

# **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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# 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 130 and 131 of the Treaty on the Functioning of the European Union (the Treaty) and the Statute of the European System of Central Banks and the European Central Bank (ECB), EU Member States are required to achieve a high degree of sustainable convergence in order to join the euro area.

As regards European institutions, 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 currently 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 (EDP). This procedure was re-opened against the Czech Republic in December 2009 because it was expected to exceed the government deficit reference value in 2009. The Council of Economics and Finance Ministers (Ecofin) recommended that the Czech Republic should reduce its government deficit in a credible and sustainable manner to below 3% of GDP by 2013.

## 1.1 Assessment of Fulfilment of the Convergence Criteria

The Czech Republic is currently compliant with the **criterion on price stability**, but it will probably not be compliant in 2012, mainly because of an increase in the reduced VAT rate. Nevertheless, the Czech Republic is expected to record moderate inflation in 2013–2014, which means it should fulfil the price stability criterion. This will be true only if no other changes except those planned are made to indirect taxes and no other inflationary administrative measures are taken in the consumer prices area. The conditions defined for excluding countries from the calculation of the reference value are a source of uncertainty as regards fulfilment of the price stability criterion, as they may lead to an unexpectedly low criterion value.

The CNB's inflation target (for the national consumer price index) has been set at 2% since the start of 2010. As with the previous target, the CNB seeks to ensure that actual inflation stays no more than one percentage point higher or lower than the target. Given the ECB's definition of price stability and the inflation targets of the non-euro area EU Member States, this target creates relatively good conditions for future fulfilment of the price stability criterion.

The Czech Republic is not compliant with the **criterion on the sustainability of the government financial position** at present. Notification of a general government deficit of 3.7% of GDP has been given for 2011. Given the expected macroeconomic developments, however, the current fiscal policy plans should lead to a government debt level below the Maastricht criterion as from 2013. Specifically, the government fiscal strategy aims to reduce the deficit to 3.5% of GDP in 2012, 2.9% of GDP in 2013 and 1.9% of GDP in 2014. The

euro area debt crisis and its subsequent macroeconomic and fiscal effects in the Czech Republic represent considerable risks to this plan. In order to achieve balanced government finances by 2016, the government plans to further consolidate public finances in subsequent years.

The Czech Republic has long been compliant with the government debt-to-GDP ratio criterion. Given its relatively low level of government debt on entering the EU, the Czech Republic currently has no problems fulfilling this criterion, although the rate of growth of the debt started rising sharply in 2009. A debt of 40.5% of GDP is expected for 2011, i.e. 2.9 percentage points higher than in 2010. Owing to the expected annual government sector deficits, the government debt level will further increase in the medium term, reaching 42.8% of GDP in 2013. The debt-to-GDP ratio should start falling slightly in subsequent years. A risk going forward is the expected adverse effect of population ageing. Unless the necessary reforms of the pension and health care systems – which are already being prepared by the government – are implemented, a further marked 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, as 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 exchange rate of the koruna against the euro is showing a long-term appreciation trend. However, this trend was interrupted in the second half of 2008 and in early 2009 by a sizeable depreciation due to deteriorating foreign investor sentiment about the Central European region, including the Czech Republic, during the global financial crisis. The magnitude of the depreciation between July 2008 and February 2009 (23%) indicates potential risks to the fulfilment of the exchange rate criterion. In March 2009 the koruna started appreciating again, and this trend continued until 2011 Q3. However, higher exchange rate volatility was evident in the individual quarters, reflecting increased global uncertainty and sudden changes in investors' sentiment in the financial markets as well as in their degree of risk aversion. Overall, it can be seen that exchange rate deviations can exceed the set fluctuation band in turbulent times even if the parity is set on the basis of the current exchange rate, i.e. the quarterly average before hypothetical ERM II entry. The appropriate timing of ERM II entry will thus be of key importance for successful fulfilment of the exchange rate stability criterion going forward. In other words, the Czech Republic should enter ERM II amid a stable situation, both currently and going forward, in the domestic economy, in global financial markets and in investment sentiment towards the Czech Republic and the whole region.

The Czech Republic is currently compliant with the **criterion on long-term interest rates**, and, in spite of the difficulty in predicting financial market developments, the risks are not expected to be significant enough to prevent fulfilment of this convergence criterion in the coming years. Maintaining the confidence of the financial markets in the medium-term consolidation and long-term sustainability of Czech public finance is, however, a significant condition.

## 1.2 Assessment of Economic Alignment Analyses

The situation in recent years has been strongly affected by the global financial and economic crisis. The Czech economy has thus stopped catching up with the euro area economic level. On the other hand, though, it is showing signs of increased alignment with the euro area over

the business cycle. As a consequence of the global crisis, the economies of the euro area and other EU countries, including the Czech Republic, have gone into recession and recorded a considerable deterioration in public finance followed by a phase of gradual economic recovery and consolidation of public budgets.

At present, the characteristics of the Czech economy as regards its preparedness to adopt the euro can be divided into four groups.

The first group consists of **economic indicators that speak in the long run in favour of the Czech Republic adopting the euro**. These include the high degree of openness of the Czech economy and its close trade and ownership links with the euro area. These factors provide for the existence of microeconomic benefits of euro adoption. Another favourable factor is the achievement of long-term convergence of the inflation rate and nominal interest rates, as this reduces the macrofinancial risks associated with euro adoption. The Czech financial sector is not a barrier to joining the euro area either, as it can help absorb economic shocks and – despite a temporary deterioration during the recent crisis – is strongly integrated with the euro area.

The second group comprises **areas which, in terms of euro adoption in the Czech Republic, pose a risk of macroeconomic costs but which have shown some improvement in recent years**. The cyclical alignment of economic activity in the Czech Republic and the euro area has recently increased significantly according to all the analytical methods used. This, however, is largely due to the extreme global developments, so only in future years will it be possible to prove or disprove the hypothesis that greater business cycle alignment has been achieved in normal global economic conditions. As regards labour market flexibility the favourable developments also include a decrease in the ratio of the minimum wage to the average wage in past years. The ability to adjust nominal wages is indicated by the use of base wage freezes and bonus cuts by corporations in response to the fall in demand in 2009. In real terms, however, there has been no increase in wage flexibility so far. Regional differences in the unemployment rate have decreased. In terms of labour market flexibility, the positive factors 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 economic downturns. The business climate is gradually improving, but some barriers to entrepreneurship persist and are still more significant than in the other countries under comparison.

The third group consists of **areas where long-term positive trends were disrupted by the global crisis and its repercussions remain evident despite some improvement**. The real economic convergence of the Czech Republic to the euro area observed until 2008 has halted in recent years. As measured by GDP per capita, the Czech Republic is more advanced than some of the least developed euro area countries, but this is evidently no guarantee of future smooth functioning of the economy in the EMU. Compared to the euro area average, moreover, a clear difference in the price level persists. The previous price level convergence trend was temporarily interrupted in 2009 as a result of a sharp depreciation of the koruna. It seems, however, that this trend was renewed at the start of 2010. The public finance deficit has deteriorated markedly as a result of the economic slump and the anti-crisis fiscal measures adopted. The public finance consolidation process has started, but the fiscal indicators are noticeably worse than before the crisis. In 2010 the total budget deficit was 4.8% of GDP and total government debt grew to 37.6% of GDP. The implemented and planned austerity measures will result in a reduction in the public budget deficit in the near future, but fundamental reforms focused on the long-term challenges relating to population ageing are so far only in the phase of preparation or legislative debate. The impacts of the previous economic downturn are also being reflected in a rise in long-term unemployment.

The fourth group contains **areas which are showing long-term problems in terms of the Czech economy's flexibility and ability to adjust to shocks and which are not showing any significant improvement.** Structural problems in the labour market ensuing from the configuration of taxes and benefits and from labour legislation are still leading to relatively high labour market rigidity, low incentives to work among part of the population and to employment inflexibility. The low or unsuitable skills of the long-term unemployed are also a persisting problem.

### 1.3 Assessment of the Situation in the Euro Area

In its initial years, the euro area showed convergence in unemployment and the inflation rate, but this trend was interrupted during the crisis. By contrast, the differences in economic level (expressed as the variability of real GDP per capita) were widening until the start of the financial crisis and then decreased slightly. The differences in the annual growth rates of euro area economies suggest that their business cycles are not moving significantly into alignment. On the contrary, the differences have generally been widening in recent years owing to different timing and intensity of the onset of the recent recession. The impacts of the escalating debt crisis in 2011 offer little hope of improvement in the near future either. Long-term interest rates were gradually converging before the crisis, but the debt problems of some member countries have led to a sharp rise in misalignment in recent years. However, insufficient financial discipline is apparent in most EMU countries. Only three euro area countries are currently compliant with the Stability and Growth Pact criteria. In response to the problems, euro area countries' governments have modified and tightened macroeconomic and budgetary supervision. Rescue mechanisms have also been created for the euro area countries. In the event of joining the euro area in the future, the Czech Republic would probably become a member – and therefore also a co-financer – of the European Stability Mechanism (ESM). Upon its establishment, the ESM, in which the Czech Republic will be a shareholder, will probably assume (at least) the undisbursed and unfunded loans of the EFSF. In reality, this represents a significant expansion of the commitment to adopt the euro in the future.

### 1.4 Conclusions and Recommendations

In the light of the fiscal problems in the euro area and the way these are being dealt with, and also given the persisting elevated global financial market volatility, the current situation does not seem conducive to euro adoption in the Czech Republic. As regards the preparedness of the Czech Republic itself to adopt the euro, it is necessary in particular to complete the public budget consolidation process and increase the flexibility of the labour market. In view of these facts, the Ministry of Finance and the Czech National Bank, in line with the Czech Republic's Updated Euro-area Accession Strategy, **recommend that the Czech government should not set a target date for euro area entry 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 2012.**

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

The achievement of a high degree of sustainable convergence, which is one of the prerequisites for euro adoption defined in the Treaty on the Functioning of the European Union, is assessed according to the Maastricht convergence criteria. These comprise 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 set out in Article 140 of the Treaty and detailed in the Protocol on the Convergence Criteria annexed to the Treaty. The excessive deficit procedure is referred to in Article 126 of the Treaty, in the Protocol on the Excessive Deficit Procedure annexed to it, and in Council Regulation (EC) No. 1467/97.

The assessment of whether the Czech Republic fulfils these criteria is currently being complicated by the debt crisis in some member countries of the euro area. This applies in particular to the criteria on price stability and long-term interest rates. If the interest rate criterion is strictly applied, the calculation of its reference value for 2001–2014 will include Greece and Ireland, which face large debt problems.

### 2.1 Criterion on Price Stability

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

##### Treaty provisions

The first indent of Article 140(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 stipulates that “The criterion on price stability 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 1.5 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 of the price criterion is calculated as 1.5 percentage points plus the simple arithmetic average of the rate of inflation in the three countries with the lowest inflation rates, provided that this rate is 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 (the European Commission and the European Central Bank) 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. In Convergence Report 2010, for example, owing to the general economic situation, countries with negative rates of inflation were chosen as the best performing countries in terms of price stability, in contrast to the practice in previous years, when the three countries with the lowest positive inflation were selected. The choice of countries to be included in the calculation of the price criterion therefore depends in part on the arbitrary decision of the assessing institutions. In this context, it is necessary to bear in mind that the current economic slowdown may lead to a negative rate of inflation in some countries.



According to the calculation of the reference value for the three best performing countries in terms of price stability, the Czech Republic did not fulfil this criterion in 2008 (see Table 2.1). This was due to exogenous factors, including a surge in prices of food and energy (most notably oil), and to a wave of administrative measures (an increase in the reduced VAT rate from 5% to 9%, the introduction of environmental taxes and health care fees, and further increases in excise duties). 2009 saw much lower energy and food prices compared to the previous year amid a global recession which, together with a fall in the domestic economy, manifested itself in sharp disinflation which peaked in 2010 Q2. Since then, prices have been gradually increasing because of administrative measures (increases in both VAT rates of 1 percentage point and a rise in excise duties in 2010) and rising oil and food prices. Inflation pressures from the domestic economy, by contrast, have not been apparent. In 2011, annual consumer price inflation has been fluctuating close to the CNB's inflation target of 2%.

**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 %)

|  | 2008 | 2009 | 2010 | 8/2011 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|------|--------|------|------|------|------|
| <b>Average for 3 EU countries with lowest inflation*</b> | 2.6  | 0.0  | 0.9  | 1.3    | 1.6  | 1.1  | 1.4  | 1.4  |
| <b>Reference value</b>                                   | 4.1  | 1.5  | 2.4  | 2.8    | 3.1  | 2.6  | 2.9  | 2.9  |
| <b>Czech Republic</b>                                    | 6.3  | 0.6  | 1.2  | 1.9    | 2.2  | 3.4  | 1.6  | 2.1  |

\* More precisely, the three best performing countries in terms of price stability (see Box 2.1).

Note: The outlook for EU countries for 2011–2014 was taken from the Convergence Programmes and Stability Programmes of the individual countries except Portugal, whose Stability Programme is not available. Owing to the unavailability of average HICP inflation rates, private consumption deflators were used for Germany and Spain and average CPI inflation rates were used for Sweden and Slovenia. In assessing the inflation outcomes for 2010, we excluded Ireland (average inflation rate -1.6%) and Latvia (-1.2%) from this criterion. In doing so, we applied a similar approach as the ECB on p. 36 of Convergence Report 2010, whose justification for excluding Ireland was based on the inflation outcome for March 2010.

Source: Eurostat, Convergence Programmes and Stability Programmes of individual member states.

In 2012–2014, prices in the Czech Republic will still be affected, in addition to standard factors, by a significant contribution of administrative measures. The latter will be particularly strong in 2012, when, among other things, the reduced VAT rate is to be increased from 10% to 14%. Therefore, the Czech Republic will probably not be compliant with the price stability criterion in 2012. In the subsequent period, it is expected to fulfil the price stability criterion again, although only if no inflationary changes are made to indirect taxes or other administrative measures in the consumer price area during the reference period for the assessment of this criterion.<sup>1</sup>

## 2.2 Criterion on the Sustainability of Public Finances<sup>2</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 140(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 126(6) of the Treaty”.

<sup>1</sup> The unification of the two VAT rates to 17.5% in 2013 should affect the price level only slightly and so will not jeopardise the fulfilment of the price stability criterion.

<sup>2</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 the government debt, are fulfilled in a sustainable manner.



Article 2 of the Protocol on the Convergence Criteria 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 126(6) of this Treaty that an excessive deficit exists”.

Article 126 of the Treaty sets out the excessive deficit procedure, which is specified in more detail in the Stability and Growth Pact. According to Article 126(3) of the Treaty, 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 criterion on the sustainability of public finance is again<sup>3</sup> not being fulfilled, so the excessive deficit procedure was opened for the second time against the Czech Republic at the end of 2009 based on an expected exceeding of the reference value for the government deficit-to-GDP ratio in 2009. As a result of a sharp slowdown in economic growth and recession in late 2008 and early 2009, the general government balance saw a marked deterioration. In addition to the unresolved structural problems of Czech public finance, the government sector was facing an unprecedented shortfall in tax revenues owing to the extraordinarily unfavourable economic situation and to legislative changes approved mainly on the revenue side of the public budgets. Expenditure on mitigating the effects of the recession on economic agents was increased at the same time. For 2010 the government prepared consolidation measures that helped reduce the general government deficit compared to 2009. In particular, an increase in revenues from social security contributions and a decrease in wage expenditure had an effect. The measures for 2011 include, on the revenue side, changes in personal income tax and social security contributions and, on the expenditure side, across-the-board cuts in the operating and capital expenditure of government agencies, a continued reduction in the volume of wages in the general government sector, and social benefit cuts.

**Table 2.2: General government balance**

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

|                        | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------|------|------|------|------|------|------|------|
| <b>Reference value</b> | -3.0 | -3.0 | -3.0 | -3.0 | -3.0 | -3.0 | -3.0 |
| <b>Czech Republic</b>  | -0.7 | -5.8 | -4.8 | -3.7 | -3.5 | -2.9 | -1.9 |

Source: 2008–2011: CZSO: annual national accounts, and MoF: Macroeconomic Forecast of the Czech Republic (October 2011). 2012–2014: Convergence Programme of the Czech Republic (April 2011).

The draft state budget for 2011 and the medium-term outlook for the state budget in 2012–2014 assume a further gradual improvement in the general government balance to -1.9% of GDP in 2014, in line with the requirements of the excessive deficit procedure. The government resulting from the spring 2010 elections has thus tightened the fiscal objectives for the coming years compared to the Czech Republic’s January 2010 Convergence Programme. It has also set the objective of achieving balanced general government accounts

<sup>3</sup> The Czech Republic was previously in the excessive deficit procedure between July 2004 and June 2008.

in 2016 provided that there is economic growth in the period under consideration. The current fiscal policy settings are based on the expenditure frameworks approved by the government. However, conceptual structural reforms will have to be made for 2012–2014.

As regards the alignment of the Czech economy with the euro area economy and the sustainability of public finance, it remains essential to address the structural problems of public finance. Under Stability and Growth Pact, the Czech Republic should target a structural general government deficit of 1% of GDP in the medium term. Given the current fiscal policy settings, this objective will not be fulfilled during the outlook period. The structural deficit is expected to be 3.1% of GDP in 2011 and to decrease gradually thereafter to 1.6% of GDP in 2013. If this trend is maintained in the following years, the medium-term objective (MTO) will probably be achieved by 2016.

The one-off resolution of environmental obligations and the adoption of a law to rectify some property injustices against churches could also widen the government deficit in the short run. The potential impacts on government budget indicators will depend on the exact form of the relevant measures and their methodological assessment by Eurostat.

The risk of the euro area economic outlook deteriorating substantially is also increasing at the moment owing to the economic and fiscal crisis in Greece and potentially in other euro area countries. This, together with the financial turmoil, is jeopardising the economic growth of all EU countries, including the Czech Republic. A sharp slowdown in economic growth would in turn affect tax revenues in particular and consequently also the government balance.

## 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. In 2007–2008, the government debt stabilised around 30% of GDP, following a substantial increase (due mainly to government guarantees) in 2001–2003. Since 2009, however, the debt has increased sharply, as the amount of debt is being affected to a large extent by the public budget deficit, the largest component of which is the greatly elevated state budget deficit. Compared to the EU and euro area average, however, the overall debt is not high.

Given the fiscal policy settings and the assumptions of further consolidation, the debt should peak at 42.8% of GDP in 2013 and start to decrease gradually in the years that follow. The debt could be positively affected by potential privatisation revenues, which, however, will probably be lower than in the past. It is clear that the period of comfortable fulfilment of the government debt criterion has ended 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)*

|                        | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------|------|------|------|------|------|------|------|
| <b>Reference value</b> | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| <b>Czech Republic</b>  | 28.7 | 34.3 | 37.6 | 40.5 | 42.4 | 42.8 | 42.0 |

Source: 2008–2011: CZSO: annual national accounts, and MoF: Macroeconomic Forecast of the Czech Republic (October 2011). 2012–2014: Convergence Programme of the Czech Republic (April 2011).

The risk of a deteriorating macroeconomic situation in the EU indicated above presents a current risk to the evolution of government debt.

The adverse effects of population ageing pose a risk to the long-term course of public finances. Unless the necessary reforms are implemented to mitigate its fiscal impacts, in

particular pension system reform (currently in the process of approval by the Parliament of the Czech Republic<sup>4</sup>) and health care reform, a further significant increase in the debt-to-GDP ratio is to be expected in the long term. These risks would probably (depending on the manner of financing) also affect the general government deficit.

## 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 140(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 stipulates that “the criterion on participation in the exchange rate mechanism of the European Monetary System shall mean that a Member State has respected the fluctuation margins provided for by the exchange rate mechanism of the European Monetary System without severe tensions for at least 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 and the EC assess 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 140(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.

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<sup>4</sup> However, changes approved as part of the “small pension reform” are already having a positive impact on the sustainability of the pension system.

For the purposes of this assessment of exchange rate stability, the hypothetical CZK/EUR central parity is set as the average exchange rate in 2009 Q1, i.e. the quarter preceding hypothetical ERM II entry at the start of 2009 Q2, which would allow euro adoption on 1 January 2012.<sup>5</sup> With the aid of this parity it is theoretically possible to monitor whether the Czech Republic would have fulfilled the exchange rate stability criterion in the given time period.

The exchange rate of the koruna against the euro is showing a long-term appreciation trend. However, this trend was interrupted in the second half of 2008 and in early 2009 by a sizeable depreciation due to deteriorating foreign investor sentiment about the Central European region, including the Czech Republic, during the global financial crisis. The magnitude of the depreciation between July 2008 and February 2009 (23%) indicates potential risks to the fulfilment of the exchange rate criterion. In March 2009 the koruna started appreciating again, and this trend continued until 2011 Q3. However, higher exchange rate volatility was evident in the individual quarters, reflecting increased global uncertainty and sudden changes in investors' sentiment in the financial markets as well as in their degree of risk aversion. Overall, it can be seen that exchange rate deviations can exceed the set fluctuation band in turbulent times. The appropriate timing of ERM II entry will therefore be of key importance for successful fulfilment of the exchange rate stability criterion going forward. The Czech Republic should enter ERM II amid a stable situation, both currently and going forward, in the domestic economy, in global financial markets and in investment sentiment towards the Czech Republic and the whole region.

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



Note: In the chart, an upward movement of the exchange rate means appreciation of the koruna vis-à-vis the euro. The hypothetical central parity is simulated by the average exchange rate for 2009 Q1.

Source: CNB, Czech MoF calculations. Data up to 30 September 2011.

The length of stay of an EU Member State in ERM II is set by the Treaty at a minimum of two years before the assessment of preparedness to adopt the euro. 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 for the minimum required period only. This implies that the Czech Republic should enter the ERM II only after it has achieved a high

<sup>5</sup> The hypothetical adoption of the euro in early 2012 would have been preceded by an assessment of all the convergence criteria in 2011 Q2.

degree of economic alignment and after conditions have been established which enable it to introduce the euro shortly after the assessment of the exchange rate criterion.<sup>6</sup>

The Czech economy is highly open and therefore vulnerable to external shocks such as the surge in commodity prices in 2008 (in the context of the high energy intensity of the Czech economy) and the subsequent recession. The freely floating exchange rate has the potential to absorb adverse external shocks impacting on the Czech economy. For instance, a decrease in external demand usually causes the Czech koruna to weaken. This moderates the decrease in net exports and therefore dampens the effects of lower external demand on the Czech economy (the weakening of the Czech koruna at the start of recession serves as an example). The freely floating rate thus also places lower demands on the response of fiscal and monetary policies to adverse external shocks.

## 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 140(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 stipulates that “the criterion on the convergence of interest rates means 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 two 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.”

In 2008–2011, the annual average long-term interest rates for convergence purposes showed an upward trend followed by a general downward trend. The Czech Republic constantly fulfilled the interest rate criterion with at least 1 percentage point to spare over the period under review (see Table 2.4).

**Table 2.4: Long-term interest rates for convergence purposes**

(average for the last 12 months, in %)

|  | 2008 | 2009 | 2010 | 8/2011 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|------|--------|------|------|------|------|
| <b>Average for 3 EU countries with lowest inflation*</b> | 4.2  | 3.9  | 4.0  | 5.3    | 3.3  | 3.6  | 3.2  | 3.1  |
| <b>Reference value</b>                                   | 6.2  | 5.9  | 6.0  | 7.3    | 5.3  | 5.6  | 5.2  | 5.1  |
| <b>Czech Republic</b>                                    | 4.6  | 4.8  | 4.2  | 3.8    | 3.7  | 3.7  | 3.9  | 4.2  |

\* More precisely, the three best performing countries in terms of price stability (see Box 2.1).

Note: In the forecast for 2011–2014, countries facing debt problems (Greece, Ireland), i.e. countries which cannot be expected to be able to fulfil this criterion in a sustainable manner, were excluded.

Source: Eurostat, Convergence Programmes and Stability Programmes of individual member states.

The average level of long-term interest rates for convergence purposes for the last twelve months was 3.8% in the Czech Republic in August 2011 (see Table 2.4). Progress with government reforms, the high rating of the Czech Republic (Standard & Poor’s increased its credit rating for the Czech Republic’s by two notches in August 2011) and the interest in Czech government bonds (denominated in both the koruna and the euro) on the part of

<sup>6</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/xsl/eu\\_acc\\_stra\\_13438.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/eu_acc_stra_13438.html) and [http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/eu\\_acc\\_stra\\_33780.html](http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/eu_acc_stra_33780.html)

residents and non-residents should foster stable Czech government bond yields. The Czech Ministry of Finance expects an average of 3.7% for 2011 and for 2012 (yields should start rising slowly at the end of 2012).

The current debt crisis in the euro area presents some risk to government bond yields. However, as noted above, investors have confidence in Czech bonds, as evidenced by the correlation between Czech and German ten-year government bond yields in recent months. The spread between them is fluctuating around 1 percentage point and can be expected to remain flat or decline moderately in the period ahead. Given the current problems in the euro area, the forecast for 2012–2014 is highly uncertain. The stable inflation rate and successful fiscal consolidation efforts mean that the Czech Republic should not have any problems fulfilling this convergence criterion in the future either. Maintaining the confidence of the financial markets in the medium-term consolidation and long-term sustainability of Czech public finance is, however, a significant condition.



### 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. The Czech Republic's future entry into the euro area ensues from the commitments associated with EU membership. Adoption of the single European currency should lead to the elimination of exchange rate risk in relation to the euro area and to a related reduction in the costs of foreign trade and investment. This should further increase the benefits accruing to the Czech Republic from its intense involvement in the international division of labour. Besides the aforementioned benefits, however, adoption of the euro will simultaneously imply costs and risks arising from the loss of independent monetary policy and exchange rate flexibility vis-à-vis major trading partners. The benefits and costs stemming from euro adoption will be affected by the characteristics and situation in both the Czech economy and the euro area economy. These factors will influence whether adoption of the euro by the Czech Republic will lead to an increase in the country's economic stability and performance.

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 different economic developments in the Czech Republic compared to the euro area and hence the risk of the single monetary policy being highly suboptimal for the Czech economy. 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 using its own adjustment mechanisms. 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 individual studies were prepared using the statistical data and information available in July 2011. The conclusion as to whether adopting the euro will have economic benefits for the Czech economy and whether the economy is sufficiently prepared for adopting the single currency cannot be made in absolute terms, but the aforementioned comparison with other countries and the assessment of developments over time can be carried out in the context of economic developments in the euro area. In general, the benefits of adopting the euro can be expected to depend on the economic situation in the domestic economy and in the euro area and to increase with greater economic alignment and stronger adjustment mechanisms.

#### 3.1 Cyclical and Structural Alignment

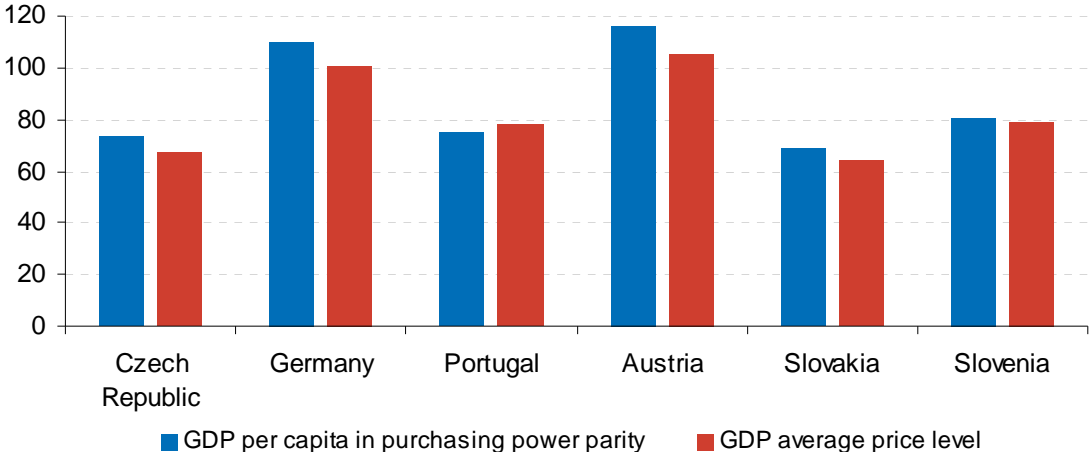
Assuming a stable and sustainable economic situation in the euro area, the costs arising from the loss of the Czech Republic's own monetary policy will be particularly pronounced if the Czech economy is not aligned with the euro area economy. The risks arising from the Czech Republic's accession to the euro area will decrease as the degree of alignment increases.

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, but it is no guarantee of future smooth functioning of the economy in the EMU. 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 reduce the potential future pressures for growth of the price level and equilibrium appreciation of the real



exchange rate. From the long-term perspective, the Czech economy is converging towards the euro area in real terms. However, this trend has halted – probably only temporarily – as a result of the financial and economic crisis. In the last three years, GDP per capita was about three-quarters of the euro area average. Owing to the crisis, the convergence process was also interrupted in the case of the price level of GDP. In 2010, however, this level increased slightly again to 67% of the euro area price level, although it remains below the level corresponding to the performance of the economy. The wage level in the Czech Republic in 2009 was roughly 36% of the average euro area level when converted using the exchange rate and about 54% when calculated using purchasing power parity data. The real exchange rate of the koruna (on an HICP basis) appreciated on average by 3.4% a year between 1998 and 2010, but is displaying significant fluctuations around its long-run trend. Some of these fluctuations can be sources of macroeconomic shocks, while others can help to absorb them. The koruna’s appreciation in 2007 and the first half of 2008 (i.e. in a situation of high inflation and fast economic growth) had a stabilising effect on the Czech economy, as did the subsequent weakening of the Czech currency during the recession. According to the analyses, equilibrium real appreciation of the koruna against the euro at an average rate of 1.8–2.4% a year can be expected over the next five years. Continuing real appreciation of the exchange rate following euro area entry would therefore initially mean an increase in the inflation differential vis-à-vis the euro area and related lower (or even negative) real interest rates.

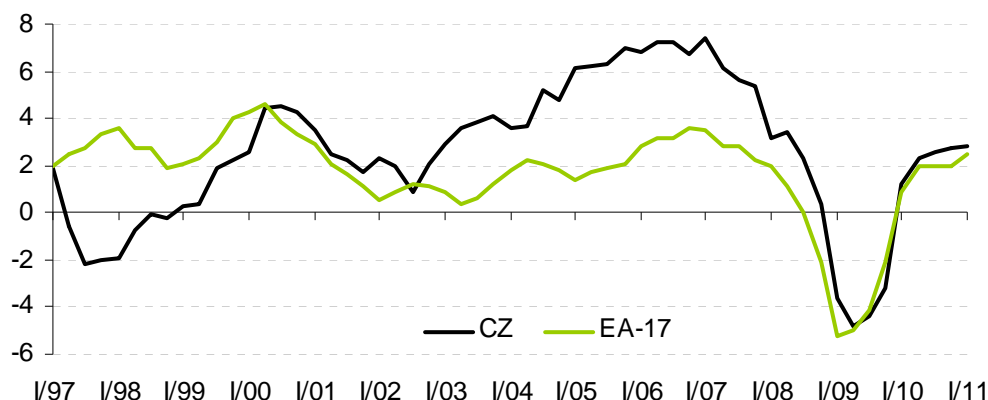
**Chart 3.1: Real economic convergence of selected states towards the euro area in 2010**  
(EA-17=100)



Source: Eurostat, CNB calculations.

**Alignment of economic activity and similarity of economic shocks** will increase the likelihood that the single monetary policy in the monetary union will be appropriately configured from the perspective of the Czech economy. 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. The rise in the monitored correlations, particularly in 2008–2010, including supply and demand shock correlation, should be assessed in the context of the recent global economic downturn and the subsequent gradual recovery in economic activity proceeding in parallel in the Czech Republic and the euro area. For this reason, only in future years will it be possible to prove or disprove the hypothesis that greater business cycle alignment has been achieved in normal global economic conditions.

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



Source: Eurostat, CNB calculations.

Similarity of the **structure of economic activity** with the euro area should decrease the risk 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 services, particularly financial intermediation, compared to the euro area. The differences in structure have widened slightly further in recent years owing to a decline in the share of value added in industry in the euro area in favour of financial intermediation. 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 asymmetric developments.

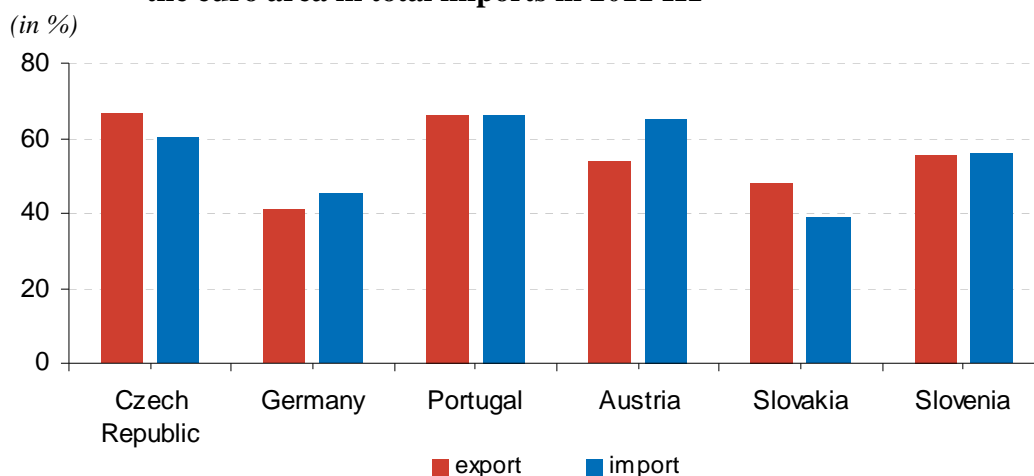
Fast convergence of **nominal interest rates** in the immediate run-up to joining the euro area acted as an asymmetric shock in some economies in the past, generating macroeconomic imbalances and risks to financial stability. For a country planning to enter the monetary union, earlier gradual interest rate convergence is therefore an advantage. The fact that the difference between Czech and euro area short-term market interest rates was close to zero for a long time is favourable from this perspective. A modest positive interest rate differential opened up in the second half of 2008 and widened further during 2009. Since the start of 2010, however, short-term market interest rate differentials have been falling and even turned negative in 2011. Government bond yield differentials peaked at the start of 2009 and also edged up in 2010 Q2 because of the euro area debt crisis. They then decreased, however, and are now also negative, owing mainly to rising average yields in the euro area.

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. Since 2000, this correlation has always declined only temporarily: during the fast appreciation of the koruna in 2001–2002 and later on in connection with the general surge in global financial market volatility after the fall of Lehman Brothers in 2008 H2 and 2009 Q1, when the Czech koruna – like the Hungarian forint and the Polish zloty – came under significant depreciation pressure. In 2010 H1, however, the correlation between the Czech koruna and the euro returned to its high pre-crisis level.

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 and the reduction in transaction costs. The euro area is the partner for 66% of Czech exports and 60% of Czech imports, a level comparable to, or even higher than, that 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 showing an upward trend. In 2009, foreign direct investment from the euro area exceeded 53% of Czech GDP.

**Chart 3.3: Share of exports to the euro area in total exports and share of imports from the euro area in total imports in 2011 H1**



Source: Eurostat, IMF, CNB calculations.

Despite the smaller size of the Czech **financial sector** and its smaller depth of financial intermediation relative to the euro area, it can be expected to have a similar effect on the economy in normal economic conditions. The depth of financial intermediation in the Czech Republic, as measured by the ratio of financial system assets to GDP, is roughly one-quarter of the value for the euro area. The share of bank loans to the private sector is 56% of GDP in the Czech Republic, i.e. roughly two-fifths of that in the euro area. However, the current level of the aforementioned indicators in the euro area is not necessarily optimal, since in many countries it is more a reflection of private sector overleveraging.

The **structure of the financial assets and liabilities of Czech non-financial corporations and households** is gradually converging to that of euro area entities, but still shows differences. 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. The indebtedness of Czech corporations and households is still much lower than in the euro area countries under review. On the other hand, the above entities have lower assets. 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. The global financial and economic crisis has led to slower transmission of monetary policy interest rates to the Czech economy owing to growth in the interbank market premium and some client risk premia. The maturity structure of new loans to non-financial corporations is similar to that in the euro area. The degree of **spontaneous euroisation** in the Czech Republic is low and is due to economic agents' confidence in the domestic currency and to sustained low inflation and low interest rates. The use of foreign currency is concentrated primarily in the sector of corporations involved in foreign trade.

The analysis of **integration of financial markets** (the money, foreign exchange, bond and stock markets) reveals that the speed of elimination of shocks in the individual segments of the Czech financial market was increasing in the pre-crisis period and the level of convergence did not differ much from that of the countries under review. The only exception was the money market, which was already showing a lower degree and speed of integration in the pre-crisis period, mainly due to different monetary policy in the Czech Republic compared to other countries. The global crisis and its impacts led to a decline in the speed of adjustment

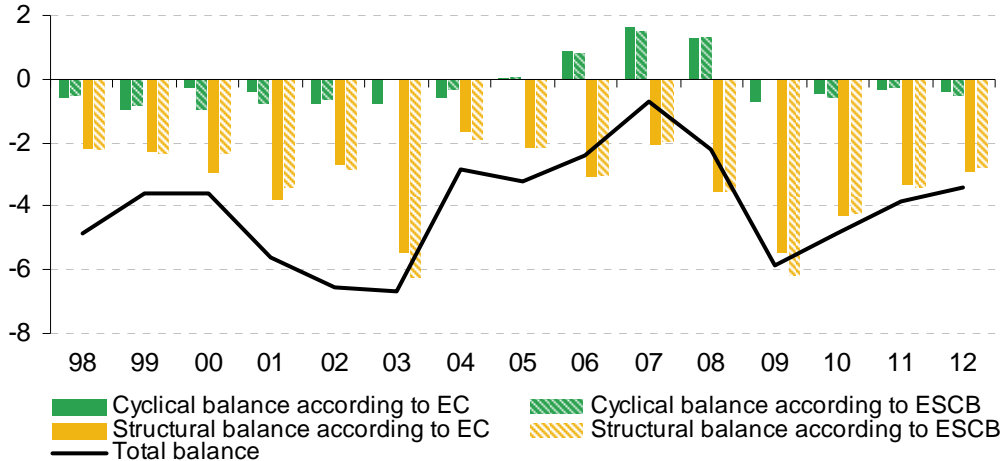
and to loosening financial market integration in all the countries under comparison. The financial market situation started to improve in 2009 H2, and in 2010 the Czech Republic saw a return to pre-crisis values. The exception is government bond market integration, which is being affected by increased dispersion across the euro area due to rising yields on such bonds in euro area countries hit by the debt crisis.

### 3.2 Adjustment Mechanisms

Fiscal policy can be a stabilising element for the economy, but it can itself be a source of economic shocks if it is set inappropriately. The closer the structural part of the public budget deficit is to zero and the lower is the accumulated public finance debt, the more room there will be at a time of economic downturn for automatic stabilisers to function and the potential discretionary measures to be implemented. The assessment of the **roles of the structural and cyclical components of the budget balance** shows that the Czech general government deficits in past years were due mainly to non-cyclical effects – the total deficit was practically identical to the structural component. Fiscal policy was pro-cyclical for most of the period under review. Windfall tax revenues in 2006–2008 were not employed to reduce the fiscal deficit, but instead tended to be used to generate new public expenditures. Similarly, tax cuts affecting the revenue side were not ultimately accompanied by corresponding austerity measures on the public expenditure side, even during years of solid economic growth. Fiscal policy was counter-cyclical in 2009, when government anti-crisis and other measures were adopted. This led to a significant widening of the structural deficit. The public finance situation improved somewhat in 2010, when a fiscal consolidation process was commenced and the structural deficit was considerably reduced by budget austerity measures. According to the current estimate, the structural deficit should narrow further in 2011 and 2012 thanks to continuing fiscal consolidation. Although the Czech Republic’s **total government debt** is lower than that of many EU countries, it has been growing significantly in recent years. The high share of mandatory expenditure combined with the expected effect of demographic changes on pension system and health care system expenditures also poses a risk to public finance sustainability.

**Chart 3.4: The fiscal balance and its cyclical and structural components**

(as % of GDP)



Note: Positive values represent a public budget surplus and negative values a public budget deficit. The sum of the cyclical and structural balance does not equal the total balance since the structural balance is adjusted for extraordinary one-off fiscal measures in addition to the effect of the cycle.

Source: CZSO, CNB calculations.

**Wage flexibility** can enhance the economy's ability to absorb shocks to which the single monetary policy cannot respond. The analyses show that real wages in the Czech Republic, as in the other countries under comparison, did not have a stabilising effect at the macroeconomic level. However, nominal wages responded to the buoyant economic growth and subsequent sharp downturn in the appropriate direction, dampening the impact of the recession on the Czech labour market. In addition to base wage freezes and indexation, firms often adjusted bonuses and also used other alternative labour cost adjustment channels. Differences in **inflation persistence** in the monetary union countries could also lead to the single monetary policy having different impacts. Inflation persistence in the Czech Republic is medium-low among the countries under comparison.

The **labour market** is another important mechanism through which the economy can cope with shocks within the euro area. The present Czech labour market situation reflects the impacts of the recent economic downturn, with long-term unemployment rising since 2009 H2. Structural unemployment is hovering around 6%. This is one of the lowest figures among the countries under comparison. The Czech Republic still has relatively large differences in unemployment across regions, although they have decreased somewhat in recent years. A large difference between households' supply of labour and businesses' demand for labour is also apparent for some professions.

Although the **international mobility** of Czech workers is not very high, the increase in foreign employment in the Czech Republic until 2008 H1 and its subsequent decline as a result of the economic slump can be regarded as economic adjustment ability. On the other hand, the use of foreign labour in the pre-crisis period indicated the persistence of some serious rigidities in the Czech labour market, as demand for low-skilled labour was not satisfied from domestic sources.

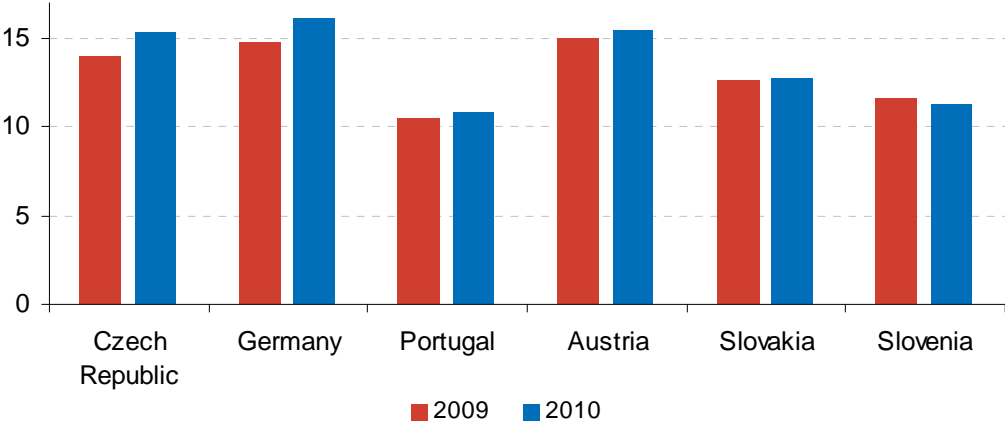
Labour market flexibility is determined to a great extent by the **institutional rules**. The effect of collective bargaining on wage setting in the Czech Republic is no higher than in the current euro area members. The ratio of the minimum wage to the average wage was rising until 2006. Since then it has been decreasing, however. This is important above all in low-skilled jobs, for which the negative impact of a high minimum wage on wage flexibility can be greater. The costs of dismissing employees in the Czech Republic are relatively high, particularly for open-ended short-term contracts. This should be resolved in the future by new legislation. In contrast to permanent employment, employment protection is low in the case of temporary employment. Overall labour taxation in the Czech Republic is relatively high, and increased slightly further in 2010. However, the implicit taxation rate, expressing the average effective tax burden, decreased in 2008 and 2009. The financial incentives to seek and accept a job are weak in the Czech Republic, particularly in low-income households with children.

In the area of **product market flexibility** the situation is showing some improvement. In particular, gradual steps are being made to reduce the administrative burden on corporations. However, the domestic business environment remains in some respects (e.g. starting a business) more burdened with administrative obstacles than in most of the countries under comparison. The rate of taxation of Czech corporations has decreased gradually in recent years and is one of the lowest among the countries under comparison.

**Stability and effectiveness of the banking sector** is a precondition for the sector to be able to assist in absorbing economic shocks. By contrast, an unsound financial sector can generate shocks and propagate them to the real economy. It can also cause problems in the fiscal area, as recent experience shows. The Czech banking sector displays very good macroprudential indicators such as profitability, capitalisation and liquidity and limited dependence on other countries. It is therefore not a source of shocks and should be able to absorb fluctuations

emanating from the domestic economy or from abroad. The results of stress tests conducted on portfolios as of 30 June 2011 indicate that the Czech banking sector is also sufficiently resilient to extremely adverse macroeconomic and financial developments.

**Chart 3.5: Capital adequacy ratio**  
(in %)



Source: IMF FSI.

## 4 ASSESSMENT OF THE SITUATION IN THE EURO AREA

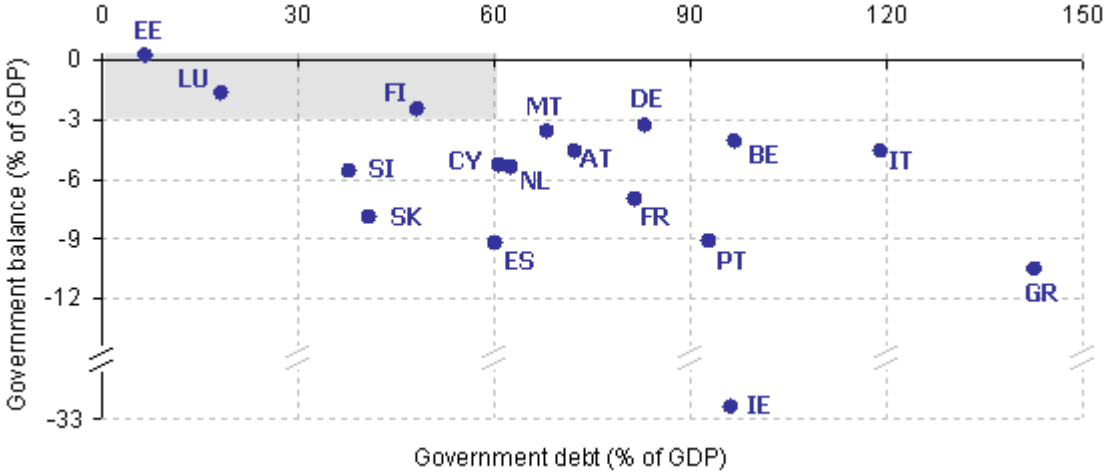
Developments in the euro area in recent years deserve increased attention. On the one hand they are pointing to differences between the countries of the EMU, and on the other hand they are leading to a change in its institutional architecture and may therefore significantly alter the benefits and costs of euro adoption.

**Economic alignment of euro area countries** is a basic prerequisite for the EMU to function smoothly. However, recent developments point to shortcomings in this area. The differences in economic level between member countries were widening until the start of the financial crisis. The subsequent decrease in differences is due to a larger fall in real GDP in wealthier countries. The differences in year-on-year growth rates across euro area economies indicate that their business cycles are displaying no major change in alignment. However, these differences widened in 2008–2010, as the economies were hit by recession in different quarters and to different extents. By contrast, the unemployment rate was converging, but in recent years unemployment has risen much more strongly in some countries, leading to divergence. Inflation showed a trend towards relative alignment after euro adoption, but the crisis years saw a temporary increase in misalignment. In recent years, the biggest and fastest-growing gap can be seen for long-term interest rates, which most of all reflect the differing magnitudes of the debt problems across euro area countries. The uneven developments across euro area countries and the financial market turmoil are creating a difficult situation for the European Central Bank, which on the one hand tightened its monetary policy in 2011 H1 by raising its key interest rate twice, but on the other hand is continuing its unconventional measures, including purchases of government bonds on secondary markets.

The **public finance situation** in many euro area members is currently putting the functioning of the euro area under the biggest pressure. At present, only three countries (Estonia, Finland and Luxembourg) meet the fiscal criteria laid down in the Treaty and detailed in the protocols annexed to it. In 2010, fourteen countries exceeded the budget deficit criterion (3% of GDP)

and twelve were non-compliant with the debt criterion (60% of GDP). Although compliance with the Stability and Growth Pact had been patchy right from the establishment of the euro area, the problems escalated after the outbreak of the global financial and economic crisis.

**Chart 4.1: Euro area fiscal positions in 2010**



Source: Eurostat

Major changes are being made to the **institutional framework** in response to the euro area’s problems. The future form of the economic and political organisation of the EMU may change the view of the economic benefits and costs of joining. Changes are being made in the macroeconomic and fiscal supervision and policy coordination areas. Compliance with the fiscal criteria is to be tightened and fiscal reform efforts are to be bolstered. In addition, assessment of macroeconomic imbalances is to be introduced. The rescue mechanisms put in place for the euro area imply new and unforeseen financial obligations for both present and future euro area members. In the event of joining the euro area in the future, the Czech Republic would probably also become a member – and therefore also a co-financer – of the European Stability Mechanism (ESM). According to current estimates, it would have to provide capital of about CZK 32 billion in the first five years after ESM entry, and in subsequent years its final commitment (i.e. the said paid-in capital plus callable capital) would reach CZK 350 billion (i.e. 9.4% of GDP). Upon its establishment, the ESM, in which the Czech Republic will be a shareholder, will probably assume (at least) the undisbursed and unfunded loans of the EFSF. In reality, this represents a significant change and an expansion of the commitment to adopt the euro in the future.