Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Alignment of the Czech Economy with the Euro Area

(A document prepared by the Ministry of Finance of the Czech Republic, the Ministry of Industry and Trade of the Czech Republic and the Czech National Bank, Approved by the Government of the Czech Republic on 12 January 2005)

I. Summary and Recommendations Regarding the Czech Republic’s Preparedness for Joining the ERM II

This part outlines the main conclusions of parts II and III of this document.

Part II provides an assessment of the current and expected fulfilment of the Maastricht convergence criteria. In compliance with EU legislation, EU Member States have to achieve a high degree of convergence as a precondition for joining the euro area. This is measured by the sustainability of fulfilment of four convergence criteria: sustainability of price stability observable from inflation developments; the long-term sustainability of the government budgetary position as measured by the government deficit and government debt; the sustainability of exchange rate stability; and the durability of convergence as reflected in long-term interest rate levels. The Czech Republic as an EU Member State is obliged to take steps to be prepared for joining the euro area as soon as possible. However, potential non-fulfilment of the convergence criteria has no consequences for the Czech Republic at present. The only exception is the criterion on the sustainability of public finances, or the level of the public finance deficit, whose fulfilment poses the greatest problem to the Czech Republic at present. The observance of budgetary discipline is subject to multilateral surveillance of public finance developments, and failure to observe it led to the commencement of the excessive deficit procedure against the Czech Republic. As a result, the Czech Republic has undertaken to reduce the government deficit below 3% of GDP by 2008.

The criterion on price stability is at present being fulfilled comfortably. However, this is partly due to the extraordinarily low inflation last year. As regards future fulfilment of this criterion, there exist a number of uncertainties: whether and which countries will be excluded from the calculation of the reference value for inflation, how far this value will be from the definition of price stability as perceived by the ECB, etc. The CNB’s inflation target for the national consumer price index for the period starting 2006 has been set at 3%. It can be expected that this level will correspond to fulfilment of this criterion near its upper boundary provided that price developments in the EU Member States do not deviate too far downwards from the ECB’s definition of price stability (inflation “below, but close to 2%”). However, the possibility of short-term non-fulfilment of this criterion cannot be ruled out in the case of unforeseen events with a strong inflationary effect.

The Czech Republic is not compliant with the criterion on sustainability of public finances. The deficit has been above the reference value of 3% of GDP for some time. Given the government’s current commitment, fulfilment of the deficit criterion can be expected in 2008, which constitutes a major limitation with respect to the timing of euro adoption. The government debt is still relatively low (despite the present upward trend) compared to the reference value of 60% of GDP. Provided that the government’s fiscal strategy is implemented, fulfilment of this criterion at the assumed time of the examination should not be in any danger.

Formal assessment of the exchange rate criterion will only be possible after joining ERM II. Moreover, the interpretation of this criterion should not be mechanical, but should also reflect the economic arguments regarding the reasons for potential exchange rate fluctuations. At present it can thus only be stated that if exchange rate stability is evaluated based on a fluctuation band much narrower than the ±15% permitted in ERM II, the koruna’s exchange rate has been quite volatile,
although it has calmed down in the last two years. The centre of the exchange rate fluctuation band, which will be set for the Czech koruna upon ERM II accession, will be another key parameter.

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. Some risk is associated with the implementation of the reform of public finances. If the reform is not realised, this may result in 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).

Part III provides an overview of the results of underlying analyses conducted to assess the Czech economy’s degree of alignment with the euro area. Unlike the Maastricht criteria with their clearly defined limits for joining the euro area, these analyses cannot arrive at a definitive conclusion on whether the degree of economic alignment is sufficient for adopting the euro. These analyses are aimed rather at assessing the evolution of the alignment indicators over time and in comparison with the existing and aspiring euro area member countries. Such assessments may be used to facilitate the decision on euro adoption, but in the end this decision is a political one. At the same time, these assessments make it possible to identify bottlenecks requiring further reform efforts on the part of the government and the CNB.

The analyses can be divided into two groups depending on whether they examine the Czech economy’s similarity and alignment with the euro area economy (Part III.1) or the ability of the Czech economy to cope with the fact that it is not fully aligned with the euro area (Part III.2). A low degree of alignment would mean that the Czech economy would be hit by the effects of unforeseen events more strongly than most euro area economies. The response of the single ECB policy would then be insufficient and the Czech economy would have to cope with them using its own adjustment mechanisms. It is therefore essential to assess the extent to which the Czech economy is capable of such adjustment.

The first group includes, among other things, analyses of GDP growth alignment. The calculations used in these analyses provide an ambiguous picture. Slowing growth in Europe was, together with the exchange rate appreciation, one of the main factors of a moderation of Czech economic growth in 2001–2002. By contrast, the present modest recovery in the EU is one of the stimuli for a pick-up in Czech economic growth. This might indicate an increasing degree of cyclical alignment with the EU. However, more subtle statistical calculations reveal that by international comparison the alignment is average or rather unfavourable. This could pose a risk if the euro is introduced too soon. One of the possible reasons for this situation is the substantial impact of exchange rate fluctuations on economic growth in the Czech Republic in recent years. Euro adoption will eliminate this exchange rate effect, which may increase the alignment of the business cycle with the euro area.

The Czech economy’s high (and ever increasing) openness and its strong orientation towards trade with the EU are arguments for early adoption of the euro. The structural characteristics of foreign trade are also favourable for adopting the single currency, since they decrease the probability of the Czech Republic being hit by shocks not affecting the EU as a whole.

The financial sector has created satisfactory conditions to ensure that this sector is not a source of problems for the domestic economy after euro adoption and to allow for transmission of monetary policy measures into the economy in a manner comparable with the rest of the euro area. This applies despite the fact that the Czech financial sector is smaller than those in the euro area countries.

The second group includes analyses of the Czech economy’s ability to react flexibly when, as a result of insufficient alignment with the euro area, domestic macroeconomic developments deviate from those in the euro area and hence the ECB’s single monetary policy does not respond to them. Fiscal policy should be a significant instrument of the economy’s flexibility. The more the government can reduce the structural component of the public finance deficit towards balance, the more room will be
left for the free functioning of built-in automatic stabilisers without the final deficit contravening the Stability and Growth Pact rules. The present project of fiscal consolidation in the Czech Republic is thus a necessary, but not sufficient step to ensure the stabilisation function of public budgets within the European fiscal regulations.

The Czech economy’s resilience to shocks will also strongly depend on the flexibility of the Czech labour market. The ability of the Czech labour market to absorb shocks is quite satisfactory by European comparison. Nonetheless, there are areas where the labour market is much less flexible and the monitored indicators suggest a risk of further deterioration. These indicators include a rising proportion of long-term unemployment and growing regional differences. The institutional rules on the labour market handicap above all people with low skills. The main risk factors are relatively high labour taxation, the interaction of taxes and social benefits and a rising minimum wage. Greater labour market flexibility is one of the EU’s priorities and the Czech Republic should follow this trend.

The third important element of the Czech economy’s ability to resist external shocks is the financial sector. According to the analyses conducted, this sector is relatively well prepared for this role. As of the end of 2003, the Czech banking sector recorded satisfactory loan quality. The coverage of non-performing loans by provisions in the Czech Republic is at a level comparable with other European countries. The sufficient coverage of potential risks is also evidenced by a high capital adequacy ratio. The sector’s resilience is moreover enhanced by high profitability.

*    *    *

Based on the aforementioned analyses and in line with the earlier approved euro adoption strategy, the Ministry of Finance, the Ministry of Industry and Trade and the Czech National Bank recommend that the Czech Government does not to attempt to enter the ERM II during 2005. The reason is that the conditions have 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. Any future change regarding this recommendation depends primarily on progress with the public finance reform and other structural reforms directed at increasing the flexibility of the Czech economy.

II. Assessment of the Current and Expected Fulfilment of the Maastricht Convergence Criteria

The convergence criteria (price stability, the sustainability of the government budgetary position as measured by the government deficit and government debt, exchange rate stability, and the durability of convergence based on long-term interest rates) are defined in the EC Treaty (hereinafter referred to as the “Treaty”) and specified in the Protocol on the Convergence Criteria and the Protocol on the Excessive Deficit Procedure annexed to the Treaty. In compliance with the above regulations, prior to applying for monetary union accession, EU Member States with a derogation have to fulfil the convergence criteria in a sustainable manner, not only on points.

The Treaty obliges two institutions – the European Commission and the European Central Bank – to assess at least every two years the fulfilment of the convergence criteria in Member States with a derogation.

---

1 See Article 121 of the Treaty.
derogation. In practice, however, this assessment is done every year\(^2\) and its outputs are two separate documents: the EC Convergence Report and the ECB Convergence Report\(^3\).

The conclusions of both the European Commission’s 2004 Convergence Report and the European Central Bank’s 2004 Convergence Report point out that the Czech Republic is compliant with only two of the four convergence criteria – the criterion on price stability and the criterion on long-term interest rates. This document arrives at the same conclusion. The table below gives a general assessment of all EU Member States with a derogation.

**Table 1: Fulfillment of the convergence criteria in 2004**
(comparison of EU Member States with a derogation, according to EC Convergence Report)

<table>
<thead>
<tr>
<th></th>
<th>Price stability</th>
<th>Government budgetary position (deficit, debt)</th>
<th>Exchange rates</th>
<th>Long-term interest rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic *</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Estonia**</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>-</td>
</tr>
<tr>
<td>Cyprus *</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Latvia</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Lithuania **</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Hungary *</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Malta *</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Poland *</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Slovenia **</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Slovakia *</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Sweden</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

Source: European Commission, October 2004
* Excessive deficit procedure opened against country by Council decision of 5 July 2004
** Entered ERM II on 28 June 2004

**Assessment of fulfilment of the Maastricht criteria in the Czech Republic**

**II.1 Criterion on price stability**

The criterion on price stability requires that a Member State has a price performance that is sustainable and an average rate of inflation, observed over a period of one year (the preceding 12 months) 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. This criterion is monitored on the basis of the Harmonised Index of Consumer Prices (HICP).\(^4\)

\(^2\) See Article 122(2) of the Treaty. At present, the “old” Member States include only Sweden, since Denmark and the United Kingdom negotiated opt-out clauses before they signed the Maastricht Treaty.

\(^3\) The latest Convergence Reports of both institutions date from October 2004 and evaluate the state of convergence in all the new Member States and Sweden.

\(^4\) There are some differences between the composition of the consumer basket of the national consumer price index of the Czech Republic and the HICP composition. The HICP weights include revenues from purchases by foreigners in the territory of the Czech Republic, but do not include hypothetical rents, whereas the national consumer price index does not include revenues from purchases by foreigners, but does include hypothetical rents.
Table 2: Harmonised Index of Consumer Prices
(average for last 12 months vs. average for previous 12 months, growth in %)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for 3 countries with lowest inflation</td>
<td>1.6</td>
<td>1.1</td>
<td>1.2</td>
<td>0.9</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Reference value (1st line + 1.5 p.p.)</td>
<td>3.1</td>
<td>2.6</td>
<td>2.7</td>
<td>2.4</td>
<td>2.4</td>
<td>2.5</td>
<td>2.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>4.5</td>
<td>1.4</td>
<td>-0.1</td>
<td>1.8</td>
<td>2.7</td>
<td>3.2</td>
<td>2.6</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Eurostat, European Commission, convergence programmes and stability programmes of Member States, Convergence Programme of the Czech Republic (November 2004)

Note: The outlook for inflation in the European Union for 2004–2005 is taken from the European Commission’s spring economic forecast and that for 2006–2007 from the Member States’ convergence programmes and stability programmes. The forecast for the Czech Republic is taken from the Czech Republic’s Convergence Programme (November 2004). It may therefore differ somewhat from the forecasts of some of the institutions involved in preparing this document (for example the CNB).

When constructing the forecast for the future fulfilment of the inflation criterion we can choose from a variety of interpretations of the words “best performing Member States in terms of price stability”. This is confirmed by the fact that the interpretations used in this year’s EC and ECB Convergence Reports were slightly different from each other; the issue of interpretation of the criterion will have to be addressed. The forecasts for the reference value provided in Table 2 are based on the simplified assumption that the reference value will be calculated as the average inflation rate in the three states with the lowest positive inflation. However, given that the interpretation of the inflation criterion is not yet fully established, these forecasts should be regarded as only tentative.

The above table shows that, according to the interpretation used, the Czech Republic is compliant with the price stability criterion. However, this partly reflects extraordinarily low inflation the previous year. Except for a temporary pick-up in inflation in 2004–2005, the Czech Republic should, according to the Czech Ministry of Finance’s projections, continue to fulfil the inflation criterion. The CNB’s inflation target for the national consumer price index for the period starting 2006 has been set at 3%. It can be expected that this level will correspond to fulfilment of this criterion near its upper boundary provided that price developments in the EU and its Member States do not deviate too far downwards from the target value (inflation “below, but close to 2%”). This does not exclude the possibility of short-term non-fulfilment in case of inflation shocks.

II.2 Criterion on sustainability of public finances

The EU Treaty obliges the Member States to avoid excessive government deficits; the observance of budgetary discipline is examined based on the government deficit and government debt criteria defined according to the version of the European System of National Accounts in effect when the Maastricht Treaty was signed. Accordingly, the convergence criterion in the area of public finances is defined as sustainability of the government financial position without excessive deficits.

a) Government deficit criterion

The government deficit convergence criterion requires that the ratio of planned or actual government deficit to GDP does not exceed 3%, 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.

---

5 For details, see the document The CNB’s inflation target from January 2006 of 11 March 2004.
The term “government deficit” means net borrowing of the general government, as defined in ESA 95, with minimal deviations.

### Table 3a: General government deficit (ESA 1995 methodology, in % of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Reference value</th>
<th>Czech Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>-3.0</td>
<td>-5.9</td>
</tr>
<tr>
<td>2002</td>
<td>-3.0</td>
<td>-6.8</td>
</tr>
<tr>
<td>2003</td>
<td>-3.0</td>
<td>-12.6</td>
</tr>
<tr>
<td>2004</td>
<td>-3.0</td>
<td>-5.2</td>
</tr>
<tr>
<td>2005</td>
<td>-3.0</td>
<td>-4.7</td>
</tr>
<tr>
<td>2006</td>
<td>-3.0</td>
<td>-3.8</td>
</tr>
<tr>
<td>2007</td>
<td>-3.0</td>
<td>-3.3</td>
</tr>
</tbody>
</table>

Source: CZSO, Convergence Programme of the Czech Republic (November 2004)

Note: The data for 2001 - 2003 are those notified by the CZSO; the data for 2004 to 2007 are estimates of the Ministry of Finance.

Under the present public finance parameters, the Czech Republic is unable to fulfil the general government deficit criterion. The ongoing public finance reform assumes a gradual reduction of the deficit to 3.3% in 2007. Provided that the reform process is successful and the pace of consolidation is maintained, compliance with the convergence criteria can be expected in 2008.

**b) Government debt criterion**

The government debt convergence criterion stipulates that the ratio of government debt to GDP at market prices should not exceed 60%, unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The term “government debt” means total gross debt of the general government according to ESA 95, with some partial methodological adjustments.6

### Table 3b: Government debt (ESA 1995 methodology, in % of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Reference value</th>
<th>Czech Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>60.0</td>
<td>25.3</td>
</tr>
<tr>
<td>2002</td>
<td>60.0</td>
<td>28.8</td>
</tr>
<tr>
<td>2003</td>
<td>60.0</td>
<td>37.8</td>
</tr>
<tr>
<td>2004</td>
<td>60.0</td>
<td>38.6</td>
</tr>
<tr>
<td>2005</td>
<td>60.0</td>
<td>38.3</td>
</tr>
<tr>
<td>2006</td>
<td>60.0</td>
<td>39.2</td>
</tr>
<tr>
<td>2007</td>
<td>60.0</td>
<td>40.0</td>
</tr>
</tbody>
</table>

Source: CZSO, Convergence Programme of the Czech Republic (November 2004)

Note: The data for 2001 - 2003 are those notified by the CZSO; the data for 2004 to 2007 are estimates of the Ministry of Finance.

Given the still low initial level of government debt, the Czech Republic as yet has no problem fulfilling this criterion. The rate of growth in debt visible in recent years should slow thanks to the public finance reform. Moreover, the government debt growth also reflected the inclusion of the majority of the indirect liabilities of the government (particularly government guarantees) identified in 2003. Successful completion of the fiscal consolidation should stabilise the government debt level safely below the reference value.

**II.3 Exchange rate stability criterion**

The assessment of fulfilment of the exchange rate convergence criterion is based on the relevant provisions of the EU Treaty, which are developed further in the relevant Protocol and the Resolution of the European Council establishing the ERM II exchange rate mechanism with effect from 1 January 1999. The current position of European authorities as regards the exchange rate criterion can be summarised as follows:

---

6 Debt is recorded at nominal value outstanding at the end of the year after consolidation, i.e. except for liabilities corresponding to the financial assets held by other government subsectors. For the calculation of the criterion, government debt includes securities other than ownership interests (e.g. T-bills, government bonds) and loans (e.g. credits, returnable financial aid).
(a) participation in ERM II for at least two years at the time of the assessment is mandatory;
(b) no downward realignment of the central parity is permitted within the two-year examination period;
(c) compliance with the two aforementioned requirements is a necessary, but not sufficient condition for fulfilling the criterion on exchange rate stability. Emphasis is laid on movements relatively close to the central parity “without severe tensions”. If the exchange rate moves further from the central parity, a distinction must be made between upward and downward deviations, and it is necessary to analyse their duration, the reasons for them, and the interest rate and intervention policy settings in that period.

The above description of the exchange rate criterion assessment suggests that it can be formally fulfilled only after the central parity of the CZK/EUR rate is set. In the following chart the central parity is simulated by the average of the daily rates for 2002 and 2003.

The developments in the last few years show that the exchange rate fluctuations are clearly smaller than the hypothetical band of ±15%. Nonetheless, the deviations from the average rate were still quite significant. 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”. The uncertainty is compounded by the fact that the approaches of the EC and ECB to this criterion may differ slightly from each other.

**Chart I: Nominal CZK/EUR rate**

![Chart I: Nominal CZK/EUR rate](chart.png)

Source: CNB
Note: In the chart, upward movement means appreciation and downward movement means depreciation.

Successful participation in ERM II depends in particular on the degree of alignment with the euro area economy, on market flexibility and on the consistency of economic policies. The euro-strategy recommends participation in ERM II only for the minimum required period of two years. 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”\(^7\). For this reason one can expect that when it enters the ERM II the Czech economy will be better prepared for fulfilment of the exchange rate criterion than in the past.

\(^7\) *The Czech Republic’s Euro-area Accession Strategy.*
Compared to the present exchange rate regime of managed floating, ERM II entry is a new element which might have a substantial effect on the behaviour of the exchange rate. The key problem with switching to the ERM II mechanism is probably the appropriate (sustainable) setting of the central parity.

II.4 Criterion on long-term interest rates

The criterion on long-term interest rates requires that 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. Long-term interest rates are calculated on the basis of the yield to maturity of 10-year government bonds on the secondary market.

Table 4: 10-year interest rates on government bonds on the secondary market
(average for the last 12 months, in %)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for 3 countries with lowest inflation</td>
<td>4.92</td>
<td>4.85</td>
<td>4.12</td>
<td>4.30</td>
<td>3.8</td>
<td>3.9</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Reference value (1st line + 2 p.p.)</td>
<td>6.92</td>
<td>6.85</td>
<td>6.12</td>
<td>6.30</td>
<td>5.8</td>
<td>5.9</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>6.31</td>
<td>4.88</td>
<td>4.12</td>
<td>4.74</td>
<td>4.9</td>
<td>5.3</td>
<td>5.4</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Source: Eurostat, Macroeconomic Forecast of the Czech Ministry of Finance (October 2004)

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

III. Assessment of the Czech Economy’s Alignment with the Euro Area

This part provides an overview of the results of several underlying analyses directed at assessing the Czech economy’s degree of alignment with the euro area. These analyses are aimed at assessing the evolution of the alignment indicators over time and in comparison with existing and aspiring euro area member countries. Therefore, it is not our goal to formulate a straightforward conclusion on whether the degree of economic alignment is sufficient for the adoption of the single currency.

The underlying analyses assessed the degree of alignment using the theory of optimum currency areas. Part III.1 Cyclical and Structural Alignment indicates the extent of the risk of asymmetric shocks in the Czech economy vis-à-vis the current euro area and vis-à-vis the EU-25. These two reference economies represent the narrower and wider concepts of the future form of the euro area. At present it is not possible to determine unequivocally which concept will be closer to the actual composition of the euro area when the Czech Republic joins it. Part III.2 Adjustment Mechanisms answers the question of to what extent the Czech economy is capable of dampening the impacts of possible “asymmetric shocks”, i.e. cases where domestic macroeconomic developments deviate from developments in the rest of the euro area. The situation in the Czech Republic was compared with that in selected euro area member countries (Austria, Portugal and Greece, and also Germany in the case of

---

8 As neither the EC Forecast nor the stability programmes of the countries that should, according to the inflation forecast, form the basis for calculating the criterion include a forecast of long-term interest rates at the time horizon under review, the projection of this criterion’s value in Table 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. This criterion’s value in 2004–2007 should therefore be viewed as only tentative.
the foreign trade structure analysis) and in selected non-euro area EU Member States aspiring to adopt the euro in the future (Poland, Slovakia and Hungary).  

III.1 Cyclical and Structural Alignment

Upon adopting the single currency, the Czech Republic will lose its own monetary policy, thereby losing a whole set of instruments that make it possible to influence the Czech economy independently. This loss will be particularly felt if the Czech economy is not aligned with the euro area economy and deviates frequently from it. The risks arising from the Czech Republic’s accession to the euro area will decrease as the degree of alignment increases.

Macroeconomic approach

In 2001 and 2002, the slowdown in European economic growth was, together with the currency’s appreciation, one of the main factors underlying the slowing growth of the Czech economy. Conversely, the current modest recovery in the EU is an impulse for faster growth in the Czech Republic. This might indicate a rising degree of cyclical alignment with the EU.

Chart 2: GDP growth in the Czech Republic and the euro area (year on year)

![GDP growth chart](chart2.png)

Source: CZSO, Eurostat

On the other hand, data on the alignment of Czech GDP growth with GDP growth in the euro area and the EU-25 have not confirmed this conclusion so far, despite the use of more subtle statistical calculations. The evolution of these indicators from 1995 to 2003 does not show a smooth increase in the alignment of the business cycles in the Czech Republic and the euro area. Analyses indicate that the occurrence of demand shocks has been converging with the euro area, while the differences in supply shocks have been widening. From this point of view, early adoption of the euro might generate significant costs, because the single monetary policy might not suit developments in the Czech Republic. However, some of the current euro area members (e.g. Portugal, Austria and Greece) are in a similar situation.

The question of whether the exchange rate dampens or amplifies fluctuations in the economy also plays a key role in the discussions on monetary integration. The observed misalignment of the

---

9 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.
10 The methods used were correlation analysis and VAR model analysis.
domestic business cycle with the euro area may be caused, *inter alia*, by exchange rate developments in recent years. In 2001–2002 the koruna appreciated sharply, thereby intensifying the slowdown of the economy, whereas recently the exchange rate has fostered a pick-up in growth, which is higher than the EU average. Despite the relative stability of the nominal exchange rate in the last two years, future undesirable fluctuations cannot be ruled out. The elimination of exchange rate instability by adopting the euro could therefore foster greater alignment of the Czech business cycle with the euro area. However, this benefit would be offset by costs connected with the loss of the ability to conduct independent monetary policy tailored to the needs of the Czech economy.

The structure of the Czech economy is broadly similar to that of the euro area and the EU-25. This should reduce the probability of different developments in the domestic economy and the euro area and thus be a benefit of joining the Monetary Union. However, the analyses show a lower degree of structural similarity with the euro area and the EU-25 compared to some other countries (e.g. Hungary, Portugal and Austria). Moreover, the structural differences between the Czech economy and the euro area have been widening slightly.

*International relations*

The high openness of the Czech economy is the principal argument for adopting the single currency. The share of exports of goods and services in GDP is almost 65% and the share of imports is even a little higher. In addition, these openness indicators have recently recorded further growth. Together with the strong focus of foreign trade on EU countries, this factor creates conditions for future convergence of the business cycles in the Czech Republic and the euro area and for a decline in the probability of asymmetric shocks. The high openness of the Czech economy also increases the potential benefits arising from the elimination of excessive exchange rate fluctuations against the currencies of our main trading partners.

The close trade links between the Czech Republic and the euro area and the EU-25, as measured by the shares of these two areas in our foreign trade, intensified significantly until 1999 and stabilised thereafter. Exports to the euro area currently amount to roughly 63% of total exports, while 85% of Czech exports go to the EU-25. The situation in other Central European countries is similar. All these countries thus currently have a high degree of economic integration with the euro area and the EU-25, comparable with, or in many cases even higher than, that in the existing euro area countries. Moreover, growth in Czech foreign trade with EU countries rose substantially during 2004, especially after accession to the EU.

**Chart 3: The share of the EU-12 in exports from selected countries**

<table>
<thead>
<tr>
<th>Year</th>
<th>CR</th>
<th>A</th>
<th>GR</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>1996</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>1997</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>1998</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>1999</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>2000</td>
<td>70</td>
<td>80</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>2001</td>
<td>80</td>
<td>90</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>2002</td>
<td>90</td>
<td>100</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td>2003</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>130</td>
</tr>
</tbody>
</table>

Note: A = Austria, GR = Greece, PT = Portugal
Source: IMF
The conclusions above are in line with the results of more detailed structural analyses of foreign trade. Of the monitored countries, the structure of Czech exports is currently closest to the largest euro area economy, i.e. Germany, which is another argument for entering the euro area. So is the share of intra-industry trade between the Czech Republic and the EU, which is quite high in comparison with the selected EU member countries. As regards the goods diversity of exports and imports, the figures for the Czech Republic are comparable with other countries. Thus, the probability of asymmetric shocks is not higher than in other EU countries. Since 1995, however, this diversity has decreased on both the export side and the import side. The concentration on particular commodity groups is higher on the export side. Czech exports and imports currently focus most on the commodity groups of road vehicles and electrical equipment, machinery and appliances.

**The depth and structure of financial intermediation**

Differences in financial intermediation may cause similar shocks, and the ECB’s subsequent single monetary policy measures, to have different impacts on individual economies. An unstable financial sector may also be a source of shocks.

The relative size of the financial sector in the Czech Republic, as measured by the ratio of assets to GDP, is one half of the European average. A more detailed look reveals that the Czech Republic is lagging well behind the euro area countries in lending. However, the Czech Republic has the most developed financial system of the new EU Member States from Central Europe. As for the representation of bank assets, the structure of the Czech financial sector is fully comparable with the euro area financial system. The indicators of the soundness of the banking sector (see also part III.B) have improved. Overall, we can say that the financial sector is prepared for smooth functioning in the euro area (and for standard monetary transmission). The possibility of fast future growth in lending can be regarded as a risk, but the banking sector should be able to handle this risk if the related risks are managed prudently. Lending to households is already growing fast. Similar developments have occurred in some current euro area countries (e.g. Portugal and Greece), but have so far not led to problems in their financial systems. The Czech Republic has an advantage over these countries in that its financial sector has – thanks to the finished process of reducing inflation – been operating in an environment of low nominal interest rates for a long time, and well ahead of the introduction of the single currency. This reduces the risks connected with the introduction of the euro from the point of view of macroeconomic and financial stability.

**III.2 Adjustment Mechanisms**

The loss of independent monetary policy will mean that the adjustment of the economy to shocks will place higher demands on other adjustment mechanisms. This chiefly concerns the stabilisation function of public budgets, labour market flexibility and the ability of the financial system to absorb shocks.

**The stabilisation function of public budgets**

Compliance with the Maastricht criteria on the government deficit (3% of GDP) and debt (60% of GDP) alone will not be sufficient to ensure the stabilisation function of public finances within the European fiscal framework. It is vital to create sufficient room for manoeuvre so that government deficits under the 3% reference value are sustainable even in adverse economic conditions. The more the government can reduce the structural component of the public sector deficit, the more room will be left for the free functioning of built-in automatic stabilisers. We should mention here that the EU’s fiscal rules are based on the concept of a budgetary position which is balanced or in surplus in the medium term.

The continuation of the first phase of the public finance reform and the willingness of the government to respect the set expenditure limits are a favourable factor as regards future fulfilment of the
Maastricht criterion on public budget deficits and the creation of room for the stabilisation of public deficits in the future. However, the realisation of the first phase, which only targets the 3% reference value on the assumption of continuing economic growth, is a necessary, but not sufficient condition for achieving sustainable public finances (especially with regard to the ageing population) and for creating room for the stabilising function of fiscal policy. In future, problems may be caused above all by further delays in the reform of the pension and health care systems. If the second phase of the public finance reform is not implemented, adequate room will probably not be created for the stabilising function of fiscal policy after the Czech Republic’s accession to the euro area. The costs of dealing with the consequent problems are sufficiently illustrated by the experience of some current euro area countries.

In addition to the government deficit, attention should be paid to government debt dynamics. The growth in debt in recent years means that the Czech Republic is forgoing the benefits of low government indebtedness. The growing debt service costs are a mandatory expenditure and will continue to reduce the scope for the stabilising function of public budgets. Further public debt growth is therefore undesirable.

**Labour market flexibility**

The ability of the Czech labour market to absorb shocks is quite satisfactory by European comparison (this, however, may be a fairly low standard, because the European labour market is itself undergoing necessary structural reforms). Nevertheless, in some areas the labour market is considerably less flexible and the monitored indicators suggest a risk of further deterioration. The institutional rules on the labour market handicap above all people with low skills. The main risk factors are overall labour taxation, the interaction of taxes and social benefits and a rising minimum wage.

The flexibility of real wages in the Czech Republic is similar to that in most of the countries included in the comparison. However, this flexibility may be weakened by the marked rise in the rate of long-term unemployment which has occurred in recent years. Nevertheless, it is still true that long-term unemployment is a smaller problem for labour market flexibility in the Czech Republic than in some other countries (e.g. Poland, Slovakia and Greece). On the other hand, ever-increasing regional differences in the unemployment rate are a major problem in the Czech Republic in comparison with other countries. This may be due to significant regional gaps between demand for, and supply of, labour and the low regional mobility of the labour force. The bottlenecks include, *inter alia*, the unfinished liberalisation of the housing market.

**Chart 4: Long-term unemployment (ratio of persons unemployed for more than 1 year to the labour force)**

Note: A = Austria, GR = Greece, PT = Portugal
Source: Eurostat
Labour market flexibility is to a great extent determined by institutional rules. The impact of the minimum wage on the flexibility of low wages and on job creation is lower in the Czech Republic than in some other countries. The minimum wage in the Czech Republic may, however, present a risk of loss of employment for a large proportion of employees in some professions and industries. Demand for labour may also be adversely influenced by the strict conditions for the recruitment and dismissal of employees. The impact of employment protection in the Czech Republic is probably lower than in some EU countries (e.g. Greece and Portugal). However, overall labour taxation (including social security and health insurance contributions) is higher (and not decreasing) in the Czech Republic, and this is another cause of lower labour market flexibility. The Czech Republic also has the highest taxation of people with low skills, and the system of taxes and social benefits does not motivate these people to seek employment. This leaves them unemployed and forces them into the grey economy and is the primary factor behind the high structural unemployment, which significantly reduces labour market flexibility. Further reforms to increase labour market flexibility are therefore desirable. Similar efforts are also under way in other EU countries.

**The performance and stability of the banking sector**

Recent years have seen privatisation-related and state-supported clean-ups of banks’ balance sheets and improvements in their credit portfolios. The coverage of non-performing loans by provisions in the Czech Republic is thus at a level comparable with other European countries. The capital adequacy ratio of nearly 15% indicates sufficient coverage of potential risks. The sector’s resilience is moreover enhanced by high profitability. The banking sector as a whole has thus become more stable, as is also evidenced by the preliminary results of statistical simulations called “stress tests”. This trend is favourable from the point of view of future entry into the euro area, because it has strengthened the ability of the financial sector to dampen potential shocks impacting on the Czech economy.

**Chart 5: Capital adequacy of banks in selected countries**

Note: A = Austria, GR = Greece, PT = Portugal
Source: ECB