhance the economy’s ability to absorb the shocks to which the single monetary policy cannot respond. The analyses indicate that real wage elasticity in the Czech Republic was low in the past, as in the other countries under comparison. However, nominal wages have been showing signs of flexibility over the last two years. The current crisis is hitting corporations mainly in terms of reducing demand. Around two-thirds of corporations are responding to the crisis by freezing wages. Other ways of cutting labour costs are also being employed, for example a shorter working week. The response of reducing nominal wages is less widespread, but as in the case of wage freezes is more common than before the crisis. Differences in **inflation persistence** in the countries of the monetary union might lead to different impacts of the single monetary policy. Inflation persistence in the Czech Republic is medium-low among the countries under comparison.

The Czech **labour market** situation reflects the impacts of the recent economic downturn. Thanks to the lag with which the current growth in total unemployment is spilling over to long-term unemployment, some improvement (see Chart 3.4) was still observed in some of the 2008 data (as in the other countries under comparison), but a significant rise in long-term unemployment can be expected in 2009 and 2010. The analyses also indicate that the decline in unemployment in the Czech Republic in the previous period was largely cyclical and that structural unemployment is unlikely to have improved markedly.

**Chart 3.4: Long-term unemployment rate**  
*(ratio of persons unemployed for more than 1 year to the labour force, in %)*



Source: Eurostat.

As in some of the other countries under review, the Czech Republic has persisting relatively large regional differences in the unemployment rate. This is due to regional gaps between the demand for, and supply of, labour and the low regional, occupational and sectoral mobility of

the labour force, exacerbated, among other things, by the dominance of owner-occupied housing. It is thus reasonable to expect that the contribution of cross-border mobility of Czech citizens to the adjustment in the event of economic imbalances will be relatively limited, even after the movement of labour between the Czech Republic and all the original EU countries has been fully liberalised by 2011. The dynamic inflow of foreign labour into the Czech Republic visible since 2005 has recently slowed, or the number of foreign workers has already started falling, reflecting the decline in labour demand. This flexible response to economic developments can be regarded as a sign of flexibility of the Czech labour market. On the other hand, the use of foreign labour during the economic boom suggested that some serious problems persisted in this market (in particular low incentives to work among the long-term unemployed with low skills), since foreigners work mainly in low-skilled jobs.

Labour market flexibility is determined to a great extent by the **institutional rules**. The effect of collective bargaining on wage setting is no higher in the Czech Republic than in the current euro area members. The impact of the minimum wage on the flexibility of low wages and on job creation is rather low on average by international comparison. The halt in growth, or slight decline, of the minimum wage as a percentage of the average wage for less-skilled jobs can be regarded as positive, since high minimum wages coupled with high labour taxation could have an adverse effect on demand for less-skilled labour. At the same time, the labour force in the Czech Republic in 2007 was exposed to the highest tax burden of all the countries under comparison as measured by the implicit tax rate. The 2008 tax reform reduced the tax burden on most households, but for households of individuals without children, labour taxation at the average wage level increased slightly due to “cold progression”. The adverse effect of taxation on long-term unemployment and job creation was roughly the same as in Austria, Hungary and Poland, but higher than in Portugal and Slovakia. The financial incentives for the Czech unemployed to accept a job given by the combination of taxes and benefits declined as a result of the 2007 social benefit system reform. Although the 2008 reform halted the adverse trends, it did not deliver a significant reduction of the existing problems. The level of social benefits coupled with the tax burden may diminish efforts to seek or keep a job, particularly in the case of households with children, but unemployment benefits are high by international comparison even for childless individuals. In the area of permanent employment, the degree of job protection is higher than in other countries, whereas the protection of temporary employment and agency employment is relatively low. The costs of dismissing employees in the Czech Republic are independent of the duration of employment and are therefore relatively high by international comparison particularly with regard to short-term contracts. Moreover, the institutional set-up of the labour market in the euro area should be regarded as a relatively soft standard for international comparisons. Low flexibility may present a general risk in particular as regards the entry of young people to the labour market.

In the area of **product market flexibility** the situation is showing a gradual partial improvement. In particular, gradual steps are being taken to simplify the procedures for setting up businesses and carrying on business activities. However, the domestic business environment continues to be more burdened with administrative obstacles than that in most of the countries under comparison, partly because of a current gradual improvement in the business environments in those countries. As in the other countries under comparison, the corporate taxation rate has been declining recently and is currently one of the lower ones, but the overall tax burden on Czech corporations is higher than in Portugal, Hungary, Poland and Slovakia.

**Stability and effectiveness of the banking sector** is a precondition for the sector to be able to assist in absorbing economic shocks. The banking sector has achieved a high level of efficiency and profitability in the European context, and in past years has created a sufficient

capital reserve from its profits. Banks have tightened the availability of loans for reducing the impacts of the deepening recession so as to absorb risks and not endanger the admissible regulatory capital ratios for banking business. By increasing capital out of the previous year's retained earnings, the Czech banking sector achieved a capital adequacy ratio of 13.7%, thereby creating a larger buffer against potential losses. While the governments and central banks of other countries responded to the build-up of losses in the global financial system with numerous measures aimed at bolstering the balance-sheet liquidity and solvency of key institutions, the Czech Republic was not forced to adopt any additional measures to strengthen banking sector solvency. Nonetheless, the slump in economic activity will show up in the Czech financial system in the form of rising credit risk and worsening quality of the banking sector's loan portfolio. Stress test results indicate that even a highly unfavourable macroeconomic scenario should not be negatively reflected in the stability of the banking sector. According to the tests, and also by international standards, the Czech banking sector seems to be resilient to risks and does not require any capital injections implying fiscal costs.