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

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 convergence, as reflected in long-term interest rate levels.

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 at present.

The only exception is the criterion on the sustainability of public finances, which the Czech Republic has so far been unable to satisfy in a sustainable manner in the area of fiscal deficits. The state's fiscal performance is subject to multilateral surveillance of public finance developments. Failure to observe budgetary discipline led to the commencement of the excessive deficit procedure against the Czech Republic shortly after its accession to the EU. As a result, the Czech Republic undertook in 2004 to reduce its government deficit in a sustainable manner to below 3% of GDP by 2008. In the event of failure to meet this commitment, the Council may decide to suspend funding from the Cohesion Fund.

1.1 Assessment of Fulfilment of the Convergence Criteria

The Czech Republic has been compliant with **the criterion on price stability** in 2005 and 2006. However, given the current strict interpretation of the criterion applied by the European Commission and the European Central Bank, it is possible that the fulfilment of this criterion will be endangered if the CNB's current target of 3% is maintained. The likelihood of non-fulfilment of the criterion depends on the outlook for inflation in the Czech Republic (*inter alia* the evaluation of the strength of the impact of the planned changes to indirect taxes): the Ministry of Finance outlook indicates that there should be no problem, whereas the CNB outlook regards future non-fulfilment of the criterion as highly likely if the current inflation target of 3% is maintained. It also depends on the reference value of the criterion, which is derived from inflation in the EU Member States. Downward fluctuations in the reference value hindering fulfilment of the price stability criterion cannot be ruled out under the current interpretation.

The Czech Republic is not compliant with **the criterion on the sustainability of the government financial position.**

The draft 2007 state budget and the related Medium-term Budget Outlook for 2008–2009 do not lay the groundwork for fulfilment of this criterion. According to the 2005 Convergence Programme, a sustainable decrease was expected in the public budgets deficit to below 3% of GDP from 2008 onwards, but the submitted proposals conflict with this goal. This constitutes a major limitation and uncertainty with respect to the future timing of euro adoption. The date for decreasing the deficit below the required 3% is thus highly likely to be postponed. It is premature to consider a new date until a new public finance consolidation strategy has been prepared. The government debt is still relatively low (despite the growth outlook for the coming years) and thus significantly below the reference value of 60% of GDP. However, the postponed reforms, especially those of the pension and health care systems, pose a further risk in terms of the sustainability of public budgets and the future growth of government debt.

Formal assessment of **the exchange rate criterion** will only be possible after the central parity for the koruna's exchange rate is announced and the Czech Republic joins ERM II.

Moreover, this criterion should not be interpreted mechanically, but in relation to other economic fundamentals and their impact on any exchange rate fluctuations. The fluctuations in the CZK/EUR exchange rate have long been smaller than the hypothetical band of ±15%. However, the deviations from the average rate have been quite significant. At present, therefore, we cannot say for sure whether the past developments would have been assessed as compliant with the condition of movement close to the central parity "without severe tensions".

The Czech Republic is currently compliant with **the long-term interest rate criterion** without any problems.

The outlook for several years ahead does not indicate any problems in this area, either. Fulfilment of this criterion is conditional on maintaining financial market confidence in a successful consolidation of public finances delivering sustainability of those finances. Otherwise there may be a downgrading of the Czech Republic's international rating, a higher risk premium on government bonds and consequently an increase in long-term interest rates (above the reference value in the extreme case).

1.2 Assessment of Economic Analyses

Numerous indicators speak in favour of relatively early adoption of the euro. These include the high degree of openness of the Czech economy, its close trade and ownership links with the euro area, and the achievement of convergence of the inflation rate and nominal interest rates.

In addition, there are some indicators which have tended to be unfavourable for the Czech Republic in the past, but which have improved in recent years. The positive developments include further progress in real economic convergence in the Czech Republic, including modest convergence of the price level towards that in the euro area; a shift in the characteristics of the financial market closer to the euro area average; the achievement of a high degree of banking system stability; and a modest improvement in the conditions for business.

Insufficient alignment with the euro area economy, which could increase the costs arising from the loss of independent monetary policy, can thus be seen chiefly in a major difference

between the cyclical development of Czech and euro area GDP and in a persisting difference in the price level. A traditional bottleneck as regards the economy's flexibility and ability to adjust to shocks is the labour market, which still exhibits relatively high long-term and structural unemployment and low regional mobility. Some positive changes have occurred recently, for example the introduction of tighter conditions for qualifying for unemployment benefit and registering at labour offices, and easier procedures for setting up businesses. On the other hand, the flexibility of low wages may be adversely affected by the rising ratio of the minimum wage to the average wage. The costs of terminating an open-ended employment contract after a short period of employment remain relatively high by international comparison, and the new Labour Code effective from 2007 will not change this very much. Greater labour market flexibility is thus still one of the key challenges going forward.

Public finances have developed unfavourably since the last assessment. The medium-term outlook for public finances has recently deteriorated. Long-term stabilisation of public budgets below the 3% reference value has not been achieved either. If the euro is to be adopted, this trend has to be reversed and sustainability of public budgets must be ensured.

1.3 Conclusions and Recommendations

Based on the aforementioned analyses and in line with the earlier approved document *The Czech Republic's Euro-area Accession Strategy* (the "Strategy"), the Ministry of Finance and the Czech National Bank recommend to the Czech Government that the Czech Republic **should not attempt to enter the ERM II during 2007**.

This decision also means postponing the Czech Republic's potential entry into the euro area beyond the originally planned horizon of 2009–2010 mentioned in the Strategy.

The environment has yet to be created for the Czech Republic to meet the requirements for joining the euro area two years after entering the ERM II and to be able to benefit from adopting the euro to a sufficient extent. The currently deteriorating medium-term outlook for public finances fails to comply with the targets of the Strategy not only in terms of fulfilling the convergence criteria, but also from the point of view of ensuring medium-term balance and long-term sustainability of public budgets. No significant progress has been made either in the area of increasing labour market flexibility.

Any future recommendation regarding ERM II entry therefore depends primarily on having a clear plan for the reform of public finance and other reforms directed at increasing the flexibility of the Czech economy, and particularly that of the labour market. The decision on the ERM II entry date and subsequently on euro adoption must therefore be made only after progress has been achieved in the preparation, and in particular implementation, of such reforms.

As regards future fulfilment of the Maastricht criterion on price stability in a situation where this criterion is interpreted in a very strict manner by EU institutions, it is desirable that no substantial inflationary changes be made to indirect taxes during ERM II participation. Even if this condition is met, the CNB will probably have to decrease the inflation target to a level allowing the criterion on price stability to be satisfied with a high degree of probability. The appropriate timing of this step is in the discretion of the Czech National Bank and will also depend on the progress achieved in reforms targeted at euro adoption.

2 Assessment of the Current and Expected Fulfilment of the Maastricht Convergence Criteria

The convergence criteria (price stability, public finance sustainability as measured by the government deficit and government debt, exchange rate stability, and convergence of long-term interest rates) are defined in the EC Treaty (the "Treaty") and specified in the Protocol on the convergence criteria and the Protocol on the excessive deficit procedure annexed to the Treaty. Fulfilment of the convergence criteria in a sustainable, and not only one-off, manner is a necessary condition for adoption of the single currency by a Member State with a derogation.

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 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 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 the Convergence Reports published in 2004 have shown, the EC and the ECB somewhat differ in their specific interpretations of the phrase "best performing Member States in terms of price stability". Both institutions in these reports worked with the three countries with the lowest inflation (Finland, Denmark and Sweden) excluding Lithuania, which recorded an inflation rate of -0.2% in the reference period. However, the decision to exclude Lithuania was justified in slightly different ways in the two reports. For the Commission the reason was that Lithuania had shown negative inflation, whereas for the ECB it was that inflation in Lithuania over the reference period was judged to have been due to "the accumulation of specific factors"; in the ECB's opinion, including such factors in the calculation of the reference value might have distorted the reference value and reduced its usefulness as an economically meaningful benchmark.

Moreover, the negative verdict for Lithuania[1] in the May 2006 Convergence Reports indicated that a very strict assessment can be expected in future as regards sustainability of the 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 not succeeding in satisfying the criterion in a sustainable manner.

Implementation of the price stability criterion – a review of current practice and the Czech initiative
The Czech Republic, together with some other countries not participating in ERM II, recently initiated a debate aimed at shifting the interpretation of the price stability criterion so that it better reflects the economic reality and matches the definition of price stability in the euro area countries as expressed by the ECB's inflation target of "below, but close to 2%". This proposal was based on the view of current economic theory regarding the optimal level of inflation. The current interpretation by the European Commission and the ECB of the phrase "best performing Member States in terms of price stability", in the sense of "Member States which have achieved the lowest inflation", does not conform to this view. Although the proposal sought a better interpretation of the aforementioned phrase under the provisions of the Treaty and the Protocol, this initiative, despite all efforts and support from some Member States not participating in ERM II, was not successful.

If one bases the calculation of the reference value on the three countries with the lowest positive inflation, the Czech Republic has been compliant with the criterion on price stability since 2003. The only exception was 2004, when inflation increased temporarily owing to changes to indirect taxes and a simultaneous decrease in the reference value due to exceptionally low inflation in some EU countries. A simple comparison of the current forecast of the Ministry of Finance (from the draft State Budget of the Czech Republic for 2007 and the Medium-term State Budget Outlook for 2007–2009) and the inflation outlook for the EU Member States indicates that there should be no danger of non-fulfilment of this criterion in the future either (see Table 2.1).

Table 2.1: Harmonised Index of Consumer Prices
(average for last 12 months vs. average for previous 12 months, growth in %)

	2003	2004	2005	8/06	2006	2007	2008	2009
Average for 3 EU countries with lowest inflation	1.2	0.7	1.0	1.3	1.2	1.6	1.5	1.5
Reference value (1st line +1.5 p.p.)	2.7	2.2	2.5	2.8	**2.7**	**3.1**	**3.0**	**3.0**
Czech Republic	-0.1	2.6	1.6	2.4	**2.4**	**2.6**	**2.5**	**2.5**

Sources: Eurostat, European Commission, Convergence Programmes and Stability Programmes of Member States, forecast of the Ministry of Finance of the Czech Republic for the draft State Budget of the Czech Republic for 2007 and the Medium-term Outlook for the State Budget of the Czech Republic for 2007–2009.
Note: The outlook for inflation in the European Union for 2006–2007 is taken from the European Commission's spring economic forecast and that for 2008 from the Member States' Convergence Programmes and Stability Programmes (2005).

However, when assessing the future ability to maintain inflation below the reference value, one needs to take into account that the individual countries' inflation forecasts, with few exceptions, do not deviate far from the ECB's inflation target, whereas actual inflation deviates from it significantly more. This may mean a lower inflation level in the countries that form the basis for calculating the criterion, and thus a lower reference value. This was reflected in the criterion in 2003–2005 (as well as in the previous period), when the reference value ranged between 2.2% and 2.7%, i.e. generally lower than in the outlook in Table 2.1. Moreover, the probability of a low reference value is higher than in the past, owing to the

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[1] *Lithuania recorded a significant rise in inflation between 2004 and 2006. As a result, during the assessment in the spring of 2006, inflation in Lithuania exceeded the reference value for the price stability criterion by 0.1 percentage point.*

larger number of EU Member States, among which three countries with very low inflation will probably be found.

One also needs to take account of the possibility of higher inflation than forecasted by the Ministry of Finance. The CNB's outlook for 2007 and 2008 foresees HICP inflation higher than 3%, which would mean a high probability of future non-fulfilment of the criterion. Among other things, this is because the current inflation target is set in such a way that the price stability criterion is fulfilled at its upper boundary, hence inflationary shocks shifting inflation temporarily above the target may cause the reference value to be exceeded. In the current outlook, the harmonisation changes to indirect taxes on cigarettes – whose effect on the price level may exceed one percentage point in the coming years – represent such a shock.

These facts suggest that if a clear political consensus is reached on the euro adoption date, safe fulfilment of the price stability criterion under the current strict interpretation may require a reduction of the CNB's inflation target from the current level of 3%. At the same time it is desirable that no substantial inflationary changes hindering the fulfilment of the criterion be made to indirect taxes during ERM II participation.

2.2 Criterion on the Sustainability of Public Finances[2]

Government deficit criterion

The first part of the criterion on the sustainability of public finances is focused on short-term to medium-term fiscal developments. The benchmark is the general government deficit under ESA95 national accounts methodology.

The Czech Republic's current public finance parameters prevent it from satisfying the government deficit criterion in a sustainable manner and ensuring anti-cyclical fiscal policy. Fiscal developments confirm that the transitory decline in the deficit to just below 3% of GDP in 2004 was due to extraordinary factors and was not sustainable in the following years (see Table 2.2). The draft state budget for 2007 confirms the deteriorating trend in public finances and hence the Czech Republic's failure to comply with the consolidation strategy that it pledged to implement on joining the EU. It also means a breach of its commitment to the EU to reduce its government deficit in a sustainable and credible manner below 3% of GDP by 2008 (a commitment ensuing from the excessive deficit procedure). The Czech Republic is also in breach of other fiscal recommendations formulated for it by the Ecofin Council.

Table 2.2: General government deficit *(ESA 1995 methodology, in % of GDP)*

	2003	2004	2005	2006	2007	2008	2009
Reference value	-3.0	-3.0	-3.0	-3.0	**-3.0**	**-3.0**	**-3.0**
Czech Republic*	-6.6	-2.9	-3.6	-3.5	**-4.0**	**-3.5**	**-3.0**

Sources: CZSO, Government Deficit and Government Debt Notifications (October 2006)
* The forecasts for 2007–2009 are preliminary Ministry of Finance estimates based on the draft 2007 State Budget submitted by the Government to the lower house of the Czech Parliament. In 2008–2009 these forecasts mechanically take account of the obligation to make the minimum fiscal consolidation efforts laid down in the Stability and Growth Pact, i.e. a minimum reduction in the deficit of 0.5 percentage point a year. These forecasts do not include proposals for the measures needed to deliver this deficit reduction.

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[2] *The criterion on the sustainability of public finances is satisfied only when both components of the fiscal criterion, i.e. the government deficit and government debt, are fulfilled in a sustainable manner.*

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".

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, alternatively,

•   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.

Other Treaty provisions – excessive deficit procedure

The report prepared by the European Commission under Article 104 (3) of the Treaty should also take into account whether the government deficit exceeds government investment expenditure and all other relevant indicators, including the medium-term economic and budgetary position of the Member State.

The Commission may also prepare a report if, notwithstanding the fulfilment of the criteria, it is of the opinion that there is a risk of an excessive deficit in a Member State. The Economic and Financial Committee formulates an opinion on the Commission's report.

In accordance with Article 104 (6) of the Treaty, the EU Council, on the basis of a recommendation from the Commission and having considered any observations which the Member State concerned may wish to make, decides, acting by qualified majority and following an overall assessment, whether an excessive deficit exists in a Member State. Under Article 104 (7) of the Treaty, the EU Council then makes recommendations to the Member State concerned with a view to bringing the deficit below the 3% level within a given period.

Government debt criterion

The second part of the criterion monitors the sustainability of public finances from a longer-term perspective based on the level and trend of the general government debt.

Given its low initial level of government debt, the Czech Republic has no problem fulfilling this criterion. The government debt growth in 2003 largely reflected the inclusion of the majority of the identified indirect liabilities of the government (particularly government guarantees and the classification of Česká inkasní, the Czech Consolidation Agency and their subsidiaries in the general government sector). The ratio of government debt to GDP was stabilised in the subsequent period, thanks mainly to rapid economic growth, but it is expected to gradually increase again in the years to come. Moreover, not even a successful fiscal consolidation will be able to stabilise the government debt level in a sustainable manner if the fiscal system is not prepared for the expected effects of population ageing. This must be

ensured by implementing fundamental reforms of the pension system and health care system (see Table 2.3).

Table 2.3: Government debt *(ESA 1995 methodology, in % of GDP)*

|	2003	2004	2005	2006	2007	2008	2009
Reference value	60.0	60.0	60.0	60.0	**60.0**	**60.0**	**60.0**
Czech Republic*	30.1	30.7	30.4	30.6	**31.7**	**32.4**	**33.0**

Sources: CZSO, Government Deficit and Government Debt Notifications (October 2006)
* The government debt projection will be updated following the preparation of the 2006 Convergence Programme.

2.3 Criterion on Exchange Rate Stability

The Czech Republic does not participate in ERM II, so the central parity of the CZK/EUR rate has not been set yet. For this reason, the exchange rate criterion cannot be formally assessed. In Chart 2.1, the central parity is, for illustration, assumed to be the average of the daily rates for 2003–2005.

Chart 2.1: Nominal CZK/EUR rate
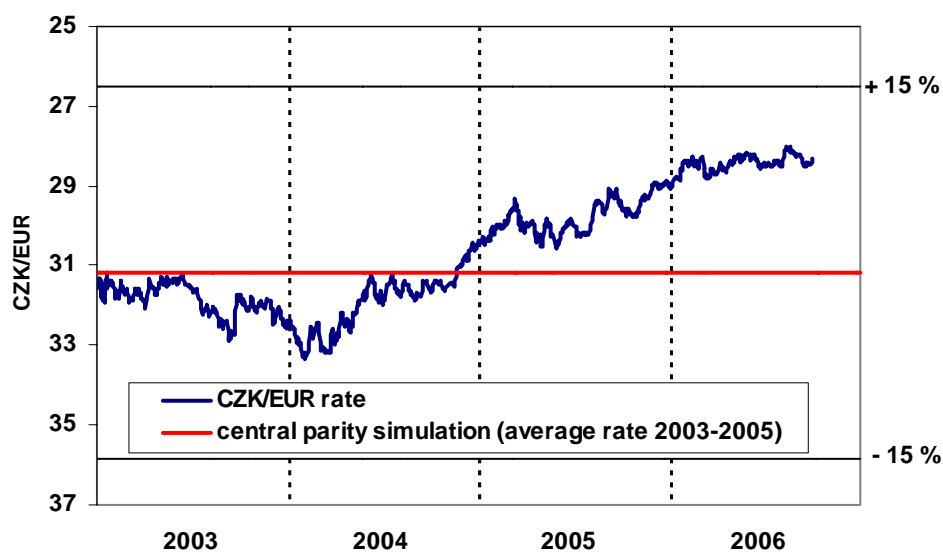
Sources: CNB, Ministry of Finance calculations
Note: In the chart, an upward movement in the exchange rate means an appreciation of the koruna
*   The hypothetical central parity is simulated by the average rate for 2003–2005.*

The fluctuations in the CZK/EUR exchange rate over the last few years have been smaller than the hypothetical band of ±15%. However, the deviations from the average rate have been quite significant. The koruna has been showing an appreciation trend against the euro for some time. The definition of the criterion implies that its interpretation is not entirely clear. In an attempt to reduce this ambiguity, the ECB published a statement in 2003 stating that the assessment of the fulfilment of this criterion would take into account other factors than the exchange rate level alone (see Box 2.3). However, the assessment is not unambiguous even in the light of this statement. We cannot therefore say for sure whether the present situation would be assessed as compliant with the condition of movement close to the central parity "without severe tensions".

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 ±2.25% around bilateral central parities, whereas a ±6% band was a derogation from the rule. In August 1993 the decision was taken to widen the fluctuation margins to ±15%, and 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.

Successful ERM II participation may be aided in particular by alignment with the euro area economy and consistency of economic policies. The euro-strategy recommends participation in ERM II for the minimum required period of two years only. This implies 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 to then benefit from its introduction without experiencing any problems".[3]

Compared to the present exchange rate regime of managed floating, ERM II entry will be a new element which might have a substantial effect on the behaviour of the exchange rate. The

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[3] *For details, see the joint document of the CNB and the Czech Government entitled "The Czech Republic's Euro-area Accession Strategy" at http://www.mfcr.cz/cps/rde/xchg/mfcr/hs.xsl/eu_acc_stra.html.*

key problem with switching to the ERM II mechanism will be setting the appropriate (sustainable) central parity.

2.4 Criterion on Long-term Interest Rates

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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 (1) 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
First, with regard to "an average nominal long-term interest rate" observed over "a period of one year before the examination", the long-term interest rate has been calculated as an arithmetic average over the latest 12 months for which HICP data were available.

Second, 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 in the three countries with the lowest 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.

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The Czech Republic is currently compliant with the criterion on long-term interest rates and no problems are expected in this area in the future[4] (see Table 2.4).

Table 2.4: 10-year interest rates on government bonds on the secondary market
(average for the last 12 months, in %)

	2003	2004	2005	8/06	2006	2007	2008	2009
Average for 3 countries with lowest inflation	4.12	4.28	3.37	4.06	4.1	4.5	4.4	4.4
Reference value (1st line + 2.0 p.p.)	6.12	6.28	5.37	6.06	**6.1**	**6.5**	**6.4**	**6.4**
Czech Republic	4.12	4.75	3.51	3.68	**3.9**	**4.5**	**4.3**	**4.3**

Sources: Eurostat, Macroeconomic Forecast of the Czech Ministry of Finance (October 2006)

The forecast for interest rates on government bonds in the Czech Republic is dependent on the successful implementation of the public finance consolidation. Any loss of financial market confidence in the outcome of the fiscal reform could very quickly lead to a rise in the risk premium on long-term interest rates and endanger the fulfilment of this convergence criterion.

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[4] *As no forecast for the time horizon under review is available for the long-term interest rates of the countries that should, according to the inflation forecast, form the basis for calculating the criterion, the projection of the reference value in Table 2.4 is based on the technical assumption that long-term interest rates will move in line with inflation, i.e. real interest rates will not change. The reference value in 2005–2008 should therefore be viewed as only tentative.*

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, whose fulfilment is assessed in the previous part. Entry into the euro area will fundamentally change the Czech economy's options for adjusting to economic shocks. There will be no possibility of adjusting vis-à-vis the euro area countries, i.e. the Czech Republic's biggest trading partners, through movements in the exchange rate. Monetary policy will be formulated at the euro area level; hence, there will be a risk of the monetary conditions not corresponding to the situation in the Czech economy at any given moment. Therefore, it is important to examine how big this risk is and how well the Czech economy will be able to respond if it materialises.

The analyses are divided into two basic groups by the type of question which 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 possible 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 which are euro area members already (Austria, Germany and Portugal[5] were selected), which will become members in the near future (Slovenia) or which aspire to such membership (Hungary, Poland and Slovakia).[6] 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 single currency 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 and its development therefore deviates frequently from that in the euro area. 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 cyclical

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[5] *The selection of countries is different from last year's; Germany has been included in the analysis, replacing Greece. This change enhances the representativeness of the selection with regard to the diversity of the economic characteristics of the euro area countries monitored. The selection thus includes countries that are comparable in terms of economic level and countries with which the Czech economy has trading links.*

[6] *All the analyses attempted to make comparisons with all the selected countries, but in some cases that was not possible owing to a lack of relevant statistical data.*

misalignment. A higher degree of convergence prior to ERM II entry and euro adoption decreases the potential future pressures for growth of the price level and equilibrium appreciation of the real exchange rate. Thanks to a pick-up in economic growth, GDP per capita in the Czech Republic has recently started to converge more quickly towards the euro area average. The current level is comparable with the other least advanced countries (see Chart 3.1) and higher than in most of the new EU Member States (except for Slovenia). The price level also converged in 2005, owing mainly to nominal appreciation of the exchange rate. However, the difference in price level relative to the euro area remains sizeable. Going forward, the process of real convergence, and hence also the equilibrium trend of real appreciation of the koruna against the euro, can be expected to continue. The persistence of this trend following accession to the euro area will initially engender a higher rate of inflation in the Czech Republic than in the euro area and, as a result, lower domestic real interest rates (probably even negative in the case of short-term money market rates). If this situation persists in the long term, it could be associated with certain risks.

Chart 3.1: Real economic convergence of selected states towards euro area in 2005
(euro area average = 100)
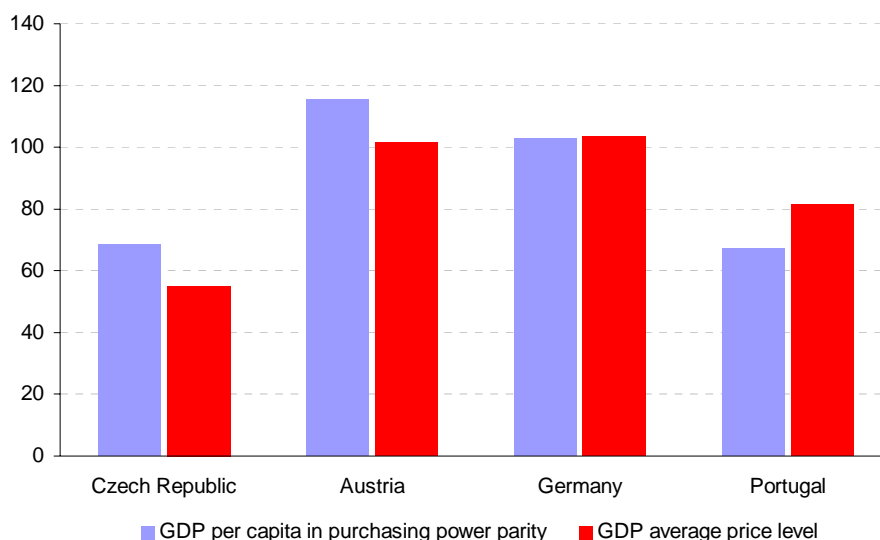
Source: Eurostat, CNB calculation.

Alignment of the business cycle and similarity of economic shocks are preconditions for a single monetary policy to have an effective and appropriate effect on an economy in a monetary union. Analyses suggest that at the level of overall economic activity the business cycle in the Czech Republic is not converging towards that in the euro area at any great rate (see Chart 3.2). In contrast to the results of last year's analyses, no sign of the increase in the alignment of the cycles recorded in recent years is observed either. The analyses therefore turn out worse for the Czech Republic than for the advanced euro area countries and for Hungary and Slovenia. Nor can any alignment with the euro area be seen at the level of demand-side and supply-side macroeconomic shocks. Conversely, a relatively high degree of alignment with the euro area is observed for industrial activity. The results of an analysis of export activity suggest the possibility of significant alignment between the Czech Republic and the euro area in this area. However, these results are not robust.

Chart 3.2: GDP growth in the Czech Republic and the euro area *(in %, year on year)*
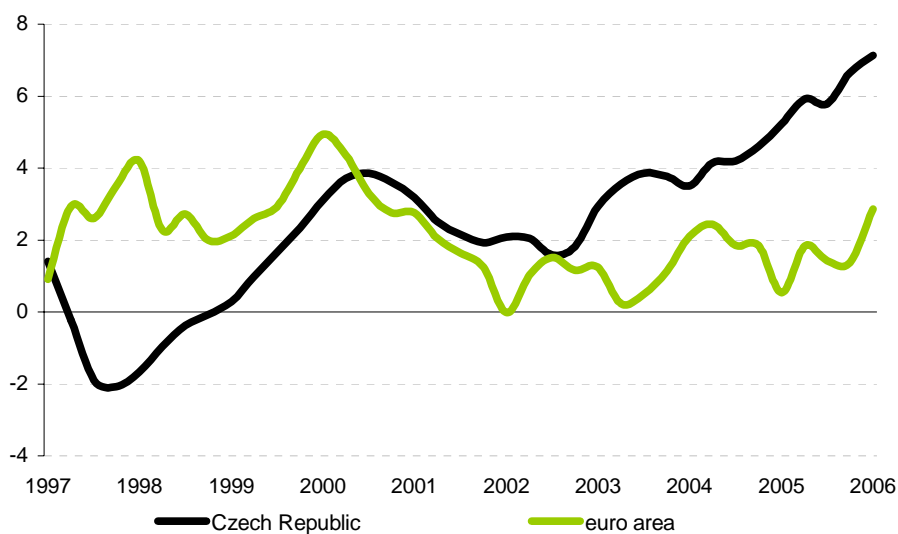
Source: Eurostat, CNB calculation.

A gradual increase in the **inflow of money from EU structural funds** is a specific asymmetric shock that might impact on the Czech economy. The biggest economic stimulus for domestic demand in this respect should occur in 2007 and 2008. However, the results of the analysis indicate that it will not require a significant monetary policy reaction or adjustment of the exchange rate of the koruna that would endanger the stay in ERM II and the potential assessment of the Maastricht exchange rate criterion.

The structure of the Czech economy in terms of product creation is broadly similar to that of the euro area economy, although it retains a specific feature in the form of a higher (and, in recent years, growing) share of industry and a smaller share of services in GDP.

Another asymmetric shock that has hit some economies in the past is rapid convergence of **nominal interest rates** ahead of entry into the monetary union. For a country planning to enter, earlier gradual convergence of such rates is therefore preferable (although this simultaneously reduces the immediate benefits of joining the euro area in terms of investment support and economic growth). The difference between Czech interest rates and euro area interest rates has been zero or negative since 2002, hence the aforementioned risk is virtually non-existent at present. The Czech koruna's **exchange rate** against the dollar has been moving very much in line with the euro's exchange rate against the dollar. Among the countries under comparison, only Slovenia and Slovakia, i.e. countries participating in ERM II, have a greater alignment for this exchange rate. The macroeconomic characteristics of the Czech economy indicate the potential for broadly similar medium-term exchange rate volatility as in the other new EU Member States under comparison. The observed medium-term volatility of the Czech koruna against the euro is comparable in particular with that of the Slovak koruna, is smaller than that of the Polish zloty (and, by some measures, the Hungarian forint) and, conversely, is greater than that of the Slovenian tolar. These differences reflect, among other things, different monetary policy regimes.

The Czech economy's strong **trade and ownership links** with the euro area are the principal argument for adopting the single currency, as they increase the potential benefits arising from the elimination of potential fluctuations in the exchange rate. The euro area is the partner for

60% of Czech exports and 50% of Czech imports, and strong links with the euro area are also apparent for the other economies under comparison (see Chart 3.3). The Czech economy's ownership links with the euro area on the direct investment inflow side are slightly stronger than in the other countries under comparison. The Czech economy's strong economic integration with the euro area creates conditions for increasing its cyclical alignment with this area. Another positive aspect from this perspective is the high intensity of intra-industry trade with the euro area, which is comparable with Austria and Germany.

Chart 3.3: Exports to the euro area as a percentage of total exports
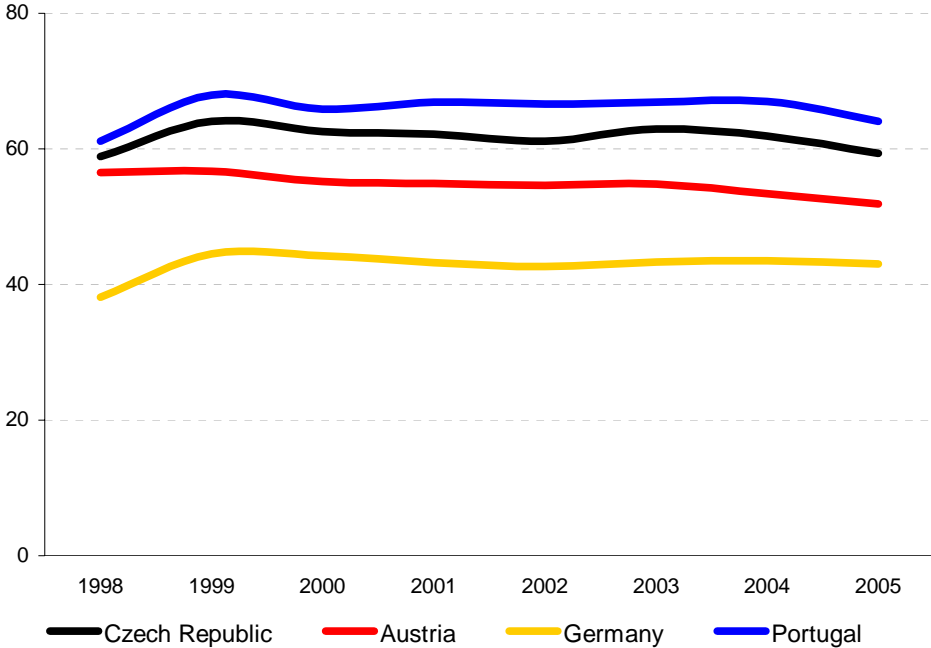
Source: IMF, CNB calculation.

The analysis of the Czech **financial sector**, and, within it, the banking sector, reveals that despite its relatively smaller size by comparison with the euro area, it need not be expected to have a fundamentally different effect on the economy. Moreover, the monitored indicators have recently recorded further slight convergence towards the euro area. The depth of financial intermediation in the Czech Republic is currently thus roughly one-third of the level in Germany, Austria and the euro area and 45% of that in Portugal. The Czech Republic lags behind these countries in particular in terms of lending. However, as a result of dynamic growth in loans to households and corporations in Czech Republic, client loans are rising as a percentage of both total loans and GDP. On the one hand this trend represents gradual convergence towards the corresponding shares in the euro area, but on the other hand it could pose a risk of loan defaults in the event of a further build-up in household debt. The historical experience of some current euro area countries with high growth in household borrowing suggests that such a trend does not necessarily lead to problems in the financial system. The degree of integration of the Czech stock market and the euro area markets is at a slightly lower level than the German and Portuguese markets and at a similar level as Austria. The speed of elimination of shocks on the Czech stock market has recently increased.

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3.2 Adjustment Mechanisms

In the absence of independent monetary policy, the flexibility of the economy and its ability to adjust to shocks will be particularly important. The stabilisation function of public budgets, labour and product market flexibility and the ability of the financial system to absorb shocks will therefore be vital for smooth economic development.

As regards **the public finances of the Czech Republic**, the operability of the stabilisation function within the European fiscal regulations will be crucial. This operability will be proportional in particular to the current distance of the deficit from the 3% reference value. The closer the deficit is to zero in its structural part, the more room there will be at a time of economic weakening for the functioning of automatic stabilisers and, in the extreme case, for the implementation of discretionary measures. The current public finance deficits, however, are largely structural in nature and there is unlikely to be an improvement in this regard in the near future. Moreover, the public finance deficit is increasing at a time of solid economic growth, and the expected future path suggests that this trend will continue. This is at odds with the effort to pursue anticyclical fiscal policy and with the intention to consolidate public finances prior to introducing the euro. The continuing public finance imbalance could be a source of growth in nominal public debt, which will probably lead to increasing debt service costs. Another condition for maintaining fiscal policy effectiveness is to achieve long-term sustainability of public finances, especially by dealing with the effect of population ageing on social system expenditures. The contribution of public finances to the economy's ability to respond flexibly to shocks will clearly be limited until these problems are tackled.

Price and wage flexibility is an important precondition for the economy to be able to absorb shocks to which the single monetary policy cannot respond. The analyses show that no major change has occurred since last year in the outlook for real wage flexibility in the Czech Republic. This flexibility, moreover, seems to be decreasing over time. Since last year the inflation persistence indicator has fallen slightly, but it remains among the highest in the sample of countries under comparison.

The ability of the Czech **labour market** to absorb shocks is largely unchanged from last year and remains average by European comparison (the European labour market itself requires fundamental reforms and may therefore be a fairly low standard). In some areas, though, the labour market is considerably less flexible than in the countries under comparison, and no major improvement is occurring. The institutional rules do not create the right conditions for employment of people with low skills. The main risk factors are the interaction of taxes and social benefits, a rising minimum wage and the costs of terminating open-ended employment contracts.

The labour market is still characterised by relatively high long-term and structural unemployment (see Chart 3.4). Although long-term unemployment is still lower than in some other countries (particularly Poland and Slovakia), it remains a major problem. Moreover, along with Germany the Czech Republic has the largest regional differences in the unemployment rate. This may be due to significant regional gaps between the demand for, and supply of, labour and the low regional mobility of the labour force. If mobility within the Czech Republic can be considered an appropriate indicator of cross-border mobility, this channel, too, will probably not be an effective adjustment mechanism in the event of economic imbalances. That said, the good news is that several countries of the EU have opened up or partly liberalised their labour markets for citizens of the new Member States. Conversely, the inflow of foreign labour into the Czech Republic has recently been very dynamic. The vast majority of these foreign workers are in jobs requiring few, if any,

qualifications. The inflow of foreign workers bears witness to some degree of flexibility as regards international migration. On the other hand, however, it suggests that some serious problems persist in the Czech labour market.
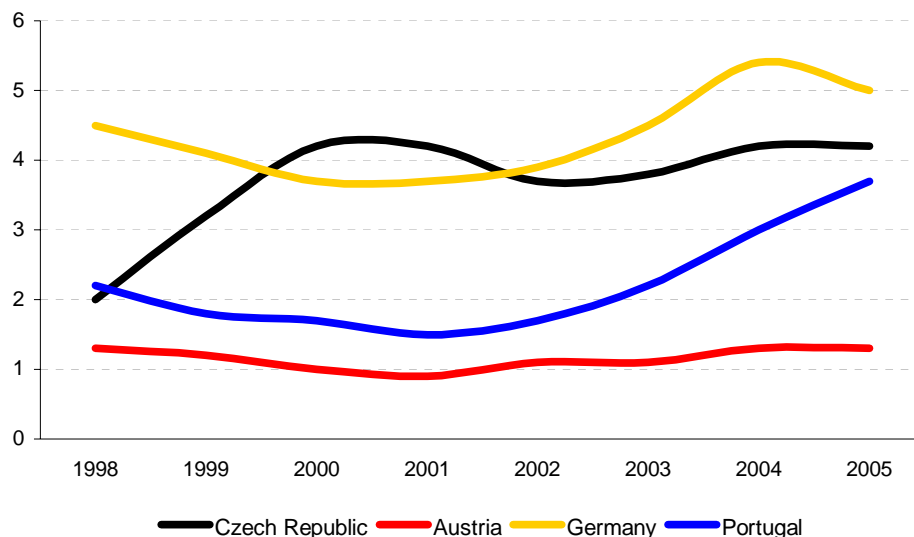
Source: Eurostat.

Labour market flexibility is to a great extent determined by the institutional rules. OECD analyses and new studies have revealed that collective bargaining has a fairly small effect on wage setting in the Czech Republic. The impact of the minimum wage on the flexibility of low wages and on job creation is also rather lower on average by international comparison, although the ratio of the minimum wage to the average wage has increased sharply in recent years. High minimum wages coupled with high labour taxation can have an adverse effect on job creation. Total labour taxation has been on the rise in the Czech Republic since 2000, and this trend will not be significantly changed by the modest reduction in the tax burden on low-income groups effective since January of this year. The effect of taxation on long-term unemployment and job creation is roughly the same as in Austria, Hungary and Poland, but higher than in Poland and Slovakia. Compared with other countries, the financial incentives to accept a job given by the combination of taxes and benefits are comparable or higher for the short-term unemployed, but average for the long-term unemployed. These incentives improved slightly last year thanks to the introduction of tighter conditions for qualifying for unemployment benefit and registering at labour offices. In the area of permanent employment the degree of job protection is higher than in other countries, which may present a risk in particular as regards the entry of young people to the labour market. By contrast, the introduction of easier procedures for setting up businesses will positively affect job creation. This measure means some further partial improvement in the regulation of the business environment, which by international comparison, however, remains hampered by major administrative obstacles.

Stability and profitability of the financial sector is a precondition for the sector to be able to assist in absorbing the impacts of economic shocks. The percentage of non-performing loans in the Czech Republic has recently recorded an overall decline to a level only slightly higher than the average in the euro area countries. Capital adequacy is currently at a sufficient level comparable with the other countries monitored, but outflow of earnings abroad and the

lending activity of banks are causing it to fall slightly. The sector's resilience is enhanced by its high profitability. The Czech banking sector is currently recording stability and an ability to absorb external shocks and adverse economic developments.